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APPROPRIATE ASSESSMENT OF IMPACT OF INTENTION ON TERRITORIES OF EUROPEAN IMPORTANCE AND PROTECTED AVIAN TERRITORIES		DRAWING NO	SET NO

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- Photographic documentation
- The comprehensive situation of the assessed variants
- The detailed situation of the intention in the proximity of the CHVÚ Sysľovské polia
- The detailed situation of the intention on the place of crossing the Danube
- Abbreviations:

CHVÚ - the Protected Avian Territory
ÚEV - the Territory of the European Importance
ZOPK - the Act on Nature and Landscape Protection

I. INTRODUCTION

1.1. Assignment

The presented "Appropriate Assessment of the Impact of the Intention on the Territories of European Importance and Protected Avian Territories" (hereinafter referred to as the "Appropriate Assessment" or the "Assessment") within the zoning and planning decision documentation is elaborated on the basis of the request of the investor - NDS, a.s.

1.2. Assessment Objective

The objective of the presented "Natura Assessment" is to verify whether the intention - highway D4 Bratislava, Jarovce - Ivanka North has the significant negative impact on the subjects of the protection and the integrity of the particular locations of the Natura 2000 system.

1.3. Assessment Elaboration Procedure

When elaborating the "Natura Assessment", they proceeded in accordance with the Methodological guide to the stipulations of Articles 6(3) and 6(4) of the Directive on the conservation of natural habitats and of wild fauna and flora No. 92/43/EEC.
Furthermore, they proceeded in accordance with the experience of the authors, while considering the methodological procedures used in the Czech Republic (the Methodology of the Assessment of the Significance of Impact in the Assessment pursuant to Article 45i of the Act No. 11č/1992 Coll. on Nature and Landscape Protection as Amended" (the Journal of the MZP ČR, year XVII, part 11, November 2007' - hereinafter referred to as the Methodology of the Czech Republic.
When processing the "Natura Assessment", they came from the field surveys carried out within the "Natura Assessment" itself (March - September 2013' as well as within the elaboration of the Project of Compensation Measures (HBH Projekt, September 2013). They used also the surveys carried out in the previous stages of project preparation (in particular the EIA Report and Biota Monitoring'. The questions of fish and bats were consulted with experts: Ing. Peter Beleš (slovak Fishing Union), RNDr. Peter Bačkor, PhD. (Society for Bat Protection in Slovakia
Two variants were assessed, to the same extent. Variant 0 preserves the status quo and from the point of view of the assessment of the impact on Natura 2000 system, it is not possible to assess it in a standard way in this particular case. From the point of view of the impacts on CHVÚ and ÚEV we just may state that in the case of the application of Variant 0 (so called the implementation of no active variant), there would be no impacts identified in the presented assessment, for all identifiable impacts the Variant 0 would be given grade 0 (i.e. no impact).

The presented Natura assessment is compiled in such a way it would meet the Methodical Requirements and it comprises the following data:

- *Introduction - Assignment, Objective and Procedure of the Assessment.*
- *Data on the Intention - Basic Data, Data on Inputs and Data on Outputs.*
- Data on ÚEV and CHVÚ - Identification of Concerned Locations (locations in a direct contact and locations affected in relation to inputs or outputs); Description of the Concerned Locations and The Concerned Subjects of Protection.
- The Assessment of the Impact of the Intention on ÚEV and CHVÚ - The Assessment of Base Information Completeness, Possible Impacts of the Intention, The Assessment of the Impact of the Intention on the Concerned Subjects of Protection (including the conclusion regarding the influence of the given subject or protection; the assessment of the impact of the intention on the integrity of the locations, the assessment of cumulative impacts).

- Conclusion - the introduction of resulting assessment, in the case of several assessed variants also their comparison
- Annexes - maps or other annexes.

II. DATA ON THE INTENTION

II.1. Basic Data

1. Intention Name:

Highway D4 Bratislava, Jarovce – Ivanka North

2. Purpose:

The highway D4 represents the transport interconnection of the existing highway routes D1 and D2 in South, East and North part of the capital city of the Slovak Republic, Bratislava. The considered territory is very complicated also from the point of view of transport relations and bonds within the region of "Greater Bratislava" with regards to rapid development of the catchment territory and constantly changing activities and functions in this extraordinary attractive territory where the determination of transport requirements and connections to the existing communication system is really decisive. In addition to the D2 and D1 highway linking D4 will be a major international interconnection between Slovakia and Austria with transport links to Hungary and the Czech Republic.

3. Intention Location:

Region: Bratislava

Municipalities: Bratislava, capital city of the Slovak Republic, Bratislava - Jarovce municipal district, Bratislava – municipal district Rusovce, Bratislava - Podunajské Biskupice municipal district, Bratislava - Vajnory municipal district, Most pri Bratislave, Zálesie, Ivanka pri Dunaji

4. The Description of Technical and Technological Solution of the Intention:

The detailed description of the variants is stated in the zoning and planning documentation (Variant 1 - red) and in the Feasibility Study (Variant 2 - green).

5. The Variants of Proposed Activity:

2 active variants, stated bellow, shall be assessed within this assessment: *28/09/2011Variant*

1 – Red:

Recommended by the Final Opinion from the EIA process issued by the Ministry of Environment of the Slovak Republic (No. 318/2010-3.č/ml) on 28 September 2é11 (as the combination of variant "E" - green and variant "C" - red), further processed within the zoning and planning decision documentation.

The highway D4 is projected in the entire concerned section for the design speed of vn=120 km/hour with the following width arrangement:

- D 26.5 in the section of Jarovce intersection - Rusovce intersection,
- D 33.5[1] in the section of Rusovce interchange - Ketelec interchange,
- D 33.5 in the section of Ketelec intersection -Rovinka intersection,
- D 33.5 in the section of Rovinka intersection -Ivanka West intersection,
- D 26.5 + collectors in the section of Ivanka West intersection - Ivanka North.

[1] In category D 33.5 with four lanes and space in the middle separating lane, i.e. with a wider middle separating lane providing for a potential extension to 6 lanes in the direction to the axis of the D4 highway. The structure of the bridge over the Danube and the adjacent forests will not be extended when rebuilding the road to 6 lanes. Instead, space reserve in the middle separating lane and on the sides of the road will be used.

The beginning of the section is in the GSI Jarovce and it continues almost at the level of terrain to the railway route of Bratislava - Rusovce that is intersected by the highway in grade separated way (a bridge with the height of ca 13 m). Behind the GSI Rusovce, the route enters the location of Natura 2000 system, passing it on the bridge system having the length of ca 3.000 km. The jetty runs through the branches and artificially built channels as well as the main course of the Danube River. The route leaves the territory of Natura 2000 system at km 5.320.
The level line of the bridges from GSI Rusovce raises above the main stream of the Danube River (km 4.028), where it reaches the maximum height above terrain (clear height of 26.5 m from the river bottom). From this point, the level line drops down to km 6.000, where it is again at the level of the terrain.
The passing height of the bridge above the right-side seepage channel is approx. 8.8 metres, and approx. 9 metres above the Jarovecké arm. The passable height under the bridge at the Danube River is 16.85 m (minimum passable height is 10m) and it is 14.75 m for canoeing and rowing track (minimum passable height of 4m). The bridge over the left-side bay has a passing height of 17 m, and 15.5 metres over the left-side seepage channel. The bridges in the inundated forest stands on the left bank shall have the clear height from 14.7 m (the passage through Biskupice branch) to 5.5 m on the place of leaving the locations of Natura 2000 system (km 5.320).
The width o the carrying structure of the bridge above the rowing and canoeing track and the Danube River shall be 41.70 m (for the entire width of the highway and adjacent pathways). The bridge object shall lead the highway D4 of category D 26.5/120 above the Jarovce branch, canoeing and rowing track and the Danube River. There shall be a path for pedestrians and cyclists at both sides of the bridge having the width of 3.0 m and a service pathway having the width of 0,75 m.
Alongside the entire flyover bridge (the entire length of the passage through the location of Natura 2000 system), there are walls having the height of 4 m designed at both sides, they should minimise the spreading of noise and light to the surrounding area and they shall also considerably reduce the risk of the collision of vehicles with birds and bats.
The part of the intention is also the connection of cycling routes lead at the right-side and left-side embankment of the waterworks Gabčíkovo through the flyover bridge above the Danube River.
V The cycling route/servicing communication leading under the bridge on D4 in forest stands behind the left-side infiltration channel was added to the project at the stage of zoning and planning decision documentation. It serves for the connection of the cycling route on the bridge on D4 through the Danube River to the cycling route running on the left-side embankment. The communication having the width of 6 m should have the asphalt surface and it should serve for cyclists and in-line skaters.
The highway D4 then continues on the left bank of the Danube River to the South of the area of gravel mining in Ketelec, where grade separated intersection with the planned expressway R7 shall be located. The route of highway D4 in comparison with the original route (assessed in the EIA) in accordance with the recommendations in the Final Opinion of the Ministry of Environment of the Slovak Republic for R7 Bratislava - Dunajská Lužná, is shifted in the GSI "Ketelec" by ca 235 m more to the North. At km 9.250, a large bilateral resting place of "Rovinka" is designed. The route of highway D4 at km 10.884 intersects the road I/63 by grade separated intersection. At km 11.750, GSI Rovinka with the road I/63 is designed. The highway further continues over the railway route of Bratislava - Dunajská Streda, to the North of the village of Most pri Bratislava, where it should intersect the new prospective expressway Bratislava - Vlčkovce (according to the intentions of NDS a.s.) and the road II/572 through grade separated intersection in future. The interconnection of both roads with highway D4 shall be in one GSI "Most pri Bratislava" by means of collector lanes. The route of highway D4 further continues before taking-off and landing track of RWY 13-31 of the Airport of M.R. Štefánik and it intersects the Little Danube River by a bridge. Here, the highway D4 runs in a notch so that it would respect the protected zones of the elongated track of RWY 13-31 of the airport. The highway D4 further runs on a bridge above the future water area of gravel pit Zelená voda, it

continues to the East of the area of former agricultural cooperative in the location of Pruská sihoť (farther from the airport). On the place of intersection with the planned taking-off and landing track 13L-31R of the Airport of M.R. Štefánik, the highway is lead in a notch with ca 7m depth, so that it would be possible to complete the coverage of the highway in the form of "Zálesie" tunnel in future. The route of highway D4 further continues in a low fill at the right bank of Šúr channel, while respecting its protected zone, it intersects the road I/61, the prospective communication between the municipal part of Tanieriky and Šakoň with grade separated intersection.
With grade separated intersection it intersects the railway route of Bratislava - Galanta and ends on the place of the connection of the highway D1 on the place of GSI Ivanka - North.

The total length of the designed section of highway D4 is 22.590 07 km.

Variant 2 – Green:
V It was assessed in the EIA process as variant "C" - red.
From the point of view of the impacts on Natura 2000 system, variant 2 differs from variant 1 just in the method of the execution of the intention through the Danube, thus approximately from km 1.500 to ca km 8.000, where both variants again get to the identical corridor. Variant 2 (green) passes through the Danube using the method mentioned in the Feasibility Stud (Dopravprojekt Bratislava, 2009) and assessed in the EIA Report (Geoconsult, 2010), i.e. ca by 650 m more to the South than variant 1 (red). Variant 2 overcomes the Danube River and the adjacent inundated forests also on a bridge. The system of bridges in the case of variant 2 terminates ca 172 m prior to the outskirts of the CHVÚ Dunajské luhy, or 80 m before the boundary of the ÚEV Biskupické luhy. Thus the intention in this variant does not pass through the territory o Natura 2000 system entirely on the bridges. The part of the intention is also the transport connection of left-side cycling route to the flyover bridge above the Danube River, the concrete design has not been specified yet.
The anti-noise and anti-glare walls on the place of the passage through Natura 2000 system (ca km 3.000 - 5.700) are designed alongside the entire length of the passage through the locations of Natura 2000 system (to the right km 2.900 - 7.500; to the left km 2.900 - 5.800) . However, the height is just 2 m above the road.

The variants get to the identical route approximately on the place where Ketelec intersection is planned (the intersection of D4 with expressway R7). Both variants run in the same corridor from the connection to the end of the structure, i.e. as far as Ivanka North intersection. The total length of the designed section of highway D4 is 22.800 63 km.

6. The supposed date of the commencement of the implementation of the intention and its completion:

- Construction commencement: 2016
- Construction completion: 2019

7. Possible cross-border impacts:
The EIA process that was terminated (the Final Opinion, No. 318/2010-3.4/ml) was not run in the regime of international assessment, i.e. the possible cross-border impacts were not supposed and identified.

II.2. ***Data on the Inputs***

II.2.1. Soil

The overall seizure in the individual variants and the seizure related to Natura 2000 system (i.e. the seizure within the CHVU Dunajské luhy and ÚEV Biskupické luhy) is stated in the following table.

Table 1: The preliminary estimate of the overall permanent land seizure and the seizure within Natura 2000 system

Variant	In total	CHVÚ Dunajské luhy	ÚEV Biskupické luhy
1 - red	208.5 ha	11.13 ha (0.067 % CHVÚ)	3.16 ha (0.3 4 % ÚEV)
2 - green	143.1 ha	12.77 ha (0.080 % CHVÚ)	3.96 ha (0.46 % ÚEV)

As it is clear from the table, from the point of view of the original seizure within the CHVÚ Dunajské luhy and the ÚEV Biskupické luhy, the variants 1 and 2 are approximately comparable. Variant 1 represents just a little less land seizure within Natura 2000 system than variant 2.

11.2.2. Water

During the construction period water for drinking and hygienic purposes shall be necessary, as well as water for construction technologies and machinery.
According to the Regulation No. 648/2006 Coll. as amended, in particular of Annex 1, it is necessary to consider the consumption of water for drinking purposes at the amount of 5 l/person/shift and the indirect needs (washing and taking a shower) at the amount of 120 l/person/shift. The maximum hourly water consumption per one person shall be determined as 50% of indirect consumption, which is 60 l/hour. The annual sum of water consumption (240 working days) makes 30 m per one employee. The accurate number of employee shall be known only during the implementation of the intention, however we may say even now the daily and annual water consumption of drinking water shall be inconsiderable from the point of view of capacity in the concerned territory.
Water for construction technologies and machinery shall be used for the production of concrete mixtures, spraying of the construction site and machinery maintenance (700 l per one washing of a lorry). Water from public water supply system, nearby water courses shall be used, while it shall be possible to build own water supply sources with regards to favourable hydrogeological conditions. The quantity of consumed water during the construction is assessed at the amount of several hundreds of m3 a year. In total, the consumption of water for the above name purposes is assessed to be several tenths of litres per second. From the point of view of water volume and its availability in the territory, the quantity is less significant from capacity point of view.
V Nowadays, they do not suppose the consumption of water from surface or ground sources that would be more significant from capacity point of view and could notably affect Natura 2000 system.
The proposed transport structure does not represent a significant load for environment by water consumption.

V During the operation period, water shall be used for the maintenance of roads, the treatment of greenery and machines, the operation of highway resting place. The source shall be again the local water supply systems and adjacent water courses. The consumption of water for the maintenance of roads and surrounding greener shall be irregular (according to need) and it is assessed to be several tanks a year. They would use up to thousand m3 per year for mechanisation maintenance. In total, it would be the insignificant quantity for the entire territory.

11.2.3. Raw materials

During the construction, there would be the demands after raw materials, corresponding to the character of the structure. This is mainly the filling material of the earth body, gravel, crushed rocks for concrete structures and asphalt mixtures, the material for road covers (oil asphalts and modification admixtures, special road cement), steel, fuel, oils and lubricants for construction mechanisms and transport machinery.
For the balance coverage of the usable earth for road fills, that are missing or replace the unusable earth from excavations, it is possible to use gravel located and mined in the nearby deposits of Podunajské Biskupice (in the case of permit for depth mining of gravel or the prolongation of the validity of contemporary surface mining), Kalinkovo, Nové Košariská or Rovinka.
During the operation it shall be necessary to consider the consumption of fuel and lubricants for maintenance mechanisms. The consumption of approximately 3 tons is supposed for one machine and year in the case of four-lane road. The quantity of material necessary for repair and maintenance (concrete, road barriers, paints, etc.) shall be determined by the scope of implementation.
Furthermore, it shall be necessary to include also the grit in the consumption of row material, namely chemical grit material (NaCl, CaCl2, MgCl2) at the quantity of ca 1.2 kg/m for 60-70 intervention days a year. In the case of the use of inert material, its consumption on level sections for the same number of intervention days shall be ca 10.5 kg/m per year

II.2.4. Traffic Infrastructure Requirements

In the stage of highway construction, there shall be an increased transport demand on road communications in relation to the need of supplying the construction with raw materials. Access to the construction site as well as to individual buildings during construction will be secured by existing roads and roads that will be adapted after completion of the construction, respectively if necessary even before the start of use.

II. ***3. Data on Outputs***

II.3.1. Air

Period of Construction

During the implementation, the assessed intention shall act as a specific area source of the pollution of ground-level layer of atmosphere (dust, exhaust gases from heavy construction mechanisms) in the proximity of construction yards, or on the places of greater concentration of construction works (e.g. around the bridge objects). From the type of emissions aspect, in this period, dust from ground works will be dominant while emissions of exhaust gases from construction mechanisms will form only a smaller part. While it is impossible to estimate the quantity of emitted substances more precisely for the construction period , it can be stated that the quantity of emission significant from the viewpoint of protection of ecosystems (especially NOx) specific for the period will be, considering the expected period of construction (approx. 4-5 years) insignificant compared to both the current and the subsequent period of operation.

Operation Period

V During operation, the proposed activity will be a line source of air pollution, especially by gaseous exhalates. These will be unavoidably accompanied by aerosols with various structures originating from the chemicals used to maintain the road driveable in winter, and, in small quantities, also substances immediately related to automobile operation (tire wear, etc.). The main representatives of pollutants emitted during operation of road motor vehicles are *carbon monoxide (CO), nitrogen oxides (NO_x), nitrogen dioxide (NO_2), suspended particles (PM_{10}), benzene (C_6H_6,)* a *benzo(a)pyrene ($C_{20}H_{12}$)*; from the viewpoint of protection of ecosystems, under „standard“ operating conditions, the most significant are emissions of NO_x[2], for which under Regulation no.

[2] Nitrogen oxides - NO and NO2; under Annex 1 to Act no. 137/2010 Coll., 0n air as amended, nitrogen oxides mean the sum of nitrogen monoxide and nitrogen dioxide in a unit of volue of air expressed as

360/2010 Coll. on Quality of air as amended sets an absorbed emission limit of 30 //g/m /year (arithmetic average for a calendar year; this limit is defined directly for ecosystem protection).
A current problem for the vegetation is also the ground ozone (O3) with limits generally exceeding in most of the territory of Europe. In the past 20 years, Europe has massively (by approx. 40%) reduced the emissions of ozone precursors (NOx, NMVOC, CO) without a corresponding reaction in the quantity of ground ozone. Studies clearly document the effect of large-scale processes (transfers for high distances, vertical exchange, ozone-climate relationship and others) when forming the local levels of ground ozone. This documents long-distance transfers of these precursors from non-European territories. For protection of vegetation, ground ozone is defined as the index AOT40.[3]. As stated above, its target value (18 000 μg.m–3.h) is normally exceeded both in the assessed territory and in the rest of Europe.
To identify the total status of pollutants after starting the intention, it is necessary to know the current background pollution by individual pollutants to which the expected contribution of the intention has to be added. These data are evaluated for each year by the Slovak Hydrometeorological Institute and are published in an almanac. Under this data, in 2010, the background pollution by NOx in the area ranged between 11-20 [j,g.m'3.year'1. The AOT40 average for vegetation for years 2007 - 2011 was 22 198 μg.m–3.h in the nearest measurement station in Topoľníky. The average AOT40 values in μg.m–3.h for a period of five years for protection of vegetation, corrected for the missing period, is between 18 000 - 21 000 μg.m–3.h for the assessed territory.
Variant 1
For the purposes of preparing of the DUR, an Absorbed Emission Study was prepared (Dopravoprojekt Bratislava, 2013); this is attached as Annex F.8 of the DUR.
The theoretical calculation of the average annual quantity of pollutants was prepared for a condition with the D4 highway in the period 10 years after start of operation. Average climate conditions have been considered.
The NOx contribution to the air from the operation of the intention is calculated in the study in the locations when the intention crosses Natura 2000 territories (ÚEV Biskupické luhy and CHVU Dunajské luhy) to be 2-3 [j,g.m'3.year'1. This implies that even after adding the current background pollution the limit of pollution of ecosystems of 30 [j,g.m'3.year'1 will not be exceeded in the territory.
Variant 2
For the EIA Report, a Distribution Study (Pirman, 2010) has been made, evaluating the contributions of main pollutants of the investment (NOx - lh) to the environment. Hourly NOx concentrations are suitable for an evaluation of the impact on human health, for assessment of impact on ecosystems, however, valid law defined absorbed emission limits for an annual NOx average. This is why it was impossible to use the study to assess this variant.
However, as Variants 1 and 2 do not differ in expected traffic intensity or in differing locations and the intention will be led over the territory with European significance and protected avian area on bridges, one can expect similar final concentrations of NOx as in Variant 1
(2-3 μg.m-3.year -1 in a distance of up to 150 m from the intention). A slight growth of concentrations compared to Variant 1 will be invoked by non-existence of the noise wall when Variant 2 crosses left-bank forests; however, the limit for ecosystem protection cannot be exceeded.

II.3.2. Waste water

Period of Construction
V In this period, waste waters will be formed mostly from social facilities at the construction site. These will mostly be sanitary waste waters. The regime of creation and treatment thereof will be

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nitrogen dioxide in micrograms per cubic metre (mikrog/m3).
[3] AOT40 is the sum of exceedings of the level of 80 |ig.m 3 from 1-hour concentrations during a day (from 08:00 to 20:00 Central European Time) from 1 May to 31 July. The target value is 18 000 ng.nT3.h in a 5-year average.

standard. The quantity of the created sanitary waste waters will depend on the project of construction organization and on the progress of completion. If usual standards and procedures are observed, this quantity will never be significant from the viewpoint of impact on environment and/or the Natura 2000 system.

During the construction of the highway, surface waters of water flows may be polluted when building bridges, indirectly via contaminated geological environment and subsurface water, especially in emergency leakages of fuels and lubricants from motor vehicles and work mechanisms. During the construction of the highway, it is therefore necessary to provide for regular checking of the condition of mechanisms and motor vehicles and for their regular maintenance. With regard to the hydrological and hydrogeological characteristics of the territory, it is necessary to adhere to maximum technological discipline in practically all construction works in the affected territory. Polluted technological water must not be released to surface waters nor to soil. During the construction, it will naturally be necessary to adhere to the emergency plan and all valid provisions of law.

Operation Period

During the operation period, in particular rain waste water shall be generated. Water, running form the surface of the road shall comprise contaminants that shall have an impact on the quality of surface water. This may include especially toxic trace elements (especially aluminium, zinc, nickel, chrome, lead, cadmium, and copper), oil substances (non-polar extractable substances - NEL[4]), PAU[5] and surface treatment materials from winter road treatment (especially NaCl and additives such as anti-clotting additives).

Variant 1

V The currently valid regulations in environmental protection, especially surface and subsurface waters, classify rain waters from roads as waste waters that need to be cleaned prior to leading to a recipient. This is why road sewage with DN 300 to DN 600 will be built alongside the entire proposed road, receiving rainwater from the road by a system of road inlets.

Depending on the terrain configuration and design on the D4 highway in the section crossing and passing by Natura 2000 locations (km 0.000 - 5.500). the road sewage is divided into 3 sections that are led to adjacent recipients after cleaning in oil traps:

- section no. 1 (km 0.000 - 2.000 of the intention), by pushing to the existing retention tanks installed in the Jarovce interchange
- section no. 2 (km 2.130 - 4.000 of the intention), by gravity to the retention-seeping rain tank no. 1 located at the Rusovce interchange
- section no. 3 (km 4.000 - 5.500 of the intention), by gravity to the retention-seeping rain tanks no. 3 and 4, located in km 5.675 left and 5.750 right of the D4 highway.

For the sewage section no. 2 (sewers C and D), the retention-seeping rain tank no. 1 has been designed as a ground type of tank, a so-called dry polder with a depth of approx. 2.5-3 m. The accumulation depth of water is approx. 1 - 1.5 m. The surface of the water has an area of approx. 7000 m^2, the accumulation volume is approximately 7000 to 10500 m^3 of water.

Retention and seeping rain tanks no. 3 and no. 4 (section no. 3) are pushed to the D4 highway in

[4] NEL – non-polar extractable substances; these may originate from oil products, coal and coal products, plant, animal, microorganism products, etc. In relation to transportation, NEL are most frequently seen as oil products defined as hydrocarbons and their mixtures, mostly petrol, diesel oil, benzene and its derivatives, kerosene, heading oil and picamar.

[5] Polycyclic aromatic hydrocarbons. Their sources include wear from asphalt, tires and brakes, as well as small particles originating from combustion engines. Water flowing from roads includes mostly suspensions with polyaromatic substances with higher molecular weight, causing subsequent accumulation in sediments. In surface water, PAU with three aromatic cycles prevail, while in sediments, PAU with 4 cycles prevail.

km 5.675 left and 5.750 right. The depth of reservoirs is ca 2M, which is also the real accumulation depth 23 of water. The water surface area is around 1400 m, the accumulation volume is around 2600 m of water.
The entire sewage system consists of a road inlet and connection, sewage pipeline, sewage shafts, oil traps (with cleaning levels up to 0.1 mg/l NEL on output).
The waste water from the rest of the structure (5.500 - 22.590) will be removed using a system without sewage and oil traps. This will be a system of seeping ditches and lakes in which plants will be used for root cleaning of waste waters. Lakes will be isolated by a clay layer that will require replacement once in every 15 - 20 years. This method is used mostly in areas where it is a problem to lead the sewage into a recipient.

Variant 2
In variant 2, rain sewage is designed to de-water the entire D4 highway; this sewage will be in the middle separating lane and will receive all rain water falling on reinforced surfaces. Rain water from the branches of the proposed sewage will be led through oil traps to a nearby recipient or to a seeping point. For Šúrsky channel, it will need to adjust the amount of water discharged which is limited to it. Therefore the discharged rainwater will be retained in the retention tanks (RT), and further discharged through the flow control valve with the amount determined by the administrator of the flow.
The following recipients are considered for individual sections of the intention:
- Highway section from the Jarovce interchange until km 0.800 to the seepage devices
- Highway section from km 0.800 to 2.200 (bridge) through a pumping pipeline into the Jarovské Danube arm
- Highway section bridge - km 6.000 through a pumping pipeline into the Danube
- Highway section from km 6.000 to 14.100 into seepage devices
- Highway section from km 14.100 to 19.100 through a pumping pipeline into the Little Danube
- Highway section from km 19.100 to 22.800 through a pumping pipeline into the Šúrsky channel
- Drainage of right and left parking area through ORL to seepage devices is individually designed.

The calculated quantity of waters derived from the road for individual variants is shown in the following table:

Table 2: Quantity of water drained from the road

	Volume of rain waters (m3/year)	*of that, in winter period Oct-Mar (some 38%)*
Variant 1 - Red	590 936	224 555
Variant 2 - Green	405 578	154 119

11.3.3. Waste

Construction and operation period
For the construction period, a waste treatment project will be made in the following degrees of project preparation, respecting valid law so that environment is not endangered. A similar procedure will apply to the operating period - waste generated (waste from cleaning of sewages and rain inlets, cleaning of retention tanks and oil traps, removal of pollution of road, etc.) will be treated in the standard manner in line with the valid law.

11.3.4. Noise and light disturbance

The acceptability of noise and light conditions must be monitored, from the viewpoint of object of protection, especially due to the risk of excessive disturbance of habitats used by the animals, potentially causing them to leave the habitats if the disturbance exceeds the bearable level.
According to Rejnen et al. (1995), this noise level differs for various bird species, however, averages between 40 and 50 dB, both for forest bird species and for the birds living in open sites. Therefore the values will be considered as relevant (for the determination of significantly affected

territory).

Period of Construction

The noise disturbance and potential light disturbance levels during the construction will depend on the schedule of works that will only be known in later phases of project documentation. Already now, it can be stated that a vast majority of construction works will be done during the day (i.e. minimum light disturbance) and the intensity of noise disturbance will only reach a fraction of the noise disturbance during the period of operation.

Period of

operation

Variant 1

The intention is mostly located on flat territory on the surface or on a slight filling.

The Danube River, its channels and adjacent floodplain forests included in the Natura 2000 system are crossed by a system of bridges. Along the entire length of the bridges (crossing of the Danube and transition through floodplain forests), the intention has bilateral walls with height sufficient also for most trucks (4 m).

For the zoning permit purposes, a Noise study (Annex F.7) has been prepared, evaluating the noise load from the intention in variant 1.

The study shows that 50 dB equal loudness contours for the intention with noise walls are located in the protected water territories and territories of European significance in a distance of 500 m to 1 km during the day for year 2030. At night, the 45 dB equal loudness line is in a distance of 500 m to 1 km from the axis of the intention. Large distances (1 km for 50 and/or 45 dB) were only calculated in the area of Jarovecké Danube arm where noise is combined with the noise from the Rusovce interchange. In the location of crossing of the Danube and in left-bank forests, the distances are 500 m (45 dB/night) and 500 m (50 dB/day). To reduce noise immediately under the bridge structure, silent elongation closings will be used for the construction of bridges.

The distance of the 50 dB equal loudness contour around the Sysľovské polia protected avian area is also around 500 m from the axis of the intention.

Light disturbance will be produced mostly by vehicles driving on the intention. In the locations crossing Natura 2000 sites (bridging of the Danube, adjacent floodplain forests), the influence will partially be reduced by noise walls. Certain parts of the intention (especially multi-level interchanges) will probably by lighted by lamps.

Variant 2

The intention is mostly located on flat territory on the surface or on a slight filling.

The Danube River, its channels and adjacent floodplain forests included in the Natura 2000 system are crossed on high bridges. In the location of crossing of the Danube (crossing a Natura 2000 territory), the intention has a bilateral noise reducing wall with a height of 2 m, prolonged to locations outside the Natura 2000 site.

For the EIA report purposes, a Noise study (Hujo, 2010) has been prepared, evaluating the noise load from the intention in variant 2. This noise study did not consider the existence of the Rusovce interchange as it became a part of the project later.

The study shows that 50 dB equal loudness contours for the intention in variant 2 without noise walls are located in the protected water territories and territories of European significance in a distance of 700 m to 800 m during the non-vegetation period for year 2040 (daytime).

The distance of the 50 dB equal loudness contour around the Sysľovské polia protected avian area is around 500 m from the axis of the intention.

Light disturbance will be produced mostly by vehicles driving on the intention. The influence will partially be reduced by noise reduction walls with a height of 2 m in the locations crossing Natura 2000 sites.

II.3.5. Radiation and Vibrations

Construction and operation period
During the construction and operation of the highway no production of radiation or other physical fields is expected. Local production of heat and smell is probably in the locations of construction yards, during asphalt-laying works, etc.

III. DATA ABOUT TERRITORIES WITH EUROPEAN SIGNIFICANCE AND PROTECTED AVIAN TERRITORIES

III.1. Identification of affected locations

On the basis of the identified inputs and outputs of the intention, on the basis of the location of the intention in the territory and on the basis of further substantial characteristics of the territory, the following Territories of European Importance (hereinafter referred to as the "EÚV" as well) and the Protected Avian Territories (hereinafter referred to as the "CHVÚ" as well) were selected as the concerned ones:

CHVU Dunajské luhy (SKCHVU007)
Both variants of the evaluated intention directly intervene with the CHVÚ Dunajské luhy.

Variant	CHVÚ Dunajské luhy
1 - red	11.13 ha (0.067 % CHVÚ)
2 - green	12.77 ha (0.080 % CHVÚ)

Preliminarily identified options of influencing of the protected object: taking of suitable habitats, noise and light disturbance, disturbance by increased movement of persons, especially on the left-bank bike track, collisions with vehicles, pollution of environment (polluted waters flowing from the road into water recipients, accidents).

ÚEV Biskupické luhy (SKUEV0295)
Both variants of the evaluated intention directly intervene with the ÚEV Biskupické luhy.

Table 4.: Size of territory taken by individual variants in relation to the ÚEV Biskupické luhy

Variant	ÚEV Biskupické luhy
1 - red	3.16 ha (0.3 4 % ÚEV)
2 - green	3.96 ha (0.46 % ÚEV)

Preliminarily identified options of influencing of the protected object: taking of suitable habitats, noise and light disturbance, disturbance by increased movement of persons, especially on the left-bank bike track, collisions with vehicles, pollution of environment (polluted waters flowing from the road into water recipients, accidents).

CHVÚ Sysľovské polia (SKCHVU029)
None of the variants directly intervene with the CHVÚ. However, the northern part of the CHVÚ is

located in immediate vicinity of the Jarovce interchange where the evaluated intention begins (approx. 240 m). The northern border of CHVÚ Sysľovské polia is already lined by the E58 highway to Austria.
Preliminarily identified options of influencing of the protected object: collisions with vehicles, disturbance, pollution of environment.

ÚEV Ostrovné lúčky (SKUEV0269)

None of the variants directly intervene with the ÚEV. In variant 2, the intention reaches close vicinity of the northern border of the ÚEV (approx. 140 m). Variant 1 is approx. 822 meters distance in the closest point.
Preliminarily identified options of influencing of the protected object: collisions with vehicles, disturbance, pollution of environment.

CHVÚ Lesser Carpathians (SKCHVU014)
None of the variants directly intervene with the CHVÚ. The nearest part of the CHVÚ is located some 4.5 km from the Ivanka - North interchange.
Preliminarily identified options of influencing of the protected object: collisions with vehicles

ÚEV Bratislavské luhy (SKUEV0064)
None of the variants directly intervene with the ÚEV. Variant 1 passes by the location from the south in a distance of approx. 2 km, variant 2 in a distance of approx. 2.8 km, also from the south.
The protected objects in the ÚEV can be influenced by a single impact only - collisions with vehicles on the intention.
Preliminarily identified options of influencing of the protected object: collisions with vehicles

V Other ÚEV and CHVÚ are located in wider surroundings of the intention; however, these were evaluated as not influenced by the intention and thus were not included in the assessment. The reason is mainly the distance of the locations from the intention related to the subjects of protection, for which the locations of Natura 2000 system were declared and the size of their territories (thus the consideration of the chance of occurrence of the subject of protection in the proximity of the intention, or other type of impact by the intention).
This applies to the following locations:

- ÚEV Hrušov (SKUEV0270). The protected object here is the water habitat 3150 and various species of fish, mollusc, European fire-bellied toad, stag beetle, Mehelyi's root vole, and European beaver , the shortest distance from variant 1 to the location is approx. 2.25 km, from variant 2 it is approx. 1.53 km.
  This location was removed from the Assessment due to its distance from the intention and especially due to the method of crossing the Danube and adjacent floodplain forests on a bridge. Considering the quantity of water in the water flow, the impact to the water flow will be minimum; any significant turbiding of water during the construction of the pillars or barrier effects of the intention with regard to the protected objects in this ÚEC can be excluded.
- ÚEV Šúr (SKUEV0279). The protected objects include 4 habitats, 1 plan, 4 representatives of insects, 2 amphibian species, Mehelyi's root vole, and European beaver. The shortest distance from the location (Ivanka - North interchange) is 1.8 km.
  This location was excluded from the Assessment due to its distance from the intention with regard to ecological requirements of individual protected objects.
- ÚEV Homoľské Karpaty (SKUEV0104). The protected objects include 14 habitats, 8 representatives of insects, European fire-bellied toad, stone crayfish, and 6 species of bats. The shortest distance from the location (Ivanka - North interchange) is 5 km.
  This location was excluded from the Assessment due to its distance from the intention with regard to ecological requirements of individual protected objects. In the section closest to the ÚEV, the intention is mostly in agricultural land, crossing practically no line elements

of the country and no forests. In several critical locations of the intention, there were

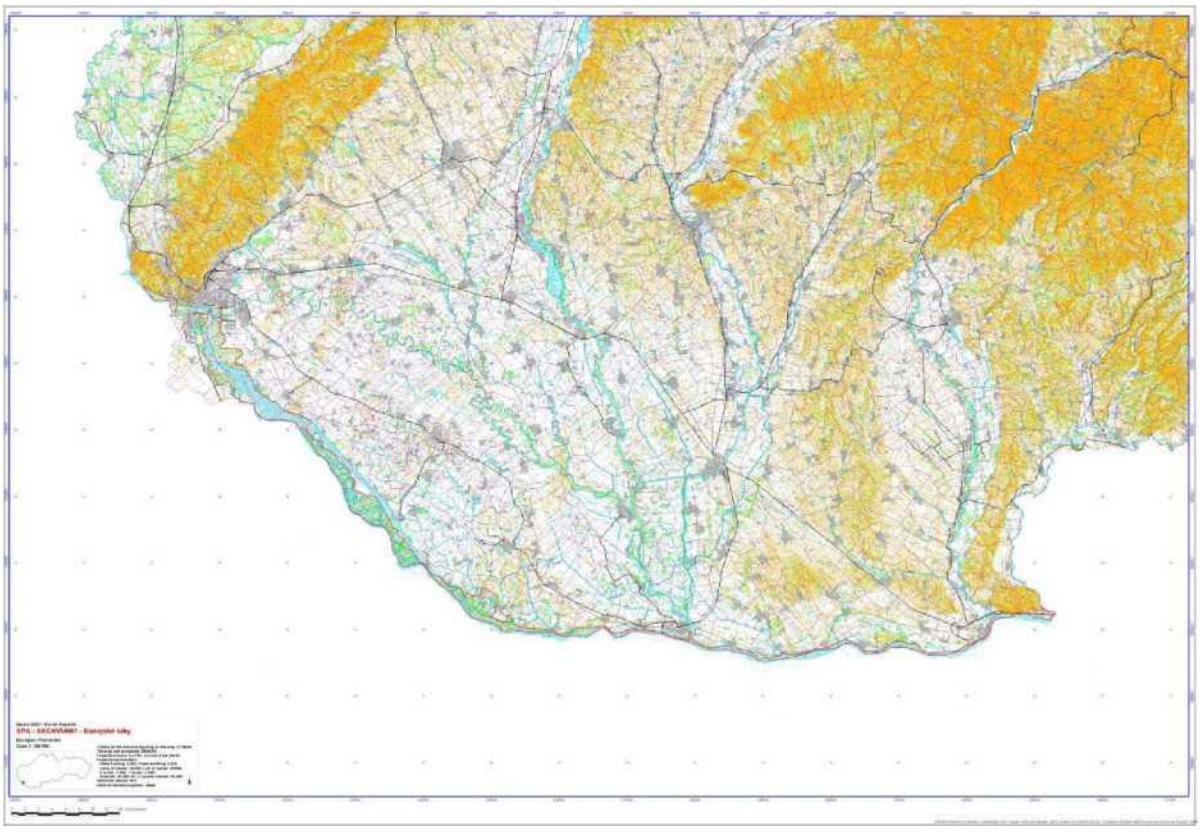
Appropriate assessment of impact of intention on territories of European importance and protected avian territories

in addition, during the assessment, proposed measures eliminating risk of collisions with flying animals (see Chapter V).

III.2. *Description of affected locations and affected objects of protection*

This chapter describes the locations of the Natura 2000 system affected by the intention and their objects of protection. Basing on the foreseen influences of the intention, presence of protected objects and their ecological requirements, objects of protection that may be influenced by the intention and will be subject to further evaluation are identified in here. Other protected objects have been excluded as non-influenced.

III.2.1. CHVÚ Dunajské luhy



Characteristics of protected avian territory

The Dunajské luhy protected avian territory was declared by a regulation of the Ministry of Environment of the Slovak Republic no. 440/2008 Coll. as amended, with an aread of 16 511.58 ha, located in the territory of districts Bratislava II, Bratislava IV, Bratislava V, Senec, Dunajská Streda, Komárno, and Nové Zámky.

The territory is represented by the main flow of the Danube River and the left bank of alluvial forests. The territory is represented by the main course of the Danube and its left bank with inundated forests. The sufficient amount of natural water habitats (rivers, swamps) as well as artificial water reservoirs provides good preconditions for nesting of Little Egret (Egretta garzetta), Little Bittern (Ixobrychus minutus), Common Tern (Sterna hirundo), Garganey (Anas querquedula), Common Redshank (Tringa totanus). The presence of forest habitats, especially long-stemmed stands with the occurrence of nesting places of White-tailed Eagle (Haliaeetus albicilla), Black Stork (Ciconia nigra) and Black Kite (Milvus migrans) increases the value of the protected avian territory even more.

The activities that may negatively influence the goals of protection in the CHVU Dunajské luhy

(after reflecting the type of the intention assessed hereby), include (http://www.sopsr.sk):

- *Highways*
- *Driving on water scooters and motor boats*
- *Locating facilities on water flows and/or other water surfaces other than for navigation or administration of water flow or water dam*
- *Building and marking of tourist trails, educational trails, running trails, skiing tracks and bike tracks*
- *Spreading of all non-original species of animals*
- *Maintenance of vesture on banks (authorization for flow administrator) above 1000 metres in length*
- *Cutting of bushes above 500 m2*
- *Spreading invasive species of plants specified in Annex no. 2 to the Regulation*
- *Non-covered parking lots and stopping areas*
- *Purpose-built communications*
- *Spreading of non-original species of plants (with the exception of species specified in Annex no. 2 and 3 to the Regulation)*
- *Cutting of trees above 80 m2*
- *Removal of vesture on banks by complete removal (authorization for flow administrator) above 100 metres in length*

Table 5: In the CHVÚ, object of protection are the following species of birds:

Slovak name	Latin name	Supposed count of nesting pairs[6]			Count of individuals wintering in the SR[7]
		in the CHVÚ	in the SR	in the EU (thou.)	
Black Stork	*Ciconia nigra*	4 - 6	400 - 600	7,8 - 12	0 - 2
Sand Martin	*Riparia riparia*	180 - 420	10 - 20 thousand	5400 - 9500	0
Little Bittern	*Ixobrychus minutus*	12 - 34	200 - 400	60 - 120	0
Mediterranean Gull	*Larus melanocephalus*	30 - 70	50 - 125	120 - 320	0
Black Kite	*Milvus migrans*	5 - 6	15 - 20	64 - 100	0
Common Goldeneye	*Bucephala clangula*	0	0	490 - 590	9000
Red-crested Pochard	*Netta rufina*	7 - 18	10 - 40	27 - 59	0 - 10
Common Pochard	*Aythya ferina*	0	500 - 1000	210 - 440	6300 - 6900
Tufted Duck	*Aythya fuligula*	0	250 - 500	730 - 880	25000 - 27000
Garganey	*Anas querquedula*	1 - 7	100 - 200	390 - 590	0 - 30
Gadwall	*Anas strepera*	12 - 21	50 - 80	60 - 96	0 - 240
Common Redshank	*Tringa totanus*	3 - 8	35 - 70	280 - 610	0
Marsh Harriers	*Circus aeruginosus*	7 - 16	1000 - 1500	93 - 140	0
Tawny Pipit	*Anthus campestris*	4 - 6	200 - 250	1000 - 1900	0
White-tailed Eagle	*Haliaeetus albicilla*	1 - 4	10 - 14	5 - 6,6	40 - 80
Smew	*Mergellus albellus*	0	0	8,1 - 17	100 - 700
Common Tern	*Sterna hirundo*	110 - 240	810 - 815	270 - 570	0
Common Kingfisher	*Alcedo atthis*	20 - 45	700 - 1300	79 - 160	700 - 1400
Little Egret	*Egretta garzetta*	2 - 5	0 - 30	68 - 94	0

The protected avian territory is declared also for the purpose of the assurance of a favourable condition of the habitats and the assurance of conditions for survival and reproduction of migrating water birds, the birds creating groups during migration or wintering. The following species are concerned: Common Sandpiper, Eaton's Pintail, Northern Shoveler, Garganey, Eurasian Wigeon, Mallard, Gadwall, Greater White-fronted Goose, Greylag Goose, Taiga Bean Goose, Grey Heron, Common Pochard, Tufted Duck, Greater Scaup, Ferruginous Pochard, Common Goldeneye, Whooper Swan, Mute Swan, Eastern Great Egret, Common Coot Common Snipe, Tasmanian Native-hen, Arctic Loon, Red-throated Loon, Armenian Gull, Mew Gull, Black-headed Gull, Great Snipe, Velvet Scoter, Common Scoter, Smew, Common Merganser, Red-breasted Merganser, Red-crested Pochard, Great Cormorant, Great Crested Grebe, Red-necked Grebe, Black-necked Grebe, Water Rail, Tricolored Grebe and Green Sandpiper.

Characteristics of the affected parts of CHVÚ Dunajské luhy

[6] Reporting art. 12 in 1.1, Database, retrieved on 4 Feb 2014. Available from: https://www.sopsr.sk/reporting/2012/, European Agency for Nature Protection, retrieved on 4 Feb 2014. Available from: http://natura2000.eea.europa.eu/Natura2000/SDF.aspx?site=SKCHVU007

[7] Reporting art. 12 in 1.1, Database, retrieved on 4 Feb 2014. Available from: https://www.sopsr.sk/reporting/2012

Variant 1 - red

The intention crosses CHVÚ by a system of several adjacent bridges with 4 m bilateral walls against birds. The minimum clear height of these bridges is 5.5 metres in the area of left-bank alluvial forests (maximum 15 m). In the section bridging the Danube, the maximum passable height is around 17 m. The length of the system of bridges is approximately 3 km.

This variant passes through the CHVÚ in its North part, in particular the upper part of Hrušovská zdrž Dam, where the entire inundation part is not permanently flooded. Permanently increased level in this part is just in the main bed of the Danube and its branches. There are the softwood and hardwood inundated forest stands or lowland mown meadows in the flooded part. The size and composition of forests make them a suitable habitat for timid species of precious birds (black stork, black kite, white-tailed eagle). The problem is in the relatively frequent disturbance by visitors moving alongside the flooding embankments or along larger river arms. The reason is in the vicinity of the agglomeration of Bratislava; the number of visitors in the currently calmer left-bank side with floodplain forests serving as a peaceful territory for timid bird species will probably increase dramatically once the intention is put in operation.

The part of the intention is also the connection of cycling routes lead at the right-side and left-side embankment of the waterworks Gabčíkovo through the flyover bridge above the Danube River. This is solved by a cycling route/service router with the width of 6 meters that will link the cycling routes on both banks of the Danube with the territory under the bridges where it will lead throughout the entire territory of floodplain forests up to km 5.500. Here, the bridges end and the service road connects to the local traffic network. It should be asphalt-covered and provide for movement of cyclists and in-line skaters. This communication will increase the movements of persons and the related disturbance of timid species directly in the core of the CHVÚ.

The area taken within the CHVÚ is 11.13 ha, or 0.067 % of the total area of the CHVÚ.

Variant 2 - Green

This variant crosses the CHVÚ some 650 m to the south from the red variant.

The intention crosses the entire territory of the CHVÚ on a system of bridges (with an exception of some 150 m), with passable height at least 5.5 m. The length of the system of bridges is approximately 2.7 km. The anti-noise and anti-glare walls on the place of the passage through Natura 2000 system (ca km 3.000 - 5.700) are designed alongside the entire length of the passage through the locations of Natura 2000 system (to the right km 2.900 - 7.500; to the left km 2.900 - 5.800) . However, their height is just 2 m.

The area taken within the CHVÚ is 12.77 ha, or 0.08% of the total area of the CHVÚ.

Affected objects of protection

The identification of the affected objects of protection is based both on the performed natural science research within the Natura assessment (March - September 2013, HBH Projekt, spol. s r.o.), avifauna surveys performed in previous project preparation steps (especially Kúdela, Melišková, Littera, 2011), and on the habitat requirements of individual species. Also, information from the on-line database of the Slovak Society for Ornitology/BirdLife Slovensko (http://aves.vtaky.sk) was used (hereinafter referred to as the database).

The objectives of protection shall be or may be affected by the intention through the following impacts: taking of suitable habitats, noise and light disturbance, disturbance by increased movement of persons specially on the left-bank cycling route and in forests, collisions with vehicles, pollution of environment.

Black Stork *(Ciconia nigra)*

It inhabits forests, both alluvial and broad-leaf, mixed, and coniferous, from lowlands up to an elevation of approx. 1000 m. It feeds on the sides of water dams or small brooks, covered by vegetation if possible. It catches fish up to 25 cm size, in addition to them also water insects, frogs and newts. In the areas with wet meadows, it feeds mainly on grasshoppers, in addition to it also on frogs, rodents and baby birds. It gets food from places up to the distance of 10 km from its nest.

According to the sightings of the African Oddysey project, it can fly for food up to 20 kilometres from the nest. It searches for peaceful and hidden places, it avoids human settlements. Fluffs, so called pellets, are formed from the indigestible parts of the food of storks, the vomit them similarly as owls and birds of prey. It nests individually on trees.
Population trend in Slovakia is a slight growth, the population trend in the EU is stable (BirdLife Slovakia). The assessment of the condition of the species from the point of view of protection pursuant to Article 12 of the directive 2009/147/EC - favourable (FV).
V *In recent past, 1 pair nested in the part of the CHVÚ affected by the construction of D4 highway until 1995. Nowadays, the nesting population in the entire CHVÚ is at historical minimum, the nesting of just one pair was observed in 2009. Despite that, Black Stork occurs in the CHVÚ every years, including the area affected by the proposed activity.*

Sand martin *(Riparia riparia)*

Lives in locations with high clay, dust, or sand banks of waters. Rarely, it appears in locations distance far from water surfaces, e.g. at sand mines and brick plants. It nests in colonies alongside the lower parts of rivers in the southern Slovakia, more rarely also in northern Slovakia. Strictly migratory. Arrives in the second half of April, departs at the end of August or in the first half of September.
The European nesting population counts more than 5.4 million pairs. The numbers fluctuate strongly depending on changing conditions in nesting locations; however, the main influence are extraordinary dry periods in wintering locations.
The assessment of the condition of the species from the point of view of protection pursuant to Article 12 of the directive 2009/147/EC - less favourable (U1).
In 2011, several pairs tried to nest on the bank of the Danube in the left-bank part of the territory close to the intention; due to a slide of a wall, they were not successful.

Little Bittern *(Ixobrychus minutus)*

In terms of area size, little bittern is the most spread of egret-like species. It resides in vast swamps and fishing ponds as well as small, often relative disturbed locations. A condition is the presence of suitable verdure (reed, bulrush, bushy willows) growing directly into water and changing for a free water surface. It prefers older reed growing directly in deeper water. In Slovakia, it nests in lowlands and basins of the entire Southern part of Slovakia, its nesting distribution is not sufficiently researched.
These birds collect their feed in grown flat banks of rivers and fishing ponds, in reeds and hidden locations in the middle of swamps, sometimes waiting for the food on banks, on reed stalks above water, in branches of trees, especially in locations where water vortexes bring insects, frogs, and other water animals. Migratory bird in the entire Europe.
The assessment of the condition of the species from the point of view of protection pursuant to Article 12 of the directive 2009/147/EC - less favourable (U1).
In the part influenced by the proposed activity, potential nesting locations of the species are found in reed segments in arms and gravel mines in the inundated area of the Danube on both banks. In 2011, it was not found in the affected area; the most suitable habitats of the species within the affected territory were destroyed in the previous years during the construction of houseboats and during modifications of banks. Despite that, it is not possible to exclude that Little Bittern may nest in the affected area of the CHVÚ again in the future as a number of the nesting locations are irregular and are also created depending on the current status of vegetation.

Mediterranean Gull *(Larus melanocephalus).*

The Mediterranean Gull nests in colonies, in our conditions mostly on islands of fishing ponds and larger water dams, solely in the colonies of the black-headed gull (Larus ridibundus). In nesting locations, Mediterranean gulls appear from the end of March until the end of July. Some pairs start nesting in the 2nd decade of April, most in 3rd decade of April and 1st decade of May. Nesting of mixed pairs of the Mediterranean gull and the black-headed gull.

V During the nesting period, they feed mostly on ground and water insects, univalves, small quantities of fish, rodents, and worms. In winter and during migration, it feeds on fish, molluscs, and waste, sometimes also on landfills.
The Mediterranean gull nests only in the territory of Europe and Turkey. 7600 - 8900 pairs, or 2.8 - 6.3% of the European population of black-headed gull nest in the territory of the EU.
The assessment of the condition of the species from the point of view of protection pursuant to Article 12 of the directive 2009/147/EC - favourable (FV).
Nests in colonies on islands with low vegetation; at present, nests in the CHVÚ only on one of the islands on the Hrušov dam, outside the territory taken by the structure.

Black Kite *(Milvus migrans)*

The species inhabits mostly forests in the vicinity of water flows, dams, channels and other water surfaces in lowlands, less in uplands. Rarely, it nests in agrocenoses in windbreaks and forests; the nesting locations in the mountains of Eastern Slovakia no longer exist. The feeding territory may be rather large, according to the local conditions, even 5 or more kilometres away from their nest. In Slovakia, the nesting population is concentrated mostly in floodplain forests of the Morava, Danube, and Latorica Rivers, belonging to the orographic units Dolnomoravský úval, Borská nížina, Podunajská and Východoslovenská rovina. The numbers of nesting population was assessed in 1999 to 40 to 60 pairs, the log-term population trend shows its significant decrease. Individuals from the European population are strictly migrating and spend winter in the sub Saharan area.
The assessment of the condition of the species from the point of view of protection pursuant to Article 12 of the directive 2009/147/EC - unfavourable (U2).
V *In past (1970 - 1980), several pairs nested the part of the Protected Avian Territory affected by the construction of highway D4 annually, their number decreased in the 1990s, yet nesting was still regular (1 - 3 pairs). Nowadays, it nests only irregularly, however it occurs every year. The decrease in the number of nesting pairs was very significant in our entire section of the Danube river (e.g. just 2 pairs in the entire CHVÚ in 2009 and no pair in the entire CHVÚ in 2011),*
and in the entire territory of Slovakia, and black kite is one of our most endangered species of birds. From this point of view, the considered territory still remains the significant location of the species and we may suppose that when the Danube population starts growing again, it would occupy the former territories in the concerned area.

Red-crested Pochard *(Netta rufina)*

In the summer, Red-crested Pochard prefers large and deep lakes; in winter, it flies to lagunas in large flocks. It feeds mostly on seeds, water plants, water grass and, to a lower extent, by invertebrates and small fish. It often submerges when looking for food and can stay under water for more than half a minute. It lives mostly on water surfaces partially covered by reed and rich vegetation. It requires larger areas of free water surface. The nesting period is in May and June. Nests are usually located on islands and/or banks or in reeds, usually well hidden in vegetation.
The population trend in Slovakia is a slight growth, the population trend in the EU - slight growth.
The assessment of the condition of the species from the point of view of protection pursuant to Article 12 of the directive 2009/147/EC - favourable (FV).
In the CHVÚ, it nests primarily on larger dead arms, secondarily, on the Hrušov dam and around it. At present, nesting on dead arms is rare and irregular; on the contrary, on the Hrušov dam it has nested regularly since 1995 and the number quickly grew to above 10 pairs. The proposed activity crosses the border of the area where the species regularly appears and nests.

Garganey *(Anas querquedula)*

The garganey prefers large and small water surfaces that do not have to be deep. An important part of these habitats is plant vegetation, both at the banks and freely floating. It nests usually in lowlands and uplands. The nests are in dry locations, for example in reed or in sedges. Food is composed by plant and animal components. The plants include seeds and vegetative parts of water

plants. From animals, they feed on fish roe, tadpole, crustaceans, molluscs, grannoms and beetles.
The population trend in Slovakia is a slight decrease, the population trend in the EU - slight decrease. The assessment of the condition of the species from the point of view of protection pursuant to Article 12 of the directive 2009/147/EC - less favourable (U1).
V *In the CHVÚ, it nests primarily on larger dead arms, secondarily, on the Hrušov dam and around it. At present, nesting at dead arms is extraordinarily rate and irregular; nesting records on the Hrušov dam are also rare. The proposed activity crosses the border of the area where the species regularly appears and where nesting has been proven.*

Gadwall *(Anas strepera),*

They prefer larger water surfaces, wet pastures, or swamps with dense vegetation as habitats. They appear usually alone or in pairs; for migration or nesting, they often form small groups. They feed mostly on water plants; in the summer, they also eat small water insects that is first also eaten by its nestlings.
They build their nests on the ground, usually well hidden in reed or other water plants.
The population trend in Slovakia - stable, the population trend in the EU - unknown. The assessment of the condition of the species from the point of view of protection pursuant to Article 12 of the directive 2009/147/EC - favourable (FV).
V *In the CHVÚ, it nests primarily on larger dead arms, secondarily, on the Hrušov dam and around it. At present, nesting on dead arms is rare and irregular,however, on the Hrušov dam, it nests regularly in relatively high numbers (dozens of pairs, e.g. 19 pairs found in 1998 (Svetlík in Rác 2006). The proposed activity crosses the border of the area where the species regularly appears and nests.*

Common Redshank *(Tringa totanus)*

The nesting territories of the common redshank are wet locations or the surroundings of flat waters with low non-wooden vegetation, especially wetlands, similar borders of ponds, their grown bottoms during the summer, swamps, and even fields in the vicinity of waters. They collect their food from the ground, especially on wet soil, on plants, and in shallow water.
It is a migrating bird, wintering in the Western Europe and in the Mediterranean. It returns to nesting locations in March and early April and leaves sometimes already at the end of June, i.e. very early after nesting; departures are prolonged until August. It nests in pairs, however, in suitable locations, several pairs nest close to each other.
The common redshank is a diminishing species throughout Europe; in years 1970-1990 alone, some 40% of the nesting population diminished. The main reasons of diminishing are in degrading and loss of nesting locations by draining and intense agriculture.
The assessment of the condition of the species from the point of view of protection pursuant to Article 12 of the directive 2009/147/EC - unfavourable (U2).
Type of wet meadows and uncovered shallow banks, at present, it nests in the CHVÚ only rarely on secondary habitats on the Hrušov dam. It does not nest in the territory close to the structure at present.

Western March Harrier *(Circus aeruginosus)*

V During nesting, it seeks for reed, bulrush, and other bank vegetation on ponds, lakes, blind arms of rivers, or marshes where it builds its nests. Sometimes it even nests in willow bushes or even in grain fields. It hunts in open land of fields and meadows adjacent to the location. It is migratory, rarely stays for winter.
The feeding circuit does not have a strict border; in Central Europe, the average size of circuit per pair is around 15 km2. It hunts in fields and meadows connected to wetlands. Birds may often hunt up to 5 - 6 km from the nest, in exceptional cases up to 8 km from the nest (Horák and Hora, 2006).
After a strong reduction of numbers in the 19th and beginning of the 20th century due to pursuing and draining of wetlands, after 1940 it has re-spread and numbers grew. This trend survived until today. The population is seen as secure and slightly growing (BirdLife International 2004).

The assessment of the condition of the species from the point of view of protection pursuant to Article 12 of the directive 2009/147/EC - favourable (FV).
It does not nest in the part of CHVÚ affected by the construction of the D4 highway. Hunting locations for the species are partially located in the territory, both in the water areas in the Danube floodplains and in open areas (fields, meadows) even outside the CHVÚ itself. The pairs nesting on the Hrušov dam, without limitation, regularly fly to the affected area when hunting for food.

Tawny Pipit *(Anthus campestris)*

The nesting territories are locations of a steppe nature, the so-called sandy or stony areas without consistent coverage by vegetation. In Slovakia, these can be heaths, fields, as well as spoil heaps from brown coal mines.
This species with palearctic spread around Europe lives mostly in its southern and eastern parts. Most countries of the Western and Central Europe have seen, since the middle of the 20th century, a drop of their numbers. The most frequently stated reasons include the loss of suitable environment due to intensified agriculture and total eutrophizing of the environment; climate changes have been mentioned as well. Migratory species. The assessment of the condition of the species from the point of view of protection pursuant to Article 12 of the directive 2009/147/EC - unfavourable (U2).
V *In the CHVÚ, it nests on poorly covered gravel benches; no nesting is known in the area of the proposed activities in the territory of the CHVÚ. Its presence has been documented in the mostly agricultural land in the section from Biskupické luhy to the D1 crossing.*

White-tailed Eagle *(Haliaeethus albicilla)*

Lives mainly on sea coasts. In Slovakia, it lives in the proximity of large rivers and water reservoirs, with a sufficient amount of fish and water fowl. Old forests with large trees must be present nearby; the same applies to rocks cliffs on sea shores. In Slovakia, white-tailed eagle lives mostly in forest habitats close to larger rivers, dams, or systems of water surfaces. In nests at the Danube and nearby Zemplínska Šírava and Latorica, in all cases on trees.
The stable wintering place of White-tailed Eagle is the territory in the section of the Danube river and the Morava river in the areas bordering with Hungary, Austria and the Czech Republic. It winters on the Váh River, the Hron River and other water courses that do not freeze in winter. A larger number of wintering individuals concentrate in locations where they regularly spend nights. The abundance of wintering population is substantially higher than the nesting population, they assess ca 60 - 80 individuals winter in Slovakia.
Adult birds from the Central European area are mostly regular and they spend winter in the proximity of the nesting place. Young birds are unsettled to migrating and they winter in Western or Southern Europe. Nordic birds are migrating and they may winter in our place.
The population trend in Slovakia is a slight growth, the population trend in the EU - large growth.

The assessment of the condition of the species from the point of view of protection pursuant to Article 12 of the directive 2009/147/EC - favourable (FV).
The current population of the White-tailed Eagle in the CHVÚ Dunajské luhy is 4 pairs (2006-2011). This is the biggest nesting place of the species in Slovakia and the majority of the Slovak population of White-tailed Eagle nests here. 2009). At present (2009-2011), one pair nests in the territory directly affected by the construction of the highway D4.

Common Tern *(Sterna hirundo)*

It nests in colonies that it established in Slovakia mostly on small islands in ponds or other water dams, often together with the black-headed gull. Individual pairs irregularly nest on floating islands, piles of dung, etc. The numbers of the colony vary strongly on the water surface level, status of plants on the islands, and other factors. The main danger for the nesting locations of the common tern is excessive variation of water level, leading either to flooding of nesting locations or making it accessible to ground predators, especially fox and boars. If a colony is disturbed in a

cold and rainy weather, a large number of small birds may die. Gradual deterioration of the nesting island or excessive growth of tall vegetation contribute to decay and/or abandoning of nesting locations; islands with sharp stones are unsuitable.
They feed mostly on small fish, occasionally on crustaceans, insects, and fish waste. They are strongly bound to water environment. The common tern is strictly migrating. Immediately after leaving the nests, they spread in all directions up to 160 km away.
The assessment of the condition of the species from the point of view of protection pursuant to Article 12 of the directive 2009/147/EC - favourable (FV).
They nest in colonies on islands and small islands without vegetation or with just low vegetation, originally mostly on gravel benches. At present, it only nests in the CHVÚ on secondary habitats on the Hrušov dam. The nesting habitat will not be influenced by the impact, the food habitat will.

Common Kingfisher *(Alcedo atthis)*

For most of the year, the common kingfisher lives alone and is strictly territorial. It lives in the vicinity of slowly-flowing clear waters rich in fish. This is why common kingfishers can serve as bioindicators of clear water. Most frequently, they inhabit rivers, brooks, ponds, lakes, dams, and wetlands. The feed mostly on smaller fish that they hunt by head-down attack under water; to a small extent, they also eat water insects and amphibians.
In Slovakia, partially regular and partially moving birds, mostly migratory. Most migratory birds are young birds.
The assessment of the condition of the species from the point of view of protection pursuant to Article 12 of the directive 2009/147/EC - less favourable (U1).
In CHVÚ Dunajské luhy, they nest diffusely but substantially throughout the territory.

Little Egret *(Egretta garzetta)*

During nesting, it inhabits mostly reed with bushes and trees, alluvial forests, swamps and ponds; recently, it is becoming increasingly frequent in substitute habitats such as rice fields. It uses fields and meadows to collect feed. It moves around rivers and in areas with many ponds and wetlands.
When feeding, it usually slowly walks in shallow water and grabs the feed by speedy use of its long neck. It can collect feed from up to 40 cm in depth; this environment is not accessible to other egrets. Mostly migratory bird but partially only moving.
The assessment of the condition of the species from the point of view of protection pursuant to Article 12 of the directive 2009/147/EC - unknown (xx).
In the part of the CHVÚ affected by the construction of the D4 highway, the little egret has nested in the past (in the first half of the 20th century in the cadastral area of Podunajské Biskupice). During the 20th century, the number of nesting colonies of the little egret decreased on the Slovak-Hungarian segment of the Danube; at present, a single nesting locations close to the municipality of Moča exists. At present (2000 - 2009), the decreasing population trend has stopped, and since 2010 significant population growth has been recorded. Little egret occurs in several parts of the CHVÚ each year, especially in the summer months.

Common Goldeneye *(Bucephala clangula)*

Common Pochard *(Aythya ferina)*

Tufted Duck *(Aythya fuligula)*

Smew *(Mergus albellus)*

These species either winter in the territory of the CHVÚ in larger numbers or they stop by during migration In any case, they are bound to the water environment where they seek for feed directly in water or in its immediate surroundings.
The assessment of the condition of the species from the point of view of protection pursuant to Article 12 of the directive 2009/147/EC: Common Goldeneye - favorable (FV), Common Pochard - less favorable (U1), Tufted Duck - favorable (FV), Smew - unknown (xx)

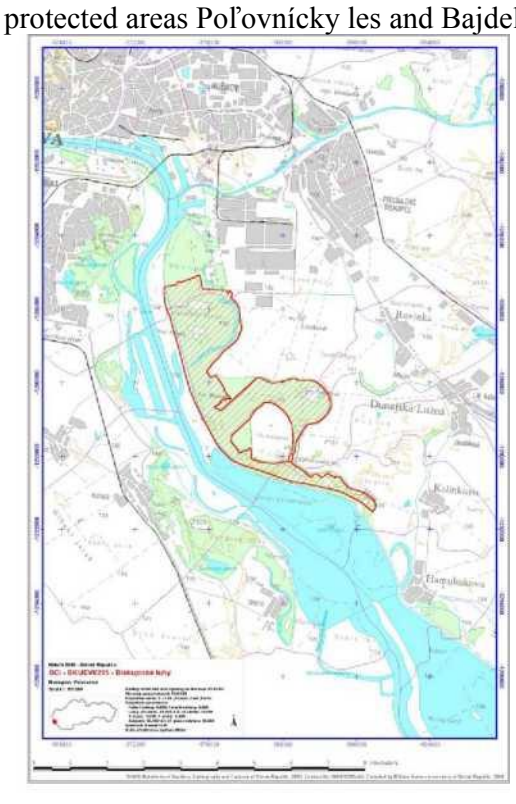
The migration of water species of birds forming groups during the migration or wintering
V In a wider territory of the proposed activities, all 41 species listed in Annex 1 to the Regulation no. 440/2008 Coll. were recorded. Presence of 32 of these species was observed directly on water surfaces crossed by the route of the proposed activity.

The numbers of the groups of migratory water birds strongly varies depending on period of the year, weather, hydrological situation, and disturbance. In the monitored area, 36 water-bound birds have been identified in the winter period (October - March); the current number of species varies between 12 and 22 in individual months; the total number ranged from 449 to 2978 individuals.

All of the above bird species will be included in further - detailed - impact assessment (Chapter IV.2).

III.2.2. ÚEV Biskupické luhy

The territory established by the Decree of the Ministry of Environment of the Slovak Republic No. 3/2004-5.1 of 14 July 2004 setting the national list of the territories of the European importance.
The area of the territory is 916.345 hectares. It is located in the territory of the Bratislava II district in cadastral areas of Ružinov and Podunajské Biskupice and in the Senec district, cadastral areas of Kalinkovo and Nové Košariská.
It is thus located on the left bank of the Danube, southwards from the Slovnaft Bratislava area, to the west from the municipalities of Rovinka and Dunajská Lužná. It includes the territories of natural reserves Gajc, Kopáčsky ostrov, Topoľové hony, natural monument Panský diel, and protected areas Poľovnícky les and Bajdeľ.



The Characteristics of the ÚEV

In addition to the typical inundated forests, the subject of protection are also the Carpathian and Pannonian oak and hornbeam forests, thermophilic Pannonian oak forests, natural eutrophic and mesotrophic dead waters, xerothermic grass and herbaceous as well as shrubby stands on calcareous subsoil. The contrast of very wet and very dry habitats on rather small area is the precondition for a huge variety of species of plants and animals with the occurrence of many rare and endangered species.
The Protected Territory of the European Importance (ÚEV) Biskupické luhy was declared for the purpose of the protection of the following subjects of protection:

Biotop (* označuje prioritný biotop)

Habitat (* identifying priority habitats)
3150 Natural eutrophic and mesotrophic dead waters with the vegetation of floating and/or immersed vascular plants of Magnopotamion or Hydrocharition species
6210 Xerophilous grass and herb bushy stands on lime subsoil (*important sites of Orchideaceae)
91F0 Inundated oak-elm-ash forests alongside lowland rivers
91G0* Carpathians and Pannonian oak-hornbeam forests
91H0* Thermophilic Pannonian oak forests

Species (* designates priority species)
Great Capricorn Beetle (Cerambyx cerdo), Stag Beetle (Lucanus cervus), White-finned Gudgeon (Cottus gobio), Danube Ruffe (Gymnocephalus baloni), Kessler's Gudgeon (Gobio kessleri), European Fire-bellied Toad (Bombina bombina) and Eurasian Beaver (Castor fiber).
Mehelyi's Root Vole* *(Microtus oeconomus mehelyi)*

Characteristics of the Affected Parts of the ÚEV Bratislavské luhy

The intention passes through the ÚEV to the South of Kopáčsky ostrov natural reserve in both variants. The route crosses the entire territory of ÚEV via floodplain forests in both variants. In variant 1, in the entire part of the crossing on a system of bridges with 4 m high bilateral noise walls.

The variant 2 crosses the territory some 650 m south from variant 1 and the bridge ends approximately 200 m before the border of the Biskupické luhy ÚEV. The last 200 m is then on a filling. Noise and glare reduction walls for variant 2 are designed for the entire length of the crossing of the ÚEV (in km 2.900 - 7.500 on the right and in km 2.900 - 5.800 on the left). However, their height is just 2 m.

Variant 1

The area taken within the ÚEV is 3.16 ha, or 0.34 % of the total area of the ÚEV. Variant 2
The area taken within the ÚEV is 3.96 ha, or 0.46% of the total area of the ÚEV.

The objectives of protection shall be or may be affected by the intention through the following impacts: taking of habitats, noise and light disturbance, disturbance by increased movement of persons specially on the left-bank cycling route and in forests, collisions with vehicles, pollution of environment.

The Concerned Subjects of Protection

V The following habitats with European significance that are protected within the ÚEV Biskupické Luhy (WellConsulting, 2013) are located in the vicinity of the intention:

Habitat 91F0 Inundated oak-elm-ash forests alongside lowland rivers
Inundated forests formed by oak, ash, and alder (hardwood inundated forests) in higher and relatively drier positions of lowland flats with less frequent and shorter surface flooding. Soils vary from typologically undeveloped flatland and gleysated to brown, rich in nutrition. The bush layer is well developed and rich in species. The herbs include nitrophilous, mesophilic and hygrophilous species with a strong spring aspect.
Habitat 91F0 is protected in a total of 55 ÚEV in Slovakia. Evaluation of the condition of the habitat from the protection aspect in the Pannonian region - unfavourable (U2).
According to SOPSK data, this habitat forms 504 hectares of the ÚEV Biskupické luhy, or approximately 55% of the area of the ÚEV. Habitat 91F0 is in the taking zone of both variants of the intention. It will be directly affected.
Habitat 6210 Xerophilous grass and herb bushy stands on lime subsoil (*important sites of Orchideaceae)
The vegetation is formed by grass and herb communities with prevailing thermophilic types of grasses, sedges, annual, biennial, and multiannual herbs, with spring participation of flowering ephemeral species. The space between scraggles is filled by vine bushes and semi-bushes. The representation of orchideaceae is also significant. These communities are usually located in sun inclinations, usually on soils with medium to big depth, on basic, and less frequently also on minerally poor floors, especially on Cretaceous sediments but also on Paleogene and Neogene

sediments and loess.
Habitat 6210 is protected in a total of 128 ÚEV in Slovakia. Evaluation of the condition of the habitat from the protection aspect in the Pannonian region - unknown (xx).
According to SOPSK data, this habitat forms 91.63 hectares of the ÚEV Biskupické luhy, or less than 10% of the area of the ÚEV. This habitat is located in a relatively large distance from both variants of the intention. However, due to the sensitivity of the sites to emissions (especially NOx), it is necessary to assess the impact of the intention. The closest locations are approx. 600 m from variant 1 and 1 km from variant 2.

Habitat 3150 Natural eutrophic and mesotrophic dead waters with the vegetation of floating and/or immersed vascular plants of Magnopotamion or Hydrocharition type
The habitat is formed by water plants. These may consist of a single level of submerged plants that are connected to the bottom or freely float in water. Also, they can be formed by species rooted in the bottom with leaves on the surface of water, such as water lilies and pond lilies, and small seed plants with reduced root systems that float on the surface of water, such as duckweed and pteridophytes such as floating watermoss. A number of submerged species may temporarily rise leaves and reproductive organs above the level, such as Utricularia australis (bladderwort). The plants populate waters that are rich or medium rich in nutrition. These are natural or semi-natural dead, periodically flowing, or slowly flowing waters, such as dead arms of rivers, alluvial wetlands, as well as artificial dams (ponds, water dams, material ditches, old mines) and channels in the lowland and upland levels. Vegetation types correspond to local ecological conditions, especially to water transparency and depth, usually up to 2.5 metres in our conditions.
Habitat 3150 is protected in a total of 68 ÚEV in Slovakia. Evaluation of the condition of the habitat from the protection aspect in the Pannonian region - less favourable (U1).
According to SOPSK data, this habitat forms 9.16 hectares of the ÚEV Biskupické luhy, or less than 1% of the area of the ÚEV. Habitat 3150 is in the taking zone of variant 1 of the intention. In case of variant 2, it will not be affected.

Habitat 91G0* Carpathians and Pannonian oak-hornbeam forests
These are forests influenced by the Pannonian area in lowlands and uplands, on fluvial deposits covered by loess loam and in wider bottoms of folds. The verdures are formed mostly by oak, in uplands also by the mountain oak and common hornbeam. Soils are deeper, with good supply of nutritients brought by water from higher positions. The structure of these forests is often damaged due to the sprout system. In undamaged forests, a well-developed bush layer is typical. The lower layer is usually rich in species, formed mostly by thermophilic oak-preferring species and species with medium nutrition demands, with prevailing grass. They differ from the oak-hornbeam Carpathian forests mostly by the absence of the red beech and sedge, as well as by higher representation of certain thermophilic Pannonian species.
Habitat 91G0 is protected in a total of 65 ÚEV in Slovakia. Evaluation of the condition of the habitat from the protection aspect in the Pannonian region - less favourable (U1).
According to SOPSK data, this habitat forms 27.5 hectares of the ÚEV Biskupické luhy, or approx. 3% of the area of the ÚEV. Habitat 91G0 is in the taking zone of variant 2 of the intention. In case of variant 1, it will not be affected.*

Habitat 91H0* Thermophilic Pannonian oak forests
The habitat is formed by the driest oak forests located on sunny sites in warm and dry areas, mostly on limestone and volcanic floors. They cover more extreme reliefs with a high share of stony material and flat soils. Typically, they are loose structures of the downy oak and thermophilic bushes. In higher and colder positions, mountain oak is more significant. The habitat often forms a complex with dry bush (40A0*) and dry grass-and-herb (6190, 6210, 6240*, 6250*) communities, sometimes transferring to pioneering and rock communities (6110*, 8160*).
Habitat 91H0 is protected in a total of 69 ÚEV in Slovakia. Evaluation of the condition of the habitat from the protection aspect in the Pannonian region - favourable (FV).

According to SOPSK data, this habitat forms 0.92 hectares of the ÚEV Biskupické luhy, or approx. 0.1% of the area of the ÚEV. The habitat is not located in the vicinity of any of the variants of the intention. It will not be affected by the intention.

Stag beetle *(Lucanus cervus)*
Stag beetle, the largest European beetle, resides in oak forests and mixed forests and enters even suitable city parks. It prefers warm lowland forests but sometimes also enters higher positions.
Females lay eggs in rotting trunks, beams, and stumps, development takes several years in the Slovak conditions (3 - 5 years), larvae feed on rotting wood. Adult beetles usually incubate already in autumn and spend the winter in chrysalis chambers; they appear in nature from May (exceptionally, in warm years, from the end of April) until August, with maximum in June and July. During the day, beetles can be found on trunks and in treetops, in late afternoons and in evenings (if it is warm), they fly around in treetops. Adults feed by the leaves of oaks, males are attracted by the flowing sap.
This species benefits from selection forests with groups of old broad leaf trees left by. The minimum care conditions then are: leaving of stumps, reduction of glade areas, no ploughing of glade areas, and preference of natural renewal.
The assessment of the condition of the species from the point of view of protection pursuant to Article 17 of the directive 92/43/EEC - favourable (FV).
This species (larvae and adults) may appear in the entire trajectory of the crossing of ÚEV Biskupické luhy, in both variants. Forests with suitable composition of species are present there.

Great capricorn beetle *(Cerambyx cerdo)*
The great capricorn beetle develops especially in oak, and rarely in elm and walnut; ash and willow are also mentioned and horse chestnut in Southern Europe. It prefers sun-covered trees on sides of forests, in alleys, sunny forests on inclinations and solitaire trees on meadows and pastures (exceptionally in urbanized areas). It attacks usually older live trees; development takes place under the bark and later in the wood of trunks and strong branches in the treetops. The development takes 3-5 years. In nature, adult beetles appear from the end of May until August, with maximum presence from mid-June to end of July. Beetles are active in evenings and an night; they usually spend days hidden or in treetops.
The assessment of the condition of the species from the point of view of protection pursuant to Article 17 of the directive 92/43/EEC - unknown (xx).
This species (larvae and adults) may appear in the entire trajectory of the crossing of ÚEV Biskupické luhy, in both variants. Forests with suitable composition of species are present there.

Bullhead (Cottus gobio)
It lives in faster-flowing flows with clear, oxygen-rich water. Usually, they are mountain brooks and rivers, small spring brooks with a small inclination. It climbs higher than the trout. It requires stony or gravel-and-sand bottom as it likes hiding under stones. The bullhead is very sensitive on flow pollution and sufficience of oxygen in water and is also endangered especially by destroying the inhabited habitats. They can be influenced by predatory pressure, especially by salmonoid fish such as the common trout (Salmo trutta), that are grown in extensive quantities.
The assessment of the condition of the species from the point of view of protection in the Pannonian region pursuant to Article 17 of the directive 92/43/EC - less favourable (U1).
The species is not present in the ÚEV Biskupické luhy in the locations taken by any of the variants.
V *At present it is not present even in the wider surroundings of the intention that can be influenced by the impacts of the intention (Biskupické Danube arm).*

Kessler's gudgeon *(Gobio kessleri)*
The Kessler's gudgeon inhabits shallow flows with a stone-and-gravel substrate. However, it does not fancy very strong flows. It is a short-lived species and its biology is not known yet. It stays close to the bottom in small flocks. It feeds on small water invertebrates and frustules. Due to the permanently reducing numbers and loss of locations in Eastern Europe and in Slovakia where it

used to be abundant, the Kessler's gudgeon is currently a very endangered species, especially due to the very limited area of presence.
The assessment of the condition of the species from the point of view of protection pursuant to Article 17 of the directive 92/43/EEC - unknown (xx).
The species is not present in the ÚEV Biskupické luhy in the locations taken by any of the variants.
V *At present it is not present even in the wider surroundings of the intention that can be influenced by the impacts of the intention (Biskupické Danube arm).*

Danube Ruffe *(Gymnocephalus baloni)*
The Danube ruffe lives in flocks especially in deeper flowing waters of the main basins of rivers, in deep shades under influxes of inflows and in shades under water gates. It prefers sandy or stony firm substrate. The species is a typical bentophage, looking for feed in strongly flowing sections with gravel bottoms. It has a relatively wide feed spectrum with dominant larvae and chrysalis of midges, larvae of sedgeflies, and larger crustaceans. Reproduction takes place in flows on gravel bottoms.
The assessment of the condition of the species from the point of view of protection pursuant to Article 17 of the directive 92/43/EEC - unknown (xx).
The species is not present in the ÚEV Biskupické luhy in the locations taken by any of the variants.
V *At present it is not present even in the wider surroundings of the intention that can be influenced by the impacts of the intention (Biskupické Danube arm).*

European Fire-bellied Toad *(Bombina bombina)*
The typical habitats of this species are shallow dead waters with soft-leave vegetation in well sun-covered locations (Baruš et al., 1992): shore areas of ponds, shades. It also inhabits periodical basins. It spends most of the year in water where in mates and lays eggs, usually in several layers depending on rain (from April until August).
Toads are significantly endangered by country-shaping changes - unification of agricultural land, modification of ponds for agricultural and recreation purposes (i.e. deepening of water and removal of bank vegetation, meliorations of wetlands, change of meadows to fields, de-watering of meadows and forests, regulation of brooks and piping of small water flows, filling of lakes in mines and sand mines by municipal waste, melioration, chemicals in agriculture and similar negative influences.
The assessment of the condition of the species from the point of view of protection in the Pannonian region pursuant to Article 17 of the directive 92/43/EC - less favourable (U1).
Toads may occasionally appear throughout the entire route through ÚEV Biskupické luhy, in both variants.

European Beaver *(Castor fiber)*
Most frequently, it inhabits flows with well-developed bank verdures of willows and poplar. It prefers slowly flowing to dead waters with a sufficient depth and limited surface variation (ponds, larger disconnected river arms, mill raceways with stable water level, dams over gates, lakes from gravel and sand mining).
Beaver is a herbivore, consuming mostly young branches of trees (poplar, willow, ash, alder). Cutting of trees is most intense in autumn and winter months. When cutting, it prefers trees with a diameter up to 20 cm. In the summer, the main component of its feed is herbs.
Beavers live in pairs, usually together with two generations of young animals that defend their territories (on water flows, they range from several hundred metres (800 m) up to around 2 km). On regulated flows, it can be even more. Sunset and night activities prevail.
The assessment of the condition of the species from the point of view of protection pursuant to Article 17 of the directive 92/43/EEC - favourable (FV).
The presence of the territories of the beaver in the area of the intention was documented by residence signs alongside the Biskupické Danube arm, partially in the space permanently taken by the structure. Occurrence in parts of forest further away from water is not probable. It leaves water surfaces for a distance of no more than several dozen of metres (20 m being the most

frequently stated value).

Mehelyi's Root Vole *(Microtus oeconomus mehelyi)*
In the territory of Slovakia, the species inhabits wetland habitats situated in bank and litoral parts of swamps, cut meanders, lowland rivers, lakes, etc. It prefers sites with a regular water regime (stable subsurface water level, regular flooding) and consistent coverage by water-requiring vegetation, mostly sedge (Carex sp.), creating elevated formations - bults - in the water-logged terrain.
In the territory of Slovakia, Mehelyi's root vole is only spread in the southern part of the Danubian Flatland. Latest research has discovered residual populations also in the most southern part of the Hron uplands. The existence of the prevailing majority of locations depends on the hydrological conditions in the Danube.
The assessment of the condition of the species from the point of view of protection pursuant to Article 17 of the directive 92/43/EEC - unfavourable (U2).
Suitable wetland areas with a high level of subsurface water are located in the ÚEV around the Biskupické Danube arm.

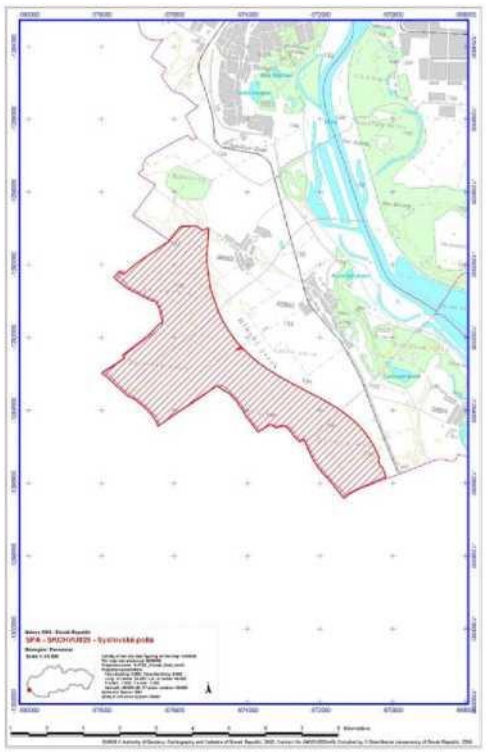
Table 6: Potential influencing of the protected objects of luhy by the intention:

Slovak name	Possible influence by the	Justification
3150 - Natural eutrophic and mesotrophic dead waters with the vegetation of floating and/or immersed vascular plants of Magnopotamion or Hydrocharition type	Yes	habitat taking
6210 - Xerophilous grass and herb bushy stands on lime subsoil	Yes	habitat taking
91F0 - Inundated oak-elm-ash forests lowland rivers	Yes	habitat taking

91G0* - Carpathians and Pannonian oak-hornbeam forests	Yes	habitat taking
91H0* - Thermophilic Pannonian oak forests	No	sufficient distance from the intention
Bullhead (Cottus gobio)	No	sufficient distance from the intention
European Fire-bellied Toad (Bombina	Yes	influencing of the habitat
Stag beetle (Lucanus cervus)	Yes	influencing of the habitat
Great capricorn beetle (Cerambyx cerdo)	Yes	influencing of the habitat
Kessler's Gudgeon (Gobio kesslerí)	No	sufficient distance from the intention
Danube Ruffe (Gymnocephalus baloni)	No	sufficient distance from the intention
European Beaver (Castor fiber)	Yes	habitat taken, disturbance
Mehelyi's Root Vole* (Microtus oeconomus	Yes	disturbance

III.2.3. CHVÚ Sysľovské polia

Characteristics of protected avian territory



The Sysľovské polia protected avian territory was declared by a Regulation of the Ministry of Environment of the Slovak Republic no. 234/2006 Coll. as amended, with an area of 1772.94 ha. The territory is located in the Bratislava V district.

The territory is a Pannonian lowland type, represented mostly by agrocenoses and thin stripes of windbreaks and bushes, usually secondary xerothermal and/or semi-xerothermal grass and herb communities rich in species on the loess and deposits of the Danube River. The tufty grass species and the closed vegetation cover determine the appearance of the habitat resembling the grass communities on fallow land. The prevailing part of the territory is however agriculturally intensively utilised – the target crops are mainly the cultures of cereals, the growth of Alfalfa, sunflower and rape kale. The windbreak belts and shrubs are formed in particular by Black Locust, Tree of Heaven, Field Maple, Wild Pear tree and Elder.

From the European viewpoint, the Sysľovské polia protected avian territory performs an important role of a wintering location for approximately 10% of the Central European population of great bustard; more than 1% of the Central European populations of geese also regularly spend winters in the territory. The survival of the great bustard in Slovakia is directly linked to creation of protection conditions for this territory that is an important historical reproduction location therefor. The regular winter occurrence of a relatively large number of more than 160 - 200 bustards documents the significance of the territory.

The territory is also the last regular nesting location of bustard and of the red-footed falcon (Falco vespertinus) in Slovakia. The location has seen nesting of other precious steppe species, especially saker falcon (Falco cherrug) and hen harrier (Circus cyaneus).

Table 7: In the Protected Avian Territory (CHVÚ), the following bird species are the subject of protection:

Slovak Name	Latin Name	Supposed nesting		no. of pairs	Count of individuals wintering in the CHVÚ	Count of individuals wintering in the SR
		in the CHVÚ	in the SR	in the EU (thou.)		
Great Bustard	*Otis tarda*	3-5	10	31 - 36	100	150 - 200
Greater White-fronted Goose	*Anser anbifrons*	0	0	62 - 72	1500	3700 - 4600
Taiga Bean Goose	*Anser fabalis*	0	0	140	2500	2500
falcon red-footed	*Falco vespertinus*	5 - 20	5 - 20	26 - 39	0	0

Characteristics of the Affected Parts of CHVÚ Sysľovské polia

None of the variants directly intervene with the CHVÚ. The commencement of the intention is placed to the existing Jarovce intersection, i.e. ca 20 m from the North boundary of the CHVÚ. Variants 1 and 2 are identically routed in these section. From the Jarovce interchange, the E58 road already follows to Austria at present, in immediate vicinity of the northern border of CHVÚ Sysľovské polia.

The protection objects will be affected by the intention during movements outside the CHVÚ (collisions with vehicles) and by other impacts (disturbance by noise, light, pollution by absorbed emissions). Also, the impacts of the already existing traffic structures (D2) must be summarized with the intention and then considered.

Objects Affected protected

Great Bustard (Otis tarda)

Published data show a dramatic drop of the numbers in our territory. In 1890-1900, the estimated number of individuals 2400; in 1956, it was 1165, and in 1973, only 410 to 693 individuals. After 1975, population has been significantly broken down to flocks with small numbers of members and regular summer presence was limited to the territory of the Danubian Flatlands. During migration period, it was seen in Borská lowlands, Danubian Flatlands, Trnava and Hron uplands. Flyovers over the assessed intention are thus possible.

The originally steppe species inhabits cultural steppes in Slovakia in lowlands and uplands with elevations of up to 300 m without consistent forests and significantly rugged terrain. Its current nesting environment includes open areas of agricultural single-plant fields; yet this habitat is only substituting and does not suit the bird in a long term. It nests on the soil, usually in crop plants and clovers.

The lekking period takes usually place in April, extending potentially up to the beginning of June. Inseminated females fly from the lekking location to a distance of several kilometres. Sometimes, they only leave for 50 - 100 metres, yet often they fly much further, sometimes even 5 or 10 km. For winter, they unite to flocks, males separately from females with this year's young animals. If the environment provides sufficient feed, they don't migrate; otherwise, they fly for distances of many kilometres (Škorpíková, 2008).

The assessment of the condition of the species from the point of view of protection pursuant to Article 12 of the directive 2009/147/EC - unfavourable (U2).

The Sysľovské polia CHVÚ is the last regular nesting location of the great bustard in Slovakia, with up to 5 nesting females. Nesting takes place more in the part of the CHVÚ that is closer to the border with Austria and Hungary. Most of the nesting population occur in the neighbouring territories in Austria and Hungary (AT1125129 Parndorfer Platte - Heideboden a HUFH10004

Mosoni-sík). The Sysľovské polia CHVÚ is a significant winter location for the species.

Bean Goose *(Anas fabalis)*
It nests in the north of Europe and Asia in the taiga and tundra zone. Its nests are located on the ground, immediately next to water. In nesting locations, it feeds on grass and water plants, during migration and in winter locations with grasses also on clover, winter crops, etc.; it feeds on free open areas.
The locations of stops require larger water areas where geese spend nights, bathe and drink in the afternoon, and pasture must be within reach from morning and afternoon flyings - whether seeds on trees or grass on pastures - and it must be visibly safe. Up to ten thousand of geese then concentrate in such locations. Migratory and winter concentration points are traditionally the same. Geese fly from each other, led by experienced individuals, in phases long up to several dozens of kilometres.
Population trend in the EU - stable. The assessment of the condition of the species from the point of view of protection pursuant to Article 12 of the directive 2009/147/EC - unfavourable (U2).
Around 2500 individuals regularly spend winters in the Sysľovské polia CHVÚ.

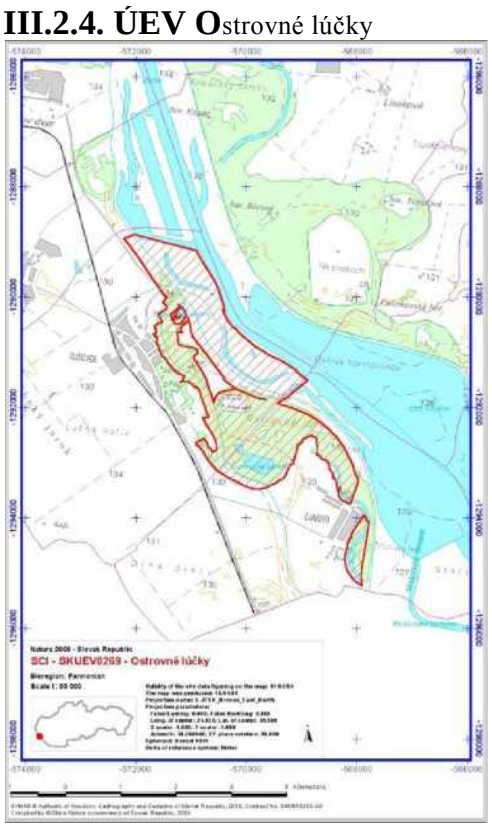
Greater White-fronted Goose *(Anas albifrons)*
It nests in tundra in fast north-east of Asia (ssp. albifrons) and in Greenland (ssp. flavirostris), winters in Western, Central, and South-Eastern Europe. The greater white-fronted goose is a migratory bird, arriving from nesting locations in the beginning of April and departing in October to December. It spends winters in the south
- at the Caspian and Black Sea, in the Danube Flatland, or at the North Sea.
Population trend in the EU - large growth. The assessment of the condition of the species from the point of view of protection pursuant to Article 12 of the directive 2009/147/EC - favourable (FV).
Around 2000 individuals regularly spend winters in the Sysľovské polia CHVÚ.

Red-footed falcon *(Falco vespertinus)*
As the red-footed falcon usually nests in colonies, it is more or less bound to the occurrence of nesting colonies of rooks *(Corvus frugilegus)*. However, this characteristic is gradually disappearing and currently, it nests separately, with pairs taking the nests of crows (Corvus corone) or magpies (Pica pica). Nesting colonies formed by dozens of pairs have ceased to existing in Slovakia at the end of the 1970s. The last smaller colony of red-footed falcons has nested in year 1981 nearby Strážne during the monitoring period of 1980 - 1999.
In the entire territory of western Slovakia, a continuously decreasing population trend can be seen. The total nesting population in the period of years 1995 - 2000 in the territory of western Slovakia was estimated to 50 - 70 pairs. During migration (spring arrival and out-of-nest trips), they appear practically in the entire territory of Slovakia, with the exception of continuous forests and elevated positions.
In western Slovakia, it inhabits open agricultural country, the most typical nesting habitat of this species. Nesting environments are most frequently formed by windbreaks, small tree lines, solitary trees and higher bushes with sufficient number of free nests of magpies but also crows. In locations with insufficient number of natural nests, they like populating artificial nests as well.
The population trend in Slovakia - fluctuating/significant decrease, the population trend in the EU - large decrease.
The assessment of the condition of the species from the point of view of protection pursuant to Article 12 of the directive 2009/147/EC - unfavourable (U2).
The Sysľovské polia CHVÚ is the last regular nesting area of the red-footed falcon (Falco vespertinus) in Slovakia, ranging from 0 to 5 pairs.

Table 8: Potential influence of protected objects in CHVÚ Sysľovské polia by the intention (summary)

Slovak name	Possible influence by the	Justification
Great Bustard	Yes	disturbance, collisions with traffic on the intention
Greater White-fronted Goose	Yes	disturbance, collisions with traffic on the intention
Taiga Bean Goose	Yes	disturbance, collisions with traffic on the intention
Red-footed Falcon	Yes	disturbance, collisions with traffic on the intention

III.2.4. ÚEV Ostrovné lúčky



Territory established by Decree of the Ministry of Environment of the Slovak Republic No. 3/2004-5.1 of 14 July 2004 setting the national list of the territories of European importance.

It is located in the territory of the Bratislava district V, in the cadastral areas of Čunovo and Rusovce.

The Characteristics of the ÚEV

The territory of the European importance Ostrovné lúčky includes the preserved fragments of the originally vast inundated forests alongside the Danube River, located at its right bank in the proximity of Rusovce and Čunovo.

The habitats of softwood and hardwood inundated forest, still water and river branches rotate here on a rather small area - in a sharp contrast with very rare xerophilous grassy communities. Such dry places are located on the places with massive gravel alluvia reaching high above the level of ground water.

The Territory of the European Importance (ÚEV) Ostrovné lúčky was declared for the purpose of the protection of the following subjects of protection:

Habitats (* designates priority habitat)

91E0* Inundated willow-poplar and alder forests

3150 - Natural eutrophic and mesotrophic dead waters with the vegetation of floating and/or immersed vascular plants of Magnopotamion or Hydrocharition type

6210 Xerophilous grass and herb bushy stands on lime subsoil (*important sites of Orchideaceae)

91F0 Inundated oak-elm-ash forests alongside lowland rivers Species

Red Flat Bark Beetle (Cucujus cinaberinus) Dragonfly (Leucorrhinia pectoralis)

Stag beetle (Lucanus cervus)

Great capricorn beetle (Cerambyx cerdo)

Kessler's Gudgeon (Gobio kesslerí)

White-finned gudgeon (Gobio albipinnatus)

Bullhead (Cottus gobio)

Danube Ruffe (Gymnocephalus baloni)

Streber (Zingel streber)

Amur Bitterling (Rhodeus sericeus amarus)

European Fire-bellied Toad (Bombina bombina)

Danube crested newt (Triturus dobrogicus)

Greater Mouse-eared Bat(Myotis myotis)

European Beaver (Castor fiber)

Characteristics of the Affected Parts of the ÚEV Ostrovné lúčky

The intention does not directly intervene with the ÚEV, it passes around it from the north. However, the location may be influenced by other impacts - increased absorbed emission and subsequent eutrofying, worsening of water quality, or disturbance or collisions with protected objects on the intention.

Variant 1

The variant 1 passes around ÚEV Ostrovné lúčky with closest distance being some 850 m.

Variant 2

The variant 2 passes around ÚEV Ostrovné lúčky with closest distance being some 140 m.

The Concerned Subjects of Protection

Habitat 91E0* Inundated willow-poplar and alder forests

The habitat includes natural forests existing immediately at flows from lowlands up to mountain springs. The habitat is characteristic for regular flooding by surface water or wetting by subsurface water. In the alluvia of larger lowland rivers, willow and poplar forests (Ls1.1) occur, the so-called softwood inundated forests, with the name derived from the soft wood of poplars and willows as the characteristic trees of this habitat. Species surviving permanent or temporary wetting prevail in the lower layer.

The assessment of the condition of the species from the point of view of protection pursuant to Article 17 of the directive 92/43/EEC - unfavourable (U2).

This habitat is located in the part of the ÚEV closest to the intention. The habitat can be influences by the intention.

Habitat 91F0 Inundated oak-elm-ash forests alongside lowland rivers
See Chapter III.2.2 for the characteristics of the site.

This habitat is located in a sufficient distance (more than 500 metres from Variant 2, and 1.35 km from Variant 1). It will not be affected by the intention.

Habitat 6210 Xerophilous grass and herb bushy stands on lime subsoil (*important sites of Orchideaceae)
See Chapter III.2.2 for the characteristics of the site.
This habitat is located in a sufficient distance (more than 500 metres from Variant 2, and 1.35 km from Variant 1). It will not be affected by the intention. The considerations were mostly about NOX fallout due to the sensitivity of this habitat to eutrophizing.

Habitat 3150 Natural eutrophic and mesotrophic dead waters with the vegetation of floating and/or immersed vascular plants of Magnopotamion or Hydrocharition type
See Chapter III.2.2 for the characteristics of the site.

This habitat is located in a sufficient distance (more than 500 metres from Variant 2, and 1.2 km from Variant 1). The consideration related mostly to removal of waste waters from the intention. Load by absorbed emissions of NOx was excluded with regard to the naturally higher saprobity of the habitat. The habitat will not be affected by the intention.

Flat Bark Beetle (Cucujus cinnaberinus)
Larvae develop in rotting wet, black-brown phloem under free bark of fallen or broken broad-leaf trees or in broken strong branches. The main host plants are beech, aspen, and poplar, oak, and other broad-leaf trees.
The survival of the population of flat bark beetle requires the provision of continuous substrate suitable for the development of the species, i.e. to leave the highest possible number of old trees and old wood in natural decay on site. Harvesting is not excluded, but less severe methods of harvest are suitable.
The assessment of the condition of the species from the point of view of protection pursuant to Article 17 of the directive 92/43/EEC - unknown (XX).
The habitat of this kind in the territory of the ÚEV will not be directly affected by the intention, but its quality may be influenced (emissions). The influence on the species must therefore be assessed.

Dragonfly (Leucorrhinia pectoralis)
The typical habitat of the species in Central Europe are smaller, warm dead waters with little nutrients (almost mesotrophic), with high vegetation coverage. The species prefers moorland (peatland) water habitats (sphagnophilic species). Presence is documented also in flooded sand mines, gravel mines, and ponds with an eutrophic nature. The type of vegetation and low pH give the locations a moor nature.
The species spectre and the characteristics of macrophyte vegetation are very rich; however, it does not like vegetations with lots of reed and bulrush. At least a part of the water surface must be clear; sufficient sunshine and stable level of water are also important.
The assessment of the condition of the species from the point of view of protection in the Pannonian region pursuant to Article 17 of the directive 92/43/EC - less favourable (U1).
The main habitat of this species in the territory of the ÚEV will not be affected by the intention directly nor indirectly. A suitable habitat of this species (a blind arm) is located at least 400 m from the intention. It is thus unnecessary to assess the impact on the species any further.

Stag beetle (Lucanus cervus)
See Chapter III.2.2 for the characteristics of the species.

The assessment of the condition of the species from the point of view of protection pursuant to Article 17 of the directive 92/43/EEC - favourable (FV).
The habitat of this kind in the territory of the ÚEV will not be directly affected by the intention, but its quality may be influenced (emissions). While the 91E0 habitat is not directly typical for stag beetles, threes (willows, poplars) for which it is mentioned are present here (Čížek, Bezděk, 2006). The influence on the species must therefore be assessed.*

Great capricorn beetle (Cerambyx cerdo)
See Chapter III.2.2 for the characteristics of the species.
The assessment of the condition of the species from the point of view of protection pursuant to Article 17 of the directive 92/43/EEC - unknown (XX).
The habitat of this kind in the territory of the ÚEV will not be directly affected by the intention, but its quality may be influenced. The influence on the species must therefore be assessed.

Streber (Zingel streber)

A reophilic bentic species, inhabiting stronger flows of rivers in sub-mountain zones and main flows of large lowland rivers. It prefers graven and stone bottoms. Similarly to the common zingel, it lies on the bottom where it digs holes. Similarly to the common zingel, it moves in jumps. This species is a typical bentophage.
The habitat of this species in the territory of the ÚEV will not be affected by the intention directly. Considering the size of the flow and the nature of the project, indirect influence on water quality and habitat quality lower in flow direction that could influence this species (turbidity, pollution of water) can also be excluded.

Amur Bitterling (Rhodeus sericeus amarus)

Amur bitterling inhabits mostly dead or slowly flowing waters, such as certain ponds, semi-flowing and dead arms, coves of rivers and irrigation channels, often in massive numbers (locally). It lives in flocks and feeds on green and fibrous algae, frustules, and vegetation detritus. The presence of ostracophilic amur bitterling is the presence of water conchiferi, as the amur lays eggs into the branchia cavity thereof. It is a short-lived fish living for five years only exceptionally. It can grow to a maximum of 10 centimetres.
The main habitat of this species in the territory of the ÚEV will not be affected by the intention directly nor indirectly. A suitable habitat of this species (a blind arm) is located at least 400 m from the intention. It is thus unnecessary to assess the impact on the species any further.

Bullhead (Cottus gobio)
See Chapter III.2.2 for the characteristics of the species.
The habitat of this species in the territory of the ÚEV will not be affected by the intention directly. Considering the size of the flow and the nature of the project, indirect influence on water quality and habitat quality lower in flow direction that could influence this species (turbidity, pollution of water) can also be excluded.

White-finned gudgeon (Gobio albipinnatus)

Deeper waters of larger flows in lowland areas, their smaller feeders with strong clay or sand bottom, less frequently in inundation waters.
The habitat of this species in the territory of the ÚEV will not be affected by the intention directly. Considering the size of the flow and the nature of the project, indirect influence on water quality and habitat quality lower in flow direction that could influence this species (turbidity, pollution of water) can also be excluded.

Kessler's gudgeon (Gobio kessleri)
See Chapter III.2.2 for the characteristics of the species.

The habitat of this species in the territory of the ÚEV will not be affected by the intention directly. Considering the size of the flow and the nature of the project, indirect influence on water quality and habitat quality lower in flow direction that could influence this species (turbidity, pollution of water) can also be excluded.

Danube Ruffe (Gymnocephalus baloni)
See Chapter III.2.2 for the characteristics of the species.
The habitat of this species in the territory of the ÚEV will not be affected by the intention directly. Considering the size of the flow and the nature of the project, indirect influence on water quality and habitat quality lower in flow direction that could influence this species (turbidity, pollution of water) can also be excluded.

European Fire-bellied Toad *(Bombina bombina)*
See Chapter III.2.2 for the characteristics of the species.

The main habitat of this species in the territory of the ÚEV will not be affected by the intention directly nor indirectly. It is thus unnecessary to assess the impact on the species any further. Protective measures in the territory of the site is necessary (see Chapter V).

Danube crested newt (Triturus dobrogicus)
Reproduction locations are in dead, deeper water basins, lakes, holes, channels, etc. Avoids waters with fish. It lives in forests but also in deforested land if it find sufficient locations to hide for a hidden way of terrestrial life in the surroundings of the reproduction location.
The main habitat of this species in the territory of the ÚEV will not be affected by the intention directly nor indirectly. The closes habitat suitable for the presence of newt in the territory of the ÚEV is located some 380 m from variant 2 (i.e. 1.1 km from variant 1). The location is separated from the intention by the Jarovecké arm. It is thus unnecessary to assess the impact on the species any further.

European Beaver (Castor fiber)
See Chapter III.2.2 for the characteristics of the species.

The assessment of the condition of the species from the point of view of protection pursuant to Article 17 of the directive 92/43/EEC - favourable (FV).
The habitat of this species in the territory of the ÚEV will not be affected by the intention directly nor indirectly. Also, the migration possibilities of the species will not be disturbed with regard to the parameters of the bridges in both variants. However, it shall be necessary to assess the indirect impacts with regards to the proximity of the intention in variant 2 (especially disturbance).

Greater Mouse-eared Bat (Myotis myotis)

Reproduction colonies are bound to attic premises, more rarely to underground premises; they spend winters in underground premises. The hunting regions are in various forests.
The assessment of the condition of the species from the point of view of protection in the Pannonian region pursuant to Article 17 of the directive 92/43/EC - less favourable (U1).
The habitat of the type (colonies nor hunting place) on the area of the Territory of the European Importance would not be directly affected by the implementation of the intention. However, it shall be necessary to assess other impacts with regards to the proximity of the intention in variant 2 (in hunting region and collisions with vehicles in the line of sight, disturbance).

The following table summarized the assessment that is detailed above, i.e. which objects could be influenced by the intention, rendering them subject to further assessment.

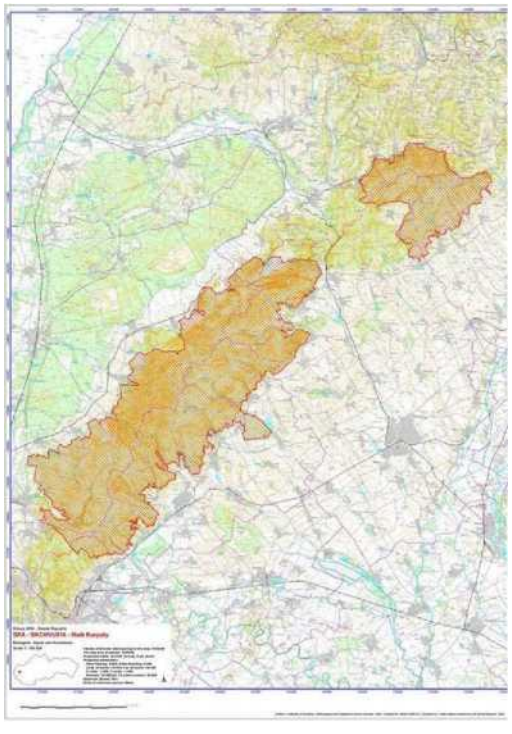
Table 9: **Potential influencing of the protected** objects of ÚEV

lúčky by the intention

Slovak name Ostrovné	**Possible influence by the intention**	(summary)**Justification**
91E0* - Inundated willow-poplar and	**Yes**	**possible indirect influence**
3150 - Natural eutrophic and mesotrophic dead waters with the vegetation of floating and/or immersed vascular plants of Magnopotamion or Hydrocharition	**No**	**sufficient distance from the intention**
6210 Xerophilous grass and herb bushy stands on lime subsoil (*important sites of Orchideaceae)	**No**	**sufficient distance from the intention**
91F0 - Inundated oak-elm-ash forests alongside lowland rivers	**No**	**sufficient distance from the intention**
Flat Bark Beetle (Cucujus	**Yes**	**influencing of the habitat**
Dragonfly (Leucorrhinia pectoralis)	**No**	**sufficient distance from the**
Stag beetle (Lucanus cervus)	**Yes**	**influencing of the habitat**

Great capricorn beetle (Cerambyx cerdo)	Yes	influencing of the habitat
Kessler's Gudgeon (Gobio kesslerí)	No	sufficient distance from the intention
White-finned gudgeon (Gobio	No	sufficient distance from the intention
Bullhead (Cottus gobio)	No	sufficient distance from the intention
Danube Ruffe (Gymnocephalus baloni)	No	sufficient distance from the intention
Streber (Zingel streber)	No	sufficient distance from the intention
Amur Bitterling (Rhodeus sericeus	No	sufficient distance from the intention
European Fire-bellied Toad (Bombina	No	sufficient distance from the intention
Danube crested newt (Triturus	No	sufficient distance from the intention
Greater Mouse-eared Bat(Myotis myotis)	Yes	possible accidents at the intention,
European Beaver (Castor fiber)	Yes (for Variant 2)	disturbance

III. 2.5. CHVÚ Lesser Carpathians



Characteristics of protected avian territory

The Dunajské luhy protected avian territory was declared by a regulation of the Ministry of Environment of the Slovak Republic no. 216/2005 Coll. as amended, with an area of 50 633.6 ha, located in the territory of districts Bratislava III, Bratislava IV, Malacky, Myjava, Pezinok, Piešťany, Senica, and Trnava.

In the CHVÚ Malé Karpaty, mainly forest habitats within the 1st vegetation (oak) to 4th vegetation level (beech) are abundant. The grassy and herbaceous growth as well as shrubby communities take not so large areas in the marginal parts of the territory and in the valleys of forest complexes. Also the parts of vineyards mainly at the foot of the East slopes of Pezinok Carpathians were included in the CHVÚ. A special habitat of birds is represented by numerous rock formations with rock walls in the mountain range of Pezinok Carpathians.

Table 10: In the Protected Avian Territory (CHVÚ), the following bird species are the subject of protection:

Slovak name	Latin name	Supposed count of nesting pairs1			Count of individuals wintering in the SR
		in CHVÚ[8]	in the SR	in the EU (thou.)	
Saker Falcon	*Falco cherug*	4	19 - 45	360 - 540	10 - 25
European Honey-	*Pernis apivorus*	40	900 - 1300	110 - 160	0
Middle Spotted Woodpecker	*Dendrocopos medius*	300	2500 - 4000	140 - 310	4000 - 10000
White-backed Woodpecker	*Dendrocopos leucotos*	60	1500 - 2500	180 - 550	3000 - 6000
Syrian Woodpecker	*Dendrocopos syriacus*	50	1500 - 2500	530 - 1100	2500 - 5000
Black Woodpecker	*Dryocopus martius*	60	1500 - 2500	740 - 1400	4500 - 6500
Eurasian Eagle-owl	*Bubo bubo*	13	300 - 400	19 - 38	700 - 1000
Black Stork	*Ciconia nigra*	6	400 - 600	7,8 - 12	0 - 2
European Nightjar	*Caprimulgus europaeus*	15	1000 - 2000	470 - 1000	0
Peregrine Falcon	*Falco peregrinus*	3	120 - 150	12 - 25	5 - 10
Collared Flycatcher	*Ficedula albicollis*	3900	70000 - 150000	1400 - 2400	0
Flycatcher Red-breasted	*Ficedula parva*	500	5000 - 10000	1200 - 10000	0
Red-backed Shrike	*Lanius collurio*	1400	65000 - 130000	6300 - 13000	0
Grey-headed	*Picus canus*	100	1500 -	180 - 320	3500 - 6000
Barred Warbler	*Sylvia nisoria*	250	3000 -	460 - 1000	0
Common Quail	*Coturnix coturnix*	50	2000 -	730 - 2400	0
Eurasian Wryneck	*Jynx torquilla*	400	2500 -	580 - 1300	0
Spotted Flycatcher	*Muscicapa striata*	1000	65000 - 150000	6000 - 19000	0
Common Redstart	*Phoenicurus phoenicurus*	600	10000 - 15000	6800 - 16000	0
Common Stonechat	*Caxicola torquata*	1000	30000 - 50000	2000 - 4600	0
European Turtle Dove	*Streptopelia turtur*	600	15000 - 30000	3500 - 7200	0
Eastern Imperial Eagle	*Aquila heliaca*	3	35 - 40	850 - 1400	20 - 50

The Malé Karpaty (Lesser Carpathians) protected avian territory was declared to provide for preservation of habitats of the above species and for their survival and reproduction.

Characteristics of the Affected Parts of CHVÚ Malé Karpaty

The intention assessed herein does not cross the CHVÚ Malé Karpaty; the smallest distance to which it approaches it is in the location of end of the intention (Ivanka - North intersection). This distance is 4.5 km. Variant 1 and 2 are identically routed on these places.

The objectives of protection shall be or may be affected by the intention through the following

[8] 2005 data

impacts: collisions with vehicles in the case of movement of birds outside the CHVÚ.
The other impacts, such as disturbance with noise and increase in the immission pollution of the territory was excluded with regards to the distance from the intention and it was confirmed also by independent studies (noise and immissions study - annexes F.7 and F.8 of the zoning and planning decision documentation).
The assessed intention is connected to the section of the D4 highway, structure Ivanka North, D4, BA Rača - Záhorská Bystrica, that enters the CHVÚ. However, the assessment of that structure is not the purpose of this Appropriate Assessment; it is contained in a separate document. Despite that, it is necessary to consider potential cumulative impacts of both intentions, especially in countryside fragmentation.

The Concerned Subjects of Protection
V The following part lists the basis ecological requirements of protected objects that formed the basis of assessment of their potential endangerment by the intention.

Saker falcon (Falco cherrug)
It inhabits the borders of broad-leaf and mixed forests neighbouring with open terrain in lowlands and uplands. It preys in open country on small and small-to-medium mammals and birds. In the past, it was locally bound in feed to marmot colonies during nesting. After 1945, a strong decrease occurred. Since the 1990s, it slowly started to re-populate the territories that it left.
According to Horák et al. (2006), the feed territory of saker falcons in southern Moravia reaches up to 10 km from its nest; most frequently, it is around 5 km.
The assessment of the condition of the species from the point of view of protection pursuant to Article 12 of the directive 2009/147/EC - unfavourable (U2).
The probability of flying over the intention is relatively high as it preys in open country and the feed territory of the pair nesting in the territory of ÚEV can reach to the intention.

European Honey-buzzard (Pernis apivorus)
A bird of prey with the size of a common buzzard. The honey-buzzard inhabits forests, more frequently in warmer areas. It requires the presence of open areas such as fields, meadows, and pastures. It feeds mostly on wasp larvae that it rips from ground nests. It is migratory, spending winter in the tropical areas of Africa.
According to Gamauf (1999) that monitored the population in Austria, most birds preyed within a 3 km circle around their nests; if feed was abundant, most sightings were within 1 km from the nest. The circuits of honey-buzzard in Central Europe cover as much as 4500 ha and may overlap, with males scouring other individuals of the same species within a circle of 500 m to 2000 m from the nest (Horák, Diviš, 2006).
The assessment of the condition of the species from the point of view of protection pursuant to Article 12 of the directive 2009/147/EC - unfavourable (U2).
European Honey-buzzard may get above the intention when searching for food. The probability is low.

Middle Spotted Woodpecker (Dendrocopos medius)
The nesting environment is broadleaved, to lesser extent also mixed forests in the lowlands or uplands. In majority of cases they are inundated forests or warm oak forests, sometimes also parks and gardens. The species distribution corresponds with the distribution of Hornbeam, the nesting environment in the mixed forests may include also the other four species - Beech, Elm, Maple and Spruce. However, in particular it is bound to old Oak forests, mainly in inundated forests. Its habitat requirements are specific and so that it could prosper, it needs relatively large areas of suitable stands (several tens of ha). Its food is mainly the insect collection.
The size of nesting region considerably varies - from 3.3 ha up to ca 25 ha. When feeding baby birds, the parents usually pick food in the closest proximity of the hollow, but also from the distance of 300 to 400 m (Horal, 2006).

With regards to the specific demands regarding the environment, its distribution is rather scattered. Recently, we record a moderate decrease in abundance, mainly at the West and North outskirts of the area. The reason of the phenomenon is probably the loss of a suitable environment due to the forest management.
The assessment of the condition of the species from the point of view of protection pursuant to Article 12 of the directive 2009/147/EC - favourable (FV).
The occurrence of the species may be rather excluded with regards to the habitat demands in the territory of the intention.

White-backed Woodpecker (Dendrocopos leucotos)
It inhabits broad-leaf and mixed forests, in Central Europe, mostly old beech forests in higher locations. The presence of rotting and/or dry trunks used to build nests, get feed, and vocalize, is important. The main danger for them are modern technologies in forest use. In Western Beskydy mountains and Javorníky mountains, Pavelka (2003) estimates the size of territory to be 8 - 11 he and provides an average density in years 1983 - 1992 as 0.3 pairs/10 hectares.
Non-migratory bird. Outside nesting periods, individual birds wander away from their nesting areas and have been spotted in Slovakia as many as several dozens of kilometres from their nesting areas, usually in higher altitudes.
The assessment of the condition of the species from the point of view of protection pursuant to Article 12 of the directive 2009/147/EC - favourable (FV).
The occurrence of the species may be rather excluded with regards to the habitat demands in the territory of the intention.

Syrian Woodpecker(Dendrocopos syriacus)
The nesting environment is warm broadleaved forests, in particular in the lowlands, in Central Europe also gardens, orchards and parks. Its occurrence in Europe is restricted to its South-east part, while it is the most abundant at the Balkans - in Romania and Bulgaria. The western and northern boundary of the area passes through Austria, the Czech Republic and Poland. In first half of the 20th century, it came to a large expansion of the species from Turkey to Europe, when it spread out rather quickly to the described area. It creates rather narrow hybrid zone at the edge, where it comes to the cross-breading with Great Spotted Woodpecker. Nowadays, the enlargement of the area has been probably stopped, however the return of the abundance is still recorded locally.
When feeding the baby birds, their parents collect food from the distance of 300 m in average, however in majority of cases from 50-70 m, as well as 1,000 m.
The assessment of the condition of the species from the point of view of protection pursuant to Article 12 of the directive 2009/147/EC - favourable (FV).
The occurrence of the species may be rather excluded with regards to the habitat demands in the territory of the intention.

Black Woodpecker (Dryocopus martius)
It occurs almost on the entire territory of Slovakia, it loves the vast old forest stands, mixed or broadleaved forests at the most. It is widespread from lowlands up to the upper boundary of a forest. It occurs abundantly also in the inundated forests. Distribution in winter is identical with the nesting distribution in practice. It leaves forest occasionally.
The stable bird, however wandering is characteristic for some individuals. The flights, sometimes to distant places, are carried out by young birds in their 1st year of life. It nests in cavities carved out by it. It feeds almost exclusively on insects living in woods, pecking them out from the bark in summer and in winter alike. Due to the feed specialization, individual pairs have relatively large nesting areas. Densities in the territory of the Czech Republic vary from 2 pairs/10 ha to 1 pair/km (Hudec, Šťastný a kol. 2005).
The cavities after the Black Woodpecker are occupied by a lot of bird species (the most important ones are the forest owl species), therefore its occurrence is very important or the owl species and the overall variety of nesting bird species.

The assessment of the condition of the species from the point of view of protection pursuant to Article 12 of the directive 2009/147/EC - favourable (FV).
The occurrence of the species may be rather excluded with regards to the habitat demands in the territory of the intention.

Eurasian Eagle Owl (Bubo bubo)
It is a stable species in Slovakia that prefers the forest areas in the middle locations neighbouring with pen areas, where it flights for a hunt. The results show that the young birds ma fly to the distance of 50 km in their first year of life, the birds could be found as far as at the distance of 100 km from the nest within further three years. The more significant flights of the birds in autumn and winter period are not visible from the result of bird ringing.
The size of domestic district changes within a year, as it is proved by the results of telemetric surveys.. During telemetric monitoring of owl pairs in Lower Austria subalpine region, Ledignitz (1992) concluded that the movements of pairs of owls have not exceeded the distance of 7.5 km from their nests in the period of December - end of nesting. Both telemetry and feed analyses have proven that nesting regions of owls overlapped.
They prey mostly above free areas in forests, either from a low flight or from a viewing location. The period of preying is variable, however, mostly concentrating on dawn and dusk. When looking for prey, it uses mostly hearing; this is why his prey is usually the more noisy animals (Hudec, Šťastný et al., 2005). It is not a problem for the owl to fly to preying locations distant 10 km from the nesting area (Hudec, Šťastný et al., 2005). Nests are usually on cliffs, on forest slopes, or on the ground under downblown trees, rarely in large old tree nests of birds of prey, egrets or storks. It is able to use various environmental type, from deserts to Nordic coniferous forests. The basic condition is a possibility to hide in rocks, cliffs, or even smaller forests. It may adapt to secondarily created locations, e.g. in stone mines, on castle ruins, even in vicinity of humans.
Population trend in Slovakia is stable, the population trend in the EU is stable (BirdLife Slovakia).
The assessment of the condition of the species from the point of view of protection pursuant to Article 12 of the directive 2009/147/EC - favourable (FV).
Flying for feed to the area of the intention cannot be completely excluded; however, it will probably not use the feed habitats nearby the intention.

European Nightjar (Caprimulgus europaeus)
The nesting environment of European Nightjar is sparse coniferous - in particular Pine - and broadleaved forests, usually on the sandy soils. It avoids dense forests. The presence of open areas and their edges, belts, clearings and glades is important. It is naturally moorland or peatbog. Less frequently, they nest in bushy, sun-covered inclinations or other similar sites. It is a night bird, preying for insects using a wide-open beak. The feed area has a diameter of approx. 3 km, however, cases of nightjars flying as far as 7 km for feed are known. Nightjars nest throughout the continent with the exception of larger non-forest areas such as the Arctic or Alpine tundra and intensively agriculturally used land.
It is a migratory bird. In the Western Europe, it occurs in islands; most of its presence is in the Mediterranean and in Eastern Europe. Since the middle of the 20th century, a relatively significant decline has occurred, especially in the western part of the area. The main causes of decrease of the population of the European nightjar are considered to be the loss of suitable nesting habitats and loss of feed due to use of pesticides. The sufficiency of feed is one of the key factors influencing the selection of habitats by bird populations and may influence the distribution and numbers of the populations of the European nightjar in the locations it prefers. Ornithologists generally agree that the highest number of deaths of nightjars is due to road traffic. The highest losses occur between August and September when especially young, inexperienced individuals die (from mid-June until the end of migration, the ratio of dead young and old individuals is 5:1). During migration, most nightjars die when they rest at night or warm roads (Šimeček et al., 2004).
Population trend in Slovakia is stable, the population trend in the EU is a slight decrease (BirdLife Slovakia).

The assessment of the condition of the species from the point of view of protection pursuant to Article 12 of the directive 2009/147/EC - favourable (FV).
Considering the habitat requirements, flying for food to the intention is relatively improbable. If individuals flew from the CHVÚ to the intention, this will mostly be related to the Súr wetlands.

Black Stork (Ciconia nigra)

It inhabits forests, both alluvial and broad-leaf, mixed, and coniferous, from lowlands up to an elevation of approx. 1,000 m. It feeds on the sides of water dams or small brooks, covered by vegetation if possible. It catches fish up to 25 cm size, in addition to them also water insects, frogs and newts. In the areas with wet meadows, it feeds mainly on grasshoppers, in addition to it also on frogs, rodents and baby birds. It gets food from places up to the distance of 10 km from its nest. According to the sightings of the African Oddysey project, it can fly for food up to 20 kilometres from the nest. It searches for peaceful and hidden places, it avoids human settlements.
The assessment of the condition of the species from the point of view of protection pursuant to Article 12 of the directive 2009/147/EC - favourable (FV).
Considering the habitat requirements, flying for food to the intention is improbable. If individuals flew from the CHVÚ to the intention, this will mostly be related to the Little Danube river.

Peregrine falcon (Falco peregrinus)

A migratory species that nests in cliffs, nests of other birds of prey, and even on tall buildings. Nesting on buildings and other structures is becoming increasingly frequent. Despite being the most frequent in mountainous areas, it is not a mountain bird. Falcons do not avoid lowlands and will even nest in alluvial forests. Pairs use their nests for many years. The only prey on flying birds up to the size of a duck, most frequently pigeons, in free territory outside forests. By flying just above the ground, they attempt to force other birds to fly up; alternatively, they try to separate an individual from a flying flock of birds. In numerous European countries, their populations have slightly risen.
The assessment of the condition of the species from the point of view of protection pursuant to Article 12 of the directive 2009/147/EC - favourable (FV).
We cannot exclude the possibility of occurrence in the proximity of the intention (the possibility of flying in for food).

Collared Flycatcher (Ficedula albicollis)
In Slovakia, it is present from lowlands up to altitudes of 1000 - 1200 m, preferring lower locations. Migrating, arrives in April, leaves in September. It lives in parks, gardens, broadleaved forest, in particular Beech forests.
It nests in the hollows and semi-hollows of trees. The beginning of nesting is in May. It hunts for insects mostly in the shaded crowns of trees where it lurks hidden between the leaves. Usually it does not return to the original location from which it started preying. Similarly to the European pied flycatcher, it rarely sits on open solitaire locations. It is a solely insect-feeding species collecting prey up to 150 m from its nest, usually, however, in a range of only 30 m.
It is a migratory species ariving in April and May and leaving in August and September.

Population trend in Slovakia is stable, the population trend in the EU is a slight growth (BirdLife Slovakia). The assessment of the condition of the species from the point of view of protection pursuant to Article 12 of the directive 2009/147/EC - favourable (FV).
Flying of the species from the CHVÚ to the territory of the intention is improbable.

Red-breasted flycatcher (Ficedula parva)
It is a migratory species nesting in broad-leaf, mostly beech forests. It nests in cavities, thus requiring a certain share of old trees in forests. It feeds mostly on small insects, in autumn also on small berries. The population seems to be stable but in certain countries, decreasing numbers have been recorded, e.g. in Austria, Lithuania, and Finland. The species can be endangered by a decrease of the number of nesting opportunities in old beech forests.

The assessment of the condition of the species from the point of view of protection pursuant to Article 12 of the directive 2009/147/EC - favourable (FV).
Flying of the species from the CHVÚ to the territory of the intention is improbable.

Red-backed shrike (Lanius collurio)
It is migratory, stays for the winter very rarely. In Central Europe, it inhabits steppe inclinations, various bushy habitats, borders of forests, and glades. It nests from lowlands up to relatively high mountainous areas (up to 1200 m). It peaks its prey on spines of bushes or barbed wire. The prey is formed mostly by large insects, e.g. beetles, bumble-bees, and grasshoppers, even squab chicks and small rodents and insectivore. However, it also feeds on various fruits (e.g. cherries, berries).
In suitable locations, shrikes nest in relatively high densities (up to around 5 pairs/10 ha). In the Českomoravská vrchovina mountains (Czech Republic), the territory size was in pastures and meadows some 2 000 -3 000 m2, on boundaries in field cultures and around field roads 5 000-10 000 m^2 (Kunstmuller 1998). Boháč (1965) has identified feed areas in the Chotebor region for three 2 2 2 nests: 2 x 1 400 m and 1 x 1 100 m ; the density in the territory was 3 pairs/1 km .
The assessment of the condition of the species from the point of view of protection pursuant to Article 12 of the directive 2009/147/EC - less favourable (U1).
Flying of the species from the CHVÚ to the territory of the intention is improbable.

Grey-headed Woodpecker (Picus canus)
Non-migratory bird. Outside the nesting period, it wanders around nesting areas. The autumn wandering of old birds and spreading of young ones rarely exceeds 15 km. The nesting area in Slovakia is in forests of all types; they are also present in gardens and parks. The density varies by the quality of forest between 0.2 pairs/10 ha to 1 pair/10 ha (Hudec, Šťastný et al. 2005). In exceptional cases, nesting density may reach up to 10 pairs/km2 (Horal, Hora, 2006).
The assessment of the condition of the species from the point of view of protection pursuant to Article 12 of the directive 2009/147/EC - favourable (FV).

Considering the habitat requirements, the occurrence of the species can be relatively well excluded in the territory of the intention.

Barred Warbler (Sylvia nisoria)
It inhabits bushy inclinations and pastures, borders of forests in drier, sunny locations. Actively seeks the presence of the red-backed shrike (mutual benefits in better warning of dangers). The main part of feed is formed by insects and its larvae that it picks mostly from branches of bushes.
Nesting densities in suitable habitats may reach up to 5 pairs/10 ha (for more quantitative data, see Šťastný et al., 2006); in exceptional cases in Pálava, up to 25 pairs/10 ha.
In the European territory, it is a migratory species.
The assessment of the condition of the species from the point of view of protection pursuant to Article 12 of the directive 2009/147/EC - favourable (FV).
Flying of the species from the CHVÚ to the territory of the intention is improbable.

Common Quail (Coturnix coturnix)
The quail is our only migratory gallinaceous bird. It arrives from its wintering locations in Northern and tropical Africa and the countries around the Mediterranean at the end of April and in May. To higher altitude areas, only in June. Immediately after the arrival, males fight for their territories with approximate sizes of 0.7 - 1.5 hectares.
The original environment were steppes and forest steppes. At present, it inhabits open country with fields and meadows, nesting mostly in grain fields, clover, meadows and non-cut grass - wherever the vegetation provides sufficient coverage.
It is spread in Europe from Iceland and Scandinavia up to the Mediterranean. In the previous century, the populations have diminished substantially; at present, its population is generally seen

as stabilized.
The assessment of the condition of the species from the point of view of protection pursuant to Article 12 of the directive 2009/147/EC - favourable (FV).
Flying of the species from the CHVÚ to the territory of the intention is improbable.

Eurasian Wryneck (Jynx torquilla)
Migratory species seeking for dry and sun-covered locations. Thus, it prefers open, extensively used country with small forests, groups of trees, alleys, and other types of structural verdure, open broad-leave and coniferous woodlands, and more rarely, pine and spruce-and-pine forests, especially their borders and glades. It collects its feed usually on the ground, feeding mostly on ants (adults and larvae). It has a palearctic presence, inhabiting almost the entire Europe and a stripe crossing the middle of Asia up to the Sakhalin and Japan. From the beginning of the 20th century, numbers have started to decrease rapidly in several countries of the Western Europe, and the trend gradually spread over almost all of the Western and Northern Europe, as well as a number of Central and Southern European countries. The population in Eastern Europe seems to be stable, although the counts in Russia are not known.
The assessment of the condition of the species from the point of view of protection pursuant to Article 12 of the directive 2009/147/EC - less favourable (U1).
Flying of the species from the CHVÚ to the territory of the intention is improbable, only occasionally during migration.

Spotted Flycatcher (Muscicapa striata)
A migratory species inhabiting alleys of old trees and lines of trees alongside water flows. It can be regularly found in loose old forests (more in broad-leaved), parks, orchards, and gardens. In the mountains, it inhabits meadow enclaves with grown trees.
It feeds mostly on adult flying insects (most frequently dipterans and butterflies). The highest nesting densities are achieved in parks and other urban verdure, up to 11.1 pairs/ha. The size of feed area is 675 - 1 800 m2 (Šťastný, Hudec et al., 2011).
The nesting region spreads around the entire Europe, north-west of Africa, and south-east Asia. The numbers of flycatchers have decreased continuously since the beginning of the 1960s.
V In the last decade of the 20th century, its counts have been stable and/or increasing. Population trend in Slovakia is stable, the population trend in the EU is a slight decrease (BirdLife Slovakia).
The assessment of the condition of the species from the point of view of protection pursuant to Article 12 of the directive 2009/147/EC - favourable (FV).
Flying of individuals from the CHVÚ to the territory of the intention is improbable.

Common Redstart (Phoenicurus phoenicurus)
A migratory species nesting in lighter forests of various types, borders of forests, and gardens. Availability of tree cavities is important. The nesting territory includes broad-leaved and mixed forests with old trees with numerous cavities, old parts, cemeteries, and shaggy gardens. The common redstart prefers tree cavities to wall flaws. From April, males steadily sign and seek for a suitable location for a nest.
The nest is usually located in a tree cavity with an oval inlet opening, vertical size larger than horizontal, or in a bird box. The nesting density usually does not exceed 2 pairs/10 ha (Hudec, Šťastný et al., 2005).
The assessment of the condition of the species from the point of view of protection pursuant to Article 12 of the directive 2009/147/EC - less favourable (U1).
Flying of the species from the CHVÚ to the territory of the intention is improbable, only occasionally during migration.

Common Stonechat (Saxicola torquata)
A migratory species inhabiting dries grass vestures. It nests mostly in lower positions on ruderal surfaces, in ditches and vineyards. Outside regular nesting areas, it may appear especially on various formerly ruderalized areas such as military training fields, piles, stacks, dumps, etc. Data

about nesting density is insufficient, however, the density tends to be up to 1 pair/10 ha.
It feeds on small insects (all developmental stages), molluscs, rarely on various berries. The assessment of the condition of the species from the point of view of protection pursuant to Article 12 of the directive 2009/147/EC - favourable (FV).
Flying of the species from the CHVÚ to the territory of the intention is improbable, only occasionally during migration.

European Turtle Dove (Streptopelia turtur)
A migratory species that most frequently inhabits country with forests, lanes of bushes, windbreaks, bank scrubs at water and other types of structural verdure in fields and meadows, forest borders, and young grown forests. The turtle dove flies to open areas to collect its feed, formed by seeds of weed and cultural plants. It collects it from the ground, especially on fields, grass areas, etc.
The nesting density, in young forests and light broad-leaved forests is usually around 1 pair/10 ha.
The assessment of the condition of the species from the point of view of protection pursuant to Article 12 of the directive 2009/147/EC - favourable (FV).
Flying of individuals from the CHVÚ to the territory of the intention is improbable.

Eastern Imperial Eagle (Aquila heliaca)
The Eastern imperial eagle is mostly a lowland species; however, in Slovakia, in has inhabited mostly middle and higher locations since the beginning of its presence (since 1945). The nesting environment of the Eastern imperial eagle are broad-leaved forests on the inclinations of not-tall mountains (most frequently up to 850 m) connected to vast lowlands used for preying. Most nests have been found in forests of lower locations; eagles choose mostly broad-leaved (beech) but frequently also coniferous trees.
V In the following years, its nesting has extended to lowlands with agrocenoses, most frequently nesting in windbreaks, field forests, or on solitary trees. Its feed territories are open areas, especially in agricultural land. It feeds mostly by mid-sized mammals, it can only prey on medium-sized birds and mooch on carcasses. It is assumed that most birds hit on road flew there in order to mooch on carcasses. The data about food territories from the Malé Karpaty mountains mention flying to distances of 10 km from the nest (Hudec, Šťastný et al., 2005).
Most of our individuals, especially adult birds, spend winters in the Carpathian Fold (of the Pannonian Basin) close to its feed territories. Immature individuals migrate especially to the south of the Balkan peninsula (to Greece, Albania), or as far as Israel.
The assessment of the condition of the species from the point of view of protection pursuant to Article 12 of the directive 2009/147/EC - unfavourable (U2).
Due to the ecology of the species, there is a high probability of flying over the intention.

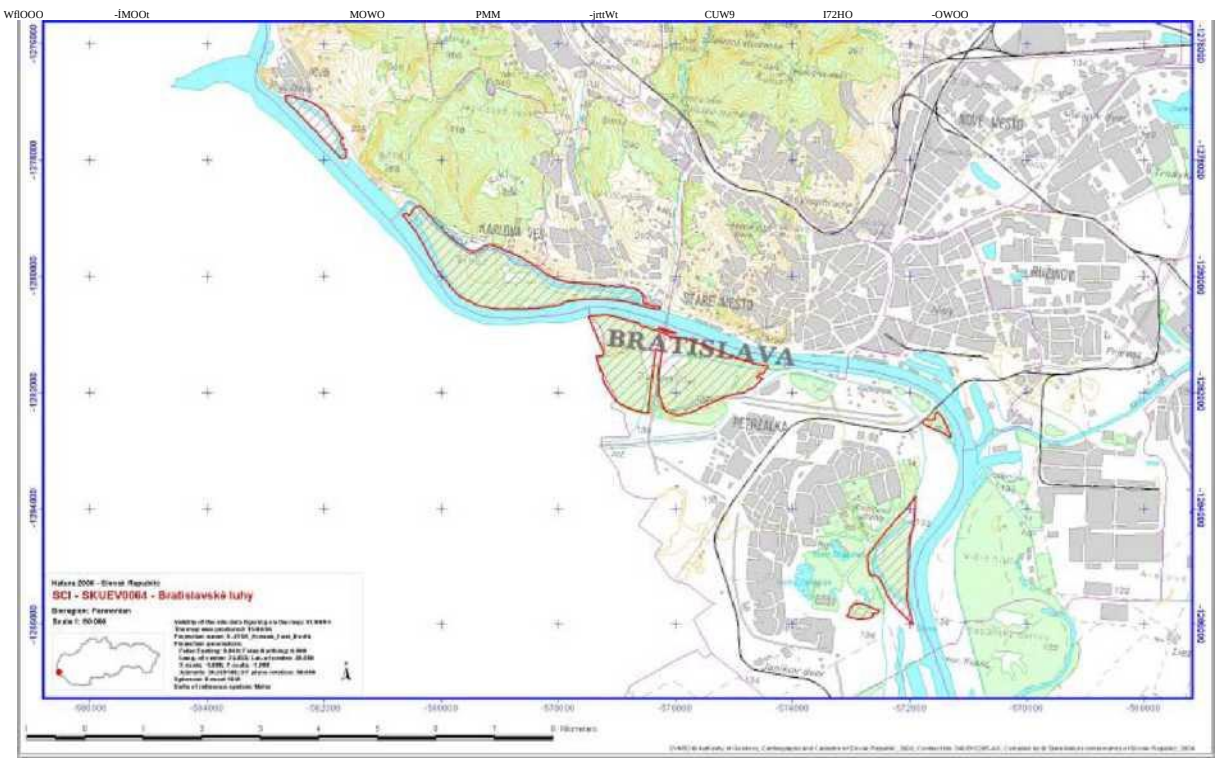
The following table summarized the assessment that is detailed above, i.e. which objects could be influenced by the intention, rendering them subject to further assessment.

Table 11: Potential influence of protected objects in CHVÚ Malé Karpaty by the intention (probable presence of individuals residing in in the territory of the assessed intention) summary):

Slovak name	Possible influence by the intention	Justification
Saker Falcon	Yes	hunts in an open countryside, large food territory
European Honey-buzzard	Yes	possible flying in for food
Middle Spotted Woodpecker	No	flying above the intention little probable, extraordinary in the period of winter wandering
White-backed Woodpecker	No	different habitat demands
Syrian Woodpecker	No	flying above the intention little probable, extraordinary in the period of winter wandering
Black Woodpecker	No	flying above the intention little probable, extraordinary in the period of winter wandering
Eurasian Eagle-owl	Yes	possible flying in for food to the area of interest
Black Stork	No	flying above the intention less probable, different habitat demands
European Nightjar	No	flying above the intention less probable, different habitat demands
Peregrine Falcon	Yes	possible flying in for food
Collared Flycatcher	No	different habitat demands and small size of the territory
Red-breasted Flycatcher	No	different habitat demands and small size of the territory
Red-backed Shrike	No	small size of the territory
Grey-headed Woodpecker	No	flying above the intention little probable, extraordinary in the period of winter wandering

Barred Warbler	No	small size of the territory
Common Quail	No	small size of the territory
Eurasian Wryneck	No	different habitat demands and small size of the territory
Spotted Flycatcher	No	different habitat demands and small size of the territory
Common Redstart	No	small size of the territory
Common Stonechat	No	small size of the territory
European Turtle Dove	No	small size of the territory
Eastern Imperial Eagle	Yes	hunts in an open countryside, large food territory

III.2.6. ÚEV Bratislavské luhy



The territory established by the Decree of the Ministry of Environment of the Slovak Republic No. 3/2004-5.1 of 14 July 2004 setting the national list of the territories of the European importance.

It spreads out on the cadastral territories of Devín, Karlova ves, Petržalka.

The Characteristics of the ÚEV

The territory is covered with valued stands of willow-poplar and oak-elm and ash inundated forests with the occurrence of many old trees of a unique ecological value. Forest management took place here only to a limited extent. In addition to the inundated forests, we can find there also the remnants of forest steppes or important plant communities of dead water and water courses.

The Protected Territory of the European Importance (ÚEV) Bratislavské luhy was declared for the purpose of the protection of the following subjects of protection:

Habitats (* designates priority habitat)
91E0* Inundated willow-poplar and alder forests

3150 - Natural eutrophic and mesotrophic dead waters with the vegetation of floating and/or immersed vascular plants of Magnopotamion or Hydrocharition type
3260 Lowland to montane water curses with the vegetation of Ranunculion fluitantis and Callitricho- Batrachion association
91F0 Inundated oak-elm-ash forests alongside lowland rivers

Species:

Flat bark beetle	*(Cucujus cinnaberinus)*
Bullhead	*(Cottus gobio)*
priadkovec trnkový	European Fire-bellied Toad (Bombina bombina)
roháč obyčajný	*(Eriogaster catax) (Lucanus cervus)*
ohniváčik veľký	*(Lycaena dispar) (Barbastella barbastellus) (Myotis myotis)*
uchaňa čierna netopier	*(Myotis dasycneme) (Rhodeus sericeus amarus) (Maculinea teleius)*
obyčajný netopier	*(Unio crassus)*
pobrežný lopatka	*(Zingel streber)*
dúhová modráčik	*(Gobio kessleri) (Dioszeghyana schmidtii) (Leptidea morsei) (Leucorrhinia*
krvavcový korýtko	*pectoralis) (Gymnocephalus baloni) (Gobio albipinnatus)*
riečne kolok	*(Triturus dobrogicus) Marsh fritillary (Euphydryas aurinia) Water beetle*
vretenovitý hrúz	*(Graphoderus bilineatus)*
Kesslerov mora	Golden spined loach *(Sabanejewia aurata)*
Schmidtova mlynárik	European Beaver *(Castor fiber)*
východný vážka	
hrebenačka vysoká	
hrúz bieloplutvý mlok	
dunajský	

The Characteristics of the Concerned Parts of the ÚEV Bratislavské luhy

None of the variants directly interfere with the ÚEV, both of them just pass by the location to the South at the distance of ca 2 m (variant 1) or 2.8 km (variant 2).

The subjects of the protection of ÚEV thus may be with regards to the distance from the intention affected by collisions with cars on the intention The other impacts (environment pollution, disturbance, turbidity, restriction of migration, etc.) were excluded due to the distance from the intention, the implementation of the intention on a high bridge and the position of the territory against the river flow.

The Concerned Subjects of Protection

Species moving by air to relatively long distances (at least 2 km) were identified as affected. It is also necessary to consider the fact that above the Danube, where the route is closest to the ÚEV, the brides have a passing height of around 17 m. In the left-bank

verdures, it is at least 5.5 m. This is why only bats are considered as protected objects. The remaining protected objects are not evaluated further.

Greater Mouse-eared Bat (Myotis myotis)

Reproduction colonies are bound to attic premises, more rarely to underground premises; they spend winters in underground premises. The hunting regions are in various forests.
The assessment of the condition of the species from the point of view of protection in the Pannonian region pursuant to Article 17 of the directive 92/43/EC - less favourable (U1).
The habitat of the type (colonies nor hunting place) on the area of the Territory of the European Importance would not be directly affected by the implementation of the intention. However, it shall be necessary to assess the indirect impacts with regards to the proximity of the intention in variant 2 (collisions with vehicles in the line of sight, disturbance).

Barbastelle (Barbastella barbastellus)

The reproduction colonies occur in the hollows of trees, however we can find them also behind the window frames, in hunter´s high seats, etc. They winter in the underground places. Barbastelle preys on its feed (small butterflies and dipterans) in forests, alongside forest borders, and above waters.
The assessment of the condition of the species from the point of view of protection pursuant to Article 17 of the directive 92/43/EEC - unknown (XX).
The habitat of the type (colonies nor hunting place) on the area of the Territory of the European Importance would not be directly affected by the implementation of the intention. However, it shall be necessary to assess the indirect impacts with regards to the proximity of the intention in variant 2 (accidents in the line of sight, disturbance).

Pond Bat (Myotis dasycneme)

V In the summer period, it inhabits swamp areas in lowlands with abundance of dead and slow-flowing waters and preys for its feed above them. Summer colonies of females can be found in attics, sometimes also in tree cavities; males and young animals live in bird boxes and bat boxes. The species makes long transfers to wintering locations.
The assessment of the condition of the species from the point of view of protection pursuant to Article 17 of the directive 92/43/EEC - unknown (XX).
The habitat of the type (colonies nor hunting place) on the area of the Territory of the European Importance would not be directly affected by the implementation of the intention. However, it shall be necessary to assess the indirect impacts with regards to the proximity of the intention in variant 2 (accidents in the line of sight, disturbance).

Table 12: Possible influence of the subjects of protection of the Territory of the European Importance Bratislavské luhy (summary):

Slovak name	Possible influence by the	Justification
91E0* - Inundated willow-poplar and alder forests	No	sufficient distance from the intention
3150 - Natural eutrophic and mesotrophic dead waters with the vegetation of floating and/or immersed vascular plants of Magnopotamion or Hydrocharition type	No	sufficient distance from the intention
3260 Lowland to montane water curses with the vegetation of Ranunculion fluitantis and Callitricho- Batrachion	No	sufficient distance from the intention
91F0 - Inundated oak-elm-ash forests alongside lowland rivers	No	sufficient distance from the intention
Flat bark beetle	No	sufficient distance from the intention
Bullhead	No	sufficient distance from the intention

European fire-bellied toad	No	sufficient distance from the intention
Eastern eggar	No	sufficient distance from the intention
Stag beetle	No	sufficient distance from the intention
Large copper	No	sufficient distance from the intention
Barbastelle bat	Yes	potential collissions on the intention
Greater mouse-eared bat	Yes	potential collissions on the intention
Pond bat	Yes	potential collissions on the intention
Amur bitterling	No	sufficient distance from the intention
Scarce large blue	No	sufficient distance from the intention
Thick shelved river mussel	No	sufficient distance from the intention
Streber	No	sufficient distance from the intention
Kessler's gudgeon	No	sufficient distance from the intention
Hungarian quaker	No	sufficient distance from the intention
Fenton's wood white	No	sufficient distance from the intention
Dragonfly	No	sufficient distance from the intention
Danube ruffe	No	sufficient distance from the intention
White-finned gudgeon	No	sufficient distance from the intention
Danube crested newt	No	sufficient distance from the intention
March fritillary	No	sufficient distance from the intention
Water beetle (Graphoderus	No	sufficient distance from the intention
Golden spined loach	No	sufficient distance from the intention
European Beaver	No	sufficient distance from the intention, no impact on migration

IV. ASSESSMENT OF IMPACT OF INTENTION ON CHVÚ AND ÚEV

IV. 1. Evaluation of completeness of data for assessment

The documents used for the assessment were:

- Evaluation report "D4 Jarovce - Ivanka North Highway" and its annexes (Noise and Dispersion Study). Geoconsult 2010.
- Zoning permit documentation of the intention (Dopravoprojekt Bratislava, 2014).
- The Feasibility and efficiency study for D4 Bratislava Jarovce - Ivanka North - Stupava South - nat. border SK/A, Dopravoprojekt Bratislava, 2009
- Natural surveys performed during the elaboration of the assessment (March - September 2013) - HBH Projekt, spol. s r.o.
- Mapping of habitats of Dunajské luhy in the routes of variants of the D4 highway (Well Consulting, 2013)
- Surveys prepared in the previous phases of project preparation of the intention. These

documents were accepted as sufficient for the preparing of the "Appropriate Assessment".

IV. 2. The Possible Impacts of the Intention and the Assessment of their Importance for the Subjects of Protection

The identified impacts come inter alia from the data and conclusions specified in the chapters II.2. Data on Inputs and 11.3 Data on the Outputs The impacts, when feasible, also include cumulative impacts and synergic impacts.

The following text also presents the assessment using the following scale. Significance of individual levels is as follows (Methodology of the Czech Republic): _____

Value	Term	Description
-2	Significant negative impact	A significant negative impact is an unfavourable consequence for the compactness of the location in relation to the assessed type of European site or species with European significance. It excludes the implementation of the intention (or, intentions can only be implemented in certain cases). Significant disturbing to liquidating impact on the site or species population or a substantial part thereof, significant disturbance of the ecological requirements of the site or species, significant interference with the habitat or with natural development of the species. Results from the intention assignment, it cannot be eliminated.
-1	Moderate negative impact	Limited/moderate/insignificant negative impact Moderate negative impact means the unity of the location in relation to such a site or species would not be impaired. The implementation of the intention is not excluded. Moderate disturbing impact on the site or species population, moderate disturbance of the ecological demands of the site or species, marginal interference with the habitat or the natural development of the species. It is possible to eliminate it using the proposed mitigating measures.
0	Zero impact	The intention has not provable impact.
+	Positive impact	Positive impact on the site or species population, the improvement of the ecological demands of the site or species, favourable interference with the habitat or the natural development of the species.

IV. 2.1. Variant 1 - Red

IV. 2.1.1. Impacts on CHVÚ Dunajské luhy

The subjects of protection in the CHVÚ Dunajské luhy shall be affected in particular by the following impacts:

- Seizure (direct interference with the habitats)
- Noise and light disturbance
- The increased visit rate in the location at the left-side cycling route in the inundated forests (disturbance)
- Collisions with vehicles
- Environment pollution (the changes in the immission characteristics, water environment pollution).

The size of the above given impacts is assessed bellow, for the period of construction (implementation) and the operation (as long as the impact applies). In the period of the preparation of the construction it would be possible to suppose mainly the increased movement of people in the territories for the purpose of surveys and small activity (e.g. survey drilling, seizure survey, etc.). The main negative impact is in this case the disturbance that shall not be significantly negative. This is the one-shot short-term impact.

a) Seizure (direct interference with the habitats)

The impact that shall commence in the period of construction and shall persist till the operation

period.

This variant passes through the CHVÚ in its North part, in particular the upper part of Hrušovská zdrž Dam, where the entire inundation part is not permanently flooded. The area permanently taken by the red variant is 11.13 ha, or 0.067% of the total area of the CHVÚ. In total, there are the habitats suitable for occurrence or nesting of any of the subject of protection in the entire area.

The intention crosses the entire territory of the CHVÚ on a series of bridges with noise reduction walls on both sides. These walls form an integral part of the intention in the zoning permit documentation. However, forest habitats under the bridges will be destroyed, and trees cut. Under the bridges on the left-bank forests, a cycling route/service route with a width of 6 m is planned, most probably asphalt-covered.

With regard to rather large clear height (min. 5.5 m, max. 19 m) we may suppose the gradual re-growth in the part of the area with vegetation. However, there is also the real risk of the invasion of non-original plant species that should be eliminated (see Chapter V., Proposal of Measures).

Water areas under the bridges shall be affected only on the place of the construction of the pillars in water course. The remaining parts of the water course under the bridges shall be untouched by the construction.

For the species that do not have feeding and nesting habitats in the territory affected by the construction, the impact of seizure was assessed as zero,, in both implementation and operation period. The following species are concerned: Common Redshank, Tawny Pipit, Sand Martin and Mediterranean Gull. The majority of the subjects of protection uses the territory as feeding territories or gathering places (migrating and wintering species). The loss of habitats is in this case with regards to the minimum area (0.067%) within the CHVÚ significant and the impact was assessed as moderately negative (-1), in both implementation and operation periods. The following bird species are concerned: Western Marsh-Harrier, Common Tern, Little Egret, Common Pochard, Tufted Duck, Common Goldeneye, Smew, migrating species of water birds creating groups during migration or wintering, in particular the birds named in Annex 1.

In the surroundings of variant 1, nesting habitats of the following species are located:
Common kingfisher - according to an ornithological survey (Kúdela, Melišková, Littera, 2011), 4 nesting pairs were found in a wider territory of the intention in 2011. However, no pairs were found directly in the route of the intention where the risk of destroying of a nesting location would exist. For this species, liquidation of habitats in the area of the intention was thus evaluated as slightly negative (-1) both during implementation and during operation.
Little bittern - while the ornithological survey (Kúdela, Melišková, Littera, 2011) did not find it in the territory, both banks have habitats potentially suitable for the nesting of this species. While the most suitable reed habitats were destroyed during the construction of houseboats and waterside adjustments, future nesting of the bittern cannot be excluded. For this species, liquidation of habitats in the area of the intention was thus evaluated as slightly negative (-1) both during implementation and during operation.
Gadwall, garganey, red-crested pochard - in the taken area, habitats that can potentially be used by the species as nesting locations exist (the Biskupické arm). This is why liquidation of habitats has been evaluated as slightly negative (-1) for these species.
Black stork - according to the ornithological survey (Kúdela et al., 2011), in the vicinity of variant 1, probably 1 pair of black stork regularly nested until 1995; at present, the nesting population is on its minimum (1 nesting pair in the CHVÚ), however the population seems to have grown recently. In such a case it would probably came to the re-settlement of the area. The nesting places of the species are rather rare and therefore they require a strict protection. For this species, liquidation of habitats in the area of the intention was thus evaluated (despite the relatively small percentage taken from the CHVÚ) as significantly negative (-2) both during implementation and during operation.
Black kite - in the past, a part of the CHVÚ around the intention was a regular nesting location of this species. Currently, it nests only irregularly, however it occurs every year. Since the decrease in the species took place in the entire territory of the Slovak Republic (unfavourable condition of species - U2), from the national point of view, the territory still remains the significant location of the species and we may suppose that as long as the Danube population starts again raising, the birds shall occupy the former territories in the area affected by the construction (Kúdela, Melišková, Littera, 2011). The nesting places of the species are rather rare and therefore they require strict protection. For this species, liquidation of habitats in the area of the intention was thus evaluated (despite the relatively small percentage taken from the CHVÚ) as significantly negative (-2) both during implementation and during operation.
White-tailed Eagle - the contemporary nesting population of the species in the CHVÚ is 4 pairs (2006 - 2011). It is the greatest nesting place of the species in Slovakia. One pair nests in the territory directly affected by the construction of the intention, which is 1/4 of the overall population in the CHVÚ. The above data imply the nesting places of the species are very rare and therefore they require strict protection. For this species, liquidation of habitats in the area of the intention was thus evaluated (despite the relatively small percentage taken from the CHVÚ) as significantly negative (-2) both during implementation and during operation.

b) Noise and light disturbance

Impacts that will be present in different levels during construction and during operation.
As the protected object include no bird species that are active mostly at night and the territory will partially be shaded by noise walls, it is possible to conclude that light disturbance both during the construction and during operation will have only slightly negative influence (-1).
Noise disturbance in the construction period will be of a temporary nature only and not continuous, reducing the level of effects on the protected objects. In addition, construction works can be planned in advance according to the needs of protection of individual species. This is why noise during the construction of variant 1 can be evaluated as slightly negative (-1).
In the operating period, however, the noise disturbance situation is different (see Chapter II.2). Strong noise will become almost continuous. Noise disturbance will be partially eliminated by the

installation of noise walls that form an integral part of the project at the zoning permit level. According to the Noise Study (Annex no. F.7 to the zoning permit documentation), the 45 dB equal loudness line will be in a distance of 500 m - 1 km from the axis of the intention at night in 2030. During the day, the 50 dB equal loudness line is in a distance of 500 m to 1 km from the axis of the intention. Large distances (around 1 km) were only calculated in the area of Jarovecké Danube arm where noise is combined with the noise from the Rusovce interchange. In the location of crossing of the Danube and in left-bank forests, the distances are 500 m (45 dB/night) and 500 m (50 dB/day).

These noise levels (around 45 dB) seem, according to the current knowledge, to be suitable for the determination of the limit of significant disturbing impact (for higher noise levels, an increased percentage of abandoning of the territory by individual species exists) (Reijnen et al., 1995).

As long as we count the area significantly affected by the increase in noise during the operation of the intention, we shall get the number 336.9 ha (night), or 276.6 ha (day), which makes 2.04 % (night), or 1,68 % (day) of the overall area of the CHVÚ. The percentage applies to the species using all of the affected habitats (e.g. nesting places, feeding habitats), thus the forest habitats in Biskupické luhy and water areas and inundation of the Danube River. These species are Black kite, White-tailed eagle.

In the case of species using mainly the forest stands of Biskupické luhy, the significant extent of disturbance shall affect ca 143.9 ha, i.e. approximately 1.7% of the type of environment within the CHVÚ. This regards mainly Black Stork.

The rest of the species uses, to a smaller or greater extent, the floodplain territory of the Danube, the flow of the Danube and the adjacent wetlands, as well as fields and meadows in the CHVÚ (western marsh-harrier, little egret, Mediterranean gull, sand martin, common tern, ducks, migratory species of water birds). Noise will significantly impact 195 ha of the area, or 2.00% of the type of environment within the CHVÚ. The CORINE Land Cover 2006 - 2012 (Slovak Environmental Agency) was used to calculate the areas of individual types of coverage of the country.

These percentages are relatively high considering the fact that the protected objects are bird species that are sensitive to increases of disturbance. While most birds is capable of certain adaptation, it is more than probable that this area, significantly affected by noise, will lose the value of a nesting habitat for some of the bird species. However, they can still partially use them as feeding territories.

This percentage of the CHVÚ that will be significantly influenced by noise from the operation on the highway is at the limit of bearability. It is necessary to focus on reduction of other disturbance sources that could, in combination with the noise, cause a permanent abandonment of a relatively large stripe of land (approx. 1 km wide) in the middle of currently valuable (for feed and nesting) habitats of alluvial forests (e.g. disturbance by increased visiting of the territory).

If the limit is not exceeded (see above), the noise during operation of variant 1 can be evaluated as slightly negative (-1).

c) Increased visit rate in the location

The left bank of the Danube is currently hard to access and thus is not visited frequently. However, the intention also includes the connecting of the left-bank and right-bank cycle route by bridges on the D4. A lane for pedestrians and cyclists will separate from the bridge. Thus, justified fears exist that the visit rate of the left bank will increase significantly, bringing disturbance not only in the bank area but also in alluvial forests that were previously visited very little and that provide refuge to species that are disturbance-sensitive (e.g. black stork, white-tailed eagle, black kite). There is a risk that increased visit rate will force these sensitive species out of their currently inhabited habitats.

In addition, the zoning permit documentation also contains a cycling route/service route with the width of 6 metres that should link the cycling route on the left bank of the Danube with the territory under the bridges and lead throughout the entire territory of floodplain forests up to km 5.500. Here, the bridges end and the service road connects to the local field road. The road should

be asphalt-covered and provide for the movement of cyclists and in-line skaters. This service road was not included in any of the variants in the EIA Report. It is necessary to be aware that presence of individual persons directly in the location has a more significant disturbing effect on most animals than cars driving on a bridge over the location.
The existence of such foreseen service road will generate a significant increase of the risk of disturbing of bird species in immediate vicinity of the highway (people often lack discipline).
The construction of the proposed cycling route under the D4 bridges will result in an increased movement of cyclists and inline skaters on the left-bank cycling route on the embankment of the Gabčíkovo dam. From this cycling route, entry to forests (Biskupické luhy) is only possible by two bridges over the seepage channel in a section of approx. 10 km, or in the section above the seepage channel (closer to Bratislava). The proposed service road/cycling road under the bridge may be connected in km 5.500 to existing field roads, yet the dispersion of cyclists and in-line skaters further to south-east or to forests is not expected due to the unfavourable quality of field roads and low attractivity of the area. The strongest growth of the number of persons due to the connecting of both cycling routes and the construction of the service road/cycling route under the bridge on D4 can be expected on the left-bank embankment that will become easier to access for the inhabitants of Bratislava thanks to the bridging of the Danube by the D4 highway.
The impact of increased visit rate to the location as an indirect consequence of implementation of the intention has been evaluated as slightly negative (-1).

To reduce negative impacts of increased visit rate, we further propose the measure specified in Chapter V. This involves the construction of a system of barriers preventing from non-permitted driving into the territory of the CHVÚ Dunajské luhy on both sides of the Danube. We also propose to ban locating refreshment stands alongside the entire left-bank cycling route in the territory of CHVÚ Dunajské luhy so that the duration of stay of the visitors in the vicinity of CHVÚ is minimized.

d) Collisions with vehicles

Collissions of birds with construction machinery in the construction period can be seen as improbable, its impact was evaluated as 0.
Impact shall be manifested in particular during the operation.
The protected objects can be divided into several categories depending on the frequency of passage over the territory of the intention. Species living in a relatively small territory and bound to a specific habitat (e.g. little bittern, common redshank, tawny pipit, common kingfisher) will fly over the body of the expressway especially in the migration period (if they migrate). In these flyovers, the risk of collision with passing vehicles is low. The risk of collisions only exists during reduction of fight altitude, e.g. in order to rest. The altitudes identified by radar during migration vary between 200 and 7000 m for various species. For example songbirds fly at 1000 - 2000 m at night and 200 - 300 m during the day (Veselovský, 2001). The risk of collision with passing vehicles is defined by the maximum height of a truck, stated as 3.5 m. It is thus obvious that for seasonal flights, there is no risk of collision (0).
The situation is different with species that will cross the intention several times a day when looking for feed (western marsh-harrier, white-tailed eagle, black kite, and other species not included in the previous group). Endangered are mostly the species having large feeding territories that shall pass above the intention during common search for food or preying. Collisions with vehicles passing on the bridge (crossing the entire CHVÚ Dunajské luhy) are minimized by installing bilateral noise walls with a height of 4 m, sufficient for truck passage (usual truck height is 3.5 m). The wall will be installed alongside the entire bridge and forms an integral part of the intention.
For species with feed territories exceeding outside the CHVÚ and those preying in open country, there is a risk of collisions at the continuation of the intention (from km 5.5 on). However, the frequency of flyovers will be lower there. Thus, the impacts of collisions of protected objects with

vehicles have been evaluated as slightly negative (-1).

e) Pollution of Environment

Pollution of water environment (impact on birds bound to water environment)

As long as the procedures of disposal of waste water and the procedures applicable to accident that are stated in the zoning and planning decision documentation, this impact is not expected (-1).

Changes of absorbed emission characteristics in the territory

As it is implied by Immissions Study (Annex F.8. of the zoning and planning decision documentation), exceeding of the limit for ecosystem protection for NOx (30 pg. m-3) on the territory of the CHVÚ, the main indicator of pollution of air by traffic, shall not occur. Thus, the CHVÚ will not be significantly negatively influenced by growth of emissions produced by the intention, even though a slight increase will occur (Chapter II.3.1). The impact was assessed as (-1).

Table 13: Summary - The overview of the significance of the impacts on the individual subjects of protection of the CHVÚ Dunajské luhy in the case of variant 1.

CHVÚ Dunajské luhy		
The subjects of protection		assessment of the impacts
Black Stork	*Ciconia nigra*	-2
Sand Martin	*Riparia riparia*	-1
Little Bittern	*Ixobrychus minutus*	-1
Mediterranean Gull	*Larus melanocephalus*	-1
Black Kite	*Milvus migrans*	-2
Common Goldeneye	*Bucephala clangula*	-1
Red-crested Pochard	*Netta rufina*	-1
Common Pochard	*Aythya ferina*	-1
Tufted Duck	*Aythya fuligula*	-1
Garganey	*Anas querquedula*	-1
Gadwall	*Anas strepera*	-1

Common Redshank	*Tringa totanus*	1
Marsh Harriers	*Circus aeruginosus*	1
Tawny Pipit	*Anthus campestris*	1
White-tailed Eagle	*Haliaeetus albicilla*	2
Smew	*Mergellus albellus*	1
Common Tern	*Sterna hirundo*	1
Common Kingfisher	*Alcedo atthis*	1
Little Egret	*Egretta garzetta*	1
migrating birds #		1

- CHVÚ is declared also for the purpose of the provision of a favourable condition of the habitats and the assurance of the conditions for survival and reproduction of migrating water birds creating groups during migration or wintering, in particular the species named in Annex 1 to the Regulation of the Ministry of Environment of the Slovak Republic of 24 October declaring the CHVÚ Dunajské luhy

IV.2.1.2. Impacts on ÚEV Biskupické luhy

The intention passes through the ÚEV t the South of PR Kopáčsky ostrov in both variants. In variant 1, in the entire length of the crossing on a system of bridges with bilateral noise walls. The area taken within the ÚEV is 3.16 ha, or 0.34 % of the total area of the ÚEV.

The subjects of protection in this ÚEV shall be affected by the following impacts of the intention:

- Seizure (direct interference with the habitats)
- Noise and light disturbance
- Increased visit rate in the location at the left-side cycling route in the inundated forests
- Collisions with vehicles
- Environment pollution (the changes in the immission characteristics, water environment pollution).

V In the period of the preparation of the construction it would be possible to suppose mainly the increased movement of people in the territories for the purpose of surveys and small activity (e.g. survey drilling, seizure survey, etc.). The main negative impact is in this case the disturbance that shall not be significant. This is the one-shot short-term impact.
V There is the assessment of the influence of the individual subjects of protection in the ÚEV Biskupické luhy by the impacts of the intention in the next part of the text:

Habitat 91F0 Inundated oak-elm-ash forests alongside lowland rivers

The impacts of the intention that shall have an impact on the habitat are the direct seizure (liquidation of the habitat) and the indirect impact on the quality of the habitat - environment pollution.

Table 14: Habitat 91F0 - Quantitative data

The overall area in Slovakia	6,835 ha
Area in the concerned ÚEV	504 ha
The area of habitats liquidated within the intention	0.8 ha
The percentage of the habitat 91F0 within the ÚEV liquidated by the intention.	0,16 %

2

In case of implementation of variant 1, some 7970 m of the 91F0 habitat will be directly destroyed

. This is approximately 0.16% of the area of the habitat within the ÚEV (504 ha). According to the mapping of habitats carried out within the Appropriate Assessment (Well Consulting, 2013) these are 22 habitats with representative levels 2 (3832 m) and 3 (4138 m), often in mosaic and with transitions to other habitats. Thus, these are not the highest quality verdures, yet their loss, especially in relation to the position in the middle of a precious large complex of alluvial forests, will be perceived.

In the case of pollution of the environment by absorbed emissions, it is based on the nature of the intention (road structure), it shall be necessary to consider in particular the increase concentration of NOx. As it is implied by Absorbed Emissions Study (Annex F.8. of the zoning and planning decision documentation), it shall not come to the exceeding of the limit for ecosystem protection for NOx (30 μg. m^{-3}) on the territory of the ÚEV.

Pollution of water environment - as long as the procedures of disposal of waste water and the procedures applicable to accident that are stated in the zoning permit documentation, this impact is not expected.

As the intention in variant 1 will destroy a relatively small percentage of the habitat with a middle or low representative level, the impact of implementation of the intention in variant 1 on habitat 91F0 was evaluated as slightly negative (-1).

Habitat 3150 Natural eutrophic and mesotrophic dead waters with the vegetation of floating and/or immersed vascular plants of Magnopotamion or Hydrocharition type

The impacts of the intention that shall have an impact on the habitat are the direct seizure and the impact on the quality of the habitat - environment pollution.

Table 15: Habitat 3150 - Quantitative data

The overall area in Slovakia	1,400 ha
Area in the concerned ÚEV	9.16 ha
The area of habitats destroyed by the intention	0.049 ha
The percentage of the habitat 3250 within the ÚEV liquidated by the intention.	0,53 %

In case of implementation of variant 1, the bridges shall cross approximately 486 m^2 of habitat 3150 in the area of the Biskupické arm. This is approximately 0.53% of the area of the habitat within the ÚEV (9.16 ha). It can be expected that in this case, the impact will not be destroying as the river shall not be manipulated with during the construction of the bridge. However, surrounding conditions will change and these may subsequently influence the quality of the habitat (cutting of bank vegetation). Considering the high passing height of the bridge above the habitat (19 m), shading will not be very significant.

V In the case of pollution of the environment by absorbed emissions, it is based on the nature of the intention (road structure), it shall be necessary to consider in particular the increase concentration of NOx. As it is implied by Absorbed Emissions Study (Annex F.8. of the zoning and planning decision documentation), it shall not come to the exceeding of the limit for ecosystem protection for NOx (30 μg. m^{-3}) on the territory of the ÚEV. In addition, the waters in this habitat are naturally almost eutrophic. A certain increase of nitrogen concentrations, however, shall take place.

Pollution of water environment - construction - due to the work (especially digging holes for pillars) in the vicinity of the location, it is necessary to respect work discipline very strictly. The habitat could easily be polluted (drops, accidents, insufficient discipline). This is why we propose several measures to limit the risks (see Chapter V).

- Operation - as long as the procedures of disposal of waste water and the procedures applicable

to accident that are stated in the zoning permit documentation, this impact is not expected.
Considering it shall not come to the direct intervention in the habitat and just relatively small percentage of the habitat within ÚEV shall be otherwise affected, the impact of the implementation of the intention in variant 1 on habitat 3150 was assessed as moderately negative (-1).

Habitat 6210 Xerophilous grass and herb bushy stands on lime subsoil (*important sites of Orchideaceae)
The impact of the intention that may act on this habitat is the influence of the quality of habitat - environment pollution.

Table 16: Habitat 6210 - Quantitative data

The overall area in Slovakia	19,809 ha
Area in the concerned ÚEV	91.63 ha
The area of habitats liquidated within the intention	0 ha
The percentage of the habitat 3250 within the ÚEV liquidated by the intention.	0 %

The direct seizure is excluded, since the habitat is located on the Kopáčsky ostrov Island at the closest, i.e. 650 m from variant 1.
V In the case of pollution of the environment by absorbed emissions (operation), it is based on the nature of the intention (road structure), it shall be necessary to consider in particular the increase concentration of NOx. As it is implied by Absorbed Emissions Study (Annex F.8. of the zoning and planning decision documentation), it shall not come to the exceeding of the limit for ecosystem protection for NOx (30 μg. m^{-3}) on the territory of the CHVÚ. Due to the distance from the intention, the increase of NOx will almost not appear in these habitats (less than 1-3 μg. m^{-3}) even though the habitat is sensitive on increased nitrogen concentrations (see Chap. II.3.1). Water environment pollution (operation and construction) - as long as the procedures of disposal of waste water and the procedures applicable to accident that are stated in the zoning and planning decision documentation, this impact is not expected (see Chapter II.3.2).
In particular with regards to a considerable distance from variant 1, the impact of the implementation of the intention in variant 1 on the habitat 3150 was assessed as zero (0).

Habitat 91H0* Thermophilic Pannonian oak forests
The habitat was not located in the territory where direct and indirect impacts reach. The impacts were assessed as zero (0).

Habitat 91G0* - Carpathians and Pannonian oak-hornbeam forests
The habitat is located 450 m from variant 1 at the closest. With regards to a sufficient distance (even after considering the load by absorbed emissions), the impact of variant 1 was assessed as zero(0)

Stag Beetle (Lucanus cervus), Great Capricorn Beetle (Cerambyx cerdo)
The impacts of the intention that could influence these species are the intervention in the habitat and the indirect impact on the quality of the habitat - environment pollution.
The intervention in the habitat of both species shall take place on the place of cutting of the inundated forest in the route of the intention. If we consider the entire area taken within the ÚEV, it is an area of approx. 3.24 hectares, or approx. 0.41 % of the habitat suitable for the occurrence of these species of beetles (total 780 ha of forest habitats). To reduce the impact on these species, it is necessary to leave the stumps and cut trees in the territory and not to remove them from the location (see Chapter V).

As it is implied by Absorbed Emissions Study (Annex F.8. of the zoning and planning decision documentation), it shall not come to the exceeding of the limit for ecosystem protection for NOx (30 μg. m-3) on the territory of the CHVÚ. A certain increase of concentrations and thus also of depositing of nitrogen will occur; this is a contribution of 2 - 3 Mg. m-3 in the vicinity of the intention.
Pollution of water environment (operation and construction). As long as the procedures of disposal of waste water and the procedures applicable to accident that are stated in the zoning and planning decision documentation, this impact is not expected.
Light and noise disturbance (operation and construction phases) will be reduced by noise reducing and non-transparent walls on the bridges.
Collisions with vehicles (operation phase) cannot be completely excluded, but their impact will be mitigated by the substantial height of the bridge (min. 5.5 m, max. 19 m, with real height increased by another 4 m by the noise wall. It is also necessary to consider the attraction of adults by the warm surface of the road, potentially increasing the death rate.
In total, the impact of the implementation of the intention in variant 1 on the stag beetle and the great capricorn beetle was assessed as moderately negative (-1). This is due mostly to the relatively small percentage of the affected habitat, with measures proposed to reduce the impact (Chapter V).

Bullhead (Cottus gobio), Kessler's gudgeon (Gobio kessleri), Danube ruffe (Gymnocephalus baloni)
The impacts of the intention on these species are similar due to the similar habitat requirements of these three species. They are thus evaluated together. These fish prefer flowing rivers in various depths. Flowing water as a habitat has not been identified in the location of intention nor in a wider territory (Biskupické arm) within the ÚEV Biskupické luhy. The Biskupické arm itself is, apart from very short sections, characteristic by still water with very slow flowing. In addition, during the performance of the intention, the Biskupické arm will not be subject to any modifications that could influence the potential habitats of these species.
This is why the impact of implementation of the intention in variant 1 on the bullhead, Kessler's gudgeon, and Danube ruffe was evaluated as zero (0).

European Fire-bellied Toad *(Bombina bombina)*
Intervention with potential habitat (during construction) will occur especially in locations where vegetation is destroyed and/or terrain works in locations with deep still water (Biskupické arm). Due to the high clearance of the bridges over the Biskupické arm (19 m) we expect the affected areas to be re-covered and their biological functions to restore partially (return of toads to the location). However, there is also the real risk of the invasion of non-original plant species that should be eliminated (see Chapter V., Proposal of the Measures). Spreading of non-original species will be simplified not only by cutting and adjustments for the highway body but also by the existence of the cycling route under the bridge, as road shoulders are frequently used by invading species to expand.
The territory will remain crossable for toads relatively well even after the implementation of the intention as the entire intention in the territory of the ÚEV will be on bridges. The situation is worsened by the planned service road/cycling road under the bridge in the left-bank forests. A 6 m wide road will not only form a migration obstacle for amphibians but also an increased risk of death by collisions with vehicles and cyclists.
Light and noise disturbance (construction phase) will be more intense in the territory. During operation, naturally, the disturbing noise will grow as well. Considering the characteristics of species (sound communication), this may cause complications.
Collisions with vehicles (construction phase) are not completely avoidable but if proposed measures are adhered to (especially immediate filling of terrain bottoms during construction so that toads do not settle in there - see Chapter V), the impact is not significant for the population of toads in the ÚEV. In case of larger migrations, it is necessary to install temporary migration

barriers
(ecological supervision of the structure). In the phase of operation the risk is completely eliminated (bridges). The risk of death on the planned asphalt road under the bridges, however, remains real.
Pollution of water environment (operation) - as long as the procedures of disposal of waste water and the procedures applicable to accident that are stated in the zoning permit documentation, this impact is not expected. During the construction, it is necessary to adhere to safe work procedures and discipline in the entire territory of Natura 2000 locations. The habitat could easily be polluted (drops, accidents, insufficient discipline). This is why we propose several measures to limit the risks (see Chapter V).
In total, the impact of the implementation of the intention in variant 1 on the European fire-bellied toad was assessed as moderately negative (-1). This is due to the relatively small taking of habitat that can partially return to original condition during the operation of the intention.

Mehelyi's Root Vole (Microtus oeconomus mehelyi)

The intervention in the potential habitat of the Mehelyi´s Root Vole (during the implementation) shall take place in particular on the places of the liquidation of vegetation, or terrain modifications, i.e. in the area of permanent seizure. The only suitable location within the ˇUEV was found on the place of the intersection of Biskupické arm. After the completion of the structure, it is assumed that the space under the bridges (even considering the sufficient clear area
- in the location of bridging the Biskupické arm 19 m) will be left as much as possible to natural development without technical adjustments (with the exception of the cycling road/service road). During the operation of the intention thus the space should be again grown, but it probably would not be fully usable for Mehelyi´s Root Vole. There is also the real risk of the invasion of non-original plant species that should be eliminated (see Chapter V., Proposal of the Measures). The level of ground water and the regular regime of the Danube River course that is decisive for Mehelyi´s Root Vole, shall not be affected by the intention.
V In the proximity of Biskupice branch (ca km 4.59 - 4.72 of the intention), there is a real risk of killing of the individuals living there during the land stripping. Nests are constructed by the Mehelyi´s Root Voles in the bottom part of Reed clusters under the ground or on the top of the clusters (Amboz, 2011). The stripping therefore must be done outside the period of reproduction of Mehelyi´s Root Vole (in December - January at the best). The majority of the individuals of Mehelyi´s Root Vole winters outside the wet summer sites, winter occurrence in the proximity of the branch however may not be completely excluded, therefore there is still a certain risk of killing the individuals, even despite these measures.
Pollution of water environment (construction and operation) - as long as the procedures of disposal of waste water and the procedures applicable to accident that are stated in the zoning permit documentation, this impact is not expected.
Light and noise disturbance (operation phase) it shall be necessary to consider in particular the noise disturbance, or vibrations. There shall be disturbance during terrain works when inserting pillars (pit digging, possible vibrations of terrain, etc.) during the implementation.
Collisions with vehicles (construction) may not be absolutely excluded, with regards to the mobility of the species however there is no risk of a collision of the Mehelyi´s Root Vole with construction machinery really possible In the phase of operation the risk is completely eliminated (the system of bridge).
In total, the impact of the implementation of the intention in variant 1 on Mehelyi´s Root Vole was assessed as moderately negative (-1). For the mitigation of the impact they proposed the measures stated in Chapter V.

European Beaver (Castor fiber)

No beaver´s castle was found directly in the area of the construction of variant 1, however beaver occurs in the territory (signs of residence). Thus the intention intervenes with the territory of

Beaver.
The intervention in the potential habitat of the Mehelyi´s Root Vole (during the implementation) shall take place in particular on the places of the liquidation of vegetation, or terrain modifications, i.e. in the area of flyover bridge. Hoover, it shall be just temporary impact, since after the completion of the structure they would like to leave the space under the bridges (also with regards to a sufficiently large clear height on the place of bridging over Biskupice branch of 19 m) to be naturally developed from as large portion as possible, without technical treatments (save the cycling route/servicing communication). During the operation of the intention, the space should be partially regrown. However, there is also the real risk of the invasion of non-original plant species that should be eliminated (see Chapter V., Proposal of the Measures).
Pollution of water environment (construction and operation) - as long as the procedures of disposal of waste water and the procedures applicable to accident that are stated in the zoning permit documentation, this impact is not expected.
Light and noise disturbance - during the implementation - Beaver is a night and twilight animal when the construction activities shall not probably take place. Disturbance during day is possible, yet there shall be just time-restricted activities that would not probably influence the presence of Beaver in significant way.
During the operation, in particular noise disturbance by operation on the communication shall take place. Noise from the road may cause the reduction of the use of the territory affected b noise. This regards mainly the area directly under the bridge object.
Collisions with vehicles (implementation phase) may not be absolutely excluded with regards to night and twilight activity of beaver it is not really possible. In the phase of operation the risk is eliminated (the bridges).
Disturbance by increased visit rate in the location (operation) - is connected to making the left-bank cycling route accessible for the public from the bridge. However, for beavers, dusk and night activities prevail, and at those times, the cycling route should be used only minimally.
As there is a real risk of increased disturbance, we propose protective measures in Chapter V (ban on operation of refreshment shops around the left-bank cycling route in the territory of ÚEV Biskupické luhy, system of barriers preventing vehicles from entering).
The migration possibilities of the beaver alongside the river will not be affected considering the size of the bridge (operation).
In total, the impact of the implementation of the intention in variant 1 on the European beaver was assessed as moderately negative (-1). The intervention with the territory of beavers will occur immediately under the bridges, however, it will be an intervention on a small area and only temporary. After the start of operation, it is expected that the territory will return to a condition close to natural. Migration possibilities will not be disturbed.

IV.2.1.3. Impacts on CHVÚ Sysľovské polia

None of the variants directly intervene with the CHVÚ. The seizure of the territory of the CHVÚ shall not take place. The commencement of the intention is placed to the existing Jarovce intersection, i.e. ca 20 m from the North boundary of the CHVÚ. Variant 1 and 2 are identically routed on these places. Therefore the impacts for variants 1 and 3 are identical. The subjects of protection of the HCVÚ Sysľovské polia., being Great Bustard, Bean Goose, Greater White-fronted Goose and Red-footed Falcon, shall be affected the following impacts.

- Collisions with vehicles
- Disturbance with noise, lights
- Environment pollution (changes in immissions characteristics)

The size of the above given impacts is assessed bellow, for the period of construction (implementation) and the operation (as long as the impact applies). In the period of the preparation of the structure it is possible to suppose in particular the increase movement of people in the

proximity of the CHVÚ for the purpose of surveys (geodetical, geological, etc.), however no particular activities on the territory of the CHVU shall probably take place. The impact shall thus be zero.

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a) Collisions with vehicles

Impact that shall be manifested in particular during operation. Collissions of birds with construction machinery in the construction period can be seen as improbable, its impact was evaluated as 0.

The species protected within the Sysľovské polia CHVÚ are endangered especially when migrating or flying when nesting or for feed, when they can collide with traffic while crossing the intention. For geese, these will mostly be flyovers from the Danube to their feeding habitats in the CHVÚ. The flying altitude during migration excludes a risk of injury by a passing vehicle; risk remains especially for frequent flyovers of the intention for feed. The elevated position of the Jarovce interchange above the terrain further increases the risk.

Collisions with birds are real, however, they will most probably not form a significant impact on the populations of species as the intention will basically just be an extension of the existing road from the Jarovce interchange. In the decisive segment (i.e. in the section from Jarovce

- to the SK/A state border) that is in immediate vicinity of the CHVÚ, the road is already in operation. For bustards, in addition, no collisions with automobiles are known in practice (Vlasta Škorpíková, oral information). The impact was thus assessed only as moderately negative (-1).

To minimize the risk of collision of protected objects with vehicles passing on the existing D4 highway (SR/A state border - Jarovce interchange) and the existing D2 highway (to the south from the Jarovce interchange), we recommend to add non-transparent and non-translucent unilateral noise walls from the side of CHVÚ Sysľovské polia. Besides the increase of the flight altitude of birds, noise and light disturbance inside the CHVÚ will be reduced as well. The survival of the great bustard in Slovakia is directly linked to creation of protection conditions for this territory that is an important historical reproduction location therefor.

This field needs to be reflected by a separate structure that would solve the noise situation on the existing sections of the D2 and D4 highways and on the part of the Jarovce interchange with concurrent solving of the noise load from the D2 highway for the adjacent municipality of Jarovce.

b) Disturbance with noise, lights

Noise disturbance in the construction period will be of a temporary nature only and not continuous, reducing the level of effects on the protected objects. In addition, construction works can be planned in advance according to the needs of protection of individual species. This is why noise during the construction of variant 1 can be evaluated as slightly negative (-1).

V In the operating period, however, the noise disturbance situation is different (see Chapter II.2). Strong noise will become almost continuous. According to the Noise Study (Annex F.7 to the zoning permit documentation), the distance of the 45 dB equal loudness contour at night for 2030 will be 500 m from the axis of intention (in the section passing nearby the CHVÚ). During the day, the value is 500 m for a 50 dB equal loudness contour. These noise levels seem, according to the latest knowledge, to be suitable for the determination of the limit of significant disturbing impact (an increased percentage of abandoning of the territory by individual species exists) (Reijnen et al., 1995).

If we calculate the area significantly influenced by noise growth during operation of the newly constructed D4 section, we will reach the number 14.5 ha, or 0.82% of the total area of the CHVÚ. This percentage is acceptable.

V The construction of the intention will not practically result in increased intensities in the existing sections of D2 or D4; there, intensities will grow by natural traffic growth that would be the same if the intention had not been constructed. The only difference will be whether the traffic will come on the existing D2 from Bratislava or on the newly-built D4.

The expected traffic intensities on the already existing sections of D2 and D4 that already influence the CHVÚ by noise, are, for D4 in the direction from the Jarovce interchange to the border of Austria/SK in 2030 equal to 27 500 vehicles/24 hours, and for D2 from the Jarovce interchange to the Hungary/SK border in 2030 equal to 18 500 vehicles/24 hours.
While most birds are capable of certain adaptation, it is more than probable that this area, significantly affected by noise (from the existing D2 and D4 and by a small contribution from the newly built D4), will lose the value of a nesting habitat for some of the bird species. However, they can still partially use it as a feeding territory. The main factor influencing the prosperity of bustards in traditional locations, however, is a change of the structure of grown crops and intensification of agricultural production (Škorpíková, 2008). The impact was assessed as moderately negative (-1).

To minimize noise and light disturbance of the protected objects by vehicles passing on the intention, we recommend, as a mitigating measure, installing non-transparent and non-translucent unilateral noise walls in the area of the Jarovce interchange and of the feeders (especially from the state border), located closest to the borders of CHVÚ Sysľovské polia. The survival of the great bustard in Slovakia is directly linked to creation of protection conditions for this territory that is an important historical reproduction location therefor.
This needs to be reflected when solving the noise situation in the existing sections of D2 and D4 and the Jarovce interchange when solving the noise load on the municipality of Jarovce.

c) Pollution of Environment

Changes of absorbed emission characteristics in the territory
As implied by the Absorbed Emissions Study (Annex F.8 to the zoning permit documentation), during operation, the limit of NOx (30 pg. m-3) for the protection of the ecosystem in the territory of CHVÚ will not be exceeded. In addition, economic crops that are not too sensitive on nitrogen load prevail on the territory of the CHVÚ. A certain increase of the concentration and thus an increase of nitrogen deposits will surely occur. The impact was assessed as moderately negative (-1).

Pollution of Water Environment

As long as the procedures of disposal of waste water and the procedures applicable to accident that are stated in the zoning and planning decision documentation, this impact is not expected. The impact was assessed as (0).

Table 18: Summary - The overview of the significance of the impacts on the individual subjects of protection of the CHVÚ Dunajské luhy in the case of variant 1.

CHVÚ Sysľovské polia		
The subjects of protection		Impact assessment
Great Bustard	*Otis tarda*	-1
Greater White-fronted Goose	*Anser anbifrons*	-1
Taiga Bean Goose	*Anser fabalis*	-1
Falcon red-footed	*Falco vespertinus*	-1

IV.2.1.4. Impacts on ÚEV Ostrovné lúčky

AS the species potentially affected by the intention, the following species were assessed in the previous chapter: Red Flat Bark Beetle, Stag Beetle, Greater Mouse-eared Bat and Great Capricorn Beetle. With regards

rather great distance of variant 1 from the ÚEV (ca 800 m),, the possible impacts of the intention on the subjects of protection were reduced to:

- Collisions with vehicles
- Disturbance with noise and lights
- Environment pollution (water environment pollution)

The environment pollution with immissions was excluded on the basis of the Immissions Study (annex F.8 of the zoning and planning decision documentation). On the territory of the ÚEV, the limit for the protection of ecosystem for NOx (30 μg. m^{-3}.$year^{-1}$) shall not be exceeded. The increase in concentration and thus the increase in nitrogen deposits as the contribution of the operation of the intention shall be inconsiderable (less than 1 μg. m^{-3}). The reason is in particular the large distance of the location from intention. The impact was assessed as zero (0).
V The following part of the text stated the assessment of the influence of the subjects of protection of the ÚEV Ostrovné lúčky by the impacts of the intention, always for the period of construction and operation. During the period of the preparation of the intention, the impact on the subjects of protection shall be zero (0).

Red Flat Bark Beetle,(Cucujus cinnaberinus), Stag Beetle (Lucanus cervus) and Great Capricorn Beetle(Cerambyx cerdo)

The impacts of the intention that could influence these species is in fact just the indirect impact on the quality of the habitat - environment pollution. The their impacts were excluded with regards to the distance from the intention and the ecological demands of the three species. The contacts of the individuals from the ÚEV with vehicles on the intention were excluded as improbable with regards to a notable distance of the location from the intention (800 m), the height of flyover bridge (min. 5.5. above the course of the Danube, max. 26.5 m), the real height of which shall be increased by another č m anti-noise wall and the notable distance from the intention. According to the telemetric study (Rink a Sinsch, 2007), the colonisation of the new places (by Stag Beetles) varies up to the distance less than 1 km per generation, it would be probably in fact.
Water environment pollution (operation and construction) - that could affect the habitats where the beetles live - as long as the procedures of disposal of waste water and the procedures applicable to accident that are stated in the zoning and planning decision documentation, this impact is not expected.
Overall, the impact of the implementation of the intention in variant 1 would be for Red Fat Bark Beetle, Stag Beetle a Great Capricorn Beetle assessed aszero(0).

Greater Mouse-eared Bat (Myotis myotis)

Contacts with vehicles (during the operation) may not be altogether excluded, in particular with regards to the mobility of the species. Greater Mouse-eared Bat makes the regular flights to the hunting regions to the distance of 5 - 7 m. However, Greater Mouse-eared Bat usually flies low at the terrain, thus the risk of a collision on high bridges is minimised. It can fly through an underpass with the height of 2 m ((Tomáš Bartonička (ČESON), oral presentation). The real risk of a collisions then takes place in forest stands and at their edges used by bats as hunting regions where they may fly higher. However, the risk is substantially reduced by the implementation of protective walls on the flyover bridge.
Greater Mouse-eared Bat prefers forest environment, the risk of a contact in the section of the intention passing through an open countryside (outside the flyover bridge) is thus significantly reduced-
Water environment pollution (both operation and construction), that could affect the habitats inhabited by the species. As long as the procedures of disposal of waste water and the procedures applicable to accident that are stated in the zoning and planning decision documentation, this impact is not expected.
Disturbance with noise and lights (both operation and construction), shall be manifested only

when the Bats would fly from the ÚEV to the proximity of the intention, that could be used as a hunting region, yet the impact would not be significant with regards to the surrounding vast stands that would be possibly used as replacement areas. Disturbance from bridges shall be minimised too by the installation of anti-noise and anti-glare walls. Wintering place and summer colonies that are located in the case of this species under ground or in the lofts of large buildings probably shall not be affected by noise.
In total, the impact of the implementation of the intention in variant 1 on Greater Mouse-eared Bat was assessed as moderately negative (-1). The intention would not affect summer colonies and wintering places, the risk of contacts is significantly minimised by anti-noise walls on the entire flyover bridge.

IV.2.1.5. Impacts on CHVÚ Lesser Carpathians

None of the variants directly intervene with the CHVÚ. Variant 1 and 2 are identically routed on these places. Therefore the impacts for variants 1 and 3 are identical. The subjects of protection in the CHVÚ Lesser Carpathians shall be (with regards to rather large distance from the intention - 4.5 km being the shortest distance on the place of the completion of GSI Ivanka North) affected by just one impact.

- Collisions with vehicles

The following species were assessed in Chapter III.2.5 as the species potentially influenced by the intention: Saker Falcon, European Honey-buzzard, Eurasian Eagle-Owl, Peregrine Falcon and Eastern Imperial Eagle.
During the period of the preparation of the intention, the impact on the subjects of protection shall be zero (0).

The collision of birds with construction machinery in the period of construction may be labelled as less probable. Impact shall be manifested in particular during the operation.
The above given species may pass through the intention even several times a day when obtaining food (Saker Falcon, European Honey-buzzard, Eurasian Eagle-Owl, Peregrine Falcon and Eastern Imperial Eagle). These are the species having large feeding territories and they shall pass above the intention during a common search for feed or when hunting. However, it is necessary to state that already today, the wider territory of the structure is relatively seriously burdened by traffic; this is therefore not a phenomenon that would be completely new for the said bird species. The risk of knocking down is higher in particular in the case of young individuals, globally this is not too probable either. The impact on these species was assessed as moderately negative (-1).

Table 19: Summary - the overview of the significance of the impacts on the individual subjects of protection in the CHVU Lesser Carpathians.

CHVÚ Lesser Carpathians		
The subjects of protection		Impact assessment
Saker Falcon	*Falco cherug*	-1
European Honey-buzzard	*Pernis apivorus*	-1
Middle Spotted Woodpecker	*Dendrocopos medius*	0
White-backed Woodpecker	*Dendrocopos leucotos*	0
Syrian Woodpecker	*Dendrocopos syriacus*	0
Black Woodpecker	*Dryocopus martius*	0
Eurasian Eagle-owl	*Bubo bubo*	-1
Black Stork	*Ciconia nigra*	0
European Nightjar	*Caprimulgus europaeus*	0
Peregrine Falcon	*Falco peregrinus*	-1
Collared Flycatcher	*Ficedula albicollis*	0
Red-breasted Flycatcher	*Ficedula parva*	0
Red-backed Shrike	*Lanius collurio*	0
Grey-headed Woodpecker	*Picus canus*	0
Barred Warbler	*Sylvia nisoria*	0
Common Quail	*Coturnix coturnix*	0
Eurasian Wryneck	*Jynx torquilla*	0
Spotted Flycatcher	*Muscicapa striata*	0
Common Redstart	*Phoenicurus phoenicurus*	0
Common Stonechat	*Caxicola torquata*	0
European Turtle Dove	*Streptopelia turtur*	0
Eastern Imperial Eagle	*Aquila heliaca*	-1

IV.2.1.6. Impacts on ÚEV Bratislavské luhy

Variant 1 passes by the location to the South at the distance of approximately 2 km down the river stream. For this reason (a sufficient distance) and thanks to the character of the intention (bridge), the impacts such as seizure, environment pollution, noise, migration restriction, etc. were excluded. The only possible impact that remains possible are possible contracts of animals with traffic on the intention (bats). However, this impact is eliminated by sufficiently high anti-noise walls (4M) alongside the entire intention above the Danube River and the adjacent inundated forests. Therefore in the case of variant 1, the impact on the subjects of protection in the ÚEV Bratislavské luhy was assessed as zero (0).

IV.2.2. Variant 2 (green) IV.2.2.1. Impacts on CHVÚ Dunajské luhy

The subjects of protection in the CHVÚ Dunajské luhy shall be affected in particular by the following impacts:

- Seizure (direct interference with the habitats)
- Noise and light disturbance
- Increased visit rate in the location
- Collisions with vehicles
- Environment pollution (the changes in the immission characteristics, water environment pollution).

The size of the above given impacts is assessed bellow, for the period of construction (implementation) and the operation (as long as the impact applies). In the period of the preparation of the construction it would be possible to suppose mainly the increased movement of people in the territories for the purpose of surveys and small activity (e.g. survey drilling, seizure survey, etc.). The main negative impact is in this case the disturbance that shall not be significantly negative. This is the one-shot short-term impact.

a) Seizure (direct interference with habitats)

The impact that shall commence in the period of construction and shall persist till the operation period.

This variant passes through the CHVÚ in its North part, in particular the upper part of Hrušovská zdrž Dam, where the entire inundation part is not permanently flooded. It passes approximately through the south end of rowing channel, ca 670 m more to the South than variant 1. The area permanently taken by the red variant is 12.77 ha, or 0.08 % of the total area of the CHVÚ. In total, there are the habitats suitable for occurrence or nesting of any of the subject of protection in the entire area.

The intention runs through the majority of the space of SHVÚ on bridges, the exception is last ca 180 m of the passage through CHVÚ, overcame by the intention on the terrain. The anti-noise and anti-glare walls on the place of the passage through Natura 2000 system (ca km 3.000 - 5.700) are designed alongside the entire length of the passage through CHVÚ (to the right km 2.900 - 7.500; to the left km 2.900 - 5.800) . The height is just 2m.

Forest habitats in the permanent seizure shall be liquidated and trees cut, however the surface shall not be reinforced and treated in any other way (save the places where pillars shall be erected). With regards to rather large clear height (min. 4 m) we may suppose the gradual re-growth in the part of the area with vegetation. However, there is also the real risk of the invasion of non-original plant species that should be eliminated (see Chapter V., Proposal of the Measures).

Water areas under the flyover bridge shall be affected only on the place of the construction of the pillars in water course. The other parts of the water course under the flyover bridge shall be untouched by the construction.

For the species that do not have feeding and nesting habitats in the territory affected by the construction, the impact of seizure was assessed as zero,, in both implementation and operation period. The following species are concerned: Common Redshank, Tawny Pipit, Sand Martin and Mediterranean Gull.

The majority of the subjects of protection uses the territory as feeding territories or gathering places (migrating and wintering species). The loss of habitats is in this case with regards to the minimum area (0.067%) within the CHVÚ significant and the impact was assessed as moderately negative (-1), in both implementation and operation periods. The following bird species are concerned: Western Marsh-Harrier, Common Tern, Little Egret, Common Pochard, Tufted Duck, Common Goldeneye, Smew, migrating species of water birds creating groups during migration or wintering, in particular the birds named in Annex 1.

In the surroundings of variant 2, nesting habitats of the following species are located: Common kngfisher -according to an ornithological survey (Kúdela, Melišková, Littera, 2011), 4 nesting

pairs were found in a wider territory of the intention in 2011, however, no pairs were found directly in the route of the intention where a nesting location could be destroyed. For this species, liquidation of habitats in the area of the intention was thus evaluated as slightly negative (-1) both during implementation and during operation.

Little bittern - while the ornithological survey (Kúdela, Melišková, Littera, 2011) did not find it in the territory, both banks have habitats potentially suitable for the nesting of this species. While the most suitable reed habitats were destroyed during the construction of houseboats and waterside adjustments, future nesting of the bittern cannot be excluded. For this species, liquidation of habitats in the area of the intention was thus evaluated as slightly negative (-1) both during implementation and during operation.

Gadwall, garganey, red-crested pochard - in the taken area, habitats that can potentially be used by the species as nesting locations exist (the Biskupické arm). This is why liquidation of habitats has been evaluated as slightly negative (-1) for these species.

Black stork - according to the ornithological survey (Kúdela, Melišková, Littera, 2011), in the vicinity of variant 2, probably 1 pair of black stork regularly nested until 1995; at present, the nesting population is on its minimum (1 nesting pair in the CHVÚ), however the population seems to have grown recently. In such a case it would probably came to the re-settlement of the area. For this species, liquidation of habitats in the area of the intention was thus evaluated (despite the relatively small percentage taken from the CHVÚ) as significantly negative (-2) both during implementation and during operation.

Black kite - in the past, a part of the CHVÚ around the intention was a regular nesting location of this species. Currently, it nests only irregularly, however it occurs every year. Since the reduction in the species occurred on the entire territory of the Slovak Republic, this territory remains further

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the significant location of the species from the national point of view and it can be supposed that when the Danube population starts growing again, it would occupy the former territories within the territory affected by the construction (Kúdela, Melišková, Littera, 2011). For this species, liquidation of habitats in the area of the intention was thus evaluated (despite the relatively small percentage taken from the CHVÚ) as significantly negative (-2) both during implementation and during operation.

White-tailed Eagle - the contemporary nesting population of the species in the CHVÚ is 4 pairs (2006 - 2011). It is the greatest nesting place of the species in Slovakia. One pair nests in the territory directly affected by the construction of the intention, which is 1/4 of the overall population in the CHVÚ. For this species, liquidation of habitats in the area of the intention was thus evaluated (despite the relatively small percentage taken from the CHVÚ) as significantly negative (-2) both during implementation and during operation.

- Noise and light disturbance

Impacts that will be present in different levels during construction and during operation.

As the objects of protection include no bird species that would be active mostly at night and as light disturbance will be shaded by noise walls, light disturbance can be considered, both during the construction and during the operation, to have a moderately negative impact (-1).

Noise disturbance in the construction period will be of a temporary nature only and not continuous, reducing the level of effects on the protected objects. In addition, construction works can be planned in advance according to the needs of protection of individual species. This is why noise during the construction of variant 2 can be evaluated as slightly negative (-1).

V In the operating period, however, the noise disturbance situation is different (see Chapter II.2). Strong noise will become almost continuous. Noise disturbance will be partially eliminated by the installation of noise walls that will be installed in the entire length of the crossing of CHVÚ, however, with insufficient height (only 2 m), substantially reducing their effects.

A significantly disturbing sound level at which birds leave their territories is the level of 45 - 50

dB (Reijnen, 1995). However, this is an approximate value somewhere in the middle of a range as the noise sensitivity of each bird species is different. According to the Evaluation Report (Geoconsult, 2010), the area affected by more than 50 dB of noise within the CHVÚ is some 412.95 ha, or 2.5% of the total area of the CHVÚ.
The percentage applies to the species using all of the affected habitats (e.g. nesting places, feeding habitats), thus the forest habitats in Biskupické luhy and water areas and inundation of the Danube River. These species are Black kite, White-tailed eagle.
In the case of species using mainly the forest stands of Biskupické luhy, the significant extent of disturbance shall affect ca 192.75 ha, i.e. approximately 2.33 % of the type of environment within the CHVÚ. This regards mainly Black Stork.
The rest of the species uses, to a smaller or greater extent, the floodplain territory of the Danube, the flow of the Danube and the adjacent wetlands, as well as fields and meadows in the CHVÚ (western marsh-harrier, little egret, Mediterranean gull, sand martin, common tern, ducks, migratory species of water birds). Noise will significantly impact 220.2 ha of the area, or 2.30 % of the type of environment within the CHVÚ. The CORINE Land Cover 2006 - 2012 (Slovak Environmental Agency) was used to calculate the areas of individual types of coverage of the country.
Considering the fact that it is a relatively large percentage of the area, situated, even worse, inside the CHVÚ, it is necessary to evaluate the noise disturbance by variant 2 (green) as significantly negative (-2) for the species of Black kite, White-tailed eagle, and Black stork.
These species are relatively timid and require vast non-disturbed areas for life. For other species, the impact has been evaluated as slightly negative (-1).

- Increased visit rate in the location

The left bank of the Danube is currently hard to access and thus is not visited frequently. However, the intention counts on making the left-bank cycling route accessible for the public. A lane for pedestrians and cyclists will separate from the bridge. Thus, justified fears exist that the visit rate of the left bank will increase significantly, bringing disturbance not only in the bank area but also in alluvial forests that were previously visited very little and that provide refuge to species that are disturbance-sensitive (black stork, white-tailed eagle, black kite). There is a risk that increased visit rate will force these sensitive species out of their currently inhabited habitats. The impact of increased visit rate to the location as an indirect consequence of implementation of the intention has been evaluated as slightly negative (-1).
To reduce negative impacts, we propose the measure specified in Chapter V. This involves the construction of a system of barriers preventing from non-permitted driving into the territory of the CHVÚ Dunajské luhy on both sides of the Danube. We also propose to ban any refreshment shops alongside the entire left-bank cycling route in the territory of CHVÚ Dunajské luhy.

- Collisions with vehicles

Collissions of birds with construction machinery in the construction period can be seen as improbable, its impact was evaluated as 0.
Impact shall be manifested in particular during the operation.
The protected objects can be divided into several categories depending on the frequency of passage over the territory of the intention. Species living in a relatively small territory and bound to a specific habitat (e.g. little bittern, common redshank, tawny pipit, common kingfisher) will fly over the body of the expressway especially in the migration period (if they migrate). In these flyovers, the risk of collision with passing vehicles is low. The risk of collisions only exists during reduction of fight altitude, e.g. in order to rest. The altitudes identified by radar during migration vary between 200 and 7000 m for various species. For example, songbirds fly at 1000 - 2000 m at night and at 200 - 300 m during the day (Veselovský, 2001). The risk of collision with passing vehicles is defined by the maximum height of a truck, stated as 3.5 m. It is thus obvious that for seasons flights, the risk of collision is insignificant (0).
The situation differs for species that will fly over the intention several times a day when looking

for feed. Endangered are mostly the species having large feeding territories that shall pass above the intention during common search for food or preying. Collisions with passing vehicles on bridges in the location of crossing of the CHVÚ are partially mitigated by the installation of a bilateral noise wall that is 2 m tall. However, this height is insufficient to avoid collisions of bird species with trucks (the height of a truck is usually 3.5 m). A sufficient height of noise wall for the protected objects preferring forests is of key importance (black stork, white-tailed eagle, black kite) and the existence of insufficiently protected frequented road hidden inside a forest is a huge risk for these species. Thus, the impact of collisions with vehicles for these species in variant 2 has been evaluated as significantly negative (-2). The impact could be reduced by installation of noise walls with sufficient height alongside the entire length of crossing the CHVÚ (see Chapter V) if the walls were an integral part of the project.

Other species protected in the CHVÚ prefer water environment (sand martin, common goldeneye, red-chested pochard, common pochard, tufted duck, gadwall, garganey, western marsh-harrier, smew, common tern, little egret, migratory water birds), wetlands and open land - marsh harrier. Thus, the impacts of collisions of protected objects with vehicles have been evaluated as slightly negative (-1). The noise wall in the section crossing the CHVÚ must be increased to a minimum height of 4 m (see Chapter V).

- Pollution of Environment

Pollution of water environment (impact on birds bound to water environment)

If the procedures of disposal of waste water and procedures for accidents (oil traps, retention tanks, seepages and release to recipient) specified in the Feasibility Study are verified, this impact will not be significant (-1).

changes of absorbed emission characteristics in the territory

As is implied by the Emission Study (Pirman, 2010), in the territory of the CHVÚ exceeding of limit for the protection of ecosystem for NOx (30 pg. m^3), the main indicator of air pollution for ecosystems from traffic, shall not occur. A certain increase however shall take place. *The impact was assessed as (-1).*

Table 20: Summary - The overview of the significance of the impacts on the individual subjects of protection of the CHVÚ Dunajské luhy in the case of variant 2.

CHVÚ Dunajské luhy		
The subjects of protection		assessment of the impacts
Black Stork	*Ciconia nigra*	-2
Sand Martin	*Riparia riparia*	-1
Little Bittern	*Ixobrychus minutus*	-1
Mediterranean Gull	*Larus melanocephalus*	-1
Black Kite	*Milvus migrans*	-2
Common Goldeneye	*Bucephala clangula*	-1
Red-crested Pochard	*Netta rufina*	-1
Common Pochard	*Aythya ferina*	-1
Tufted Duck	*Aythya fuligula*	-1
Garganey	*Anas querquedula*	-1
Gadwall	*Anas strepera*	-1
Common Redshank	*Tringa totanus*	-1
Marsh Harriers	*Circus aeruginosus*	-1
Tawny Pipit	*Anthus campestris*	-1
White-tailed Eagle	*Haliaeetus albicilla*	-2
Smew	*Mergellus albellus*	-1
Common Tern	*Sterna hirundo*	-1
Common Kingfisher	*Alcedo atthis*	-1
Little Egret	*Egretta garzetta*	-1
migrating birds #		-1

CHVÚ is declared also for the purpose of the provision of a favourable condition of the habitats and the assurance of the conditions for survival and reproduction of migrating water birds creating groups during migration or wintering, in particular the species named in Annex 1 to the Regulation of the Ministry of Environment of the Slovak Republic of 24 October declaring the CHVÚ Dunajské luhy

IV.2.2.2. Impacts on ÚEV Biskupické luhy

The intention passes through the ÚEV t the South of PR Kopáčsky ostrov in both variants. In variant ľ, it is lead (save the last 80 m) in the entire length of the passage through the ÚEV on a bridge.

The anti-noise and anti-glare walls on the place of passage through Natura 2000 system (ca m 3.0 - 5.7) are designed alongside the entire length. Bilateral walls are designed in the entire length of crossing of the ÚEV (in km 2.900 - 7.500 on the right; in km 2.900 - 5.800 on the left). However, their height is only 2 m. The area taken within the ÚEV is 3.96 ha, or 0.46% of the total area of the ÚEV.

The subjects of protection in this ÚEV shall be affected by the following impacts of the intention:

- Seizure (direct interference with the habitats)
- Noise and light disturbance
- Increased visit rate in the location
- Collisions with vehicles

- Environment pollution (the changes in the immission characteristics, water environment pollution).

V In the period of the preparation of the construction it would be possible to suppose mainly the increased movement of people in the territories for the purpose of surveys and small activity (e.g. survey drilling, seizure survey, etc.). The main negative impact is in this case the disturbance that shall not be significant. This is the one-shot short-term impact.

V There is the assessment of the influence of the subjects of protection in the ÚEV Biskupické luhy by the impacts of the intention in the next part of the text:

Habitat 91F0 Inundated oak-elm-ash forests alongside lowland rivers

The impacts of the intention that shall have an impact on the habitat are the direct seizure (liquidation of the habitat) and the indirect impact on the quality of the habitat - environment pollution.

Table 21: Habitat 91F0 - Quantitative data

The overall area in Slovakia	6,835 ha
Area in the concerned ÚEV	504 ha
The area of habitats liquidated within the intention	1.836 ha
The percentage of the habitat 91F0 within the ÚEV liquidated by the intention.	0,36 %

2

In case of implementation of variant 2, some 18,361 m of the 91F0 habitat will be directly destroyed. This is approximately 0.36 % of the area of the habitat within the ÚEV (504 ha). According to the mapping of the habitats carried out within the Appropriate Assessment (Well Consulting, 2013) this regards the stands with the representativeness of 2 (6,000 m) or 3 (12,361 m), often in a mosaic and with transitions to other habitats. These are not thus the stands of the supreme quality, despite that their loss, in particular with regards to the position in the middle a valued vast complex of inundated forest shall be notable.

As it is implied by Dispersion Study (Annex F.8. of the zoning and planning decision documentation), exceeding of the absorbed emission limit the for ecosystem protection for NOx (30 μg. m-3.year-1) will not occur in the territory of the ÚEV; these are the pollutants that are the main indicator of air pollution for ecosystems from transport. However, there shall be a certain increase (the contribution of 2 - 3 g. m-3.year-1)

Pollution of water environment - as long as the procedures of disposal of waste water and the procedures applicable to accident that are stated in the Feasibility Study, this impact is not expected.

As the intention in variant 2 will destroy a relatively small percentage of the habitat with a middle or low representative level, the impact of implementation of the intention in variant 2 on habitat 91F0 was evaluated as slightly negative (-1).

Habitat 91F0 - Carpathians and Pannonian oak-hornbeam forests

The impacts of the intention that shall have an impact on the habitat are the direct seizure (liquidation of the habitat) and the indirect impact on the quality of the habitat - environment pollution.

It is necessary to state that in the case of habitat 91G0*, the presence of the habitat in the territory is significantly questionable as according to the mapping done within the preparing of the Appropriate Assessment (Mapping of habitats of Dunajské luhy in variants of routes of the D4 highway. Well Consulting, 2013), really nice and representative verdures of this type are absent

here. These are always the stands with a strong transition to the stands of habitat 91F0 and their classification is therefore disputed Also the information from ŠOP SR (Mgr.Radovan Michalka) correspond with it, according to him, this subject of protection was included in the ÚEV Biskupické luhy by an erroneous translation of forest typology to the habitats of the European importance. However, the stands comprise some xerophilic elements typical for habitat91 G0* due to which they approached to the inclusion of the stands to this habitat. Habitat 91 G0* belongs to the territory also from geographic point of which and thanks to other parameters.

Table 22: Habitat 91G0 - Quantitative data

The overall area in Slovakia	12,550 ha
Area in the concerned ÚEV	28.5 ha
The area of habitats liquidated within the intention	0.923 ha
The percentage of the habitat 91G0 within the ÚEV liquidated by the intention.	3,2 %

V In the case of construction of variant 2, the bridges will cross some 9 233 m^2 of the 91G0* habitat (3.2% of the total area of the habitat within the ÚEV). While these habitats are not typical, their loss, in particular with regard to the position in the middle of a valued vast complex of inundated forest, shall be notable. In addition, there is also the potential for further development of stands towards this habitat. As it is implied by the immissions study (Annex F.8 to the zoning and planning decision documentation), on the territory of the ÚEV it shall not come to the exceeding of absorbed emission limit for the protection of ecosystem for NOx (30 pg. m^{-3}), the main indicator of air pollution for ecosystems from traffic, shall not occur (see Chapter II.3.1). A certain increase however shall take place.

Pollution of water environment - as long as the procedures of disposal of waste water and the procedures applicable to accident that are stated in the Feasibility Study, this impact is not expected.

In total, the impact of the implementation of the intention in variant 2 on habitat 91G0* was assessed as significantly negative (-2). The reason is a large percentage of the seizure of the habitat that is little representative but it transits to the stands of habitat 91F0, however it has a potential for the development towards habitat with better quality.

Habitat 6210 Xerophilous grass and herb bushy stands on lime subsoil (*important sites of Orchideaceae)

The impact of the intention that may act on this habitat is the indirect influence of the quality of habitat - environment pollution.

Table 23: Habitat 6210 - Quantitative data

The overall area in Slovakia	19,809 ha
Area in the concerned ÚEV	91.63 ha
The area of habitats liquidated within the intention	0 ha
The percentage of the habitat 3250 within the ÚEV liquidated by the intention.	0 %

Direct taking is excluded as the habitat is located on the Kopáčsky ostrov island at the closest, i.e. more than 1 km from variant 2.

As it is implied by Dispersion Study (Annex F.8. of the zoning and planning decision documentation), exceeding of the limit for ecosystem protection for NOx (30 pg. m-3) on the territory of the ÚEV, the main indicator of pollution of air by traffic, shall not occur (see Chapter

II.3.1.). There will be a certain increase, however, due to the distance from the intention, it will be negligible (less than 1 pg. m-3).
Pollution of water environment (operation and construction) - as long as the procedures of disposal of waste water and the procedures applicable to accident that are stated in the zoning permit documentation, this impact is not expected.

In total, the impact of the implementation of the intention in variant 2 on habitat 6210 was evaluated as zero.

m.

Habitat 3150 Natural eutrophic and mesotrophic dead waters with the vegetation of floating and/or immersed vascular plants of Magnopotamion or Hydrocharition type
The impact of the intention that may act on this habitat is the indirect influence of the quality of habitat - environment pollution.

Table 24: Habitat 3150 - Quantitative data

The overall area in Slovakia	1,400 ha
Area in the concerned ÚEV	9.16 ha
The area of habitats liquidated within the intention	0 ha
The percentage of the habitat 3250 within the ÚEV liquidated by the intention.	0 %

Direct taking is excluded as the habitat is located in the Biskupické arm at the closest, i.e. more than 630 m from variant 2.
As it is implied by Dispersion Study (Annex F.8. of the zoning and planning decision documentation), exceeding of the limit for ecosystem protection for NOx (30 pg. m-3) on the territory of the ÚEV, the main indicator of pollution of air by traffic, shall not occur (see Chapter II.3.1.). There will be a certain increase, however, due to the distance from the intention, it will be

-3

negligible (less than 1 pg. m). In addition, this habitat is naturally eutrophic or even mesotrophic.

Appropriate assessment of impact of intention on territories of European importance and protected avian territories

Pollution of water environment (operation and construction) - as long as the procedures of disposal of waste water and the procedures applicable to accident that are stated in the zoning permit documentation, this impact is not expected.

In total, the impact of the implementation of the intention in variant 2 on habitat 3150 was evaluated as zero.

Habitat 91H0* Thermophilic Pannonian oak forests

The habitat was not located in the territory where direct and indirect impacts reach. The impacts were assessed as zero (0).

Stag Beetle (Lucanus cervus), Great Capricorn Beetle (Cerambyx cerdo)

With regard to similar ecological requirements, these two species of saproxylophages were assessed together. The impacts of the intention that may influence these species are intervention with the habitat, influencing of habitat quality - pollution of environment, light and noise disturbance, and collisions with vehicles.

The intervention in the habitat of both species shall take place on the place of cutting of the inundated forest in the route of the intention. If we consider the entire area taken within the ÚEV, it is an area of approx. 3.96 hectares, or approx. 0.5% of the habitat suitable for the occurrence of these species of beetles (total 780 ha of forest habitats). Thus, the intervention with the habitat will not be significant. In addition, the impact on the populations of both species can be mitigated. It is

necessary, for example, to leave the stumps and cut trees in the territory and not to remove them from the location (see Chapter V).

As it is implied by Dispersion Study (Annex F.8. of the zoning and planning decision documentation), exceeding of the absorbed emissions limit for ecosystem protection for NOx (30 pg. m-3) on the territory of the ÚEV, the main indicator of pollution of air by traffic, shall not occur; these may cause reduced quality of forests.

Pollution of water environment (operation and construction) - as long as the procedures of disposal of waste water and the procedures applicable to accident that are stated in the zoning permit documentation, this impact is not expected.

Also, collisions with vehicles (operation phase) cannot be excluded; these may be supported by the fact that insects are attracted by lights of automobiles (considering the evening and night activity of adults). Adults sitting on the warm surface of the road are also probable.

In total, the impact of the implementation of the intention in variant 2 on the stag beetle and the great capricorn beetle was assessed as moderately negative (-1). The reasons are especially in the acceptable percentage of the affected habitats of these species. To reduce the impact, measures were proposed (Chapter V).

Bullhead (Cottus gobio), Kessler's gudgeon (Gobio kessleri), Danube ruffe (Gymnocephalus baloni)

The impacts of the intention on these species are similar due to the similar habitat requirements of these three species. They are thus evaluated together.

These fish prefer flowing rivers with various depths. In the location of the intention and in wider surroundings (where influence by indirect impacts by the intention could occur), no such habitats have been identified in the ÚEV Biskupické luhy. In the Biskupické arm, still water prevails, and the maximum flow speed is around several cm/s. This fact was also confirmed by consulting with Ing. Peter Beleš (slovak Fishing Union).

This is why the impact of implementation of the intention in variant 2 on the bullhead, Kessler's gudgeon, and Danube ruffe was evaluated as zero (0).

European Fire-bellied Toad (Bombina bombina)

Intervention with potential habitat (during construction) will occur especially in locations where vegetation is destroyed and/or terrain works in locations with deep still water; however, such locations are not frequent in the route of variant 2. As the fire-bellied toad prefers water surfaces with soft-leaved vegetation in sun-covered locations for reproduction and life (Baruš et al., 1992), the removal of the vegetation will probably cause a temporary moving of toads outside the affected area. After recovery (while probably only partial) (during the operation of the intention) of the water surfaces, toads can be expected to return to the location. However, there is also the real risk of the invasion of non-original plant species that should be eliminated (see Chapter V., Proposal of the Measures).

During construction, it is necessary to fill any holes created during construction immediately so that toads do not populate them - see Chapter V.

Pollution of water environment (operation and construction) - as long as the procedures of disposal of waste water and the procedures applicable to accident that are stated in the zoning permit documentation, this impact is not expected.

Light and noise disturbance (construction phase) was excluded due to the characteristics of the species. During operation, naturally, the disturbing noise will grow. Considering the characteristics of species (sound communication), this may cause complications.

Collisions with vehicles (construction phase) are not completely avoidable but if proposed measures are adhered to (especially immediate filling of terrain bottoms during construction so that toads do not settle in there - see Chapter V), the impact is not significant for the population of toads in the ÚEV. In the operation phase, the risk is eliminated in the majority of the territory

(bridge).
In total, the impact of the implementation of the intention in variant 2 on the European fire-bellied toad was assessed as moderately negative (-1). During construction, it is necessary to adhere to the proposed measures (Chapter V).

Mehelyi's Root Vole (Microtus oeconomus mehelyi)

Influence into the potential habitat of the root vole (during construction) - The intention in variant 2 does not cross a habitat suitable for reproduction of root voles (they prefer areas with a high level of subsurface water with reed, sedge, and stem vegetation). Theoretically, wintering locations could be influenced; however, this is not too probable due to the relatively high distance of reproduction sites.
The intervention with the potential wintering locations shall take place in particular on the places of the liquidation of vegetation, or terrain modifications, i.e. in the area of permanent seizure. After the completion of the structure it is foreseen that the space under the bridges (also with regards to a sufficiently large clear height on the place of bridging - at least 4 m) will be left for natural development as much as possible, without technical treatments (apart from the cycling route/service road). During the operation of the intention thus the space should be again grown, but it probably would not be fully usable for Mehelyi´s root vole. However, there is also the real risk of the invasion of non-original plant species that should be eliminated (see Chapter V., Proposal of the Measures).
The level of ground water and the regular regime of the Danube River course that is decisive for Mehelyi´s Root Vole, shall not be affected by the intention.
Pollution of water environment (operation and construction) - as long as the procedures of disposal of waste water and the procedures applicable to accident that are stated in the zoning permit documentation, this impact is not expected.
Light and noise disturbance (construction phase) was excluded due to the characteristics of the species. During the construction, disturbance must be foreseen in ground works when building pillars (pit digging, possible vibrations of terrain, etc.).
Collisions with vehicles (construction) may not be absolutely excluded, with regards to the mobility of the species however there is no risk of a collision of the Mehelyi´s Root Vole with construction machinery really possible In the phase of operation, this risk is completely eliminated in the majority of the route through the ÚEV (bridge), apart from a small part of the ÚEV (approx. 80 m).
In total, the impact of the implementation of the intention in variant 2 on Mehelyi´s Root Vole was assessed as moderately negative (-1). Habitats where voles spend winters could be influences, but this probability is low.

European Beaver (Castor fiber)

No beaver´s castle was found directly in the area of the construction of variant 2, however beaver occurs in the territory (signs of residence). A territory of a beaver family will thus be influenced.
Impact on beaver habitats (during construction) will occur mostly in locations where verdures will be removed and terrain adjusted, i.e. in the bridge area. This will, however, be just a temporary influence of the impact, as it is foreseen that after completion of the structure, the space under the bridge (also thanks to the sufficient clear height - min. 4 m) will be left for natural development without technical modifications. During the operation of the intention, the space should thus be partially regrown. However, there is also the real risk of the invasion of non-original plant species that should be eliminated (see Chapter V., Proposal of the Measures).
Light and noise disturbance - during construction - the beaver is a night and dusk animal; construction activities will probably not take place then. Disturbance during day is possible, yet there shall be just time-restricted activities that would not probably influence the presence of beaver in significant way.
Strong noise will become almost continuous during operation. However, noise disturbance will be

partially eliminated by the installation of noise walls that will only be installed up to 2 m of height, substantially reducing their effect. They do not eliminate the noise directly under the bridge (driving over expansion joints, vibrations, etc.).
The influence could be mitigated by installing noise reducing walls of a sufficient height (min. 4 m) along the entire length of crossing the ÚEV (see Chapter V).
Collisions with vehicles (implementation phase) may not be absolutely excluded, however, considering the mobility and intelligence of the species the risk of collision of the beaver with construction machinery is not too realistic. In the operation phase, this risk is completely eliminated on most of the route in ÚEV (bridge). The parameters of the bridges also exclude any restriction of migration of beavers alongside the Danube.
Pollution of water environment (operation and construction) - as long as the procedures of disposal of waste water and the procedures applicable to accident that are stated in the zoning permit documentation, this impact is not expected.
Disturbance by increased visit rate in the location (operation) - is connected to making the left-bank cycling route accessible for the public from the bridge. However, for beavers, dusk and night activities prevail, and at those times, the cycling route should be used only minimally.
As there is a real risk of increased disturbance, we propose protective measures in Chapter V (ban on operation of refreshment shops around the left-bank cycling route in the territory of ÚEV Biskupické luhy, system of barriers preventing vehicles from entering).
In total, the impact of the implementation of the intention in variant 2 on the European beaver was assessed as moderately negative (-1). The reason is a relatively small impact on the territory of beavers that does not form a migration barrier.

IV.2.2.3. Impacts on CHVÚ Sysľovské polia

None of the variants directly intervene with the CHVÚ. The commencement of the intention is placed to the existing Jarovce intersection, i.e. ca 20 m from the North boundary of the CHVÚ. Variant 1 and 2 are identically routed on these places. Therefore the impacts for variants 1 and 3 are identical.
The assessment of the impacts of the intention on the CHVÚ Sysľovské polia in variant 2 is given in Chapter IV.2.1.3.

IV.2.2.4. Impacts on ÚEV Ostrovné lúčky

As the species potentially affected by the intention in variant 2, the following species were assessed in the previous chapter III.2.4: habitat 91E0*, Red Flat Bark Beetle, Stag Beetle, Greater Mouse-eared Bat, Great Capricorn Beetle, European Beaver. Considering the relatively small distance of variant 2 from the ÚEV (approx. 115 m), the following impacts of the intention on protected objects have been identified:

- Noise and light disturbance
- Collisions with vehicles
- Environment pollution (the changes in the immission characteristics, water environment pollution).

V The following part of the text stated the assessment of the influence of the subjects of protection of the ÚEV Ostrovné lúčky by the impacts of the intention, always for the period of construction and operation. During the period of the preparation of the intention, the impact on the subjects of protection shall be zero (0).

Habitat 91E0* - Inundated willow-poplar and alder forests

The impacts of the intention influencing the habitat are only indirect - impact on the quality of the habitat - environment pollution. This habitat is located in the part of the northern part of the ÚEV,

closest to the variant 2 (115 m).

As it is implied by Dispersion Study (Annex F.8. of the zoning and planning decision documentation), exceeding of the limit for ecosystem protection for NOx (30 pg. m-3) on the territory of the ÚEV, the main indicator of pollution of air by traffic, shall not occur. The ÚEV will not be negatively influenced by the increased emissions produced by the intention, although certain increase of concentrations will occur (estimated contribution of 2 - 3 pg. m-3) .

Pollution of water environment - as long as the procedures of disposal of waste water and the procedures applicable to accidents that are stated in the Feasibility Study (Dopravoprojekt Bratislava, 2009) are adhered to, this impact is not expected.

Overall, the impact of implementation of the intention in variant 2 on the habitat 91F0 was evaluated as moderately negative (-1), especially as direct taking of the habitat will not take place and the influence will be marginal.

<u>Red Flat Bark Beetle,(Cucujus cinnaberinus), Stag Beetle (Lucanus cervus) and Great Capricorn Beetle(Cerambyx cerdo)</u>

The impact of the intention that could influence these species is the indirect impact on the quality of the habitat

- pollution of environment, noise and sound disturbance, increased visit rate of the location, and collisions with vehicles. Other impacts were excluded with regard to the distance from the intention and the ecological requirements of the three species.

Light and noise disturbance during the construction phase has been evaluated as insignificant as the adults of all three species fly mostly in late afternoons and evenings (great capricorn beetle) when there are probably no construction activities. Disturbance during day is possible, yet there shall be just time-restricted activities that would not probably influence the presence of these species in a significant way.

It is necessary to assess the collisions of beetles with traffic on the intention as individuals of these species may be attracted by the warm surface of the highway.

The quality of habitats inhabited by these beetles will only be influenced slightly (see above, habitat 91E0*).

Overall, the impact of the implementation of the intention in variant 2 would be for Red Fat Bark Beetle, Stag Beetle a Great Capricorn Beetle assessed as moderately negative (-1). The habitats of these species within the ÚEV will not be affected by permanent taking.

<u>Greater Mouse-eared Bat (Myotis myotis)</u>

The impacts of the intention that may influence the greater mouse-eared bat include:

- Collisions with vehicles
- Environment pollution (water environment pollution)
- Disturbance with noise and lights

Contacts with vehicles (during the operation) may not be altogether excluded, in particular with regards to the mobility of the species. Greater Mouse-eared Bat makes the regular flights to the hunting regions to the distance of 5 - 7 m. However, Greater Mouse-eared Bat usually flies low at the terrain, thus the risk of a collision on high bridges is minimised. It can fly through an underpass with the height of 2 m ((Tomáš Bartonička (ČESON), oral presentation).

The real risk of a collisions then takes place in forest stands and at their edges used by bats as hunting regions where they may fly higher.

For the entire variant, the noise reduction wall is designed in the entire crossing of the Danube and in adjacent forests only as 2 m tall. This does not sufficiently remove the risk of collisions of bats with traffic on the intention. It would be suitable to add a sufficiently high noise reduction wall (at least 4 m) alongside the entire crossing of the Danube and the left-bank alluvial forests.

Water environment pollution (both operation and construction), that could affect the habitats

inhabited by the species. As long as the procedures of disposal of waste water and the procedures applicable to accidents that are stated in the Feasibility Study (Dopravoprojekt Bratislava, 2009) are adhered to, this impact is not expected.
Noise and light disturbance (operation) will be partially eliminated in the location where the intention is closest to the ÚEV by a 2 m noise wall. However, the relatively low height of the wall reduces the effects of the wall. A significant impact of disturbance will be shown if bats fly from ÚEV to the vicinity of the intention in Biskupické luhy, where the height of the noise wall is only 2 m as well. This location is most probably used to prey. Wintering place and summer colonies that are located in the case of this species underground or in the lofts of large buildings probably shall not be affected by noise. During construction, the impact will be insignificant.
In total, the impact of the implementation of the intention in variant 2 on Greater Mouse-eared Bat was assessed as moderately negative (-1). The intention will only influence the preying areas of individuals flying out of the ÚEV. Measures eliminating collisions of individuals of this type with vehicles on the intention (Chapter V) were designed.

European Beaver (Castor fiber)

The impacts of the intention in variant 2 that may influence the beavers are:

- Disturbance with noise and lights
- Collisions with vehicles
- Environment pollution (water environment pollution)

Light and noise disturbance - during construction - the beaver is a night and dusk animal; construction activities will probably not take place then. In addition, construction works will take place in a distance of approx. 115 m from the border of ÚEV. Disturbance during day is possible, yet there shall be just time-restricted activities that would not probably influence the presence of beaver in significant way.
Strong noise will become almost continuous during operation. Noise disturbance will be partially eliminated by the installation of noise walls that will only be installed up to 2 m of height, substantially reducing their effect. The strongest noise disturbance will be under the bridge; beavers will probably discontinue using the territory immediately under the bridges.
The influence could be mitigated by installing noise reducing walls of a sufficient height along the entire length of crossing the ÚEV (see Chapter 5).
Collisions with vehicles (implementation phase) may not be absolutely excluded, however, considering the mobility and intelligence of the species the risk of collision of the beaver with construction machinery is not too realistic. In the operation phase, the risk is completely eliminated in the vicinity of the ÚEV (bridge). The parameters of the bridges also exclude any restriction of migration of beavers alongside the Danube.
Pollution of water environment (operation and construction). As long as the procedures of disposal of waste water and the procedures applicable to accident that are stated in the zoning and planning decision documentation, this impact is not expected.
The migration possibilities of the beaver alongside the river will not be affected considering the parameters of the bridges (operation).
In total, the impact of the implementation of the intention in variant 2 on the European beaver was assessed as moderately negative (-1). The territories of beavers within the ÚEV will not be affected and their migration will not be restricted. However, disturbance around the intention will increase.

IV.2.1.5. Impacts on CHVÚ Lesser Carpathians

None of the variants directly intervene with the CHVÚ. Variants 1 and 2 are routed in the same corridor in this section. Therefore the impacts for variants 1 and 2 are identical. The subjects of

protection in the CHVÚ Malé Karpaty (Lesser Carpathians) will be (considering the rather large distance from the intention - 4.5 km being the shortest distance in the place of the completion of the Ivanka North interchange) affected by a single impact.

- Collisions with vehicles

The assessment of the impacts of the intention on the CHVÚ Malé Karpaty in variant 2 is given in Chapter IV.2.1.5.

IV.2.1.6. Impacts on ÚEV Bratislavské luhy

The species potentially influenced by the intention in variant 2 resulting from Chapter III.2.6 are: barbastelle bat, greater mouse-eared bat, pond bat. With regards to rather large distance of variant 2 from the ÚEV (ca 2.75 m), just one impact of the intention on the subject of protection was identified:

- Collisions with vehicles

V The following part of the text stated the assessment of the influence of the subjects of protection of the ÚEV Bratislavské luhy by the impacts of the intention, always for the period of construction and operation. During the period of the preparation of the intention, the impact on the subjects of protection shall be zero (0).

Greater Mouse-eared Bat (Myotis myotis)

Contacts with vehicles (during the operation) may not be altogether excluded, in particular with regards to the mobility of the species. Greater Mouse-eared Bat makes the regular flights to the hunting regions to the distance of 5 - 7 m. However, greater mouse-eared bat usually flies low at the terrain, thus the risk of a collision on high bridges is minimised. It can fly through an underpass with the height of 2 m ((Tomáš Bartonička (ČESON), oral presentation).
The real risk of a collisions then takes place in forest stands and at their edges used by bats as hunting regions where they may fly higher. The section in left-bank forests is not protected by a sufficiently tall noise wall in variant 2. The noise wall designed for the entire crossing of variant 2 above the Danube and the adjacent alluvial forests is designed with a height of only 2 m, which is insufficient with regard to collisions of bats with vehicles. This may cause losses of individuals of the greater mouse-eared bat in the ÚEV.
The impact of the construction of the intention in variant 2 on the greater mouse-eared bat has been evaluated as moderately negative (-1). To reduce the negative impact, Chapter V proposed measures (installation of sufficiently tall noise walls on the bridges).

Barbastelle (Barbastella barbastellus)

Contacts with vehicles (during the operation) may not be altogether excluded, in particular with regards to the mobility of the species. While detailed information is unavailable, it is able to perform up to 290 km transfers in spring and autumn. The real risk of a collisions then takes place in forest stands and at their edges used by bats as hunting regions where they may fly higher; for variant 2, these are not protected by a sufficiently tall noise wall. The noise wall designed for the entire crossing of variant 2 above the Danube and the adjacent alluvial forests is designed with a height of only 2 m, which is insufficient with regard to collisions of bats with vehicles. This may cause losses of individuals of the barbastelle in the ÚEV.
It was recently found that one of the important factors influencing the flying over the intention by bats is the density of traffic on the road. Bats often refuse to try to fly over roads with high traffic density (such as the foreseen intention) (Tomáš Bartonička (ČESON), oral presentation).
This reduced the risk of collisions with vehicles on the road but increases the fragmentation of territory for bats.

The impact of the construction of the intention in variant 2 on the greater mouse-eared bat has been evaluated as moderately negative (-1). To reduce the negative impact, Chapter V proposed measures (installation of sufficiently tall noise walls on the bridges).

Pond Bat (Myotis dasycneme)

Contacts with vehicles (during the operation) may not be altogether excluded, in particular with regards to the mobility of the species. Due to the usual lack of underground premises in the periods of summer presence, it is forced to perform spring and autumn transfers of up to 330 km. However, bats of the Myotis family usually fly low over terrain, minimizing the risk of collision on high bridges (Tomáš Bartonička (ČESON), oral presentation).
The real risk of a collisions then takes place in the summer above water surfaces that it uses for preying (potentially flying higher); for variant 2, these are not protected by a sufficiently tall noise wall (bridging of the Danube). This may cause losses of individuals of the pond bat in the ÚEV.
The impact of the construction of the intention in variant 2 on the greater mouse-eared bat has been evaluated as moderately negative (-1). To reduce the negative impact, Chapter V proposed measures (installation of sufficiently tall noise walls on the bridges).

IV.3. Assessment of Cumulative Impacts

The current urban plan of a large territorial unit of Bratislava region, the urban plan of the capital city of the Slovak Republic, Bratislava and also the information system of SEA/EIA were used for the assessment of the cumulative impacts in particular.

The assessed intention is located in the wider surroundings of the capital city of Bratislava that is exposed to rather strong pressures on the exploitation of the territory.

From amongst the existing structures that significantly participate in the cumulative impacts, this regards the following: D1 highway, Bratislava - Trnava, 6-lane section - the current highway will cross the D4 highway in the Ivanka North interchange.
Highway D2 – route: state boundary between CZ/SK (Lanžhot – Brodské) – Malacky – Bratislava – state border between SK/HU (Čunovo – Rajka), 4-lane. The current D2 highway will cross the assessed section of the D4 highway in the Bratislava - Jarovce flyover interchange.
D4 highway, AT/SK state border (Jarovce) - Bratislava, Jarovce (crossing with D2), 4 lanes - the section assessed here represents a prolongation of the D4 from the Jarovce interchange.
The following is stated as the public utility structures in the binding part of the Upper-tier Territorial Unit of Bratislava region.
D4 highway, Ivanka North - Rača - structure continuing on the assessed section of the D4 highway. They shall form the bypass of Bratislava together with the other sections of highway D4.
R1 expressway, Most pri Bratislave – Vlčkovce – a structure connecting to the section of the D4 highway assessed here in the Podunajské Biskupice intersection This section runs in parallel (ca 10 km) to the South-east with the existing highway D1 in the direction to Trnava.
R7 expressway, BA Prievoz - BA Ketelec – a structure connecting to the section of the D4 highway assessed here in the Ketelec intersection It is expected that the construction will take place concurrently with the assessed section of the D4 highway (2016 - 2019).
R7 expressway, BA Ketelec – Dunajská Lužná - this is a continuation of the expressway from the Ketelec interchange eastwards. The R7 continues alongside the Danube River to Dunajská Streda – Nové Zámky – Veľký Krtíš. It shall connect to the planned R2 to Košice near Lučenec.
The route of high-speedway (VRT) within the boundaries of the city of Bratislava from the central cargo station alongside the highway D1 to Čierna voda turn and father alongside the highway D1 towards the Váh River region.
The areas for the construction of a parallel runway to the existing runway 13-31 and areas for

building of the necessary infrastructure at the M. R. Štefánik Airport. The areas are closely adjacent to the proposed intention, westwards therefrom.
The territory and equipment of the Waterworks Wolfsthal. This waterworks should be located ca 11.5 km up the Danube River stream from the territories belonging to Natura 2000 system assessed here. This would mean the influence of water level in the area under the stage, the influence on habitats in the territory assessed here may not be excluded.
Schwechat – Slovnaft oil pipeline and product ducts. The connection of Slovnaft with Austria. The corridor established in the zoning plan of Bratislava runs through the territory of a Natura 2000 system (CHVÚ Dunajské luhy and ÚEV Biskupické luhy – to the north of the Kopáčsky island).
High-pressure gas line Slovnaft-Petržalka-Einsteinova-Mlynská dolina. The route shall run through the CHVÚ Dunajské luhy and ÚEV Biskupické luhy – to the north of Kopáč Island.
Harbours, landing stages and related structures of transport and technical infrastructure of harbours of waterway transport on the Danube River.
Furthermore, they proposed the development function area in the area of the rowing channel at Jarovce branch and also rather vast development function area to the North.east from GSI Jarovce. The industrial area is located to the North of the existing communication E58 between GSI Jarovce and the state boundary between the Slovak Republic and Austria in the proposal.

The aforementioned extensive list of planned intentions implies that the surroundings of the assessed intention is under a notable pressure of development activities.

This regards mainly the structures of the existing transport infrastructure and industrial activities representing rather dense network in the complicated territory. If infrastructural construction (see above), development areas for residential zones and industrial areas are added to the existing intention, it is clear that the environmentally acceptable level for keeping the objects of the individual locations of Natura 2000 system in a condition favourable from protection point of view could easily be exceeded.

In the case of the CHVÚ Dunajské luhy, the capacity of environment has already been exceeded, for the intention assessed here. With regards to the CHVÚ Dunajské luhy and ÚEV Biskupické luhy, the other intentions of line structures are planed too (oil pipeline and product duct of Schwechat – Slovnaft and the high-pressure gas line of Slovnaft-Petržalka-Einsteinova-Mlynská dolina), that shall cut the left-side Danube inundated forests in the North part and they shall represent another loss of valued habitats.. The planned R7 expressway will then separate the locations to the east from the Kopáčsky Island (the connection to the Ketelec interchange). In addition to the increase in noise disturbance and habitat seizure, it shall bring about also the deterioration of the migration permeability of the territory.

In general, the greatest problem shall be the high spatial fragmentation of the territory and the seizure of valuable habitats together with a significant increase in noise pollution in the case of some types of structures.
For all foreseen structures, it is necessary to respect increased protection of individual locations of the Natura 2000 system and their protected objects and to perform the measures necessary to minimize the impacts of these intentions. Together with a wise selection of territory for locating the above intentions that could reduce the costs of performance of necessary protective measures, it is the only way that could prevent further exceeding of a bearable level of environmental load.

IV. *4. Assessment of Impacts of Intention on Location Integrity*

For CHVÚ and ÚEV, integrity means sustained quality of the location from the viewpoint of fulfilling of its ecological functions in relation to protected objects - i.e., impacts on protected objects cannot be evaluated without considering integrity and vice versa. In a dynamic perception, it is the ability of ecosystems to continue operating in a manner favourable for the protected

objects from the viewpoint of preserving and/or improvement of their current condition. This term must also be understood in a wider sense (see "Integrity" in the text of the sites directive), not only topographically or geographically but also from the aspects of time, population, etc. Disturbance of integrity may thus also mean that the species diversity of individual habitats decreases, natural communication channels or migration paths are interrupted, or ecosystems change by unintentional implanting of new species.
The significance of impacts on the integrity of Natura 2000 locations is not exactly defined in EU law. Within the member states of the EU, however, a consensus exists that significant impact on location integrity occurs if significant negative influence on at least one of the protected objects is documented. Naturally, it is suitable to consider the impact as significantly negative also if the sum of slightly negative impacts is serious enough to make the overall view invoke a need to assess the impact on ecological functions as significantly negative.
However, not such situation occurred in this assessment.

On the basis of this view, the following summary conclusion about the impact of the assessed intention on the integrity of the affected locations of the Natura 2000 system was expressed.
This chapter provides a transparent overview (in tables) of the results of the performed assessment both for individual territories of the Natura 2000 system and for protected objects. Impacts are shown by variants.
The results of the assessment are explained in detail in Chapter IV.2. In line with the methodological manual, impacts of the technical solutions that was submitted in the zoning permit documentation (variant 1) and/or Feasibility Study (variant 2) were assessed, i.e. with no mitigating measures. The measures for the next step of preparation are listed in Chapter V.

IV.4.1. Variant 1 (red)

The construction of the intention in this variant will significantly influence the nesting habitats of several protected objects in CHVÚ Dunajské luhy. The species are black stork, black kite and white-tailed eagle. Nesting locations of these bird species are rare as they are usually located only in vast forest complexes with certain parameters. This is why they require strict protection.
The project (at the zoning permit documentation level) that not only plans connecting the left-bank cycling route alongside the Danube to the D4 bridge over the Danube for pedestrians and cyclists but also intends to build a service road/cycling route under the bridge in the territory of left-bank alluvial forests (with connection to the left-bank cycling route on one side and to a network of field and forest paths on the other side) would present an unwanted increase of the visit rate in the area of Biskupické luhy.
Other ecological functions will not be significantly affected by the intention.
Thus, the assessed intention in variant 1 has a significant negative impact on the integrity of CHVÚ Dunajské luhy from the viewpoint of the following protected objects: black stork, black kite, white-tailed eagle.
The impact on the integrity of other affected locations (ÚEV Biskupické luhy, CHVÚ Sysľovské polia, ÚEV Ostrovné lúčky, CHVÚ Malé Karpaty) is not significantly negative in variant 1.

IV.4.2. Variant 2 (green)

The construction of the intention in this variant will significantly influence the nesting habitats of several protected objects in CHVÚ Dunajské luhy. The species are black stork, black kite and white-tailed eagle. Nesting locations of these bird species are rare as they are usually located only in vast forest complexes with certain parameters. This is why they require strict protection.
V In the present technical form (without noise walls along the entire length of the crossing of Natura 2000 locations with correct parameters), the area of the territory significantly influenced by noise exceeding 50 dB within the CHVÚ is approx. 412.95 ha, or 2.5% of the total area of the CHVÚ. This percentage is rather high; it is also necessary to reflect the fact that protected timid bird species live here (black stork, black kite, and white-tailed eagle). Due to the same reason (non-existence of sufficient barriers), collisions with passing vehicles were also evaluated as

significantly negative.
Other ecological functions will not be significantly affected by the intention.
V In the case of ÚEV Biskupické luhy, impact on habitat 91G0* has been assessed as significantly negative. The reason is the large percentage of taking of the habitat which, while not too representative, transits to the stands of habitat 91F0, and has a development potential to become a better quality habitat.
Thus, the assessed intention in variant 2 has a significant negative impact on the integrity of CHVÚ Dunajské luhy from the viewpoint of the following protected objects: black stork, black kite, white-tailed eagle. The integrity of ÚEV Biskupické luhy is affected from the viewpoint of habitat 91G0*.

The impact on the integrity of other affected locations (CHVÚ Sysľovské polia, ÚEV Ostrovné lúčky, CHVÚ Malé Karpaty) is not significantly negative in variant 2.

Table 25: Overview of significance of impacts on individual protected objects by individual variants.

CHVÚ Dunajské luhy			
The subjects of protection		Impact assessment	
		Variant 1 - Red	Variant 2- Green
Black Stork	*Ciconia nigra*	-2	-2
Sand Martin	*Riparia riparia*	.1	.1
Little Bittern	*Ixobrychus minutus*	.1	.1
Mediterranean Gull	*Larus melanocephalus*	.1	.1
Black Kite	*Milvus migrans*	.2	.2
Common Goldeneye	*Bucephala clangula*	.1	.1
Red-crested Pochard	*Netta rufina*	.1	.1
Common Pochard	*Aythya ferina*	.1	.1
Tufted Duck	*Aythya fuligula*	.1	.1
Garganey	*Anas querquedula*	.1	.1
Gadwall	*Anas strepera*	.1	.1
Common Redshank	*Tringa totanus*	.1	.1
Marsh Harriers	*Circus aeruginosus*	.1	.1
Tawny Pipit	*Anthus campestris*	.1	.1
White-tailed Eagle	*Haliaeetus albicilla*	.2	.2
Smew	*Mergellus albellus*	.1	.1
Common Tern	*Sterna hirundo*	.1	.1
Common Kingfisher	*Alcedo atthis*	.1	.1
Little Egret	*Egretta garzetta*	.1	.1
migrating birds #		.1	.1
ÚEV Biskupické luhy			
The subjects of protection		Impact assessment	
		Variant 1 - Red	Variant 2- Green
habitat 3150	Natural eutrophic and mesotrophic dead waters with the vegetation of floating and/or immersed vascular plants of Magnopotamion or Hydrocharition type	-1	0
habitat 6210	Xerophilous grass and herb bushy stands on lime subsoil (*important sites of *Orchideaceae)*	0	0
habitat 91F0	Inundated oak-elm-ash forests alongside lowland rivers	-1	-1
habitat 91G0*	The Carpathian and Pannonian oak and hornbeam forests	0	-2
habitat 91H0*	Thermophilic Pannonian oak forests	0	0

Bullhead	*Cottus gobio*	0	0
European fire-bellied toad	*Bombina bombina*	-1	-1
Stag beetle	*Lucanus cervus*	-1	-1
Great capricorn beetle	*Cerambyx cerdo*	-1	-1
Kessler's gudgeon	*Gobio kessleri*	0	0
Danube ruffe	*Gymnocephalus baloni*	0	0
European Beaver	*Castor fiber*	-1	-1
Mehelyi's Root Vole	*Microtus oeconomus mehelyi*	-1	-1
CHVÚ Sysľovské polia			
The subjects of protection		Impact assessment	
		Variant 1 - Red	Variant 2- Green
Great Bustard	*Otis tarda*	-1	-1
Greater White-fronted Goose	*Anser anbifrons*	-1	-1
Taiga Bean Goose	*Anser fabalis*	-1	-1
Red-footed Falcon	*Falco vespertinus*	-1	-1
ÚEV Ostrovné lúčky			
The subjects of protection		Impact assessment	
		Variant 1 - Red	Variant 2- Green
habitat 3150	Natural eutrophic and mesotrophic dead waters with the vegetation of floating and/or immersed vascular plants of Magnopotamion or Hydrocharition type	0	0
habitat 6210	Xerophilous grass and herb bushy stands on lime subsoil (*important sites of *Orchideaceae)*	0	0
habitat 91F0	Inundated oak-elm-ash forests alongside lowland rivers	0	0
habitat 91E0*	Inundated willow-poplar and alder forests	0	-1
Flat bark beetle	*Cucujus cinnaberinus*	0	-1
Bullhead	*Cottus gobio*	0	0
European fire-bellied toad	*Bombina bombina*	0	0
Stag beetle	*Lucanus cervus*	0	-1
Greater mouse-eared bat	*Myotis myotis*	-1	-1
Great capricorn beetle	*Cerambyx cerdo*	0	-1
Amur bitterling	*Rhodeus sericeus amarus*	0	0
Streber	*Zingel streber*	0	0
Kessler's gudgeon	*Gobio kessleri*	0	0

91E0*	Inundated willow-poplar and alder forests	0	0
91F0	Inundated oak-elm-ash forests alongside lowland rivers	0	0
Flat bark beetle	Cucujus cinnaberinus	0	0
Bullhead	Cottus gobio	0	0
European fire-bellied toad	Bombina bombina	0	0
Eastern eggar	Eriogaster catax	0	0
Stag beetle	Lucanus cervus	0	0
Large copper	Lycaena dispar	0	0
Greater mouse-eared bat	*Myotis myotis*	0	-1
Barbastelle bat	*Barnastella barbastellus*	0	-1
Pond bat	*Myotis dasycneme*	0	-1
Amur bitterling	Rhodeus sericeus amarus	0	0
Scarce large blue	Maculinea teleius	0	0
Thick shelved river mussel	Unio crassus	0	0
Streber	Zingel streber	0	0
Kessler's gudgeon	Gobio kessleri	0	0
Hungarian quaker	Dioszeghyana schmidtii	0	0
Fenton's wood white	Leptidea morsei	0	0
Dragonfly	Leucorrhinia pectoralis	0	0
Danube ruffe	Gymnocephalus baloni	0	0
White-finned gudgeon	Gobio albipinnatus	0	0
Danube crested newt	Triturus dobrogicus	0	0
March fritillary	Euphydryas aurinia	0	0
Water beetle	Graphoderus bilineatus	0	0
Golden spined loach	Sabanejewia aurata	0	0
European Beaver	Castor fiber	0	0
Common Stonechat	*Caxicola torquata*	0	0
European Turtle Dove	*Streptopelia turtur*	0	0
Eastern Imperial Eagle	*Aquila heliaca*	1	1

CHVÚ is declared also for the purpose of the provision of a favourable condition of the habitats and the assurance of the conditions for survival and reproduction of migrating water birds creating groups during migration or wintering, in particular the species named in Annex 1 to the Regulation of the Ministry of Environment of the Slovak Republic of 24 October declaring the CHVÚ Dunajské luhy

ÚEV Bratislavské luhy			
The subjects of protection		Impact assessment	
		Variant 1 - Red	Variant 2- Green
3150	Natural eutrophic and mesotrophic dead waters with the vegetation of floating and/or immersed vascular plants of Magnopotamion or Hydrocharition type	0	0
3260	3260 Lowland to montane water curses with the vegetation of Ranunculion fluitantis and Callitricho- Batrachion association	0	0

All variants in their current technical condition were thus evaluated from the viewpoint of impacts on the Natura 2000 system as unsuitable for construction.

A significant negative impact (-2) as such cannot be eliminated by any mitigating measures within this assessment. The construction of the intention is only possible after adopting compensatory measures (in line with Article 28(6) of the Act no. 543/2002 Coll. as amended) that will be, in a comparable scope, aimed at unfavourable influenced habitats and species of European significance and functions of the territory of CHVÚ Dunajské luhy. It must also be documented that no alternative solution exists and the intention needs to be implemented due to urgent reasons of higher public interest, including interests of social and economic nature.

Table 26: Overall overview of evaluation of impact of variants on integrity of individual affected locations

	Variant	
	1 - red	2 - green
CHVÚ Dunajské luhy	-2	-2
ÚEV Biskupické luhy	-1	-2
CHVÚ Sysľovské polia	-1	-1
ÚEV Ostrovné lúčky	-1	-1
CHVÚ Malé Karpaty	-1	-1
ÚEV Bratislavské luhy	0	-1
Overall evaluation (impact on location integrity)	-2	-2

0 - no impact
-1 - moderate negative impact
-2 - significant negative impact
Note: The evaluation of the impacts on Natura 2000 sites is not a simple arithmetic average of the values specified in the text; the tabulated value was obtained by an expert opinion.

V. PROPOSAL OF MEASURES

As the impacts of both variants were assessed as significantly negative (-2), it is not suitable to propose any mitigating measures.
However, if compensatory measures in line with Article 28(6) of the Act no. 543/2002 Coll. are adopted, making it possible to implement one of the variants of the intention, we recommend reflecting the following measures in future project preparation:

Project preparation phase:

- Design the road sewage system with a sufficient capacity so that hazardous substances from traffic (oil substances, tyre wear, brake wear, etc.) are always entrapped. The administrator of the road shall regularly check the safety elements for water protection and maintain them in a fully operable condition.
- Draining of bridge structures (the Danube and Little Danube Rivers and other water courses) shall be provided by sewer systems with routing to sufficiently dimensioned safety elements for water protection, such as those designed in the current project documentation for both variants.
- As for the bridge structures crossing locations of the Natura 2000 system, the silent expansion blocks shall be used to reduce the noise in the area under the bridge.
- If variant 2 is constructed, non-transparent and non-translucent bilateral noise walls must be included in the entire length of the crossing over CHVÚ Dunajské luhy and CHVÚ Biskupické luhy. The minimum height of these walls should be 4 m.

Implementation phase:

- Observing of conditions specified in the construction permit for the intention shall be regularly checked by the eco-supervisor of the construction.

- Cutting of trees in the zone taken by the structure shall take place outside the nesting period of birds.
- In the proximity of the Biskupické arm (approx. km 4.590 – 4.720 of the intention), soil removal must be done outside the reproduction period of the root vole (in the months of December and January at the best).
- During construction, it is necessary to level any terrain depressions immediately if they could contain still water and become a habitat for reproduction of amphibians. If necessary, migration barriers shall be installed during the construction for the protection of amphibians.
- For intentions located in protected water areas, it is suitable to add an emergency package containing an absorbent to the equipment of construction machinery. In these areas, absorbent must also be ready at the site, in sufficient quantities. Biodegradable operating fluids must be used, and all machinery working in the areas must be in a suitable technical condition (no dripping), avoid any risk of contamination of the surroundings by dangerous construction materials (including substances with alkaline reactions).
- Construction yards and material dump sites shall be located outside the territories of the Natura 2000 system.
- Adhere to the emergency plan and all valid provisions of law.

Appropriate assessment of impact of intention on territories of European

importance and protected avian territories ***Operating phase***:

- Through the representatives of the ŠOP SR, the relevant self-governments and SVP, š.p. it is necessary to prevent the locating new stands with refreshments alongside the entire left-bank cycling route in the area of CHVÚ Dunajské luhy in order to minimize the disturbing of birds by tourists and sportsmen.
- The construction must not disturb the existing system of bars and barriers preventing from unauthorized driving into the area of CHVÚ Dunajské luhy on both sides of the Danube River. This is to minimize disturbing by increased visit rates in the CHVÚ Dunajské luhy.
- The space under the flyover bridge shall be left as much as possible in a natural condition (ideally, clay subsoil with rocks in enclaves with fractions up to 30 cm that will increase the variability of environment) while respecting the needs and requirements of the maintenance of the bridge body.
- Prevent from expansion of invasive plant species into the areas with removed vegetation cover during the construction. It is necessary to perform regular inspections and removal of invasive plants so that the habitats in the proximity of the intention are not devalued after the return to a close-to-nature condition.

VI. CONCLUSION - COMPARISON OF ASSESSED VARIANTS

The above Appropriate Assessment was elaborated according to the Methodological guide to the provisions of Articles 6(3) and 6(4) of the Directive on conservation of natural habitats and of wild fauna and flora No. 92/43/EEC. This assessment included a detailed evaluation of impacts of two variants of D4 highway, Jarovce - Ivanka, north to 6 locations of the Natura 2000 system and their protected objects - CHVU Dunajské luhy (SKCHVU007), ÚEV Biskupické luhy (SKUEV0295), CHVÚ Sysľovské polia (SKCHVU029), ÚEV Ostrovné lúčky (SKUEV0269), ÚEV Bratislavské luhy (SKUEV0064), and CHVÚ Malé Karpaty (SKCHVU014).

The assessment of impacts was made for each protected object in each location of the Natura 2000 system. Impact was influenced on a sequence of 0 (zero impact), -1 (moderate negative impact), -2 (significant negative impact). The -2 level corresponds to the impact on integrity of Natura 2000 locations that the Directive "on sites" (92/43/EEC) calls, in article 6.3, as significant.

Basing on the elaborated assessment, it can be concluded that the D4 highway forms, in both variants, a significantly negative impact on the integrity of the Natura 2000 system, specifically on CHVÚ Dunajské luhy (SKCHVU007) and in the case of variant 2, also on ÚEV Biskupické luhy
(SKUEV0295); the impact of variant 2 can be considered as more negative compared to variant 1.

Variant 1 - significantly negative impact under directive 92/43/EEC was identified for the following 3 bird species: black stork (Ciconia nigra), black kite (Milvus migrans) and white-tailed eagle (Haliaeetus albicilla). In the case of these species, the significant impact is the taking of habitats.

Variant 2 - significant negative impact under directive 92/43/EEC was identified for the priority habitat of European importance 91G0*, where approximately 3.2% of the area of the habitat will be destroyed in ÚEV Biskupické luhy. While the habitat is not too representative, is has a potential of changing to a better quality type.

Significant negative impact was also identified for the following 3 bird species that are protected

in CHVÚ Dunajské luhy: black stork (Ciconia nigra), black kite (Milvus migrans) and white-tailed eagle (Haliaeetus albicilla). The significant negative impact was assessed due to the impact on the nesting habitat of these species, high risk of collisions with passing vehicles in the territory of alluvial forests, and on the basis of significant noise disturbance within the CHVÚ.

The performance of the intention is only possible after adopting compensatory measures that will, in a comparable scope, focus on unfavourably influenced habitats and species of European significance and functions of territories, and after fulfilling further conditions (under Article 28(6) of the Act no. 534/2002 Coll. as amended).

The impact on the integrity of other affected locations (ÚEV Biskupické luhy - for variant 1, CHVÚ Sysľovské polia, ÚEV Ostrovné lúčky, CHVÚ Malé Karpaty, ÚEV Bratislavské luhy) is not significantly negative in any of the variants of the intention.

V In case of adoption of compensatory measures, Variant 1 (red) seems to be the more suitable for construction from the viewpoint of impacts on Natura 2000 locations, as it has the lowest impact on the Natura 2000 system. The reasons are mostly in the smaller taking of habitats with European significance and total overall taking in the ÚEV Biskupické luhy, larger distance from ÚEV Ostrovné lúčky, and more suitable technical solution influencing the size of impacts on the protected objects in the Natura 2000 locations.

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ANNEXES:

Annex	*1*	Photographic documentation
Annex	*2*	Comprehensive situation of assessed variants (1:70 000)
Annex	*3*	Detailed situation of intention in proximity of CHVÚ Sysľovské polia (1:20 000)
Annex	*4*	Detailed situation of intention in place of crossing the Danube (1:20 000)

Fig. 1: View of the Danube approximately where bridged by variant 1 (red)
Fig. 2: Traces of beaver presence on the bank of the Danube

Obrázok 1 : Pohľad na tok Dunaja, približne v mieste premostenia Variantom 1 (červený).

Obrázok 2: Pobytové stopy bobra (ohryzy) na brehu toku Dunaja.

Fig. 3: Borrow pit at the Jarovecké arm, narrowly avoided by variant 1
Obrázok 3: Zemník pri Jaroveckom ramene. Zámer ho vo Variante 1 tesne obchádza.

Figure 4: **Biskupické arm – northern end.**

Fig. 5: Dam at the Biskupické arm. The flow volume is very small here
Obrázok 5: Hrádzka na Biskupickom ramene. Prietok je v tejto časti veľmi malý.

Figure 6: View of the Biskupické arm (ÚEV Biskupické luhy, CHVU Dunajské luhy).

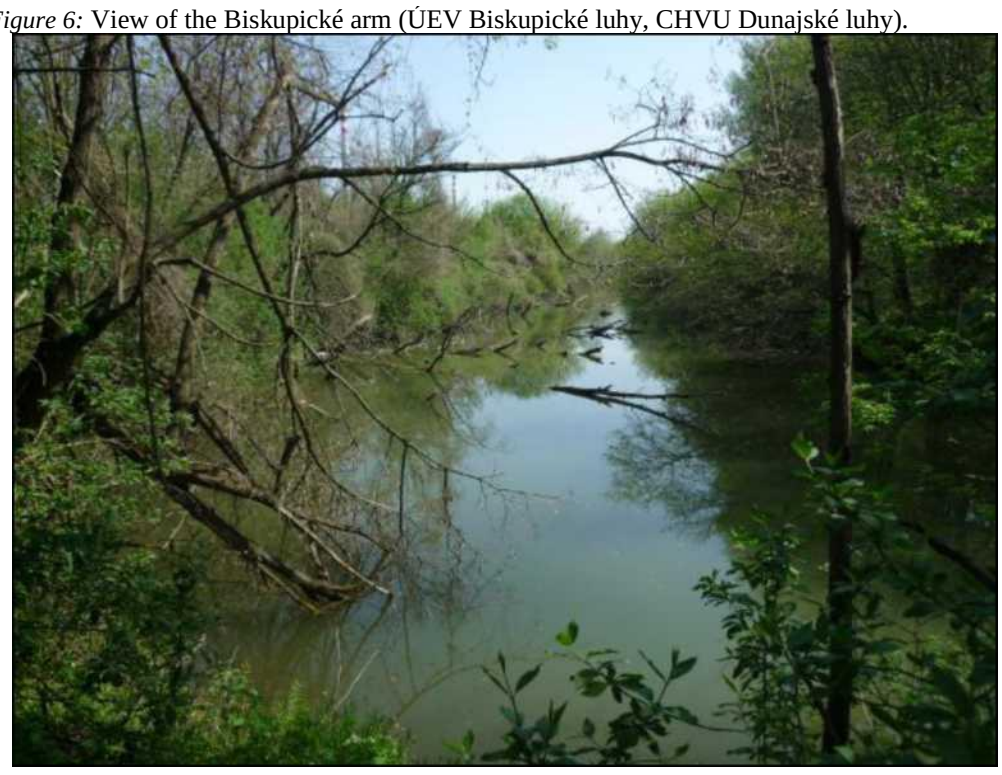

Figure7: **Southern end of the Biskupického arm, led to the seepage channel. Close to the location of crossing with variant 1.**

Figure 8: **Kopáčsky island – steppe habitats**

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