The preparation of the Study Plan, Environmental Impact Assessment (with N2000 impact assessment), obtaining environmental permit of the road section between Győr, east by-pass road - state border

Study Plan

PST: K014.02

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## 1. INTRODUCTION, BACKGROUND

The planning task comprises the improvement of the road section between Győr Eastern bypass and the border, that is the technical planning of the establishments on the Hungarian side. On the other hand, the detailed description of the planning task also includes that the Designer has to stay in contact with their Slovak Partner in the interest of the proper attachment of the Hungarian and Slovak side sections of the 2x2-lane road leading across the State border.

The Hungarian Designers have consulted with the Shipping Permission and Controlling Department of the General Department of BFKH (Budapest Capital Government Office) and North-Transdanubian Water Directorate (briefly ÉDUVIZIG). On the consultation meeting with ÉDUVIZIG, held on 31st January 2019, the reconstruction concept of the Danube bridge in Medve was demonstrated and the possibility of the Slovak partnership was emerged as a Designer demand. The water management and shipping matters are negotiated by the professional delegates in the Danubian sub-Committee of the Hungarian-Slovak Borderline Committee (HVB) (with the participation of Water Managements and Shipping Authorities of both countries). The presentation of the variations of the Danube-bridge in Medve was held in the spring session of the Danube sub-Committee of HBV (25-28 February 2019). The sub-committee informed the Designer in the protocol that the Slovak Partner's commitment could be made available for them only after the official agreement of the institutions in charge. In addition, the HVB Danubian sub-Committee also ordered that hydrodynamic survey must be done related to the whole foreshore. For the hydrodynamic studies, the basic data possessed by the Slovak Partner are necessary, although they cannot be given to them until the official realisation of the contact. To get the basic data of the Slovak partner an intergovernmental agreement is necessary between the Hungarian and Slovak governments regarding the Hungarian ideas in connection with the rebuilding of the Danubebridge in Medve.

The Hungarian-Slovak coordination took place on 2<sup>nd</sup> May 2019, where the Ministry for Innovation and Technology informed the Slovak Ministry of Transport and Construction about the improvement of the road section between Vámosszabadi and the State border, which contains the reconstruction of the deterriorated bridge in Medve. The goal of the Hungarian government is to start the improvement as soon as possible in order to fit it in the public road improvement project.

With the consideration of the existing conditions an Environmental Impact Assessment (briefly KHT) was made based on the technological content of the study plan of the Hungarian investment. A detailed survey was made in the KHT, in which the present environmental and natural state of the affected Hungarian area were shown with the expected effects of the improvement and the instructions being necessary and advisable to reduce them. According to the Hungarian legal requirements and obligations the following documents were attached to the KHT: Non-technical Summary, Natura 2000 Impact Assessment Documentation, Preliminary Archaeological Documentation, Examination Documentation by the 7<sup>th</sup> paragraph of VKI 4<sup>th</sup> article, Climate Protecting Risk Analysis Study and a Trans-border Impact Assessment report.

The investment planned on the Hungarian side finishes with the construction of a new 2x2 lane bridge over the Danube river in Medve on the Slovak-Hungarian State border. The bridge will be common establishment of the two countries. The construction of the bridge and the road connection on the Slovak side can be realised based on the Slovak requirements and plans, whose environmental examination and assessment are also the Slovak Partners responsibility. The

Hungarian Designers also considered the potential cross-border environmental impacts of the planned investment on the Hungarian side. Based on the prepared Trans-border Impact Assessment report it can be concluded that no significant cross-border environmental impact is expected in terms of any environmental element.

### **Licensing history:**

The NIF National Infrastructure Development Private Company Limited (briefly NIF Plc.) entrusted Pannonway Constructing Ltd. to make the planning works of the investment entitled "The preparation of the Study Plan, Environmental Impact Assessment (with Natura 2000 impact assessment), obtaining environmental permit of the road section between Győr, east by-pass road – state border (K014.02)" as the result of the public procurement procedure.

The Pannonway Costructing Ltd also entrusted VIKÖTI Ltd. to supply environmental tasks. The planning task comprises the preparation of the environmental impact assessment study of the given investment and the contribution to the administrative procedure.

The VIKÖTI Ltd. according to the above mentioned has completed the environmental impact study with the related plans. The obtain of the Preliminary Archaeological Documentation belonged to the task of Pannonway Constructing Ltd.

The VIKÖTI Ltd. submitted the environmental impact assessment report with the related plans to the Government Office of Győr-Moson-Sopron County District Office of Győr Agricultural and Environmental Unit (henceforward Authority) on 25<sup>th</sup> June 2019 for carrying out the environmental impact assessment procedure.

The Authority published an order dependent decision on 4182-8/2019. reference number and ordered a public hearing on 5 August 2019 in Vámosszabadi. During the procedure requests for rectification of the submitted documentation were received (ref. no. 4182-13/2019. and 4182-50/2019). The deficiencies were completed by the Designers within the prescribed time limit and submitted to the Authority.

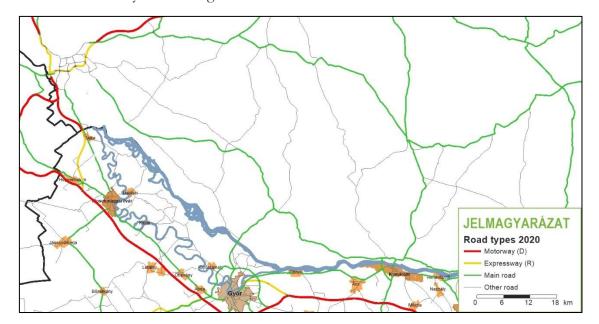
In order to conduct the international environmental impact assessment procedure, the Authority ordered the suspension of the procedure (4182-54/2019.). The Ministry of Agriculture Department of Environmental Conservation sent a notice to the Slovak partner about the start of the environmental impact assessment procedure according to the ENSZ EGB agreement about the assessment of cross-border environmental impacts (Espoo Convention). The non-technical summary and the documentation of Trans-border Impact Assessment report has been attached to the notice in Slovakian language. After the request the Slovak partner indicated its intention for the participation in the procedure of environmental impact assessments of the establishment and sent comments. According to the reply of the Slovak partner sent by the Ministry of Agriculture in ref no. Kmf/187-2/2019, the Authority ordered the supplement of the environmental impact study.

## 2. RESPONSE TO THE COMMENTS OF THE SLOVAK PARTNER

## 1<sup>st</sup> objection: Traffic model

The TRENECON Consulting and Planning Ltd. completed a detailed traffic assessment as a part of the study plan. The traffic model used for the documentation contained the main road network elements highlighted in the Slovak Partner's request (Slovak roads: D2 motorway, I/13 and

Hungarian roads: M15, highway No.14, the old and new bridge in Komárom) (see: graph 1) and the model was built by considering them.



Graph 1: Map of the road network expected in 2020

## 2<sup>nd</sup> objection: Noise and vibration protection (vibroacoustic) study

The estimated noise and vibration protection distances of the bridge construction during KHT investigation were determined. However, at the current design level (study plan), we did not have any data related to the construction technology, the planned construction machinery and site management plan. As a result, we only made estimated calculations based on our earlier experiences. According to these calculations, the noise protection distance on the Slovak side is 111.3 meters and the vibration protection distance is 50 meters compared to the Hungarian limits.

The exact calculations can be conducted on the level of implementation plan, in under construction environmental plan. The suggestion of these set of plans is one of our action in KHT.

# 3<sup>rd</sup> objection: The evaluation of the impacts of planned investment on nature and landscape protection on the Slovak side

The protected area (SKUV293) referred to in the letter is also protected by nature conservation in Hungary (part of the Szigetköz HUFH30004 Natura 2000 area and the national ecological network), although it has not been officially declared as the part of Ramsar network.

From the point of view of wildlife protection, the selection of the possible places of the bridge and the Danube floodplain establishments were preceded by two planning rounds. In the first round (decision support plan) variants which cross the floodplain not over the present bridge or close to it were excluded primarily from nature conservation reasons. In the second round we have examined several solutions in the facility of the current bridge and its nearest area from nature protection view. We have researched relevant academic literature and have done field data collection and have consulted with the concerned authorities (Fertő-Hanság National Park Directorate, hunting societies, Győr Agricultural and Environmental Unit, ect.) for the KHT.

Data collection has been extended to protected Natura 2000 species, semi-natural habitats with a special highlight on the sustainability of functional floodplain eco-systems and the assuring of ecological crossing. In our opinion the crossing of the Danube floodplain with the current bridge or close to it, can be achieved only if the above mentioned criteria will be fully realized from nature conservation view. The analyses of the technical solutions must be arranged with the collaboration of both partners on the Hungarian and the Slovak sides too.

The Main-Danube flows in the riverbeds with stabilized banks and the old natural river beds of the floodplain river bed system are also regulated. On the Slovak side the new bridge-head will be established on one of a small island of the Danube. The island is covered with monoculture noble poplar plantations.

# 4th objection: Suggested mitigation measures on nature and landscape protection

Close to the border the landscape and nature conservation concerns of the Hungarian side are slight, given that the existing road alignment is being extended, the effects of which can be offset and compensated by planting of vegetation. No significant change in landscape is expected.

According to the completed examinations it has been stated that the environmental conflicts caused by the investment can be solved with active environmental interventions. The Natura 2000 Impact Assessment Documentation and also the KHT contains mitigation measures and many of which are especially related to mitigate the effects of the planned investments in the Danube and its floodplain.

# 5<sup>th</sup> objection: Construction on the Slovak side

The completion of a detailed arrangement plan is the task of the later plan stages, so we do not obtain with accurate area requisition data.

In the stage of the Study Plan the following land occupation areas can be expected on the Slovak side:

Temporary land occupancy:

- As the plan expects the sustainability of the traffic, the existing bridge being in the state of the construction must be pulled in the direction of the downstream.
- The road No. 13 must be connected to the pulled alignment, which means temporary land occupancy on the Slovak side.
- The temporary pile bent planned to the downstream of the Slovak pillar might also mean temporary land occupancy on the Slovak side.
- For the bridge construction minimum extent temporary mobilization site shall be expected. (However, the construction of the bridge is planned basically from the Hungarian side, some areas also require occupancy in the Slovak side too for the construction of the abutments.)

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#### Final land occupancy:

- In order to pass the 2x2 lane bridge cross-section, the basic constructions must be widened in the direction of the upstream river side, so the widening of the pillar and the abutment in the Slovak side means permanent land occupancy.
- The possible improvement of the 2x2 lane bridge obviously mean land occupancy.

# 6<sup>th</sup> objection: Flood protection conformance

For the study plan, a complex hydrodynamic research called "The model analyses of the impact of the bridges planned on Győr Easter bypass road in the intersection of the Danube and Moson – Danube caused by the impact of standard states (during its construction or in its final state) of the bridge variations imposed on the main stream of the river on the mainstream of the river" has been made. The examination was carried out according to the coordination with the Hungarian riverbed – management (ÉDUVIZIG). The examinations take the recent state of the Slovak side riverbed data into account.

During the planning period, because of the lack of the agreement between the ministries in charge, the agreement with the Slovak riverbed manager and data collections could not be achieved (see in the 1<sup>st</sup> part Introduction, background).

Beyond the simulations connected to the flood conduction, a 3-dimension hydrodynamic analysis was also made for different head-bridge shapes. According to the researches, in the case of Medve Danube bridge, the planned bridge pillar allocations and embankment broadening do not cause either any important impact influencing the hydrodynamics of the water conducting in the bigger river or more significant water damming impact. From the hydrodynamic point of view arched pillars are the most favourable. The water damming impact is local, the height of it is 5 cms.. ÉDUVIZIG recommended the formation of the conducting lawn paths near the bridge breaks in the Hungarian side.

# 7<sup>th</sup> objection: Assessment of the cumulative impacts within 2 km of the planned activities

The direct and indirect impact areas affected by the wildlife conservation survey are determined by a biologist in case of every projects. We consider that the requested research of the 2 km area is too large in the given case. In the KHT the direct impact area of the construction from the point of the wildlife view is the area of the investment, where the danger of the extinction of some habitats, the risk of the disappearance of certain phytocoenoses and different animal and plant species are big. We consider the land occupancy area as direct impact area during the planning stage. It is usually a 50 meters wild path and we also related here the areas of intersections, recreational areas and joining roads.

In the areas affected indirectly the area requisition, mechanical damages, pollutions can be excluded or have a minimal chance to occur, but the increasing effect of the disturbances (at least periodically during construction) has to be expected. We considered a 150-150 m wide area as the examined indirectly affected area for the neighbouring habitats (phytocoenoses), invertebrates, reptiles and amphibians. The effects coming from the disturbances (noise and vibration) can be occur on both sides of the tracks in a 300-300 m wide path, so we can consider this area as an indirect impact area for mammals and birds. There is no disturbance-sensitive, bird or mammal species (eg large

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carnivores, bustards) with wide river in the examination area which would make further extension of the indirect impact area.

The outlook in the Slovakian side of the survey was also carried out in the same size of impact areas applied on the Hungarian side. No further investigations were carried out, considering that Hungarian planning rights cannot be enforced for foreign plans.