#### V. CONCLUSIONS

## 1. Final statement for the proposed activity

Based on the results of the review carried out in accordance with the law which considered the state of the use of the locality and the environmental capacity, expected impact of the proposed activity on the environment and health of the population (including their probability, extent and duration), nature and extent of the proposed activity, location of the proposed activity, concentrating especially on conformity with the territorial planning documentation, the level of the evaluation report, statements of the bodies and organisations affected by the proposed activity as well as the views of the population of the relevant areas

#### the following is being recommended

Implementation of the proposed activity "Motorway D1 Martin-Lubochna" while complying with conditions stated in section V/3 of this final statement provided that the uncertainties from the evaluation are addressed in further stages of the project preparation of the construction.

### 2. Recommended option

Based on the conclusion of the evaluation report, statements from the parties of the review process, public consultation to the evaluation and expert report, the option which is least suitable is the zero option.

With regards to the expected environmental impact, the following route of the motorway is being recommended:

#### Part A (Martin – Turany)

Options A1 and A2 are almost equal with a slight preference for option A2. Option A1 could be implemented within municipality of Sucany only on the conditions of construction of anti-noise walls that would effectively decrease the cumulative level of noise from the railway and from the motorway to the level prescribed for residential zones in accordance with NV 40/2002 Coll.

#### Part B (Turany – Hubova)

Option B1 is clearly more suitable than option from the environmental, socioeconomic and overall scenery points of view. From the transport point of view – connecting Povazie to Dolny Kubin and Poland – this is not conceptually completed and it can be expected that connection options will be looked for and connected with it positions of crossings. If the route B1 is no longer possible because of some new facts becoming available, the proposing party will look for other solutions.

### 3. Recommended conditions for the preparation and implementation stage

1. For the next stage of the documentation for territorial decision (further only "DUR") prepare environmental-technical survey of the whole route and especially in locations of landslip areas in order to uncover geo-technical properties of the area and to find conditions for redevelopment action.

- 2. To carry out hydro-geologic research in selected sections of the route to find out the regime and direction of flow of underground water in connection to possibility of existence of drinking water, as well as qualitative evaluation of the current position.
- To use hydro-geologic survey to discover presence of preferred directions of outflows of rainwater and flow of underground water which the motorway will cut through so that it is possible to minimise the barrier effect which could lead to creation of accumulation of rainwater and to decrease in soil productivity.
- 4. The risk of affecting the water sources for nearby municipalities and substance and composition of the sources of mineral water must be documented through a hydro-geologic survey. If the tunnel construction affects the amount of the water sources, it will be necessary to propose alternative water sources to supply the population by drinking water. The final hydro-geologic report should be sent to MZ SR Department for spas and mineral springs, Bratislava.
- 5. Within the documentation for the territorial decision, pay increased attention to use of soil with evaluation of quality, use of removed materials, inventory of biotypes in the directly effected area.
- 6. To deal with construction of bridge objects from the view of minimising the impact on ecosystems of water flows. In the section of shore vegetation and loose vegetation minimise the technological adaptations of the banks and cutting of shore vegetation. In sections with river flood plains, dead end branches, moorland minimise construction disruptions and preserve natural flows.
- 7. To review parameters for the proposed bridge objects on the motorway and crossings below the motorway for animal migration and propose adaptations as required. Within DUR localise exactly migration corridors for deer and amphibians.
- 8. Special attention should be paid to setting conditions for technical work affecting the water regime.
- 9. Ensure anti-noise pollution provisions within the proposed technical solution at the level required for residential areas in accordance with NV 40/2002 Coll. In critical locations of the motorway route.
- 10. Build an anti-noise pollution wall which would effectively decrease the cumulative level of noise from the railway and the motorway in Sucany.
- 11. Prepare and confirm with state administrative environmental bodies an 'environmental construction plan' for the construction stage that should include the proposals for the basics of the constructions relating to the environment and proposals for monitoring of their compliance within the time plan of the construction. The plan should also include proposals for preventative measures, a plan for protection during accidents and proposals for dealing with any possible damages.
- 12. Within DUR based on the chosen route identify areas for dumping with specified amount of soil.
- 13. DUR should details significant biotypes affected by the motorway construction and genetic pool localities for finding further conditions from the environmental view.
- 14. In further stages of the project it will be necessary to propose adequate redevelopment measures (drainage, support walls, anchors, changes of weak

- bases, ...) in critical sections with special attention being paid to boring areas, bridge pillar and scaffold bridges and tunnels.
- 15. Consider the possibility of straightening the tunnel in the northeastern direction under Hrdos plot 568/5; coming out by plots 480, 479/1, 478/8 and directing the motorway route to east towards Hrboltova (good land in Roven and Boried would be preserved).
- 16. To preserve the option for transfer on category III state road Svosov-Ruzomberok, Svosov-Komjatna. The further stages of the project preparation should respect the current railway equipment as well development plans that are reflected in the modernisation study "Plan for modernisation of routes Bratislava Zilina Kosice and Zilina Cadca and its coordination with reconstruction of the stated routes" which was prepared by SUDOD TRADE KOSICE. ZSR also requires that the plans for construction of "Densification station Sucany" prepared by Hydroconsult Bratislava are respected. Both these documents are available fro GR ZSR in Bratislava.
- 17. If the option A2 is chosen, the motorway route should be lead so that it does not disturb the archaeology locality Skalka and so that the motorway does not come into a close contact with the outskirt residential area Suciany street 29. augusta.
- 18. The crossing of D1 with road I/18 should be dealt with so that in the future it is possible to connect the fast highway (north-south direction) which is being considered in east from town Martin.
- 19. With regards to the fact that until the bypass of Martin (in east, fast-speed north-south connection) is completed, road I/65 will be used as a motorway slip-road not only for Martin but also for all municipalities in areas Turciansko and Ziarsko, it is necessary to coordinate preparation and implementation of the relevant roads with the motorway:
- a) construction of I/65 by-pass (about km 2.5) which is currently being implemented as a two-lanes road should have four lanes as the current version of the bypass at km 4 has 4 lanes.
- b) the by-pass route of I/65 should be modified in accordance with current norms and regulation.
- 20. Defence Ministry SR (letter dated 6.8.1997) requested for further stages of the project documentation to be discussed with VUSS Banska Bystrica.
- 21. In km 0.0-2.3, the DUR should align the high frequency lines (400kW, 110kV) and the motorway.
- 22. Consider connection of D1 with I/18 between Ratkovo and Turany. This connection would be important from business view for the eastern part of Turec, for recreational area Trusalova-Vratna and the most suitable connection from I/18 in connection to I/70 in direction to Dolny Kubin.
- 23. Cooperate while preparing territorial planning documentation for the relevant municipalities.
- 24. Ensure appropriate ecological monitoring during the construction (following an agreement with the appropriate permission granting body) in order to lessen the negative environmental impact during the construction by building machinery and unjustified or excessive devastation of nature in the vicinity of the building site.
- 25. Access roads near municipalities should be kept dust-free (spraying with water) and they should be cleaned from mud during rainy periods.

- 26. The routes of transport vehicles should not go through residential areas if possible.
- 27. Any groundwork should be reported in advance to the Archaeology Institute of SAV.
- 28. Minimise temporary use of land.
- 29. Building stations should be based in localities with less valuable land (from agricultural view) but outside significant biotic areas, the best option is to consult on these with environmental experts for protection of soil, biotypes and nature.
- 30. Build strengthened areas under car parks and building machinery with isolation from the bedrock and drainage of these areas with cleaning through oil filters and sedimentation tanks.
- 31. Economically deal with locating objects on the building site so that as little land as possible is taken up.
- 32. Ensure that scattered vegetation is preserved in areas used for agriculture.
- 33. Evaluate the environmental impact of mining in accordance with Act NR SR 127/1994 Coll. so that any new quarries are opened with size in accordance with Appendix 1 of Act 391/2000 Coll.
- 34. Ice signalling equipment should be installed on bridges over Vah with the possibility of ice.
- 35. If monitoring identifies above the limit noise pollution from the motorway traffic, build anti-noise walls in relevant areas.
- 36. Emergency procedures should be prepared for the construction work in water sources PHO, this should be approved by a relevant water management body that requires that there is no action in PHO areas of grade I and internal PHO areas of grade II and that action in external PHO areas of grade II are minimised and that there are no interventions in the flow of Vah as it is from the water management view a significant river.
- 37. Should there be any impact of capacity of water sources, replacement water sources have to be secured.
- 38. Consider the possibility of connection Turcianske Klacany and Lipovec to the planned COV at the rest station near Turcianske Klacany.
- 39. Implement redevelopment work for groundwork and pillars for the bridges and construction of tunnel portals in unstable environment or areas prone to land slides. These measures consist in drainage and stabilisation of the slopes with walls. If there is a danger of release of stones, these should be anchored.
- 40. In areas with weak subsoil, e.g. area above the former dump in Sucany, ensure its consolidation, strengthening or exchange and appropriate liquidation of the removed materials.
- 41. Impact of topography changes (cuts and banks) should be minimised by vegetation changes revitalisation of vegetation, planting on the banks, replacement vegetation.
- 42. Use the existing sources of materials as much as possible. Review localities in Lipovec and Sucany and stone quarries in Kralovany II and Dubna skala.
- 43. Material deficit should be dealt with in a wider context considering the stages of the whole network. The previous section Visnove-Martin will have after the construction of the tunnel in Visnove about 800 000 m3 left over.
- 44. Plan bushes and trees. This should happen along the whole length of the chosen option. Suitable plants should be used.

- 45. Bridge objects should be implemented in suitable dimensions depending on the locality, type of the bridge, there must be sufficient space underneath for the given flow and riverbanks.
- 46. Implement the bridge objects so that there are not collisions with migrating birds. This is important because the area is within the intercontinental migration corridor of birds.
- 47. Respect the level III nature protection rules in the area of NP Mala Fatra and level II nature protection rules in the areas NP Mala Fatra and CHKO Velka Fatra.
- 48. Build bypasses for rural roads and prepare and implement projects for technical and economic adaptations in the relevant area.
- 49. Carry out erosion measures above and below the motorway. The vegetation edges should include bushes and tress creating protective covers against wind erosion. Consider construction of tunnels below the motorway that would be large enough to allow transportation of wood.
- 50. Closely cooperate with villages during the construction stage to minimise impact of the construction on villages and their population especially when deciding on transport routes, machine transfer regime, road maintenance, signs and road marking and directing the traffic during the construction stage.
- 51. Use of some arable land and forestland should be compensated (for the material losses).
- 52. Liquidation of trees and bushes outside of forest should be compensated by planting new trees and bushes as a part of bio projects.
- 53. Deal in advance with legal and ownership issues in relation to properties on the motorway route.
- 54. Ensure in advance that 'Registers of renewed land evidence' (ROEP) are carried out in the relevant municipalities (in competency of MP SR or the municipality). Respect access roads to agricultural or forest land as not to negatively impact on PPF and LPF.
- 55. Prevent as much as possible dividing hunts into irregular and non-functional parts. While choosing the route, favour those hunts with s lower productivity category.
- 56. Following the construction, any temporarily used land should be biologically renewed and returned to its original purpose.
- 57. consider construction and an optimal position for a slip road in area between Krpelany and Rakov connecting the motorway and road I/18 acting as a connection to Orava region through I/70.

## 4. Reasoning for the final statement including evaluation of written statements in accordance with Section 18 of the Act number 127/1994 Coll.

The Final Statement was prepared in accordance with section 20 of the Act in cooperation with Ministry for transport, postal services and telecommunications SR and it is based on all available sources, reports about the evaluation and relevant documents, statements from relevant bodies, of the permission granting body, the expert report, results of public consultations and comments received from public. Ministry for Environment SR carefully considered all comments and statements from the relevant subjects, experts and public. The ministry discussed all reservations (written or verbal) with the proposing party, the author of the report, with certain

authors of parts of reports and experts. All justified reservations have been reflected in the proposal (V/3).

The overall evaluation of the written statements in accordance with Section 18 of the Act is as follows:

## -Ministry of Agriculture, Department for agriculture and food

With regards to protection of land as well as impact on agriculture, we consider the combination of A2 and B1 (i.e. southern route below Sucany, Turany and Krpelany) to be most beneficial.

## - Ministry of Defence SR, Logistics department

With regards to military management, the ministry agrees with the propose route of D1 between Martin-Lubochna and recommends the option VI (A2+B1)

#### - District Court in Martin - Environmental Section

Provided that all the measures minimising the impact are taken, the court considers the option VI (A2+B1) to be most suitable.

### - Slovak Railways, Bratislava (ZSR)

ZSR considers the option VI (A2+B1) to be most suitable, this option crosses the railway four times.

### - District Court in Dolny Kubin - Environmental Section

The most acceptable is option VI (A2 +B1)

### -Slovak Environmental Agency, Banska Bystrica

The most acceptable is option VI (A2 +B1)

## -Author of the expert report Dr Dusan Blasko, EnviGeo s.r.o., Banska Bystrica states that the optimal solution seems to be option VI (A2+B1)

## -District Office in Dolny Kubin, Transport and Road Management Section

Recommending the motorway route through a tunnel (option B1 – tunnel Korbelka) with crossing of D1 and I/18 at Lubochna and Martin (slip-road Martin, respectively) according to a variant option A1 or A2.

# -District Office in Ruzomberok, Environmental Section – Constructions Dept. Option B1 considered to be the most suitable.

## -District Office in Ruzomberok, Environmental Section – SOZP and UP Dept The body for protection of nature insists on option B1.

#### -District Office in Ruzomberok- Environmental Section

- -state water agency- recommending option B2
- -department for waste management factual comments
- -department for state water management from the water management point of view recommending option B1
- -department for air protection from the air protection point of view recommending option B1

### -Municipal Council Kralovany

From the environmental point of view, the preferred option is B1, i.e. tunnel Korbelka.

#### -Municipal Council Sutovo

Clearly supports leading the motorway through option B1 (tunnel Korbelka).

## -View of population of Sutovo

After being made aware of the evaluation report, the inhabitants of Sutovo unanimously decided that the motorway should use route B1 – tunnel Korbelka.

#### -Ministry of Culture SR

The motorway in sections Turc. Klacany – crossing Martin – southern bypass of Sucany – continuing option A2 on the right bank of Vah – crossing Turany – tunnel

Sutovo – crossing Kralovany – through tunnels Rojkov and Havran – to the end of the section so they meet technical as well as territorial and esthetical criteria of environmental impact.

### -Municipal Council Sucany

The councillors require that the route of the motorway passes south from Sucany.

## -Ministry of Health SR, Section for Spas and Natural Springs

Recommends implementing option I (A1 +B1).

#### -Regional Council, Environmental Section, Zilina

Preferring option I (A1 + B1)

#### -District Council in Martin - Environmental Section

Options (A1+B2) and (A2+B2) are considered to be suitable and the Council agrees with their implementation.

#### -District Council in Dolny Kubin – Fire Section

Recommends option VII (A2+B2)

#### -Office of the Main Architect (UHA) for Martin

UHA's statement requires the issue of connecting Martin and Turca region to the motorway to be deal with (A1, A2).

#### **-UHAM Martin**

Municipality Martin accepts both motorway routes (option A1 as well as A2)

## -Committee for National Culture in Martin (Igor Thurzo) recommends implementation of A1 and B1.

## -District Council Martin – Environmental Section – department for air protection

Proposes monitoring of impact of the motorway traffic on air quality in Sucany.

## **-District Council Martin- Environmental Section – business section** Agrees with the submitted report.

## **-District Council in Dolny Kubin – Agriculture and Forestry Section** Without reservations.

#### -Municipal Council Svosov

The councillors at their meeting (under point 2) agreed with the solution for the motorway D1 Martin –Lubochna with comments about technical considerations for project documentation for the building permit.

#### -Municipal Council Turcianske Klacany requires:

The motorway construction to be dealt with through a scaffold bridge through the whole area of the municipality.

#### -Municipal Council Turany

Agree with the original recommended option D1 Martin- Lubochna on Turany territory in accordance with B2 with a crossing connection D1 to I/18 between Ratkovo and Turany near the rest station Fatra.

### -Ministry for Environment SR – Geology and Natural Resources Section

The stated geological evaluation allows consideration of any alternative as the geological environment is similar for all the proposed routes.

#### -State Medical Institute Martin

The Institute did not have any objections to the prepared report on environmental impact of the construction of Motorway D1 Martin – Lubochna from the medical – hygienic point of view.

#### -Drevina s.p. Sucany

The management of Drevina Sucany requires that the final statement (if the option A1 is implemented) includes that all demolished objects should be compensated for with properties nearby, including replacement land.

Motorway D1 Martin – Lubochna is a part of a motorway network that is already being built. It currently goes along I/18 that is one of the busiest roads in Slovakia. The evaluation of option zero shows that the existing sections of I/18 will not be able to deal with the increased levels of traffic as soon as 2015. Some sections of the road (e.g. the crossing of I/18 and I/59) will not have the sufficient capacity even sooner. If the motorway section is not built, this would mean a significant increase in the air pollution during the peak hours, under normal dispersion conditions as early as 2005 and 2015. In 2035, the limits would be exceeded even outside the peak hours. The growing numbers of cars on the existing roads would also mean a higher level of noise pollution and a risk of higher number car accidents and injuries. This is why the motorway construction is being recommended.

Transfer of the traffic onto the motorway will not lead to exceeding the allowed emission limits. Impact of the motorway with regards to the increased level of noise can be minimised by anti-noise barriers.

Negative impact of the motorway (taking over land, environmental impact, elements of genetic pool and elements of ecological stability) can be minimised by implementing technical measures. Particular measures are required for preserving the existing migration corridors for mammals and amphibians.

For section Martin – Lubochna, route VI (A2-B1) was recommended. This combination of the route in the relevant sections requires the smallest amount of agricultural land to be taken over permanently and can direct the route into less valuable land. The route follows the natural boundary of Vah and because of this has a lesser impact on agriculture and organisation of land funds. The implementation is also possible from the view of order of spending of finance. The tunnel solution will mean smaller interventions into nature and in comparison with option B2 the motorway will be shorter and so the number of bridge objects along the route will also fall. Leading the motorway through tunnel Korbelka (optionB1) will prevent impact of mobile emissions on population of Rojkov and Stankovany. To find out effective regeneration criteria, it will be necessary to know conditions for spread of contaminating chemicals. Later hydro-geologic survey must concentrate on this aspect. This question is exceptional topical while building the Korbelka tunnel, especially in a section through lime-dolomite complex characterised by sensitive underground water.

This complex is currently linked to significant sources of underground water. Based on the current knowledge, there is a high probability of quantitative impact on water sources Teplicka and Korbelka while implementing the Korbelka tunnel. There is also a lower theoretical probability of affecting sources of Stankovany- Pod suchou dolinkou and Svosov – Dusicka left and right, and while building the Havran tunnel. Probability of affecting these sources has to be reviewed by hydro-geological survey. Monitoring should be carried out in the implementation area.

To minimise the impact on population and environment on route of the motorway, there is a list of technical and compensation proposals, this is detailed in section V/3 of this final statement.

#### 6. Required extent of the post-project analysis

Monitoring will require a stand-alone project for monitoring that should include monitoring of:

Air

- -Emissions near the tunnel outlets should be monitored once the motorway is functional
- -For other motorway sections, it is recommended to measure emissions within Sucany, in southern part of Turiany and in northern part of Svosov.
- -While the motorway is functional, it is recommended to monitor noise in all affected municipalities of the chosen motorway option Sucany, Turany and northern part of Svosov.

Climate

With regards to meteorological items, it is recommended to record especially:

- air temperature (max, min, ground)
- relative humidity
- direction and speed of wind
- overall and new levels of snow
- occurrences of fog, black ice and ice

#### Mineral environment

Monitoring of the mineral environment should concentrate first of all on vicinity of the route in unstable or conditionally stable areas and in tunnel section areas. Monitoring should start after completion of any redevelopment within the construction prep work and continue with it during the construction and once the motorway opens.

Surface water

- -to check the quality of surface water prior to the construction under various hydrological conditions and by receptors of wastewater in accordance with NV SR Act 242/1993 Coll and near selected flows affected by the construction (water flows in areas of building stations, storage of excavated materials, etc.) for chemical parameters expected in connection with the motorway construction
- -during the construction of the motorway, continue with the monitoring of selected flows to the same extent as prior to the construction work
- -once the motorway opens, monitor the quality of water in receptors that will receive the wastewater covering the range of analytical measures in accordance with NV SR Act 242/1993 Coll

#### *Underground water*

- -to monitor level of underground water in areas affected by construction of tunnels
- -if the tunnel option B1 is implemented, to monitor capacity and quality of springs of water sources Teplicka, Korbelka, Fatra and Kralovany
- -to monitor regime of springs Stankovany –Pod suchou dolinkou and Svosov spring Dusicka that could be potentially affected by construction of the Havran tunnel -monitor the levels of water in the area of the water source Lipovec and monitor its quality

Wastewater

Monitoring of amount and quality of wastewater in accordance with STN 75 7241 is proposed for both the preparation and implementation stages.

Biota

Purpose of the biota monitoring is systematic monitoring of impact of the motorway before the construction, during it and once the motorway is functional on plants and animal of the relevant area. The monitoring has to start prior to the construction once

the final route is approved. The details have to be specified in a monitoring project in cooperation with relevant state environmental bodies.

Monitoring of compliance with the agreed conditions should be carried out by submitting final reports from the monitoring work to the relevant control body. In accordance with operative as well as complex evaluation of the monitoring results in line with Section 36, part 3 of the Act NR SR number 127/1994 Coll., should the monitoring identify the actual impact is worse than that stated in the evaluation report, the proposing party is responsible for ensuring that appropriate measures are carried out so that the actual position will fall in line with the impact stated in the evaluation report in accordance with the conditions stated in the decision to permit the activity. The permit granting body should make the proposing party aware of this fact.

#### VI. CERTIFICATION OF THE ACCURACY OF THE DATA

#### 1. The name of the authors of the final statement

Mr Milan Luciak Department for evaluation of environmental impact Department for Environment SR

Mr Gejza Vegh Director of the department for road management Department for Transport, postal services and telecommunications SR

### 1. Certification of the accuracy of the data

Ms Viera Huskova Director of the section for evaluation of environmental impact Department for Environment SR

## **3. Date of the issue of the final statement** 12.11.2002

Stamp: Department for Environment SR, Ludovita Stura 1, Bratislava