

Summary of Public Environmental Impact Assessment of Western High-Speed Diameter project (Phase 3)

Public Environmental Impact Assessment (EIA) of Phase 3 of Western High-Speed Diameter project (WHSD), from the road interchange of Bogatyrskiy Avenue up to that of E-18 Scandinavia road, was organized and carried out by the NGO “Saint-Petersburg Society of Naturalists”.

M.V.Begak, Cand.Sc (Engineering), chairman of the expert committee on public environmental assessment; D.V. Afinogenov, Cand.Sc (Politics), executive secretary. Overall, the committee on public environmental assessment comprises twelve experts, including ten candidates of science and one doctor of science.

The subject-matter of this EIA was the WHSD project records of Phase 3 (from the road interchange of Bogatyrskiy Avenue up to that of E-18 Scandinavia road).

Public EIA was carried out on the ground of Russian legislation and in compliance with EIA rules of Saint-Petersburg Society of Naturalists.

In October 2006, in obedience to the law, the organizer applied to the customer of JSC WHSD documentation with a request to provide a full set of project records for expertise, however the official reply and documentation were not given, which is an infringement specified in Article 30 of Environmental Review Law of the Russian federation.

Quite a number of materials (above 20 descriptions, among them survey data, executive summary, cartographic materials, etc.) were not provided for EIA and their non-availability seriously impeded the project evaluation.

Thereat, the EIA findings could not give a complete view at scale and relevance of possible negative environmental changes.

Public environmental impact assessment was carried out on commission from the Public Ecology Movement “Save Yuntolovo” (<http://sos-yuntolovo.spb.ru>) with logistics and financial support from Bellona (www.bellona.ru) and activists of Save Yuntolovo Movement.

The expert committee on public environmental assessment of the project records concluded the following:

I. Submitted materials do not fully conform to the legislative criteria for documentation composite and EIA philosophy

1. In the feasibility study phase, EIA has not been undertaken, that conflicts with Item 2.2. of “Regulations on assessment of environmental impact from planned economic and other activities in the Russian federation”.

2. There has not been undertaken EIA of alternative options for pursuing the projected activity’s objectives, including withdrawal of activities, that conflicts with Items 1.6., 2.4., 3.2.1., 3.2.2 of “Regulations on assessment of environmental impact”

3. In the examined EIA materials, there is no manual on environmental risk assessment for emergencies and mitigations plan that is unacceptable for the motorway with projected traffic stream volume to be above 60.000 vehicles per day.

4. In the process of the project design and public consultations, there has been violated the principle of the public participation in preparation and discussion of materials on EIA of the

planned activity and that of provision of comprehensive and reliable information (Items 2.3, 2.7. “Regulations on assessment of environmental impact...”

- Participatory process of citizen’ discussion of technical specification for EIA has not been organized.
- Since the EIA materials have not been prepared, they have not been presented for citizens’ examination either.
- Information on the project presented for public hearing is not complete and does not allow assessing in full the environmental impact of the project. Specifically, public hearing report in its section of answers to citizens’ questions and remarks contains references to the documents that were lacking at public consultations.

II. Submitted project materials lack certain data that makes impossible impact assessments prognosis for natural complexes, vegetation and soils in course of WHSD motorway construction and operation.

1. There is no information on value natural sites along the construction route and in the buffet zone - transitional and high bogs, peat beds, pine forest crop, exotic species. There is only information on vegetation, vascular plants and mammals.
2. There is no analysis data on underground water in the route corridor.
3. There are no maps of natural complexes, vegetation, soils for the area adjacent to the projected WHSD motorway.
4. There are no indications of boundaries of animals’ habitats, spawning and nesting areas, local fauna species migration routes as regard to motor transport corridor.
5. Materials under study do not give an idea of existing recreation and loads anticipated to be applied to the adjacent WHSD motorway. Therefore within the framework of the public environmental impact assessment, a special study was undertaken and showed big recreation value of green plantations which border the Yuntolovskiy nature reserve.

On the average, an inhabitant visits the buffer zone three times per year, the annual staying time of an average inhabitant makes above 8 hours, overall number of visits numbers 1.188.128 times, the annual economic assessment of recreation resource amounts around 9.5 million roubles.

III. Preliminary analysis of the submitted project documentation shows that it requires fundamental fine tuning.

In terms of composition of the Section “Environmental protection”, there are some discrepancies and defects to be eliminated before the construction start.

1. The project does not provide for monitoring of natural complex and vegetation cover along WHSD motorway. Moreover, it is not clear which “specialized laboratory” will monitor environmental conditions in the area of WHSD, how often, by what parameters and with what funds.
2. Estimate of pollution substance concentration in the air for 2005 was made under the unproved assumption that by then all vehicles would come up to EURO-4 standard in terms of exhausts and utilized fuel quality.

3. In some segments of WHSD motorway, borders of zones of sanitary break by noise factor virtually match together with a distance between a noise source and a façade, or rather close to them. Furthermore, a part of residential properties is located at the border of the sanitary break zone or within it. The areas of noise discomfort zones are not specified in the project that would have enabled to introduce refinements into sound-insulating measures given in the project.

4. Value of the normative level of vibrations for the habitable complexes will be higher than that one obtained on the object-analog, since the vehicle flow pattern, about 25% of which consists of powerful diesel vans, has not been taken into account while taking instrument measurements on that analog.

5. Assessment of noise impact of passing vehicles on nature complexes, flora and fauna of Yuntolovskiy nature reserve has not been specified in the project. The project under review does not contain measures on flora and fauna protection from noise impact of the motorway either.

6. Assessment of the damage to ecosystems seems to be substantially understated, since it has been carried out only for species of hunting fauna and by its rates. Furthermore, evaluation does not take into consideration the damage inflicted to all protected groups of organisms, although the basic vulnerable objects of fauna affected by building are not referred to hunting fund, some species are extremely rare. Moreover, assessment of damage does not consider outtake of forest and water fund as habitat conditions.

7. In the examined documents, there is no planting project for a sanitary protection zone. It is necessary to provide implementation of the protective planting project with an account of highest possible preservation of existing vegetation and habitat conditions.

8. The WHSD motorway segment in question will require the green planting destruction round the Planernaya Street. The project contains a replacement cost estimate but lacks a compensation planting project, which is required in obedience with Law of Saint Petersburg “On protection of green plantings”.

9. In EIA volume, there is no section of ground water impact assessment; the underground water protection measures in process of construction and operation of the projecting motorway are not foreseen.

10. No protective measures for surface and underground waters are envisaged.

- during the motorway construction;
- while catching the melted snow water that could cause supercritical pollution in the flood period;
- in emergencies, specifically, with petroleum product carriers,

11. The project plans to build 51 hydro-botanic sites for rain-storm runoff treatment, however there is no information on how they will be built and maintained. Furthermore, their efficient use is not well-grounded. There is a risk of ground and surface water pollution with waste waters from the road surface, and the sites themselves could be a source of natural water secondary pollution with heavy metals.

IV. The projected segment of WHSD will run directly through the recreation area located eastward of Yuntolovskiy nature reserve and Kamyshova Street along Planernaya Street. WHSD construction and operation will inflict irreplaceable destruction to the recreation zone previously recommended as an annexation to the nature reserve.

1. Recreation opportunities in the northward of Kamyshova Street will be reduced by 50% and more. Recreation value decrease of the adjacent area has not been taken into consideration in assessment of damages. In the Primorskiy area, there is a deficiency of public green plantings, so the recreation areas reduction will lead to the further decrease of life quality in the residential community “Ozero Dolgoe” and “Kamenka” and in the Primorskiy district at large.

- Dust-, gas- and noise pollution of the area;
- Complications of WHSD motorway crossing;
- Gradual degradation of the existing geobiocoenoses, depletion of population of animals, insects, birds, hydrological conditions changes in this area;
- Recreation area underflooding;

The anthropogenic load on that very Yuntolovskiy nature reserve could increase.

2. Forest complex on the left bank of the Kamenka River, which serves as a unique buffer for the existing preserve, will be totally destroyed in its best preserved part.

3. The proposed variant of the motorway will completely destroy the only remaining upland swamp in Lakhtinskaya lowland with population of protected fauna species - marsh wax myrtle (there are no upland swamps within the Yuntolovskiy nature reserve). The conclusion of “Impact Statement” saying that the projected motorway route will not impact the protected species of plants and animals is incorrect.

4. The WHSD motorway pollution impact on the artificial reservoirs of recreation value along the Planernaya Street has not been assessed.

5. There is no requirement in the project for setting-aside the land within the sanitary break zone along the Yuntolovskiy nature reserve borders.

V. The WHSD will run near the northern border of Yuntolovskiy nature reserve at 150-meter distance. The planned construction and operation will impact the protected nature area in the following way:

1. The WHSD segment in question crosses the high-swamp peat in the buffer zone of Yuntolovskiy nature reserve, distorting the swamp and underground waters flow. That will result in the flow distortion: there will be underfloodings in this area and the reserve area soil could partially undergo drying. Moreover, the phreatic aquifer contamination with further transportation of pollution components during the Lakhtinskiy flooding is possible.

2. Changes in the water nutrition of the Lakhtinskiy lowland will lead to degradation of the swamp complex and decrease of the lowland’s accumulating role with regard to pollution substances that will entail deterioration of environment in the coastal area of the Finnish Gulf.

3. In the process of the motorway construction and in possible emergency situations, the contamination of the Kamenka and the Chernaya Rivers, the major waterways of the nature reserve, will sharply increase. That will impact its flora and fauna condition, including the population of rare species of plants, lichens and animals. In addition, the planned interchange between PK 288 – 295 will affect the Chernaya River floodplain in its inflow into the Lakhtinskyi swamp, with a high probability of the pattern pollution of the nature reserve.

4. The measures proposed on the river beds’ clearing from high aquatic vegetation for the river regime improvement are ill-grounded and could lead to adverse aftermaths: fall in river water level, water-table decline and vegetation change.

5. The motorway will disturb migration condition of terricoles (mammals, reptiles, amphibious).
6. The disturbance factor (traffic noise, etc.) will result in deterioration of animals habitat conditions, specifically, in decrease in the numbers of breeding birds. About 20-25 swamp and forest birds of the nature reserve will be directly affected, at least in the period of construction, on the area of no less than 100 ha.
7. Degradation of coenoses of the reserve's buffer zone and its east part will result in demolition of population of the protected lichen *Bryoria subcana*, which vegetates here.
8. One forecasts a sharp increase of the anthropogenic load in the Yutolovskiy nature reserve, for people will actively develop its area.

VI. Section of waste management materials submitted contains significant defects and omissions

1. The Statement does not provide a definition method for classification of generating waste hazard; there are no references to the regulation elaborating procedure for the construction waste disposal (or to the already elaborated regulations).
2. The waste landfills have not been specified.
3. There is no assessment of unavoidable construction waste required by the regulations for the period of construction (insulation materials composition, liquid special solutions, etc.)
4. The proposed felling residues burning within the city is forbidden and an offense; in the Yuntolovskiy nature reserve, the peat-bog fires have already repeatedly occurred, and burning could cause the environmental emergency.

VII. Recommendations

1. Lands within the sanitary break along the Yutolovskiy nature reserve borders from the reserve side must be set-aside, except the technological objects on the motorway.
2. Between the north border of the nature reserve and the WHSD, it is necessary to ensure preservation of the existing public plantation that allows creating a single recreation system around the Yuntolovskiy nature reserve with its access being limited.
3. Taking into account the recommendations of the Ministry of natural resources of the Russian federation, the emerging cluster segment of woodland park plantation on the border with the nature reserve must be included into this reserve area, having provided the recreation conditions within it.
4. With an account of environmental safety, the near-optimal variant of the WHSD motorway would be the motorway segment relocation somewhat northward, however the given alternative cannot be regarded as implicit.

VIII. Conclusions

1. Since the project implementation will negatively impact the wildlife objects and their habitat, the project must be submitted for the State environmental review in compliance with part I of Article 20 of the Law "On the Fauna" of the Russian federation.
2. Public consultations within the EIA framework can not be considered being held, they must be arranged and held in accordance with legislative requirements of the Russian federation; the public

consultations results must be included in EIA materials and submitted in body for the environmental review.

3. The environmental impact assessment and, respectively, the scope and level of engineering countermeasures should be corrected with an account of identification of most fragile components which could be affected by the planned activity (natural components on the motorway segment PK 238- PK 320 - ecological assessment, and town-planning surroundings, PK 320 and further – sanitary and hygienic assessment and architectural and building assessments).

4. The whole apprehended damage from the project implementation is impossible to compensate with any measures, one may speak tentative decrease of impacts.

5. Under the current environmental regulations, the project documentation must be recognized as insufficient for the project implementation. **It should be completed in conformity with the existing laws and resubmitted for the environmental impact assessment.**