

Legend

Title: Habitats with Community interest

(Light yellow colour) „Megfelelő kezelés esetén közösségi jelentőségű élőhely lehet”: Can be a habitat with Community interest upon appropriate handling

If all the planned development comes to fulfilment we can consider the entire territory of the Eastern economic and industrial area as a whole, and the territory in the south of it as destroyed. The remaining contiguous area is fragmented by the Eastern bypass and the Eastern economic and industrial area north bypass road. The future survival of small parts (5-20ha) of the territory in the east of the bypass is rather doubtful; however substantial investment and continuous treatment might preserve the habitat. Because of the roads the connection between the parts – for the most species – will be terminated.

The 'Györszentiváni gyakorlótér' is currently surrounded by built-in areas both from the east and from the west. After the fulfilment of all elements of the development plan also to the southern side will be in contact with artificial elements.

Disturbance

Continuous disturbance is expected mainly along the bypass. In this respect, the eastern bypass is considered as a problem, which divides the area into two parts, and the northern bypass of the Eastern economic and industrial area, respectively, which is in contact with natural habitats along the north side. However, the degree of disturbance for the Habitats Directive Annex II species is considered to be minimal.

Increased plant invasion

On each investment areas we can potentially expect the mass appearance of invasive species. This may be first because of an inadequate plan of planting (landscaping), second due to disturbances on the investment areas. The most jeopardizing invasive species for 'Gönyüi-homokvidék' are the followings:

Common milkweed (*Asclepias syriaca*)

Tree of heaven (*Ailanthus altissima*)
 Goldenrods (*Solidago gigantea* and *S. canadensis*)
 Russian silverberry (*Eleagnus angustifolia*)
 Canadian horseweed (*Erigeron canadensis*)
 Black locust (*Robinia pseudoacacia*)

These species are already present in the area now, but their penetration ability to the close-to-nature habitats is limited. Open soil surfaces appearing after the disturbance create optimal conditions for the spread of all those species.

The almost immediate mass appearance of ragweed (*Ambrosia elatior*) provokes a serious problem. Not in nature conservation respect, but in human health.

From the native species mainly wood small-reed (*Calamagrostis epigeios*) and couch-grass (*Agropyron repens*) invasion can be expected in some areas. A minor problem may be the spread of artificially planted pine species (*Pinus sylvestris*, *Pinus nigra*) by seeds.

Estimated unfavourable impacts expected for the conservation status of Habitats Directive Annex I habitats and Annex II species at the Natura 2000 site

During the estimation of the extension of unfavourable effects, the starting point was that the way of use in the areas (directly utilized by the planned investments) excludes any further existence of species and habitats types of community interest. Most of the mitigation measures described at the end of this chapter cannot significantly reduce the direct damages caused by the investment.

The national evaluation data for the different Habitats Directive Annex I habitat types and Annex II species for which the site has been designated are listed in Annex 11.

Pannonic sand steppes (6260)

Pannonic sand steppes (6260) present in the area are likely to be destroyed in the investment territory. The extension of these grasslands is 122.9 hectares in total. The segmented patches of habitats, which are expected to be degraded and transformed by the road construction, must be added to this. Their size is about 20 ha. At the present stage, this habitat type occurs in the HUFH20009 'Gönyüi homokvidék' special area of conservation (SAC) (full size: 2823 ha) on 523 hectares (based on the habitat map it is 513 hectares, but in the not-surveyed areas, and in the scale of mapping not exactly represented small patches an additional approx. 10 ha must be calculated). An approx. 100 hectares is heavily infected by black locust and tree of heaven (> 80%). This degraded grassland can not be considered as a habitat of community interest.

The survey data shows that during the designation by the experts estimated coverage (50%) is inaccurate. It needs to be corrected by the next revision of the SDF. The actual area of the Pannonic sand steppes cover 18.5%, while the relative surface index should be improved from "C" to "B", because even with the reduced extension *the area represents 2.6% of the national stand.*

| Investment | Area of Pannonic sand steppes (6260) hectare |
|---|---|
| Eastern economic-industrial area | 112 |
| Eastern Bypass and related roads | 7.5 |
| 'Dózsa-tagi' economic area | 2.4 |
| Other developments | 1.0 |
| Endangered, or threatened by degradation (stand) | ~20 |
| Altogether | 143 |

As the result of investments, 143 hectares of Pannonic sand steppes habitat type will be destroyed or substantially damaged, which is 27% of the population in the site. This rate of destruction can be considered as a *significant impact at the local context*. Examining the landscape of the 'Komárom-Esztergom' plain centre area (Kisalföld calcareous sand steppe) the 'Gönyői-homokvidék' can be considered as having the most important population of the area. The next largest (194 ha) population is located in the HUFH20007 'Péri-reptér', while the other resources are under 20 hectares (HUDI20011, HUDI20048). This means that on the investment area almost as large area of the habitat type will be damaged, as the total area in the other Natura 2000 fields of the topographic region.

At the national level – based on the SDF data sheets – the habitat type Pannonic sand steppes (6260) occur on 19,732 hectares (data are not corrected for the error indicated above) in areas designated under the Habitats Directive. The HUFH20009 'Gönyői-homokvidék' is the 10th largest area of the country's sand steppe stands. The extension of damaged habitats is 0.72% of the national population; therefore *the negative impact in the national context is also significant*.

Euro-Siberian steppe oak woods (*Quercus* spp.) (91I0)

The habitat type *Euro-Siberian steppe oak woods* (*Quercus* spp.) (91I0) occurs on 3.4 hectares in the investment areas, and the destruction of these habitats is certain. The single remaining habitat patch (3.6 hectares) occurring in the area will be split by the bypass roads, so major damage of the structure and function is expected. In the HUFH20009 'Gönyői-homokvidék' special conservation area (full size: 2823 ha) – based on existing data – the habitat type occurs in 71 ha (however, most of them are dilapidated, infested by invasive plants), which is much larger than given in the SDF (0.5%, projected back to the area: 14 ha). In addition, there is an area of about 50 hectares, which was previously (50-100 years ago) covered by this habitat type, but after harvesting, it was reforested with black locust and Scotch pine by the forest management. In this stands there are 2-3% remains of those populations, 100-150 years old oaks as bearing trees. They can serve a good basis for rehabilitation.

| Investment | Area of Euro-Siberian steppe oak woods (91I0) hectare |
|---|--|
| Eastern economic-industrial area | 0.4 |
| Eastern Bypass and connecting roads | 3 |
| 'Dózsa-tagi' economic area | 0 |
| Endangered, or threatened by degradation (stand) | 3.6 |
| Altogether | 7 |

The 7 hectares of habitat type Euro-Siberian steppe oak woods (*Quercus*) (91H0) – damaged by the investment – is the single occurrence of the habitat on the so-called ‘Győrszentiváni gyakorlótér’ mosaic of the ‘Gönyői homokvidék’. Therefore its destruction and damage is significant. Taking the site as a whole, 10% of the stand will be damaged by the investments, which is also regarded as significant.

Examining the conservation status of habitat type on a larger scale, we can see that no other areas have been nominated for and the habitat type is not available elsewhere in the central part of the ‘Komárom-Esztergom Plain’. The closest stand is 92 km away HUDI20052 ‘Érd-Százhalombattai táblarög’ special conservation area; where a small, one hectare “large” stand occur. The damage should be considered as significant at the topographic level of the region.

However, the local population cannot be considered significant neither in national context nor for the Pannonian Biogeographic Region. Based on the summary of SDFs, the habitat type occurs on 6,119 hectares in the Natura 2000 areas of Hungary, while the damaged stand is only 0.11%.

Taking into consideration that this is the westernmost occurrence of the habitat type on the site, the amount of the damage and the conservation status of the habitat type can not be considered as satisfactory.

Pannonic inland sand dune thicket (*Junipero-Populetum albae*) (91N0)

The classification "D" for a habitat type is not a designation indicator for a habitat, but because of the rarity and vulnerability it must be addressed here. In the investment areas a total of 4.5 *Pannonic inland sand dune thickets (Junipero-Populetum albae)* (91N0) habitat type area is expected to decline. Further approx. 1 hectare should be calculated from the deterioration of the existing resources, i.e. the total affected area is 5.5 ha.

| Investment | Area of Pannonic inland sand dune thicket (91N0) hectare |
|--|--|
| Eastern economic-industrial area | 4.4 |
| Eastern Bypass and related roads | 0.1 |
| ‘Dózsa-tagi’ economic area | 0 |
| Endangered, or threatened by degradation (stand) | 1 |
| Altogether | 5.5 |

At the HUFH20009 ‘Gönyői-homokvidék’ special conservation area (full size: 2,823 ha) – based on the current data – 14 hectares of this habitat type occurs, which corresponds to the SDF, giving 0.6% coverage (projected back to the area: 17 ha). The size of the habitat patches affected by the deterioration can be considered significant at local level, as one third of the area occur in the Natura 2000 will be destroyed or damaged. Examining the conservation status of the habitat types in larger extension, we can see that no other areas have been nominated and the habitat type is not available elsewhere in the middle area of ‘Komárom-Esztergom Plain’. The closest occurrence is in the HUFH20008 ‘Pannonhalmi dombság’ (e.g. Felpéc) special conservation area. The damage should be considered as significant at the topographic level of the region.

In national context and at the level of Pannonian Biogeographic Region, however, this stand is not considered as significant. Based on the summary of SDFs, the habitat type occurs on 4283 hectares in the Natura 2000 areas of Hungary, while the damaged stand is only 0.12%.

The decline of designated stands of the habitat type Pannonic inland sand dune thicket (*Junipero-Populetum albac*) (91N0) does not jeopardize the national stands and its conservation status, but have a significant adverse impact at the local context.

Sand iris (*Iris humilis* ssp. *arenaria*)

Only a single population of sand iris (*Iris humilis* ssp. *arenaria*) occurs in the area of the investment. The size of the affected stand is 500 plants.

The sand iris occurs on three fragmented area. The largest population lives in the area of 'Gönyüi lőtér' with more than 10,000 individuals (on year 2008 SDF: more than 1,000 individuals are listed, but the correction was proposed by the 'Fertő-Hanság' National Park Directory already in 2009). A smaller population (max. 100-150 individuals) occurs in the area between the M19 motorway and a main road No1. The species occur in two sites of the 'Győrszentiváni gyakorlóter'. In the north of the mine on one occasion a few plants could be observed, while in the damaged area regularly 20-100 blooming and about 400 non-flowering individuals were observed. The occurrences within the Natura 2000 area can be considered as isolated populations, ecological relations are not possible because of artificial habitats and the distance between them. The conservation status of the small populations is considered: not favourable.

The presumably damaged population is less than 5% of the population on the entire Natura 2000 site, however, this is considered significant at the local level.

Altogether 34 areas have been designated for the species in the national context. The largest populations can be found in the Kiskunság, however, occurrence around Győr is considered to be the 3rd largest population.

The damage of the species can be reduced by relocation of the plants, if there is sufficient time (3-5 years) available.

Hungarian carabus (*Carabus hungaricus*)

A significant population of the Hungarian carabus (*Carabus hungaricus*) occurs in the area. The population size is estimated of several thousands. We have to indicate that the specified data are only estimates, which takes sampled data in other areas of the site also into account. Because the current number of individuals strongly depends on the weather conditions, the highest potential population density was taken by the author as basis for the calculation.

Migration ability of the species is very limited; therefore the population living in the area is expected to be destroyed.

Outside of this area, on the mosaic of 'Győrszentiváni gyakorlóter' the species occur in the same order of magnitude, even more important is the population living in the mosaic of 'Gönyüi lőtér', where the extension of sandy grasslands and so the population of the beetle is an order of magnitude greater. The population living in the Natura 2000 area will have a significant damage, despite this the population – especially if appropriate compensatory measures will affect – will be not irreversibly damaged.

At the national context, the population living in the 'Gönyüi homokvidék' special conservation area is considered significant, its conservation is important, because the current state of knowledge suppose, that this is the westernmost occurrence of the species in the biogeographic region.

Great capricorn beetle (*Cerambyx cerdo*)

The great capricorn beetle (*Cerambyx cerdo*), for which the site is not designated at the moment, has a single occurrence, in the damaged mosaic of the 'Györszentiváni gyakorlótér'. The population is estimated by the number of exit holes in the lower part of the tree trunk to the magnitude of 50-60 individuals.

Outside of the damaged areas the species occurs primarily in sun spotted old oak trees of 'Gönyüi lőtér', 'Bőnyi erdő', 'Herkályi-erdő', where the population is orders of magnitude greater.

The population in 'Györszentiván' can be considered as isolated, the nearest suitable habitats are located 7-8 km away. The damaged population is considered neither in regional nor in national context as large. On some of the Natura 2000 areas populations of hundred-thousand individuals can also occur. Therefore the preservation of the national population is possible even if the local population here would become extinct..

Stag beetle (*Lucanus cervus*)

The stag beetle (*Lucanus cervus*), like the great capricorn beetle, is a species for which the site is not designated, either.

The species has a single occurrence, in the damaged mosaic of the 'Györszentiváni gyakorlótér'. The population size is estimated for 150-200 individuals, based on the rotted wood material found on the basis of older trees.

Outside of the expected damaged areas the species occurs primarily in the old dying and rotting oak trees of 'Gönyüi lőtér', 'Bőnyi erdő', 'Herkályi-erdő', where the population is orders of magnitude greater.

The population in 'Györszentiván' can be considered as isolated, the nearest suitable habitats are located 7-8 km away. The damaged population is considered neither in regional nor in national context as large. On some of the Natura 2000 sites populations of hundred-thousand individuals can also occur, so the preservation of the national population is possible even if the local population here would become extinct.

Mitigation of the adverse effects

Relocation of the sand iris (*Iris humilis* ssp. *arenaria*) stand

There is a good chance that at least a certain portion of the sand iris stand can be relocated to the territory which is not affected. But it would only be viable if the timeframe available for the translocation is relatively long (3-4 years). There will surely be some years when the plants sprout in large quantities (noticeable at all) and there will be also some time for the preparation of the planting area.

Detailed resettlement plan should be constructed and the translocation success should be investigated for several years.

Relocation of the Hungarian carabus (*Carabus hungaricus*) population

One part of the Hungarian carabus (*Carabus hungaricus*) potentially damaged population can be trapped by live catch traps and the collected beetles can be released to a suitable habitat. The collection of beetles should be carried out continuously in the investment area until the beginning of the works. In the first few years there will be less suitable area for the beetles, but during the countervailing measures developed sandy grasslands may be appropriate for the species after 2-3 years.

Detailed resettlement plan should be constructed with specialists involved already in the planning phase and the translocation success should be investigated for several years.

Restricted plant species

In order to prevent adverse plant invasion the plant species compositions should be limited to a range of plant species in the investment areas. The restriction can be ordered in the development plan, but for the controls and sanctions it is more appropriate to repeat it in the environmental projects, or building permit.

During the swarding the following species are allowed to use (these species can not tolerate or do not require regular mowing, and watering is not necessary either. The lawn formed by these species is short grasses, and as such it does not pose any aesthetic problem.)

- *Festuca vaginata*
- *Festuca rupicola*
- *Stipa pennata* (slightly higher-growing but highly aesthetic)

Not allowed herb, shrub and tree species:

- *Ailanthus altissima*
- *Eleagnus angustifolia*
- *Acer negundo*
- *Pyracantha* spp.
- *Celtis* spp. (especially *Celtis occidentalis*)
- *Amorpha fruticosa*
- *Fraxinus pennsylvanica*
- *Fraxinus ornus* (native to Hungary, but not to the area)
- *Robinia pseudo-acacia*
- *Phytolacca americana*

Elimination of the following species required if spontaneous loading appears:

- *Asclepias syriaca*
- *Erigeron annuus*
- *Erigeron canadensis*
- *Solidago gigantea et canadensis*
- *Agropyron repens* (native species)
- *Calamagrostis epigeios* (native species)
- *Phytolacca americana*

Compensatory measures

For the compensatory measures three proposals have been developed. No. I. has habitat restoration and improvement measures on the damaged Natura 2000 areas. No. II. variant preserves the coherence of the Natura 2000 network by creating new Natura 2000 sites in lieu of the damaged habitats and species. No. III. variant ensure – besides the conservation status of the affected habitats and species – the restoration and improvement measures of the damaged area with the assignment of new areas and improvement measures undertaken for conservation of other Natura 2000 sites.

Looking at the proposals, the North Transdanubian Environment, Nature Protection and Water Management Inspectorate has decided for the version I. because of the following reasons:

- The measures are in line with the conservation objectives of the damaged area.
- The compensation will take place on the damaged Natura 2000 area.

- The prescribed measures (see the table below) ensure, that the quantity and quality of the measures are being properly compensated the damaged habitats types and species.
- The area of compensation as a whole is state-owned so by the other options expected conflicts – with a large number of owners – can be avoided.
- None of the other version of the measures can start before the investment starts. Further, in the case of the selected option– mainly due to the fact that the area is state-owned – a significant over-compensation is possible, which can also offset some of the expected damages.

Concise summary of the interest features for which the site has been designated and which are expected to be affected by the investment and the associated compensatory measures:

| Affected IID Annex I habitats/ Annex II species: | | Area of affected & investment involved stands: | Compensations: |
|--|---------|--|---|
| Pannonic steppes (6260) | sand | 142.9 ha | <ul style="list-style-type: none"> - Establishment of 190-250 hectares of new Pannonic sand steppes within the damaged 'Gönyüi-homokvidék' special conservation area - The reduction of big game, especially wild boar population |
| Pannonic inland sand dune thicket (91N0) | | 5.5 ha | <ul style="list-style-type: none"> - Establishment of 5-10 hectare of new Pannonic inland sand dune thicket within the damaged 'Gönyüi-homokvidék' special conservation area - The reduction of big game, especially wild boar population |
| Euro-Siberian steppe oak woods (91I0) | | 7 ha | <ul style="list-style-type: none"> - Improvement of 15-20 hectare of Euro-Siberian steppe oak woods within the 'Gönyüi-homokvidék' special conservation area - The reduction of big game, especially wild boar population |
| Hungarian (Carabus hungaricus) | carabus | Several thousand individuals | <ul style="list-style-type: none"> - Relocation of part of the individuals from the investment area - Establishment of 190-250 hectare new Pannonic sand steppes within the damaged 'Gönyüi-homokvidék' special conservation area - The reduction of big game, especially wild boar population |
| Sand iris (Iris humilis ssp. arenaria) | | Approx. 500 plant | <ul style="list-style-type: none"> - Relocation of part of the individuals from the investment area - Establishment of 190-250 hectare new Pannonic sand steppes within the damaged 'Gönyüi-homokvidék' special conservation area - The reduction of big game, especially wild boar population |

| | | |
|--|-------------------|---|
| Great capricorn beetle (Cerambyx cerdo) | 10-50 individuals | - Improvement of 15-20 hectare of Euro-Siberian steppe oak woods within the 'Gönyüi-homokvidék' special conservation area |
| Stag beetle (Lucanus cervus) | 10-50 individuals | - Improvement of 15-20 hectare of Euro-Siberian steppe oak woods within the 'Gönyüi-homokvidék' special conservation area |

The compensatory measures are described in details in chapter 5.

3. Alternative solutions

The Eastern economic-industrial area

The investor started the preparation of the project and the evaluation of the potential sites and installation possibilities in Q1 2008. Since the investor already runs a production site in Hungary, the first question to consider was whether the project could be implemented on the currently available site. It has been clearly proven that the implementation of the project in the current site is not possible due to technical reasons. The size and the shape of the current area make it impossible to set up the technological processes in an appropriate order and the establishments supporting production.

After scraping this option, the investor took a look at splitting the technological process into shorter phases (e.g. lacquering, glazing) in order to decrease the land requirement of 200 hectares. Based on this concept, the products (parts) manufactured in various processes in other Hungarian or foreign locations would be transported to the Hungarian site. It has been proven that the split-up and decentralisation of technological processes would bring about the introduction of new and otherwise unnecessary processes leading to increased transportation and warehousing expenses and would therefore make the production uneconomic. On top of that, the growth in transportation would mean a significant burden on the environment.

The evaluation has proved that the investment project must be concentrated on one single site.

As a following step, the investor has contacted the Hungarian Government through its representative ITD Hungary, the Hungarian Investment and Trade Development Agency. On the investor's request and based on its list of criteria (as below), ITD Hungary proposed 18 potential locations in 11 Hungarian settlements for the investment project. The evaluation of the sites took a long time and was rather complex.

History of the site selection process

May 2008

At the first stage, the cities of Hajdúsámson, Kecskemét, Szikszó, Szolnok and Zalaegerszeg were proposed.

The investor evaluated the sites based on the method described in Annex 14 and rejected them due to the hindering factors discussed in the same Annex. These sites were not personally inspected by the investor.

Based on the site evaluation of the first stage, the investor has expressed a preference for the regions west of the river Danube, more precisely for the region of Western Hungary. The preference was supported by the existence of a far more developed industrial culture and environment in contrast to Eastern Hungary, as well as by logistical/environmental considerations. On top of the developed railway and river connections, it is also a positive factor that the burden on the environment and CO₂ exhaustion caused by the heavy transport on public roads can be significantly lower in case of a Western Hungarian site - considering the fact that the products are shipped to Western Europe.

June 2008

Based on the above considerations, the cities of Bábolna, Dunaújváros (2 sites), Tatabánya (2 sites), Székesfehérvár (5 sites) and Zsámbék were proposed in the second phase. In the preliminary evaluation, Bábolna was rejected as discussed in Annex 14. In terms of the site selection procedure, it was an important fact that the investment of Daimler AG in Kecskemét was announced in June 2008. From then on, the evaluation of the candidate sites had to calculate with the potential labour force attraction and drain of the Daimler investment.

Autumn 2008

In September 2008 and later in November 2008, ITD Hungary organized tours for the personal inspection of the 4 other locations. After the first personal inspection, the Dunaújváros sites were rejected due to hindering factors described in Annex 14. In November 2008, the sites of Tatabánya and Székesfehérvár were visited for the second time and the site of Zsámbék for the first time. The Zsámbék site was immediately rejected due to the reasons discussed in Annex 14.

Winter 2008 – Summer 2009

After further investigation, the previously inspected sites of Tatabánya and Székesfehérvár were rejected by the investor on grounds of their labour force situation and the features of the lands. As a result, it became clear in course of the year 2009 that none of the locations is suitable for hosting the investment. In case of Tatabánya, the major but not exclusive reason for rejection was the features of the terrain (significant level differences common in the region). In case of Székesfehérvár, the lack of public utilities on the site and the potential labour force attraction and drain of the Daimler investment made the investment impossible.

September 2009

Based on the findings of the previous evaluations, the investor started to examine the possibilities of locating the investment in Győr. The major advantage of the region is that it has outstanding traditions in automotive production and its education, vocational training, and related R&D. However, the Győr Industrial Park as the most obvious option had to be scrapped as it is almost full by now. Moreover, its enlargement would be slowed down by

large number of owners (estimated timeline exceeds 2 years), and even after the enlargement it would not reach the size required by the investor.

Autumn 2009 – Spring 2010

After examining the structure of land ownership and public road and railway infrastructure of Győr, the investor found that the only possible site for hosting the investment was the 'Eastern development area' currently under Natura 2000 classification. The preliminary request for opinion on implementing the project on Natura 2000 site was delivered to the European Commission in spring 2010.

In the following, the investor's list of criteria will be discussed that includes the 3 main and 18 specific conditions the investor has addressed. To qualify for the investment, all criteria must be met collectively and to full extent. (Note: In course of the evaluation, it was found that 195 hectares would also suffice for the establishment of the planned facilities (in contrast to the original demand of 200 hectares), however, the evaluation itself was not affected by this.)

| Site selection criteria | Criteria | Specific requirements |
|-------------------------|----------------------------------|--|
| Suitability of the land | Size | 1. 200 hectare of available land 2. in one piece |
| | Geological / geodesical features | 3. Site must be flat so that levelling work will not make construction disproportionately expensive. Due to the size of the required plot, the average level difference must not exceed 10 metres. 4. The structure of the site must be appropriate for the construction and operation of industrial buildings. |
| | Ownership structure | 5. The less owners the better. (optimally 1 owner). Unstructured lands under too many zoning codes and owned by small owners are excluded. (Agreement and unification could take years.) |
| | Geographical location | 6. The site must not be located next to inhabited areas or in the neighbourhood of facilities involved in environment pollutant activities. 7. The site must be located in an industrial environment. The closeness of industry and potential suppliers is a key to the success of the project. |

| | | |
|---|--------------------------------------|--|
| | Potential risks | 8. Risk of flood, ground water, or earthquake must be minimal. Lands on floodplain are excluded. |
| | Logistical features | <p>9. The site must be located not farther than 15-20 km from a motorway providing uninterrupted connection to Western Europe. The connecting road to the motorway must be a two-digit road in good condition capable of handling heavy traffic of great volume and not passing through inhabited areas.</p> <p>10. The site must have an industrial railway connection or the establishment of a railway connection must be feasible within reasonable time and at reasonable costs.</p> <p>11. To secure uninterrupted operation, an airport with international accreditation must be located nearby to handle occasional, small-volume cargo shipments. Closeness of a public airport is an advantage. (Maximum 1-1.5 hours, equalling to ca. 80-100 km depending on traffic)</p> |
| Suitability of the labour supply | Availability of trained labour force | <p>12. The presence of suitable vocational training with a yearly output of 100 graduates is a requirement. The educational structure meeting the requirements of the investor can be developed on this basis. Regarding practical training, the direct availability (max. 20-30 km) of mechanical and automotive vocational training is a key.</p> <p>13. The presence of automotive tradition in the region (50 km radius) is a key to the success of the project.</p> |
| | Proximity to university / college | 14. Presence of a technical faculty with graduates of mechanical engineering (automotive |

| | | |
|-------------------------------------|--|---|
| | | specialization preferred) over 100 in the vicinity of the site (max. 20-30 km) is a requirement. |
| | Traditions in automotive R&D, university partnerships | 15. Existence of positive examples of automotive R&D, and university partnerships in the region is a must. |
| | The ability to supply labour-force | 16. The region of the site (radius of 50 km) must be able to supply the estimated labour force of without distorting the labour market. |
| | Availability of infrastructure for moving labour force | 17. The site must have traditions and (developable) infrastructure for the daily moving of large number of employees. |
| Ability to keep the deadline | Availability of the site for the investor | 18. The site must be available in course of year 2010 but not later than early 2011. |

The evaluation of the individual sites is included in Annex 14.

Annex 15 shows the relative location of the 11 proposed settlements on the map.

Conclusion of the site evaluation

Based on the above criteria, the summary of the site evaluation is discussed below.

The 3 site selection criteria have been assessed as follows:



if all specific requirements can already be fulfilled; or they can be fulfilled within a reasonable and acceptable timeline at reasonable costs.



if any of the specific requirements cannot be presently fulfilled or within a reasonable and acceptable timeline or only at unreasonable costs. (For example, if the site can only be made suitable for the investment at unreasonable costs, or the availability labour force is not sufficient, or if it can only be provided at unreasonably large costs, like intensive bussing, building homes etc.)



if any of the specific requirements cannot be presently fulfilled, however it can be achieved within a reasonable timeline and at reasonable costs.

| Name of site | Suitability of the land | Suitability of the labour supply | Ability to keep the deadline |
|---|-------------------------|----------------------------------|------------------------------|
| Bábolna | ✗ | ✓ | ✗ |
| Dunaújváros | ✗ | ✗ | Not known |
| Dunaújváros-Rácalmás | ✗ | ✗ | ✗ |
| Győr Ipari Park | ✗ | ✓ | ✗ |
| Hajdúsámson | ✗ | ✗ | ✗ |
| Kecskemét | ✗ | ✗ | Not known |
| Székesfehérvár | ? | ✗ | ✗ |
| Sziksó | ✗ | ✓ | ? |
| Szolnok | ✗ | ✗ | ✓ |
| Tatabánya-Környe | ✗ | ✗ | ✗ |
| Zalaegerszeg | ✗ | ✗ | ✓ |
| Zsámbék | ✗ | ✗ | ✗ |
| Győr – Eastern economic-industrial area | ✓ | ✓ | ? |

The detailed site surveys and visits of 2008-2009 and the evaluation sheets based on their findings (as in Annex 14) clearly show that the only suitable investment location under the 18 evaluated sites is the 'Eastern economic-industrial area' of Győr.

However, the suitability of the Eastern economic-industrial area is subject to the opinion of the European Commission given to this request.

The Eastern bypass and the connecting road network

The road connections were designed – just as the logistical processes of the project – with the consideration that transportation of goods and traffic on public roads should cause the smallest possible burden on the environment and public health in course of a long-term, continuous operation. The investor has examined the possibilities and found that the transportation of metal plates used for auto body manufacturing by ships instead of trucks can bring about a significant relief for the environment.

As far as the plan goes, the large rolls of metal plates coming from Dunaújváros and Linz will be shipped to the Danube port of Gönyű, from where the raw material will be trucked daily to the site by 22 heavy good vehicles. (The map in Annex 1 shows the location of Gönyű)

The only alternative of the segment of the Eastern bypass connecting to main road 1 is the currently existing main road 1 itself. However, it must be noted that in this case the access to the planned site on main road 1 would pass through inhabited areas. Moreover, this road is

expected to be burdened by the heavy traffic coming from Slovakia and the additional load of 22 HGV /day would also be associated with negative impacts on health.
In conclusion, the major aim is to keep the heavy traffic off the inhabited area.

Towards the south, the alternative tracks of the planned bypass between Györszentiván and the Győr Industrial Park are marked on the map below as follows:

- Version „A”: extension of the road through economic areas and private areas handed over to public traffic by the owner of land
- Version „B”: a track passing along the border of the existing and the planned economic areas
- „Recommended” version: a track physically separating economic and inhabited areas and providing an access to both

Tracks examined as alternatives

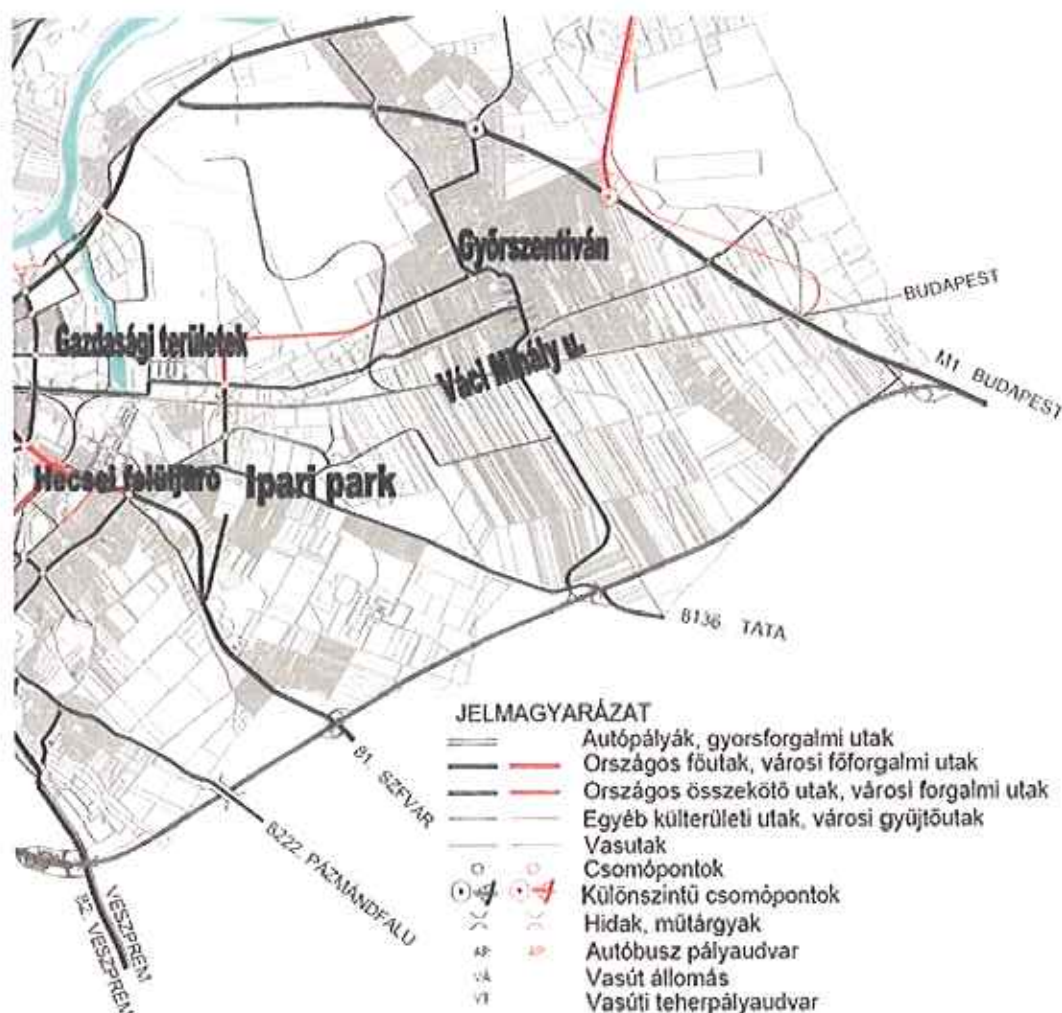
From left to right: Version A, Version B and Recommended Version



The examination of tracks has proved that the versions 'A' and 'B' are not feasible due to national defence reasons, as the sections of the tracks up to road 19 would pass through areas of the Hungarian Army. The Hungarian Army has rejected both versions due to the fact that they would make national security tasks performed in the area impossible.

A road directly bordering the Eastern economic-industrial area from the north is also planned (marked by green on the map above). The track would directly border the investment site and would therefore mean only a minimal additional burden on the Natura 2000 areas. Any other alternative to this would mean the establishment of a track creating a closed and isolated band between the investment site and the road serving public and goods transportation. Any such alternative would mean an increase of negative impacts on Natura 2000 areas.

The only alternative to the public road bordering the Eastern economic-industrial area from the south is the partially existing road marked by blue in the above map.



Legend

- „Autópályák, gyorsforgalmi utak”: motorways, highways
- „Országos főutak, városi főforgalmi utak”: national or communal main roads
- „Országos összekötő utak, városi forgalmi utak”: connecting roads and communal roads
- „Egyéb külterületi utak, városi gyűjtőutak”: Other roads outside the settlement and communal collective roads
- „Vasutak”: Railways
- „Csomópontok”: Junctions
- „Különszintű csomópontok”: Multilevel junctions
- „Hidak, műtárgyak”: Bridges, traffic objects
- „Autóbusz pályaudvar”: Bus station
- „Vasút állomás”: Railway station
- „Vasúti teherpályaudvar”: Railway cargo station

The most traffic in and from around the city of Győr are attracted by the Audi Plant and by Győr Industrial Park and its surroundings. The traffic regulation of the economic areas is essential for the inhabited areas and the traffic passing through them.

The economic areas are embedded into the existing structure of the city between the districts of ‘Győr – Gyárváros’ and ‘Győr – Győrszentiván’.

The traffic links between the two densely populated districts are provided by the roads ‘Kandó K’, ‘Szentiváni’ and ‘Váci M.’.

In these districts, the roads provide the only route for public transportation and civil vehicles. Furthermore, there is also a significant industry-related traffic on the already overburdened route. The route follows the track of main road 81 – Industrial Park – Hecsei road. This route provides access to the investment site from the south. The axis can also be considered as the sole access to the city from the district of Győrszentiván leading to a constant overburden on the road.

The road north of the ‘Hecsei road’ overpass can provide access to the planned road section by the establishment of a junction. The idea is to relieve the disturbing effects of the traffic on ‘Váci M. street’ in Győrszentiván and also to create the first section of a new traffic axis towards the ‘Puskás Tivadar street’ (economic areas and city centre).

As the surrounding area is already occupied by existing and prospering industrial and commercial companies, there is no reasonable alternative to this track.

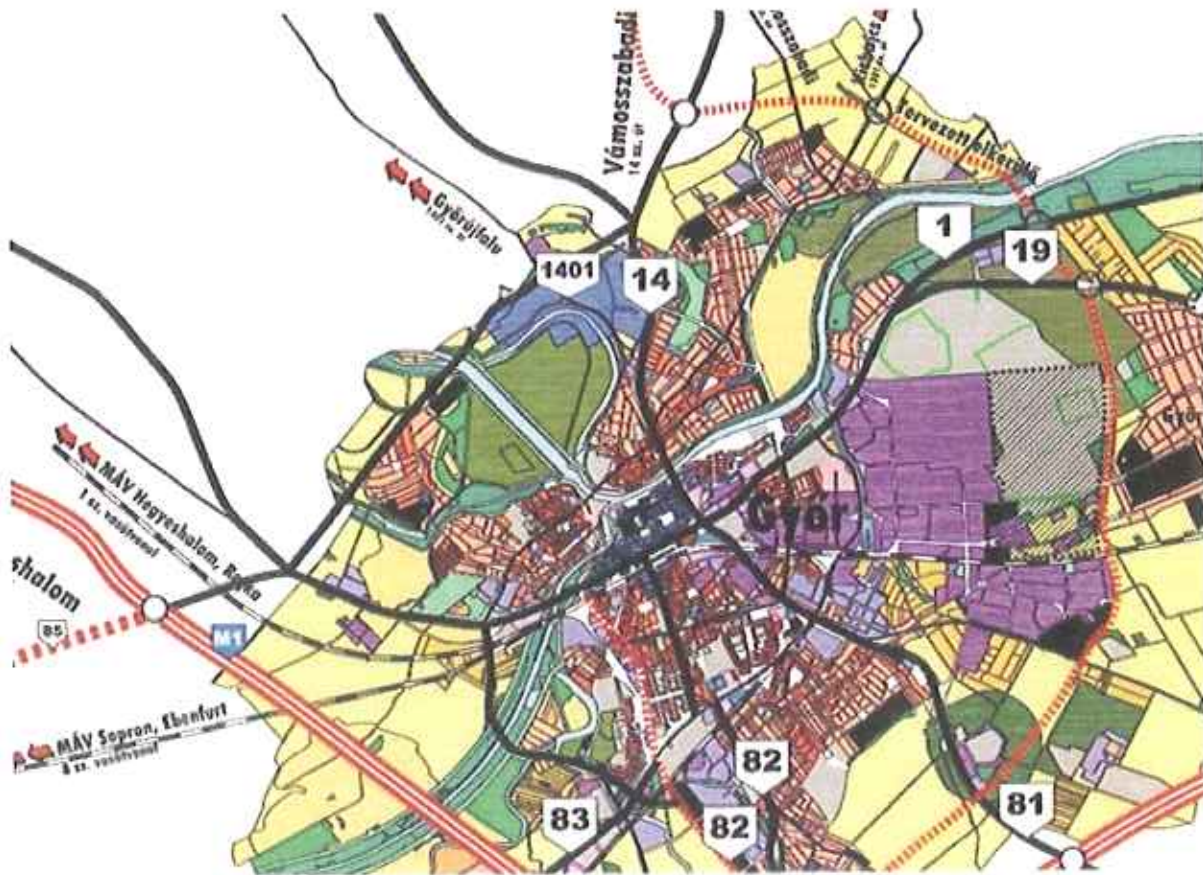
The public area embedded in the plot is presently occupied by bicycle roads and public utility lines, however, their replacement next to the above mentioned road could help to create a purely economic zone of areas.

In the long-run, the construction of the suggested tracks would give a chance to eliminate the heavy traffic on the roads of the historical city centre of Győr. The traffic burden on the city centre is caused by the trucks driving on road 14 to or from Slovakia. The investment project is expected to double the already significant heavy traffic passing through the city (ca. 1,100 HGV/day on average in 2009). Carrying on with the bypass around Győr is therefore a highly important social task, primarily because of health issues.

This section of the Eastern bypass can later become a part of the North-Eastern ring road around Győr. In the long-run, the ring road can make it possible that all heavy traffic avoids the city centre of Győr.

A further alternative to the development of the road network is the complete abandonment of the development. This option has been rejected, as the total projected traffic of 246 HGV/day in regional traffic and 6116 HGV/day in local (Győr and its 5-km radius) traffic would burden the road network of the city centre. On the one hand, the abandonment of the development would cause unbearable health and traffic burdens for the city. On the other hand, it would also make the operation of the investor impossible since permanent traffic jams would hinder the planning and execution of logistical tasks. All in all, it would result in the defeat of the planned activity in the Eastern economic-industrial area.

Traffic network scheme of Győr



‘Dózsa-tagi’ economic area

As an alternative location to the planned developments in ‘Dózsa-tagi’ economic area, the plot east of the Győr Industrial Park was evaluated. However, the potentially alternative area is divided by existing and planned public utility and traffic lines: 120 and 220 kV powerline tracks, the Győr-Gönyű DN 500 PN 63 gas pipelines, track of the bypass, etc. Furthermore, the area is owned by a large number of owners, with whom the agreement would take a long time and could even be impossible based on the experience of the local government.

Such division of the area makes the planned utilization in terms of ownership and infrastructure impossible and is thus not included in the planned modification of the development plan.



Legend:

- "Dózsa-tagi gazdasági terület": Dózsa-tagi economic area
- "Győri Ipari Park": Győr Industrial Park
- "Logisztikai terminál": Logistics terminal
- "Tervezett tó": Planned Lake

Moreover, the planned rail transfer station can only be established north of the Győr Industrial Park due to the location of the Eastern economic-industrial area and the Győr Industrial Park. There is presently no legal or regulatory obstacle to the development (mentioned as "Logistical terminal" in brown above)

The location of developments in the given area is supported by logistical (railway, closeness to the Industrial Park etc.), geographical and zoning (70% of the total area is already classified as economic) considerations and there are no regulatory obstacles. The planned developments can be implemented without utilising or even touching the 11-ha piece of the Natura 2000 area.

A further alternative to the development can be the total abandonment of utilizing the economic areas directly bordered by the Natura 2000 areas. However, this alternative would only postpone the issue by 3-6 years, because the completion of the southern segment of the connecting road network would surely bring about the degradation of the areas south of the road. The Municipality of Győr – in co-operation with the Environment Authority - has the declared intention to postpone the economic utilization of the plots bordering the 11-hectare Natura 2000 area as long as possible. The expected date of utilization is 2020.

In conclusion, the economic utilization of the area is driven by geographical and development considerations. As regards the ecological network of Natura 2000, it must be noted that the chapter on the compensation of negative environmental effects also includes the effects on the 11-hectare area and they were also taken into consideration when calculating the compensating measures.

Other developments

The development of the Eastern economic-industrial area necessitates the modification of the military railway line due to the fact that the existing line will be dismantled as a result of the development. The total length of the railway line will be curtailed by 2 kilometres. The new section is planned to be established mainly in the regulatory area of the northern segment of the connecting road network.

A possible alternative could be the establishment of a brand new railway connection. However, the end point of the military railway line is located in a Natura 2000 area. Any alternative track version would impact a significantly larger section than the planned 150 metres (even over 1 km) and would therefore affect Natura 2000 areas to a greater extent. The planned establishment of the Andrásvár area has no significantly negative effect on the Natura 2000 area or network. As a result, there is no reasonable alternative to the planned site of the development.

4. Imperative reasons of overriding public interests

Reasons to nevertheless carry out this project:

- ☐ Imperative reasons of overriding public interest, including those of a social or economic nature (in the absence of priority habitat/species),
- ☐ human health,
- ☐ public safety,
- ☐ beneficial consequences of primary importance for the environment,
- ☒ other imperative reasons of overriding public interest

Short description of the reason:

Planned project on the Eastern economic-industrial area

The project has an extremely significant positive effect from social and economic point of view as well. In terms of social consequences, the effect of the project on employment, professional training and education is outstanding.

Rate of employment

The project will create nearly new workplaces on its own and further new workplaces tightly connected to the main technology. In addition, due to the so called 'multiplier effect' the creation of at least more workplaces is expected in the region at the most conservative estimates. The workplaces will be created at industrial producers

and service providers - by the suppliers of the project, or the suppliers' suppliers. Altogether, new workplaces could be potentially created by the planned investment project. It is important to mention that 10 % of the jobs created by the project will require highly qualified or specially trained employees. It is not only the number of newly created workplaces that is significant but the project also has significance in terms of the sustainability of workplaces of qualified employees.

Education, professional training

Regarding vocational training, the investment project could provide an opportunity to completely revise the current curriculum and the vocational training practice with the help of the investor; and adopt them to the best available technologies. The number of students in vocational training could be doubled by the project, from an annual 360 to 700.

The project also provides great opportunities for the Széchenyi István University of Győr. Thanks to the development the university could become a prestigious and automotive R&D centre in Europe. At least 2 new departments and 30-40 more tutors (on top of the present 30) could take part in R&D activities. It is not only important to Hungary but for the whole region of Central and Eastern Europe.

The applied cutting-edge industrial technologies could play a very important in the Hungarian industrial culture and sustainability.

Acceleration of the region's catch-up to EU-27 average

The investment plays a major role in the catch-up to the EU-27 average. The GDP of the West-Transdanubian region where the investment will be located reaches only 63.75% of the average EU-27 level, thus the significance of this project cannot be neglected.

Financial-macroeconomic consequences

The detailed investment project alone will contribute to the Hungarian gross national product by 1.8%.

Calculating with the directly employed workers and the workers employed in the Supplier Park, the annual budget revenue of the Hungarian State is expected to increase - at conservative estimates - by Forints (Euros) due to the expected corporate and personal income tax, excise duty and other employment-related tax contributions upon completion of the project. (After the expiry of the development tax allowance, the increase will reach Forints (Euros) annually.

Furthermore, the contribution of the additionally expected workplaces to the budget can be of order of billions.

Due to its positive impact on the budget, the investment project can help secure a long-term budget balance.

Impacts on the balance of foreign trade and the exchange rate of the Hungarian Forint

The export ratio of manufactured products will reach 99.8-99.9%.

The company's annual euro revenue of ca. Forints (Euros) will generate a regular demand for the Hungarian Forint in meeting the requirements of the

operation and thus will have a positive effect on the Hungarian economy in the following respects:

- improvement of the balance of foreign trade
- stabilizing effect on the exchange rate of the Hungarian Forint against the Euro due to the regular demand

Indirect effects: effects on foreign direct investments, gain in credibility in the money market

The completion of investment project could significantly increase the confidence towards Central and Eastern Europe, including Hungary as a potential location for investments. Indirectly, it can generate further investment projects and workplaces. In this respect, the investment project is of utmost significance.

On a further note, the strengthened confidence of the money market towards Hungary also improves the marketability of Hungarian government bonds.

Summary:

Beyond the introduction of modern technological applications and the improvement of the industrial culture, the project also helps Hungary to comply with its economic obligations: the repayment of the stand-by credit granted by the EU and the IMF and the accomplishment of the EU 2020 programme.

Based on its remarkably positive social and economic impacts, the Hungarian Government considers the investment project to be of overriding public interest.

The Eastern bypass and the connecting road network

The implementation of the planned road developments is required to support the project but also to minimize the burdens on public health. As a consequence of the project, it is expected that the heavy traffic on the public roads of the discussed area will grow by 246 heavy goods vehicle / day. Thereof, 22 will burden the section between the port of Gönyű and the Eastern economic-industrial area.

The Municipality of Győr has a clear city development concept to concentrate all industrial investments in a single area, i.e. in the discussed region of the city. This approach is driven by health, environment protection and city development considerations. Given the fact, that the planned investment project is implemented in the Eastern economic-industrial area, the increase in traffic, noise and air pollution caused by the industrial activity would also be concentrated in one area. Effectively, it would mean a smaller burden on the environment, compared with the alternative of implementing the project elsewhere.

From a health point of view, it is highly important to optimize the daily transportation of the big number of employees and the shipments related to the industrial-economic activity. The optimal solution is provided by the development of a road network corresponding to the needs of public and heavy transportation while concentrating employers in one place.

The designation of the discussed economic-industrial areas and the development of the supporting road network form the basis of the region's future progress.

‘Dózsa-tagi’ economic area

As discussed above, the servicing of the planned investment project and the demands of the settling enterprises call for the expansion of the economic areas. The city development concept of the local government also pursues to concentrate industrial activity in a single area, i.e. in the discussed region of the city.

The implementation of the project, while playing a central role in the modification of the development plan, makes it reasonable to anchor the future economic and industrial activities between the site of the discussed investment and the area of the Győr Industrial Park. It is to be noted that with the saturation of the industrial park, only the establishment of new economic areas can satisfy the demands of this dynamically developing region. To concentrate the noise and air pollution caused by the industrial activity, the transportation of goods and the daily moving of employees, the discussed Dózsa-tagi economic area must be established. In this way, the area of effect of environmental burden (noise, dust etc.) can be reduced.

The developments discussed in this and the above paragraphs are to secure the sustainable operation of the project with minimal environmental effects. Their further aim is to satisfy the demands of the project with appropriate timing.

Other developments

The protection of the archaeological sites of Andrásvár, the prevention of their further damage, the regulation of rainwater drainage and the synchronized protection of the hygrophilous species are of common interest. The developments have no negative effect on the values and functional maintenance of the Natura 2000 areas. The military railway line modification is of national defence interest. For the Republic of Hungary it is essential to secure and maintain the railway connection in the area that will be partially dismantled due to the investment project.

5. Compensation measures

Foreseen compensatory measures and timetable:

The potential locations of the proposed compensatory measures are presented in Annex 13.

Habitats and species affected by the compensatory measures

For the following species and habitats – because the site has been designated for their conservation – compensatory measures are mandatory, once in chapter 2 in detail described potential mitigation measures are not sufficient to prevent the damage.

- 6260 Pannonic sand steppes
- 91I0 Euro-Siberian steppe oak woods (*Quercus* spp.)
- *Iris humilis* ssp. *arenaria*
- *Carabus hungaricus*

For the following species and habitats of community interest theoretically no compensatory measures shall be taken, but because of the above mentioned species and habitats, the compensatory measures may have a positive effect to them, or for the proposed „overcompensation” is necessary to make the measures:

- 91N0 Pannonic inland sand dune thicket (Junipero-Populetum albae)
- *Cerambyx cerdo*
- *Lucanus cervus*
- *Myotis myotis*
- *Nyctalus noctula*
- *Lacerta agilis*
- *Elaphe longissima*
- *Lacerta viridis*

For the following species of community interest no compensatory measures are mandatory and the planned measures will likely have no positive effect to them:

- *Hyla arborea*
- *Pelobates fuscus*
- *Rana dalmatina*
- *Rana esculenta*
- *Bufo viridis*

Antecedent

The compensatory measures are in line with the management plan produced for the area in 2007 and with the conservation objectives of the area, with the approach described in the LIFE + proposal in 2009, but are geographically definitely separated from it. Suggested actions

1) Development / restoration of Pannonic sand steppes in degraded areas and in pine and black locust plantations respectively

With this action pine and black locust plantation areas – which are not or only to a limited degree suitable for native tree species – have to be transformed into Pannonic sand steppes.

Aim:

- Establishment of minimum 190, in optimal case 200-250 hectares of Pannonic sand steppes in the HUPH20009 'Gönyői-homokvidék' special conservation area

Values of community interest to compensate:

- Pannonic sand steppes (establishment of the habitat)
- *Carabus hungaricus* (establishment of suitable habitat for the species)
- *Iris humilis* ssp. *arenaria* (establishment of suitable habitat for the species)

Principles:

- Areas should be selected, which are not or hardly suitable for reforestation with native tree species.
- Selected areas have to be continuous and at least 30-50 hectares in size.
- The selected areas should include the remaining grasslands and clearings.
- In the selected areas mature forests (planned for cutting) should dominate.

- Elements of the natural topography (dunes and depressions) should be present in the selected areas.
- The aim cannot be to establish treeless areas, existing or spontaneously settled white poplar groups should be protected.

Potential areas (altogether 234.82 hectares)

- Ministry of Defense Budapest Forest Company: 'Györszentiváni gyakorlóter': Győr 565A (2.21 ha), 565B (6.3 ha), 565C (10.51 ha), 565D (3.86 ha), 565E (10.33 ha), 565F (10.72 ha), 565G (5.04 ha), altogether: 48.97 ha
- Ministry of Defense Budapest Forest Company: Shooting-range: 571A (3.3 ha), 571B (1.98 ha), 571C (5.56 ha), 575B (0.92 ha), 575C (2.61 ha), 575D (2.56 ha), 575E (3.05 ha), 575F (3.2 ha), altogether: 23.18 ha
- KAEG Corporation: Gönyű 3Ti (1.9ha), 3TN1 (12.61 ha), 3TN2 (1.49 ha), 6Ti1 (5.95 ha), 5G (0.68 ha), 5H (2.18 ha), 5I (1.68 ha), 5TI1 (2.23 ha), 5TI2 (2.88 ha), 5TI3 (0.22 ha), 7F (3.6 ha), 7G (1.15 ha), 7TI2 (0.47 ha), 7TI2 (0.75 ha), 8F (16.84 ha), 8G (2.76 ha), 8H (4.66 ha), 8I (0.54 ha), 8J (16.01 ha), 8K (0.55 ha), 8O (1.05 ha), 8TI1 (1.41 ha), 8TI2 (0.23 ha), 8TI3 (1.47 ha), 8TI4 (1.98 ha), 8VF (5.29 ha), 9E (1.29 ha), 9F (5.69 ha), 9G (1.44 ha), 9I (12 ha), 9J (0.45 ha), 9K (1.2 ha), 9L (0.74 ha), 11A (1.06 ha), 11B (1.65 ha), 11C (2.76 ha), 11CE (1.16 ha), 11D (1.11 ha), 11E (0.54 ha), 11F (0.9 ha), 11G (1.69 ha), 11H (0.88 ha), 11I (7.44 ha), 11J (4.61 ha), 11K (2.75 ha), 11L (2.49 ha), 11M (1.61 ha), 16A (2.49 ha), 16B (3.33 ha), 16J (1.49 ha), 16K (6.52 ha), 16L (4.36 ha), 16TI (0.43 ha), altogether: 162.66 ha
- The potential sites may change during the detailed planning and licensing.

Conditions and limitations

- Before the final selection of the affected areas site exploration has to be performed. Consultation is required both with the forest authority and the forest management.
- On behalf of the areas withdrawn from cultivation, reforestation have to be carried out, or the statutory fees for withdrawals are payable. For the reforestation suitable site must be provided outside of the Natura 2000 area, preferably in the territory of the same township.
- Because of the size of the forest areas impact assessment has to be carried out.
- On some parts of the affected areas ammunition disposal have to be carried out.

Implementation:

- Site exploration, detailed planning, obtaining of permits (1st-2nd year)
- After obtaining the necessary permits the woody vegetation and snags must be removed from the selected areas (year 2-3).
- Ammunition Disposal (year 2-3)
- If the soil is too acidic or with high nitrogen content, the upper layer of the soil should be removed from some parts of the area concerned (year 2-3)
- The seeds needed for grassland re-introduction have to be produced and collected (year 1-3)
- Grass seeding (year 3-4)
- Follow-up treatments and control of invasive plants (year 5-10)
- Introduction of rare and constant plant species (year 5-10)

Comments:

- The national nature conservation has limited experience in the conversion of large tree plantations or bushes into sandy lawn. However, the Kiskunság National Park Directorate successfully restored sand steppes on large agricultural areas and small black locust forests. The adaptation of methods used there to local conditions may contribute to the successful fulfilment of the proposed action, but the necessary post treatments should be provided.

2.) The conversion of pine and black locust plantations into Pannonic inland sand dune thicket

Aim:

- Establishment of minimum 5, in optimal case 10 hectares of Pannonic inland sand dune thicket in the HUFH20009 'Gönyüi-homokvidék' special conservation area

Values of community interest to compensate:

- Pannonic inland sand dune thicket (*Junipero-Populetum albae*) (establishment of the habitat)

Principles:

- Areas should be selected, which were harvested recently and the reforestation has just started.
- Areas should be selected – if possible –, where forest management is going to do the reforestation with non-native tree species.
- The area is seized among grasslands.

Potential areas:

- Ministry of Defense Budapest Forest Company: Győr 567A (6.47 ha), 567B (0.66 ha), 575G (2.17 ha), 575H (0.6 ha), 575I (3.36 ha), 575J (0.84 ha), altogether: 13,1 ha

Conditions and limitations

- Before the final selection of the affected area site exploration has to be made. Consultation is required both with the forest authority and the forest management.
- If necessary, the forestry operation plan should be modified.
- In the most affected areas before the start of the renovation ammunition disposal must be carried out.

Implementation:

- Site exploration, detailed planning, obtaining of permits (year 1-2)
- Removal of non-native tree species from the area (year 3-4)
- Ammunition Disposal (year 2-3)
- Production or purchase of the necessary breeding stock (*Populus alba*) (year 1-4)
- Finish of the reforestation (year 5)
- Cultivations and actions to protect against invasive alien species (5th-10th year)

Comments:

- In the case of Pannonic inland sand dune thicket (*Junipero-Populetum albae*) – based on the European Union's standards – it is not required to make compensatory measures (grade "D"). Nevertheless, because of the regional importance and vulnerability of the habitat these proposed measures are recommended.

3.) The quality improvement of Euro-Siberian steppe oak woods remains

On the area of community interest there are remains of the former steppe oak woods in a good or worse condition at many places available. Under the measures the improvement of their status should be granted.

Aim:

- The quality improvement of minimum 15, in optimal case 20 hectares of Euro-Siberian steppe oak woods (*Quercus* spp.) in the HUFH20009 'Gönyüi-homokvidék' special conservation area

Values of community interest to compensate:

- Euro-Siberian steppe oak woods (*Quercus* spp.) (improvement of the habitat)

The arrangements may have positive effects on the following species of community interest:

- *Nyctalus noctula* (improvement of the habitat for the species)
- *Myotis myotis* (improvement of the habitat for the species)
- *Lucanus cervus* (improvement of the habitat for the species)
- *Cerambyx cerdo* (improvement of the habitat for the species)

Principles:

- Areas should be selected, where at least 50% of the *Quercus robur* trees are healthy (without any top drying) and the undergrowth is less depredated.

Potential areas:

- 'Kisalföld' Forest Company: Gönyű 1E (9.19 ha), 4P (7.13 ha), Böny 53D (8.72), 17A (5.35), 17B (8.41), altogether: 38.8 ha

Conditions and limitations:

- Before the final selection of the affected area consultation is required both with the forest authority and the forest management.
- If necessary, the forestry operation plan should be modified.
- Methodological development with the involvement of forestry professionals.

Implementation:

- Site exploration, detailed planning, obtaining of permits (year 1-2)
- Removal of non native tree species from the area (year 3-4)
- Production or purchase of the necessary breeding stock (*Quercus robur*, *Populus alba*) (year 1-)
- Implementation of the action
- Cultivations and actions to protect against invasive alien species (year 5-10)

Comments:

- The deterioration of steppe oak woods remains' natural conditions in the area is mainly due to decline of the natural conditions, first of all the decrease of ground water level. The implementation – in the case of not adequate preparation (c.g. trial experiments) – can easily bring the opposite of the expected results.
- By the implementation none of the old, hollowed trees can be cut off.

4.) Removal of invasive plant species representing a potential risk for infestation

Removal of aggressively spreading invasive plants in and around the affected area. With these arrangements the deterioration of existing habitats of community interest can be avoided, and the infection on the areas affected by the restoration can be prevented.

Aim:

- Removal of invasive plant species – especially *Ailanthus altissima*, *Robinia pseudo-acacia* (not in plantation), *Eleagnus angustifolia*, *Solidago gigantea*, *Asclepias syriaca* – in the 100m, in optimal case 200m surroundings of the areas affected by the restoration.

Values of community interest to compensate:

- Pannonic sand steppes
- Pannonic inland sand dune thickets (*Junipero-Populetum albae*)
- Euro-Siberian steppe oak woods (*Quercus* spp.)
- *Iris humilis* ssp. *arcnaria*
- *Carabus hungaricus*

Principles:

- Mechanical removal should be applied wherever possible, but for some species only the chemical control can be effective.

Potential areas:

- They can be assigned only after the first three measures have been determined. If all of the above mentioned proposals are implemented, this would represent 195 hectare on the Natura 2000 site (in the case of 100m buffer zone).

Conditions and limitations:

- Before the final selection of the affected areas consultation is required both with the forest and nature conservation authority and the forest management.
- If necessary, the forestry operation plan should be modified.
- Methodological development with the involvement of forest and nature conservation professionals.

Implementation:

- Survey and preparation of the action plan, to obtain licenses (year 1-2)
- Removal of non-native species from the affected areas (years 3-5)
- Follow-up treatments (year 5-10), if necessary

Comments:

- A part of the interventions would not happen on the Natura 2000 site. Therefore negotiations are required both with the owners and the European Commission.
- A good solution may be the legal order to destroy this species and in some cases the support of the implementation with financial resources.

5.) The reduction of big game, especially wild boar population

The area has a large quantity of wild boar, which cause a significant damage to the sandy grasslands (it has to be noted, however, that the rooting of wild boar contributes to the survival of grasslands too), and makes the regeneration of oaks impossible.

The measure may be implemented, in principle, by official regulations, namely with the significant increase in allowed shootings. The measure should cover the total area of the two affected game management units (Győrszentiván landowners hunting associations, KAEG Co.). The measure requires further consultation with the relevant hunting authorities and the managers.

6.) Monitoring

The efficiency control of compensatory measures is expected by the European Commission; therefore the forthcoming effects on Habitats Directive Annex II species and Annex I habitats have to be tested after implementation and the subsequent 5-10 years. The tests should be coordinated with the report, which is due every 7 years, and the associated monitoring system. In the course of the monitoring first of all methods used for monitoring Natura 2000 in the framework of NBMS (National Biodiversity Monitoring System) should be applied. However, the increase in the number of sampling sites and sampling frequency may be useful.

Proposed monitoring objectives:

- Analysis of ecosystem dispersal
- Analysis of habitat structure and function
- Distribution analysis of plant species of community interest and protected species at the national level
- Distribution analysis of invasive plants
- Population analysis of invertebrate species (min. carabids, spiders) living on the soil surface

- Population analysis of orthoptera and lepidoptera
- Population analysis of amphibia and reptila

7.) Establishment of the conditions for future maintenance

The Republic of Hungary takes every effort to ensure that the above indicated compensatory measures are effective and ensure long term sustainability.

Expected results

If the above-proposed compensatory measures are implemented, the following results are expected in the HUFH20009 'Gönyői homokvidék' special conservation area:

- Establishment of new Pannonic sand steppes habitats on 190-220 hectares (Note: Some of the grasslands are expected to be afforested by white poplars, which is by a certain coverage not an important issue)
- Establishment of new Pannonic inland sand dune thicket (*Junipero-Populetum albae*) habitats on 13 hectares (Note: Some of the sand steppes are expected to be afforested by white poplars, which means further additional area)
- The quality improvement of the existing Euro-Siberian steppe oak woods (*Quercus* spp.) habitat type on 16 to 30 hectares
- Suitable habitat increase for the Habitats Directive Annex II species (especially *Iris humilis* ssp. *arenaria* and *Carabus hungaricus*)
- Decreased risk of harmful effects for the existing Habitats Directive Annex I habitats and Annex II species

Annexes

- Annex 1. Overview map
- Annex 2. Detailed map
- Annex 3. Distribution of habitats of community interest in the investment area
- Annex 4. Distribution of habitats of community interest in the area of HUFH20009 'Gönyüi-homokvidék'
- Annex 5. Occurrence of Hungarian carabus (*Carabus hungaricus*) in the investment area
- Annex 6. Occurrence of the great capricorn beetle (*Cerambyx cerdo*) and the stag beetle (*Lucanus cervus*) in the investment area
- Annex 7. Occurrence of sand iris (*Iris humilis* ssp. *arenaria*) in the investment area
- Annex 8. Reproduction areas of amphibian species in the investment area
- Annex 9. Occurrence of reptiles in the investment area
- Annex 10. Aims of nature conservation in the HUFH20009 'Gönyüi-homokvidék' special conservation area
- Annex 11. Data and overview map of designated areas of damaged habitat types and species
- Annex 12. Area of the Life+ project (original and proposed modification)
- Annex 13. Compensatory measures affected areas, version I.
- Annex 14. List and evaluation of the potential alternative locations of the investment project
- Annex 15. The location of potential alternatives of the planned investment on the map