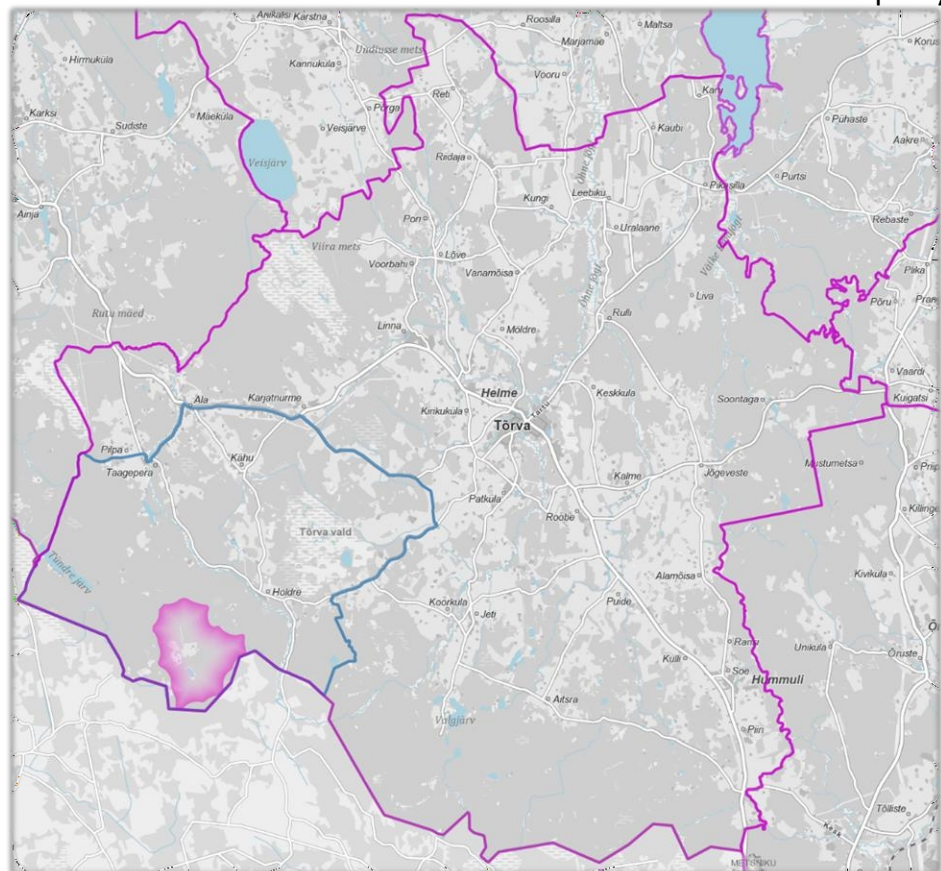


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Tõrva municipality special plan I, preliminary location selection

Tõrva municipality



Tõrva Municipal
Government Reg
no. 77000418
Kevade 1, Tõrva, Tõrva Municipality, 68605 Valga County

Job no.: 23029ÜP3
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Decision-maker for the preliminary selection of the planning location, planning organizer: Tõrva Municipality.

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Report on the first stage of the strategic assessment of the relevant impacts of the plan, including environmental impacts

Compiled by: LEMMA OÜ. Lead expert in strategic environmental assessment (SEA license KMH0153)

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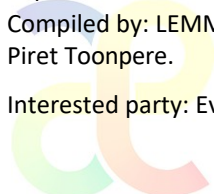
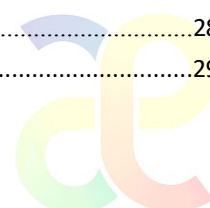


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Preliminary location selection master plan 1:40000



5 Appendix

Strategic environmental assessment report (SEA)



1 Need for special planning and objective of the

The preparation of the special plan and strategic environmental assessment was initiated by Tõrva Municipal Council Resolution No. 1-3/2022/24 of 25 October 2022, "Initiation of a local government special plan and strategic environmental assessment." The purpose of the special plan is to identify a suitable area for the construction of a wind farm in the southwestern part of the municipality, covering an area of 115 km². The draft plan proposes to expand the planning area by 6.6 km² (see Figure 1) in the southeast direction due to the need to supplement the green network of the comprehensive plan with an additional corridor.

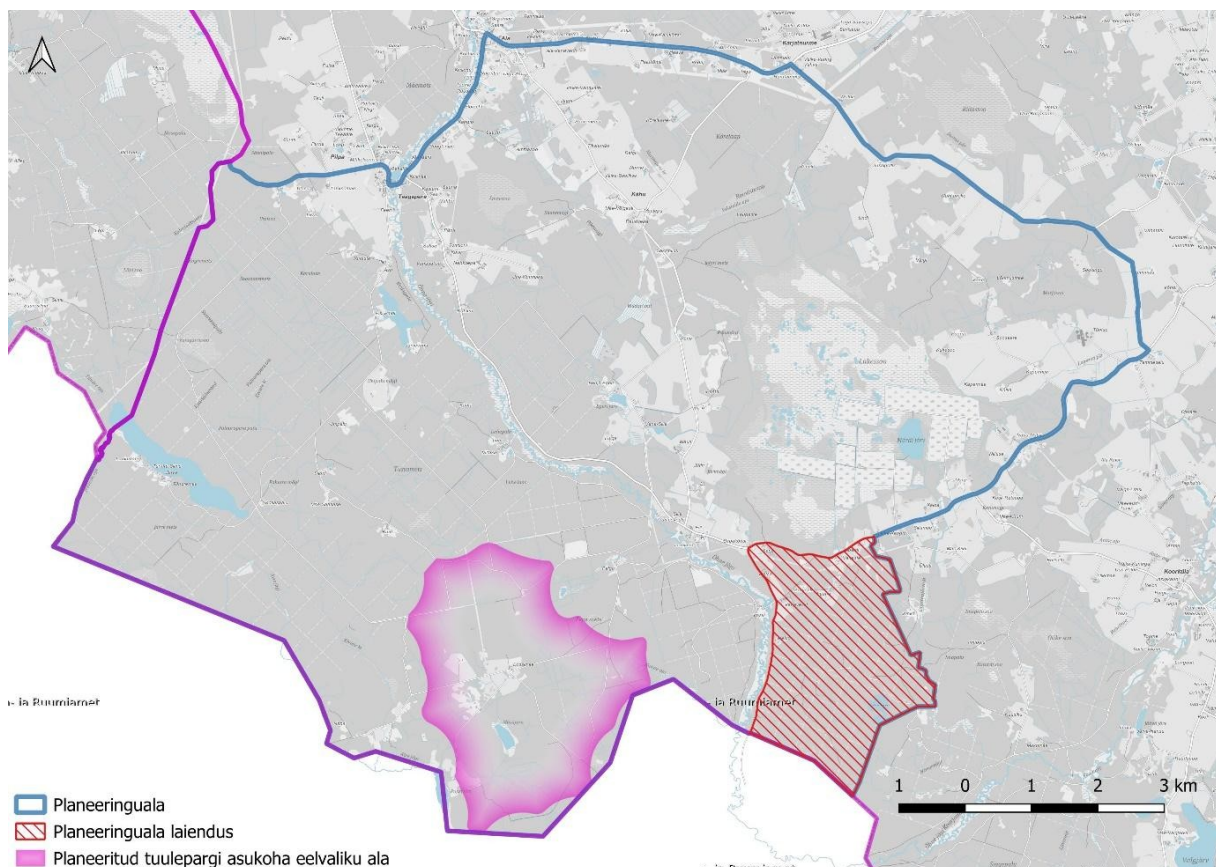


Figure 1. Planning area, including the need to expand the planning area that became apparent during the drafting of the bill.

The need to establish a wind farm stems from Estonia's climate and energy policy. Estonia's long-term goal is to transition to a low-carbon economy, which means gradually transforming the economy and energy system to be more resource-efficient, productive, and environmentally friendly. Estonia's short-term goal is that by 2030, all electricity consumed should be produced from renewable sources.

The need to draw up a special plan arises from Section 95(1) of the Planning Act, according to which *a local government special plan shall be drawn up for the construction of a building with a significant spatial impact if the location of the building with a significant spatial impact is not specified in the comprehensive plan.* According to point 4 of the *list of buildings with a significant spatial impact* in Regulation No. 102 of the Government of the Republic of 1 October 2015, *a wind farm consisting of wind turbines taller than 30 meters is considered a building with a significant spatial impact.* According to Regulation No. 184 of the Government of the Republic of 26.06.2003, *Network Rules*, a wind farm is *a power plant consisting of several wind turbines and equipment, buildings and structures connecting the wind turbines to each other and to the connection point.*

The preliminary selection of the location for this special plan is in accordance with § 95 of the Planning Act. The draft special plan has been prepared on the assumption that the Planning Act § 95¹. The decision recommends refraining from preparing a detailed solution.

The preliminary selection of the location for the special plan includes, as an appendix to the plan, *a report on the relevant impacts of the special plan for Tõrva municipality, including the first stage of the strategic environmental assessment*. The report referred to provides a more detailed overview of the relevant impacts and, where necessary, presents mitigation and monitoring measures that have been taken into account in the preparation of the planning solution. The explanatory memorandum to the plan does not repeat the circumstances presented in the impact assessment report attached to the plan, but the report is used as a basis for decision-making – if necessary, the impact assessment report should be consulted when explaining the reasons for a decision in the relevant subject area.

2 Links to relevant strategic development documents

2.1 Climate Policy Fundamentals until 2050¹

The climate policy guidelines are a vision document, and the principles and policy directions set out therein will be implemented in the future when updating sectoral development plans. The clear formulation and enforcement of policy directions also motivates the private sector and society at large to act in the same direction. 08.02.2023. The updated "Climate Policy Fundamentals until 2050" in the Riigikogu stipulates that Estonia's long-term goal is to balance greenhouse gas emissions and sequestration by 2050 at the latest, i.e. to reduce net greenhouse gas emissions to zero by that time.

Estonia's long-term goal, in accordance with the climate policy guidelines, is to transition to a low-carbon economy, which means gradually transforming the economy and energy system to be more resource-efficient, productive, and environmentally friendly.

The activities planned in the special plan are in line with Estonia's climate policy principles.

2.2 Estonian Energy Sector Development Plan 2030+ (ENMAK)², ENMAK 2035 and the Energy Sector Organization Act

ENMAK describes Estonia's energy policy objectives until 2030, the vision for the energy sector until 2050, general and specific objectives, and measures to achieve them. One of the objectives of the development plan is to promote the share of energy produced and consumed in Estonia from renewable energy sources.

According to ENMAK 2030, the task of the energy sector, like other economic sectors and the sector serving the Estonian population, is to ensure favorable prices for energy consumers and the availability of energy that meets environmental requirements. The electricity sector contributes to the competitiveness of the Estonian economy through guaranteed security of supply, market-based end-user electricity prices, and the use of environmentally friendly solutions.

In shaping European energy policy, it is important to develop a market-based energy market based predominantly on local and renewable energy sources in the European Union. According to ENMAK 2030, renewable energy will account for 50% of Estonia's final energy consumption in 2030.

From the perspective of the European Union's energy security, it is important to move away from dependence on imported energy and towards greater use of primary energy sources available in the European Union.

The preparation of ENMAK 2035 was initiated on 18 November 2021 and it is due to be submitted to the Government of the Republic in 2024-2025.



¹ https://ec.europa.eu/clima/sites/its/its_ee_en.pdf

² https://www.mkm.ee/sites/default/files/enmak_2030.pdf

From November 1, 2022, Section 32¹ of the Energy Economy Organization Act stipulates that *by 2030, renewable energy will account for at least 65 percent of the country's total final energy consumption. Renewable energy will account for at least 100 percent of total final electricity consumption and at least 63 percent of total final heat consumption. Renewable energy used in road and rail transport will account for at least 14 percent of the energy consumed in the entire transport sector.*

The establishment of the wind farm is in line with both the ENMAK 2030+ targets and the Energy Economy Organization Act. The establishment of the wind farm will create favorable conditions for increasing the share of electricity production from renewable energy sources.

2.3 Estonia's Climate Change Adaptation Development Plan until 2030³

The strategic objective of the Climate Change Adaptation Development Plan is to increase the readiness and capacity of the Estonian state, regions and local authorities to adapt to the effects of climate change.

When setting energy and security of supply targets, the development plan identifies one measure as the prevention of risks caused by climate change in energy networks and the use of renewable energy.

The activities in the area of energy independence, security of supply, and energy security are closely linked to the Energy Sector Development Plan until 2030, increasing energy independence, security of supply, and energy security both now and in the event of increasingly severe weather conditions and more frequent extreme weather events, both at the national and regional levels. The guiding principle of energy independence is independence from energy imports, reliance on domestic fuels and, above all, renewable fuels for energy production, and the use of renewable energy sources and diversification of the energy production portfolio.

The establishment of wind farms is in line with the objectives of the climate change adaptation development plan.

2.4 Valga County Plan 2030+⁴

The Valga County Plan does not designate any preferred areas for the construction of wind farms, but section 4.2.5 of the explanatory memorandum to the Valga County Plan sets out the principles for the development of renewable energy.

According to the Valga County Plan, in the case of distributed energy, where it is necessary to use agricultural land for energy production, less valuable areas (outside the green network, valuable landscapes and valuable agricultural land) should be preferred. The Valga County Plan does not specify specific areas for the development of renewable energy in the county.

The special plan and SEA are based on the general conditions for the spatial development of wind energy set out in the county plan. According to the explanatory memorandum to the county plan, the following principles should be followed when establishing wind farms in Valga County:

- All plans and design conditions for wind turbines and wind farms of any height, or, in the absence of an obligation to issue them, draft building permits or construction notices, must be coordinated with the Ministry of Defense. In order to ensure national defense interests, cooperation with the Ministry of Defense must begin at the initial stage of planning a wind generator or wind farm.
- When planning wind turbines, the minimum distance of the wind turbine from the state road must be equal to the total height of the wind turbine (mast and blade height), and the planning of wind turbines must be based on measures to mitigate the risk of accidents.

³ <https://envir.ee/kliimamuutustega-kohanemise-arengukava>

⁴ <https://maakonnaplaneering.ee/maakonna-planeeringud/viljandimaa/>



- When planning wind turbines, the minimum distance of the wind turbine from the boundary of the railway protection zone must be equal to the total height of the wind turbine (mast and blade height), and the planning of wind turbines must be based on measures to mitigate the risk of accidents.
- When planning wind farms, attention must be paid to avoiding noise pollution and, if necessary, developing mitigation measures. When planning new wind farms, the goal should be to ensure compliance with the strictest equivalent industrial noise level standards set out in legislation, i.e. 50 dB during the day and 40 dB at night for Category II residential areas.
- When planning wind turbines and wind farms as dominant features in the landscape, the preservation of landscape values must be taken into account.

Conditions for the preservation and functioning of the green network:

- in core areas and corridors, where forest category is commercial forest, may develop economic activity;
- For the network to function, it is necessary that the proportion of natural areas in the core area does not fall below 90%;
- When planning new construction, green network corridors must not be cut through. If a corridor is cut through, an equivalent replacement corridor must be found.
- on grasslands in the interests of preserving the community it is necessary to restore agricultural activities (grazing and regular mowing);
- Landscape and biological diversity must be preserved – forest communities, semi-natural and natural meadows and the corridors connecting them. It is important to maintain field margins, ditches, road and forest edges, and small-scale biotopes such as stone piles and copses that increase landscape diversity.
- In the case of infrastructure development/reconstruction (especially roads) in green network conflict areas, effective solutions for mitigating conflicts must be provided for at the planning (design, engineering) stage of these objects, using road construction, traffic management, and other appropriate measures as necessary.

Conditions for preserving valuable landscapes and enhancing their value:

- the architectural and landscape environment of valuable landscapes must be preserved;
 - the main principle of construction in valuable landscapes must be to preserve the historical settlement structure, restore it where possible, and ensure that the historical building lines, landscape layout, village types, and the layout of buildings correspond to the historical overall appearance. Environmental values must be preserved in their proper environment, i.e. the relocation of farms, individual buildings or structures must not be envisaged;
 - preserve traditional land use and landscapes where the settlement structure, road network, and architecture have been better preserved than usual;
- preserve and open up beautiful viewpoints;
- When planning new structures and linear constructions, the preservation of existing values and the suitability of the landscape architecture with the historical and cultural background of the valuable landscape must be ensured.
 - The planning of objects that dominate the landscape (e.g., wind generators, mobile communication masts, water structures, high-voltage lines, etc.) is generally prohibited. In exceptional cases, when planning construction in valuable landscapes, each specific case must be based on a landscape analysis and the obligation to prepare a detailed plan must be considered.
- Agricultural land must be kept open and, preferably, in use.
 - The openness of agricultural landscapes (near and distant views opening up in the landscape) must be preserved.



- In cooperation with landowners, farmers' associations, village movement organizations, and local governments, opportunities must be found to keep valuable agricultural land in use.
- Maintain land improvement systems.

The county plan sets out general principles for the use and preservation of valuable agricultural land and reflects the location of valuable agricultural land in Valga County as preliminary informative data. The conditions for the use of valuable agricultural land are that valuable agricultural land is generally used for agricultural activities. Additional valuable agricultural land may be designated in the comprehensive plan. The preliminary selection area for the wind farm overlaps with valuable landscapes and green network areas designated in the county plan. As the comprehensive plan has specified valuable agricultural land, landscapes and green network areas in accordance with the county plan, the overlaps between the areas specified in the comprehensive plan and the preliminary selection area for the planned wind farm are shown in Figure 2.

Principles of county planning *When planning new wind farms, the goal must be to ensure compliance with the strictest equivalent industrial noise level standard specified in legislation, i.e. 50 dB during the day and 40 dB at night for Category II residential areas, with the exception of the following two specific cases:*

- A special agreement has been made with the owner of the residential land plot as a tolerance easement, allowing the nighttime noise level to exceed 40 dBA. By establishing the easement, the landowner has agreed to a higher noise level than that specified in the county plan, which does not conflict with the applicable noise standard for residential areas.
- An ETAK residential or public building is located on the Lossimäe agricultural land plot. This is a building that is not intended for residential use, and the landowner has also confirmed in writing that they are aware of the planning solution and are prepared to conclude a building rights agreement for the construction of a wind farm.

2.5 , Tõrva Municipality

The comprehensive plan of Tõrva Municipality was established by Decision No. 1-3/2024/6 of the Tõrva Municipal Council on March 21, 2024.

The comprehensive plan does not provide for industrial wind farms connected to the main grid in the territory of Tõrva Municipality. In order to establish a wind farm, a special plan must be drawn up by the local government, which will set out the conditions for the establishment of the wind farm (e.g. the distance of the wind farm from residential buildings, protected natural objects, etc.).

The conditions of the comprehensive plan that must be taken into account when planning a wind farm in a special plan are presented below.

Conditions for the protection and use of valuable agricultural land:

- valuable agricultural land shall be kept in agricultural use. Afforestation is not permitted, but landscape elements such as rows of trees or hedges, stone fences or copses may be established or allowed to develop naturally on valuable agricultural land in order to protect the soil, mitigate climate damage or diversify the spatial structure of the agricultural land mass. Valuable agricultural land may also be used as a plant nursery, tree nursery or for growing trees and shrubs with a rotation period of up to five years.
- new buildings for various purposes (residential buildings with outbuildings, public buildings, commercial and industrial buildings, livestock buildings or other agricultural buildings, recreational buildings, roads, wind



renewable energy production equipment or other structures) and/or expand existing structures
, but:

- buildings must be located primarily along existing roads and field boundaries, avoiding the fragmentation of agricultural land;
- the construction of new roads should be avoided where possible, and access to the building should be provided primarily using existing roads. If the construction of a road to valuable agricultural land is unavoidable, the road should be constructed in a way that causes as little damage as possible to the use of the agricultural land. If the construction of a road causes a valuable agricultural land mass to be divided into several parts, the size of the agricultural land mass formed as a result of the division must be at least two hectares;
- A new building may be constructed on valuable agricultural land or an existing building may be extended if, prior to the designation of the valuable agricultural land in the comprehensive plan, a detailed plan has been established for the land or design conditions, building permits, and building notices have been issued.
- valuable agricultural land does not prevent the application for and issuance of a mining permit in accordance with the procedure established by law.

Conditions for use and construction in the green network:

- When planning activities, the objectives of the green network must be taken into account and it must be ensured that the green network remains functional. For the network to function, it is necessary that the proportion of areas with natural land cover (areas not covered by artificial surfaces) in the support area does not fall below 90% (this condition does not apply to the extraction of mineral resources in accordance with the procedure established by law);
- The planning of new densely populated areas within the green network area is not permitted.
- Only courtyards, generally not exceeding 0.4 ha, may be fenced in order to preserve the open space characteristic of a scattered settlement pattern and allow game to move freely. The area enclosed by a fence may be larger in justified cases (e.g. keeping farm animals, protecting a kitchen garden from wildlife, etc.), but the free movement of wildlife must be allowed;
- When planning new buildings, green network corridors must not be cut through – to ensure connectivity, an area at least 50 m wide must be preserved in its natural state.
- Recreational use is encouraged.
- grasslands must be maintained in order to preserve the community generally in agricultural use (grazing and regular mowing);
- where possible, preserve landscape and biological diversity – bog areas, semi-natural and natural meadows and the corridors connecting them. Landscape diversity can be preserved and enhanced by maintaining field margins, ditches, road and forest edges, and small-scale biotopes such as stone piles and copses;
- Ensuring the functioning of the green network must be taken into account when setting conditions for mining permits, issuing restoration conditions, and preparing restoration projects based on these conditions. If necessary, conditions for the implementation of mitigation measures must be added to the mining permit.
- In the case of the development/reconstruction of infrastructure objects (especially roads), which generally take place in areas of conflict with the green network, effective solutions for mitigating conflicts must be provided for at the planning (design, engineering) stage of these objects, using road construction, traffic management, and other appropriate measures as necessary;
- the objectives of the green network must be taken into account when establishing and organizing national defense objects/areas.



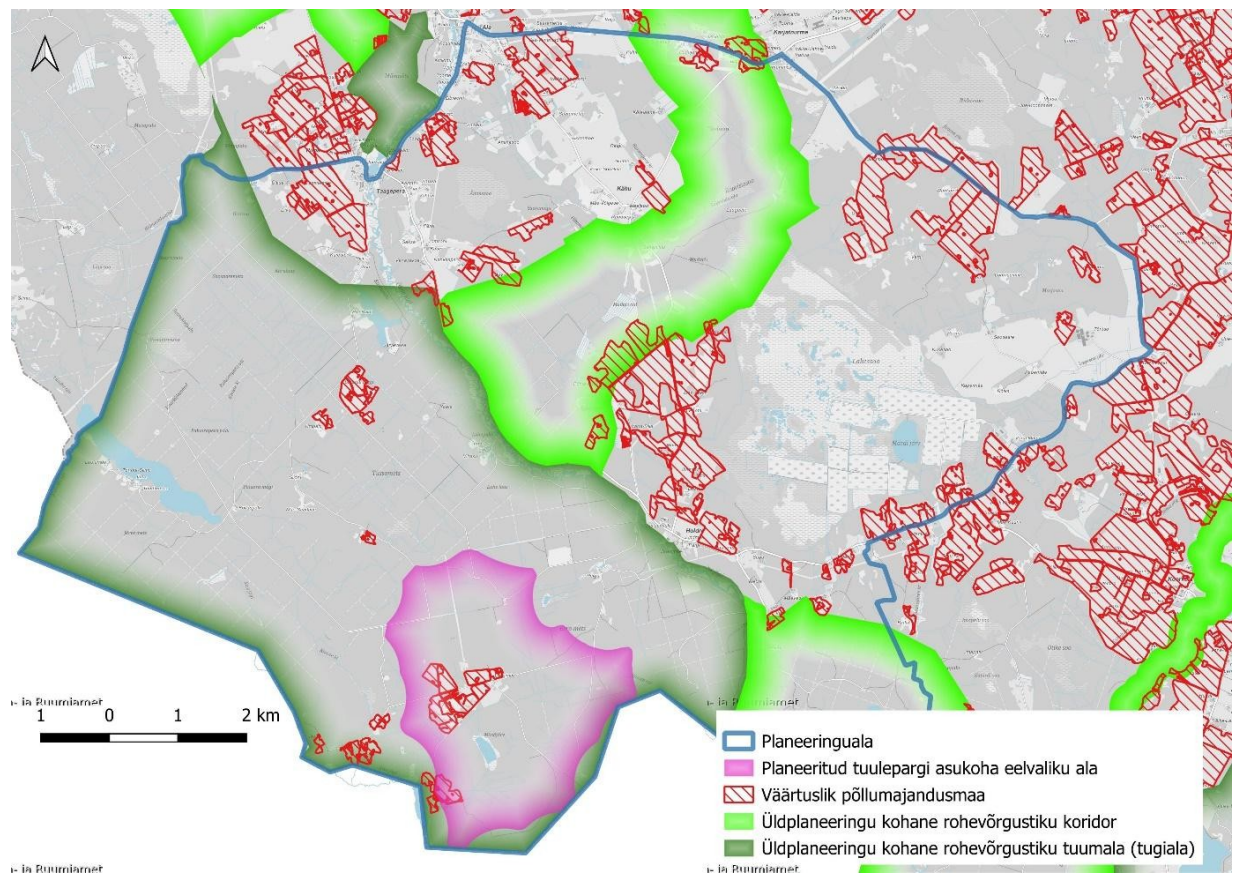


Figure 2. Location of values according to the comprehensive plan of Tõrva municipality in relation to the special planning area.

The special plan is based on the conditions set out in the comprehensive plan with regard to the green network and valuable agricultural land.



3 Planning solution

When issuing design conditions for the wind farm, the land areas and conditions specified in the preliminary selection of the location, as described in this chapter and presented in the preliminary selection plan, and the cooperation to be carried out in the further preparation of the plan, shall be taken as a basis.

3.1 History of the preliminary selection area

When determining the preliminary selection of the wind farm location, the planning objectives set out in section 1, the input from the development documents presented in section 2, and the relevant input from interested parties were taken into account. In the initial stage of the work, potential suitable areas were identified on the basis of an initial map analysis (see Figure 3). The map analysis revealed that there are potentially two areas within the special plan territory that have no direct exclusionary factors for the further selection of the location of the object covered by the special plan and that have sufficient territory. The description of the areas and the objects located in the potential impact area is presented in the planning principles and the SEA program and will not be repeated here. The impact assessment report also presents relevant information on the current state of the environment in the assessment of the impact of the respective impact area.

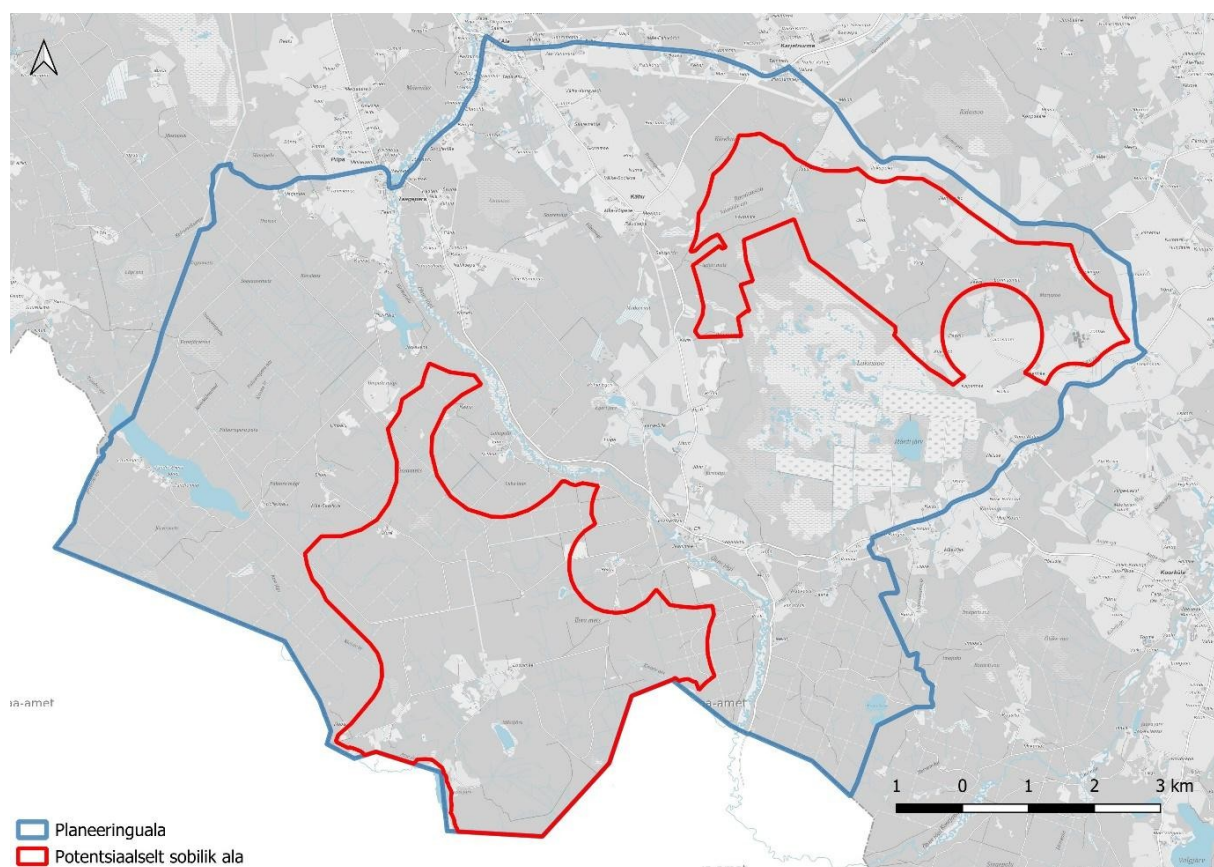


Figure 3. Areas potentially suitable for wind farms identified in the initial map analysis (SEA).

As a result of the impact assessment, the boundaries of the pre-selected areas were established and conditions for construction in the areas were determined. Of the potential areas shown in the figure above, the northern and eastern parts were completely excluded based on the habitats of species found during the studies.

The aim of the special plan and the impact assessment carried out during its preparation was to ensure that the planning solution would improve the living environment, balance and integrate interests, and ensure practical, reasonable, and sustainable land use. Based on the impact assessment, the boundaries of the preliminary selection areas have been adjusted, including abandoning the preliminary selection of some areas. The positions of wind turbines, for which there is confidence that there will be no significant adverse environmental impact if the mitigation measures presented in the plans are implemented, have been determined on the basis of the principle of wind turbines.

locations, proposed locations of service infrastructure, and the conditions set out in the following chapters, which, when fulfilled, including by conducting the necessary studies specified in the conditions, the implementation of the plan and its compliance with nature conservation objectives, renewable energy targets, and the health protection requirements of the region's residents are guaranteed.

3.2 Pre-selection area for the wind farm

According to *Regulation No. 184 of the Government of the Republic of 26.06.2003*, a wind farm is *a power plant consisting of several wind turbines and equipment, buildings, and structures connecting the wind turbines to each other and to the connection point*. As a separate facility on an underground cable, it has no significant spatial impact within the meaning of § 6(13) of the Planning Act. The wind farm is planned to be connected to the main grid by an underground cable, and when planning the underground cable, the local government's special plan may provide a solution with a more general degree of accuracy, and the connection does not have to remain entirely within the area covered by the special plan. All connections in the preliminary selection areas for the wind farm location are planned to be made with underground cables, and therefore it is not necessary to determine the cable corridor at the preliminary selection stage – for cable lines connecting the wind farm to the main grid, the basic (illustrative) locations are shown on the main drawing, to which alternatives may be added during the design phase. The locations and conditions for the construction of the lines are not specified, which allows the design conditions for the construction of the lines to be provided at a later stage. The exact connection point and the route of the line will be determined during the design phase after the connection conditions have been specified by the owner of the main grid.

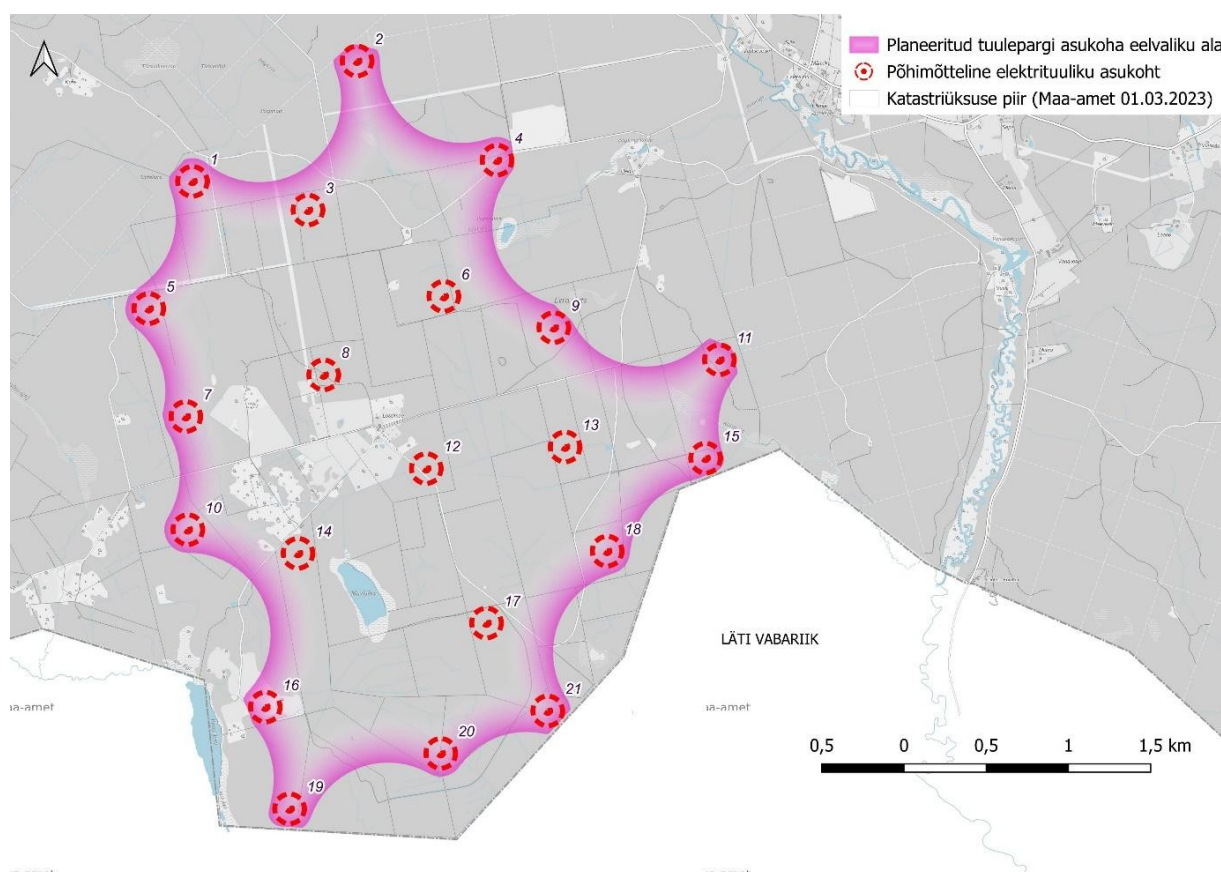


Figure 4. Planned wind farm pre-selection area with the locations of the main wind turbines.

The location of other infrastructure is presented approximately in the plan, and the location of buildings can be specified during design based on the conditions set out in the plan. Infrastructure serving the wind farm may also be built outside the pre-selection area. The exact need will be determined during design.

The special plan does not regulate the construction of infrastructure and buildings not related to wind farms, unless this is directly contrary to this plan. This means that the construction of other buildings will take place in accordance with applicable law, but the construction of other buildings must not hinder the implementation of the wind farm specified in the special plan, including the construction of individual wind turbines within 700 m of the preliminary selection area boundary, which would restrict or hinder the efficient operation of the wind farm. When designing noise-sensitive buildings, the noise levels caused by the wind farm must also be taken into account (see 3.9).

3.3 's conditions, which form the basis for issuing design conditions

Design conditions may be issued for the entire wind farm as well as for each individual wind turbine. The design must ensure that the accompanying effects are not greater than the effects addressed in the plan. The application for a building permit must be accompanied ^{by} the information necessary for the local government to prepare a preliminary EIA for the entire wind farm⁽⁵⁾ which will enable the assessment of the overall impact of the wind farm and the resulting additional conditions for individual wind turbines. The design must ensure that the accompanying impacts are not greater than the impacts addressed in the plan.

3.3.1 Purpose of use of buildings

The plan provides for the construction of a wind farm (electricity generation facility), which consists of the main structures of the wind farm – wind turbines (purpose of use of the building: 23023, wind farm facility⁶) and the buildings necessary for their maintenance (see section 3.3.7).

3.3.2 Maximum permitted number of wind turbines in the area

The planning specifies the location of the wind farm in the preliminary selection area is permitted to erect up to 21 wind turbines.

3.3.3 Location

The projected base area of each wind turbine must be located within the wind turbine building area specified in the plan. The minimum distance of an electric wind turbine from the edge of a public road is determined by the formula $L = (H + 0.5D)$, where L is the minimum distance of the wind turbine from the edge of the road in meters, H is the height of the wind turbine mast in meters, and D is the diameter of the wind turbine rotor or blade in meters.

3.3.4 Maximum permitted building area

The maximum permitted building area for each wind turbine is 40,000 m².

3.3.5 Height and, if necessary, depth of the building area ()

The maximum permitted height of an electric wind turbine above the existing ground level is 300 m. The maximum permitted depth is 6 m below the existing ground level.

⁵ The requirement arises from § 6¹ (1) of the KeHJS. During the coordination of the plan, it was pointed out that the legislative amendments proposed for the transposition of Directive (EU) 2023/24131 may remove the requirement for a preliminary EIA for wind farms from the legislation. If, at the time of applying for design conditions or a building permit, the requirement for a preliminary assessment is no longer in force, the requirement to submit the information necessary for the preliminary assessment may be waived, but a description of the planned activities must be submitted to the decision-maker, enabling the decision-maker to assess the overall impact of the wind farm and the resulting additional conditions for individual wind turbines. The term "preliminary EIA assessment" is used further in the text – if a preliminary EIA assessment is not required under applicable law, an expert assessment containing the information necessary for decision-making must be submitted in the relevant field (flora, fauna, ecosystems).

⁶ Economic and 02.06.2015 Regulation No 51
https://www.riigiteataja.ee/akti/isa/1260/2202/1006/MKM_m51_lisa_uus.pdf#

3.3.6 Architectural, constructional and design conditions

Surface treatment methods that minimize the occurrence of disturbing reflections must be used when finishing wind turbine blades. Based on the risk analysis presented in section 3.5, it may be necessary to use a system that prevents ice from forming on wind turbine blades.

3.3.7 Possible location of the building necessary for servicing the wind farm

Buildings to be constructed for the maintenance of the wind farm and their possible locations:

- wind farm substation (purpose of the building: 22145, 110 kV and higher voltage transformer substation or 22246, 6–35 kV substation and distribution equipment) ⁵. The possible location and conditions of the substation are presented in section 3.4;
- roads and areas necessary for servicing the wind farm (purpose of use of the structure: 21100, roads)⁵. The construction project shall specify the location of roads and areas in the possible locations shown on the main drawing. The assembly sites for wind turbines may extend up to 100 m outside the wind turbine building area. In the event of a significant deviation from the basic solution presented in the plan, the project solution must be accompanied by relevant justifications and agreements with landowners;
- electrical connections necessary for servicing the wind farm (purpose of use of the building: 22143, underground cable line)⁵. The possible location and conditions of electrical connections are presented in section 3.4;
- communication connections necessary for servicing the wind farm (purpose of use of the building: 22245, communication overhead or cable line)⁵. With regard to communication connections, routes parallel to possible electrical connections are preferred. The exact communication solution shall be presented in the construction project;
- firefighting water supply points (22227, firefighting water supply point, including hydrant)⁵. When designing, follow the conditions set out in section 3.6 when determining the location;
- Fences and gates (24212, fences and gates)⁵. The plan does not specify possible locations. When designing, take into account the conditions for reducing the impact specified in the plan.
- Temporary wind measurement mast with a height of up to 155 m. The wind measurement mast may be located in the preliminary selection area of the wind farm;
- other relevant structures not mentioned above (except for essential structures). If necessary, determine the location based on the nature of the structure when issuing design conditions or preparing the project, taking into account the impact mitigation measures presented in the plan.

The local government of may issue separate design conditions for the wind farm necessary for the building if necessary
separate design conditions.

The special plan does not regulate the construction of infrastructure and buildings not related to wind farms, unless this is in direct conflict with this plan. This means that the construction of other buildings shall be carried out in accordance with applicable law, but the construction of other buildings may not hinder the implementation of the wind farm specified in the special plan, including the construction of individual wind turbines within 700 m of the wind farm, which would restrict or hinder the efficient operation of the wind farm. Similarly, when designing noise-sensitive buildings, the noise levels caused by the wind farm must be taken into account (see section 3.8).

3.3.8 e need for a construction survey

The design is based on a construction geological survey and geodetic measurements that meet the relevant requirements. Where appropriate, the local government may require other construction surveys to be carried out if the need arises.



3.3.9 Principles of landscaping, maintenance and traffic management

If the construction of a wind farm requires logging and possibly also filling of the ground to create temporary storage or maneuvering areas, then after the objective has been achieved, conditions must be created to allow the area to return to its original natural state. The plan does not set any landscaping requirements. With regard to waste, the conditions set out in section 3.20 must be followed. With regard to traffic management, the provisions of sections 3.5 and 3.7 must be followed.

3.3.10 Demolition deadline

The service life of wind turbines is approximately 25-30 years, and for other wind farm structures, it is based on their established service life. When an electric wind turbine is depreciated, it must be replaced with a new one or demolished. Reconstruction must be carried out within three years. A wind turbine that is no longer in use and cannot be put back into service must be dismantled within two years.

3.4 's electrical infrastructure serving the wind farm

The basic electrical connections of the planned wind farm are shown in the preliminary selection drawing and in Figure 5. The wind turbines will be connected by underground cables to the planned medium-voltage substation located in the center of the wind farm. The basic location of the medium-voltage substation is marked on the Lossimäe land parcel, but this may be specified during the design phase. The wind farm substation may consist of one building with a floor area of up to 200 m² and a maximum height of 10 m.

The general route of the underground cables within the wind farm is shown on the preliminary selection drawing of the special plan. The cable corridors have been determined based on the principle that they should be located mainly at the edge of the access roads. The exact location of the underground cables will be determined during the design phase.

As a separate structure, the underground cable has no significant spatial impact within the meaning of § 6(13) of the Planning Act. When planning the underground cable connecting the wind farm to the main grid, the local government's special plan may provide a solution with a more general degree of accuracy, and the connection does not have to remain entirely within the area covered by the special plan.

The special plan provides as a basic solution that the wind farm will be connected to the main grid at the Tõrva 110 kV substation, located approximately 4 km northeast of the planning area boundary. As the connection is outside the planning area, the special plan does not exclude other solutions, such as the construction of a new connection substation, for example, to the existing 110 kV overhead line.

The exact connection point (together with technical parameters) will be determined and the route of the line will be established during the design phase after the connection conditions have been determined by the owner of the main grid. If possible, the underground cable corridor should be located as close as possible to existing power lines or other technical infrastructure corridors or in their immediate vicinity in order to avoid interference with the natural environment caused by additional man-made objects and to reduce the burden on the land through various protection zones.

When planning the wind farm, avoid overlapping the power cable and its protection zone with protected natural objects.



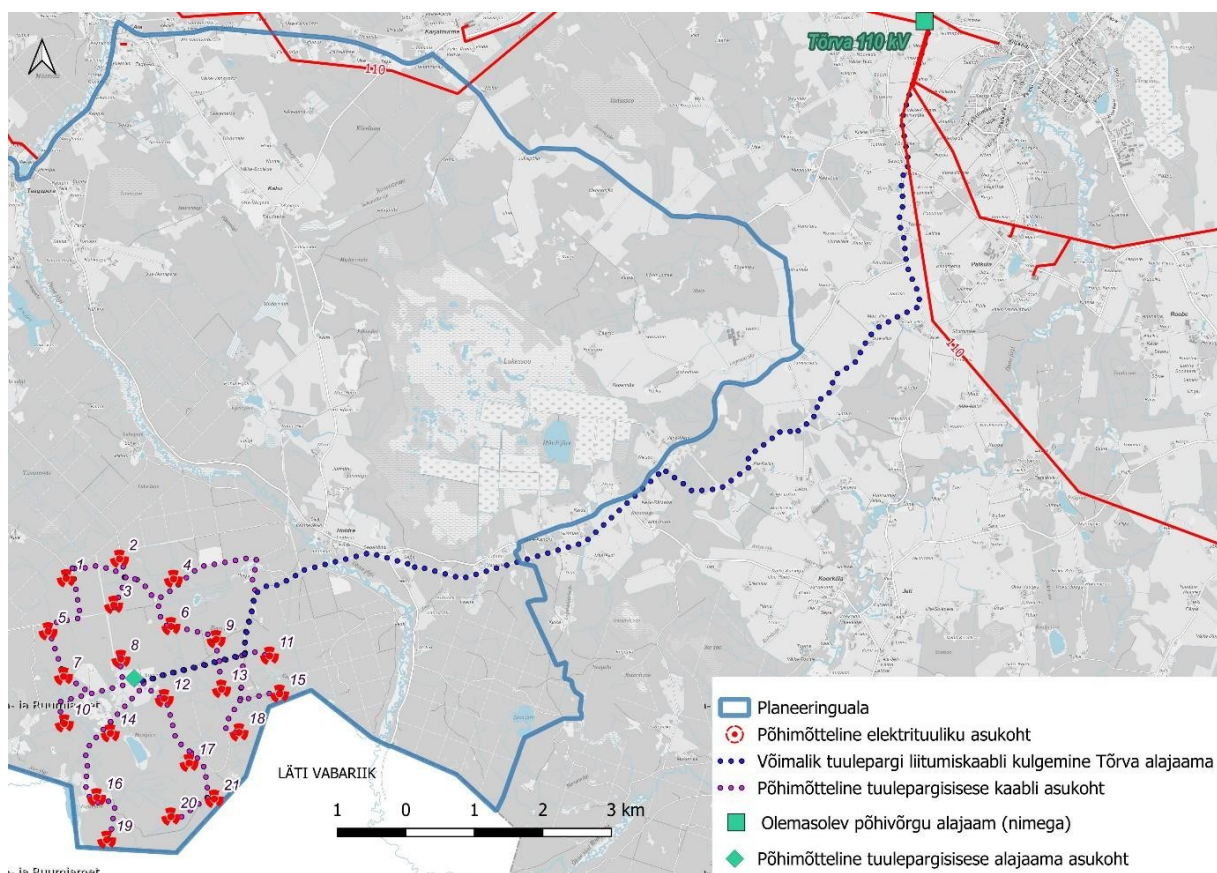


Figure 5. Schematic location of underground cables serving the planned wind farm.

3.5 roads serving the wind farm

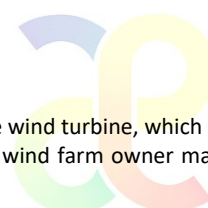
The construction and subsequent maintenance of wind turbines requires high-capacity access roads to the turbines that are constantly accessible. The preliminary selection drawing for the special plan for the wind farm shows the locations of the main access roads. Existing roads and forest roads are preferred when selecting the location of access roads. Based on the technical requirements of the selected wind turbine, a more detailed analysis of possible access roads must be prepared when drawing up the working design of the wind farm. This requires cooperation with road owners. If necessary, the necessary intersection reconstructions and road widening must be carried out and traffic management measures must be implemented to ensure the safe delivery of wind turbines.

In the preliminary selection area of the wind farm, there is a private road near wind turbine positions 13 and 18, which is planned for public use in the comprehensive plan. The special plan proposes to amend the comprehensive plan (see section 3.21) so that this private road would not be converted into a public road.

Under certain weather conditions, there is a risk of ice forming on the wind turbine and falling on people or vehicles traveling on the road. To avoid this potential hazard, wind turbines whose safety zone⁷ includes a publicly accessible road must be equipped with an anti-icing system or:

- a safety zone must be designated in the vicinity of the wind turbines during the design phase, and instructions for operating in that area;
- mark the safety zone of a specific wind turbine or several wind turbines located close to each other the safety zone on the road with an explanation of the danger;

⁷ In this plan, the safety zone is defined as a distance of $1.5 \times (\text{tower height} + \text{rotor diameter})$ from the wind turbine, which is the maximum extent of the danger. As the safety zone has been determined in general terms, the wind farm owner may reduce the extent of the safety zone on the basis of a more precise risk assessment.



- When turning onto a road with a safety zone, the safety zone ahead must be marked at the preceding intersection so that persons wishing to use the road can decide whether or not to do so.

The components of the wind turbines to be constructed are expected to be transported from the port of Paldiski through mainland Estonia. The length of the route will be approximately 250 km. According to information published by the Transport Administration, the existing special transport corridors do not lead to the planned preliminary selection area, and the most suitable route must be selected from the routes presented in Figure 6 based on the specific technical parameters of the cargo and adapted for the transport of large cargo. The special plan presents two possible road corridors; the exact access road solution from the special transport route will be presented during the design phase.

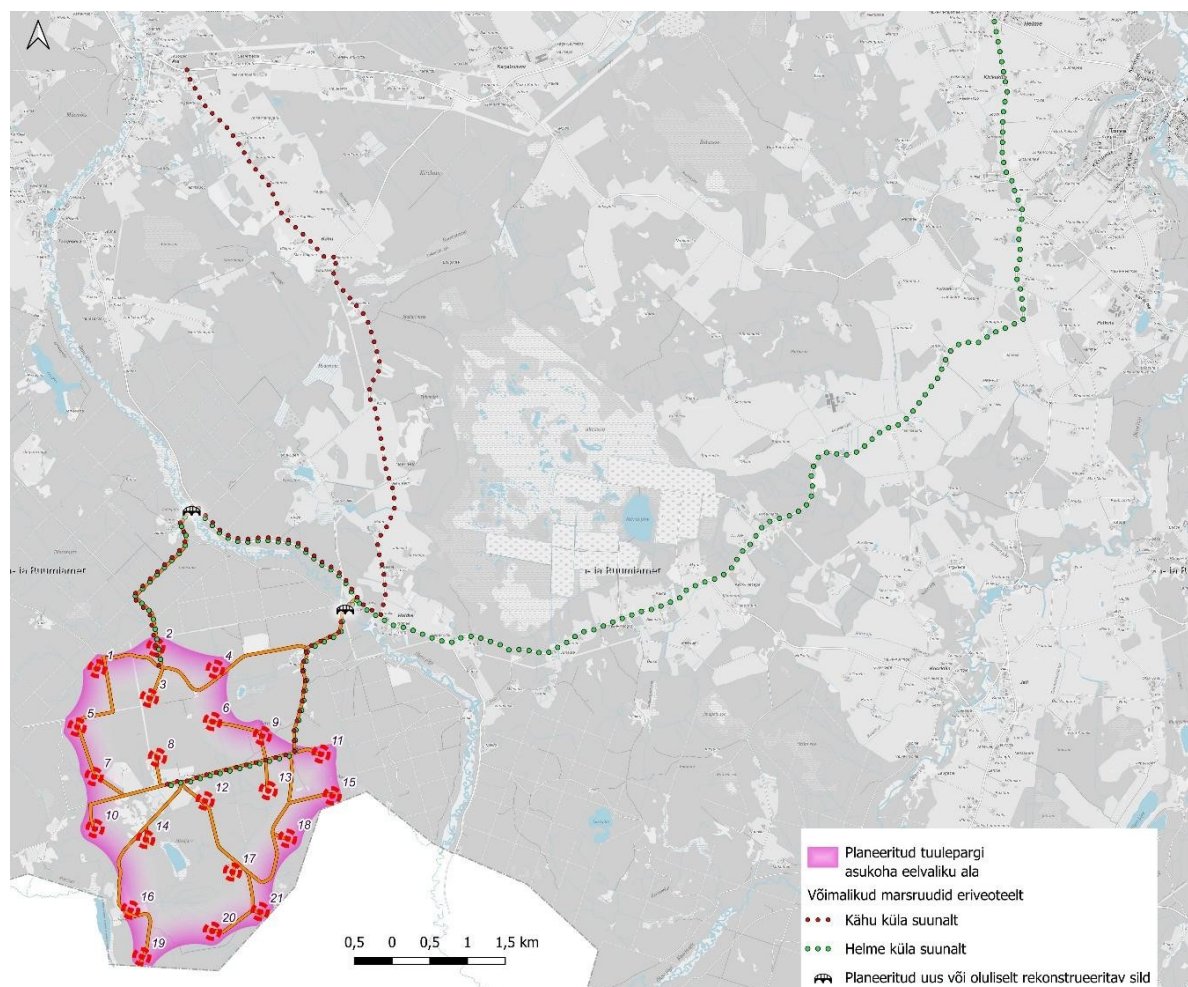


Figure 6. Possible transport routes for wind turbines from the special transport route.

Based on the technical requirements of the selected wind turbine, a wind turbine transport scheme within the boundaries of Tõrva municipality must be submitted together with the project, and in case of reconstruction needs, a technical solution must be found in cooperation with landowners and road owners. If necessary, the necessary intersection reconstructions and road widenings (including forest clearings) must be carried out and traffic management measures must be implemented to ensure the safe delivery of the wind turbines. When planning possible widenings, nature conservation restrictions must also be taken into account. The plan indicates the existing bridges over the Õhne River, which may be significantly rebuilt or replaced with new ones as necessary. The exact need for the reconstruction/replacement of bridges/bridges must be clarified during the design phase. When preparing the construction project, cooperate with the Transport Agency to clarify the need for traffic management and reconstruction of public roads in connection with special transports and transports during construction.

The Transport Administration does not assume the obligation to construct new road sections and reconstruct state roads due to development needs if there is no need for this from the point of view of the development of the state road network.

3.6 Firefighting water

Fires in wind turbines are relatively rare, but various sources suggest that every year, 1 wind turbine catches fire for every 2,000 to 15,000 wind turbines. Technological advances have certainly improved the fire safety of wind turbines, but fires cannot be ruled out entirely. The greatest fire hazard in wind turbines is in the nacelle, which houses a large number of mechanical and electrical systems. As the nacelle is located at a height of approximately 200 m above the ground, it is not possible to carry out work at this height using conventional rescue and firefighting equipment. In the event of a wind turbine fire, the aim is to ensure a safety perimeter in view of the collapse of the wind turbine and to prevent the fire from spreading to the surrounding area. The availability of firefighting water is primarily necessary to extinguish falling burning parts of the wind turbine and to prevent the spread of fire to the surrounding area. The following conditions must be taken into account when ensuring the fire safety of wind turbines:

- wind turbines must be equipped with fire extinguishing equipment, alarm devices, and an automatic fire extinguishing system;
- In the event of an emergency, the rescue service must be guaranteed the necessary access to buildings and important equipment;
- When constructing a wind farm, cooperate with the Rescue Board and draw up plans for dealing with various hazards and/or emergency situations.

The design must ensure that there is a firefighting water supply point within 3 km of each wind turbine. The planning drawing shows seven possible locations for firefighting water supply points and the current location of the pond.

In further planning, ensure that the minimum permitted capacity of the water intake point is 500 m³. The firefighting water intake point must be located next to the service road and must have a turning circle with a radius of at least 15 m. The firefighting water intake point must be equipped with a dry hydrant. If the firefighting water intake point is closer to the wind turbine than the total height of the wind turbine, the nearest water intake point (up to three km away by road) must be used for rescue operations at the nearest wind turbine.

During the design phase, the location of the planned water intake point may be changed in cooperation with the Rescue Board and the landowner, based on the conditions described above.

3.7 Ensuring flight safety

When preparing the construction project, cooperate with the Transport Administration to clarify the requirements arising from the Aviation Act (LennS). Take into account that, according to the heights specified in the special plan, the wind farm is recognized as an obstacle to aviation and, pursuant to § 342 of the Aviation Act, the owner of the obstacle to aviation is subject to marking or lighting requirements. The obstacle to aviation shall be entered in the AIP and the airfield obstacle database.

Due to their height, the planned wind turbines are obstacles. According to the requirements of Annex 14 to the Convention on International Civil Aviation (ICAO Annex 14), wind turbines must be illuminated with either low-intensity type B lights or medium-intensity type B lights. As the wind farm is a group of obstacles, medium-intensity lights do not need to be installed on every wind turbine. Medium-intensity lights must illuminate the perimeter of the farm, and the distance between lights must not exceed 900 meters. When installing medium-intensity lights, it must be ensured that the lights flash simultaneously.

To reduce the visual impact on the ground, it is advisable to use lights with limited visibility from the ground.



3.8 National defense restrictions

The preliminary selection area for the wind farm was determined based on known information about the location of national defense structures and their restricted areas. The planned wind farm will be located entirely within the sector published by the Ministry of Defense, which is the Central Estonia compensation area from 2025. The wind farm will be completed after the implementation of the relevant national defense compensation measures. Wind farm construction projects must be coordinated with the Ministry of Defense.

3.9 Determination of noise category

Wind turbines in wind farms generate noise that prevents the construction of new residential buildings or other noise-sensitive structures in the immediate vicinity of the wind turbines. The reconstruction of existing residential buildings and other structures in areas classified as noise categories is permitted. The regulation⁽⁸⁾ specifies standard levels for different noise categories. The level and spread of noise depends on the model of the wind turbine, the height of the wind turbine, the number of wind turbines, their location, and the landscape. During the EIA, areas of noise spread corresponding to the target value for industrial noise in noise category areas were identified for the planned location of wind turbines.

In the further planning of the wind farm, the following should be taken into account:

- give preference to wind turbine models with lower noise levels that use technical noise reduction measures (e.g., serrated blade edges, etc.). Use new, fully functional wind turbines;
- follow the technical requirements of the wind turbine manufacturer. Wind turbine manufacturers guarantee the noise emissions specified in the technical documentation for the wind turbine, provided that the wind turbines are installed and maintained in accordance with the requirements. If wind turbines are placed closer to each other than is technically recommended, noise emissions may exceed the guaranteed noise level;
- When applying for a building permit, submit data on the sound power level corresponding to the parameters of the recommended wind turbine and the corresponding noise level modeling, on the basis of which the local government can verify that the use of the corresponding wind turbine model complies with noise standards in noise-sensitive areas. The noise assessment shall take into account the combined impact with other wind farms to be developed in the area, based on the best available knowledge at the time. It must be ensured that the wind farm does not exceed the night-time noise target value in noise-sensitive areas. Exceeding the target value is only permitted with the consent of the owner of the noise-sensitive area, but it must be taken into account that even with the owner's consent, it is not permitted to exceed the nighttime limit value for industrial noise in noise-sensitive areas.
- It must be taken into account that noise during construction must not exceed the limits set out in the Atmospheric Air Protection Act and Regulation No. 71 of the Minister of the Environment of 16 December 2016, issued on the basis thereof, "Normative levels of noise propagating in the outdoor air and methods for measuring, determining and assessing noise levels" and Regulation No. 42 of the Minister of Social Affairs of 4 March 2002 "Noise standards in residential and recreational areas, residential buildings and public buildings and methods for measuring noise levels". Avoid noisy construction work during the night.

⁸ Standard levels of noise in the outdoor environment and methods for measuring, determining, and assessing noise levels

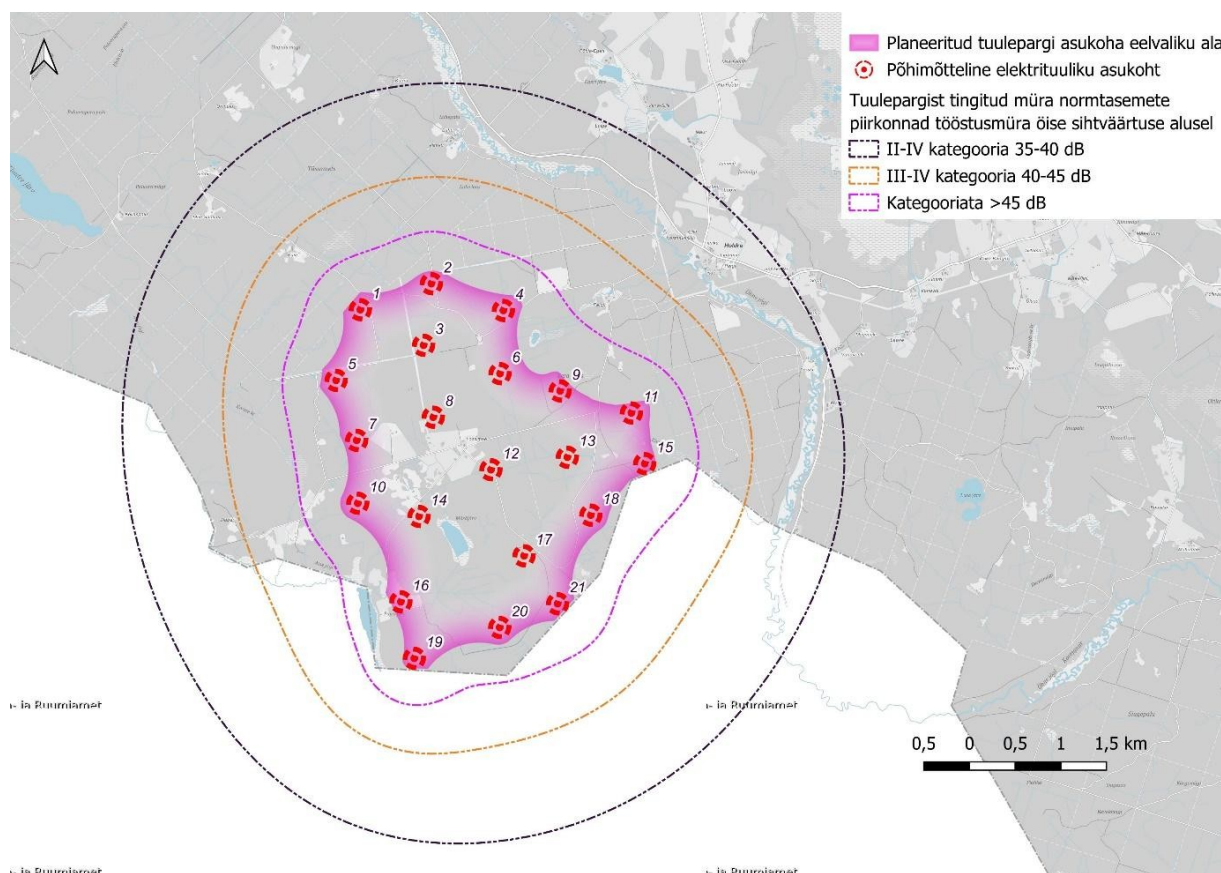


Figure 7. Noise standard levels caused by the planned wind farm based on the nighttime target value for industrial noise.

After the completion of the wind farm (within 6 months), control measurements of noise levels must be carried out in the yards of at least two residential buildings closest to the wind farm and compliance with industrial noise standards must be assessed. The measurements must be carried out in accordance with the relevant EVS-EN ISO standard and by an accredited measurer. The measurement results must be submitted to the local government.

If it turns out that noise standards are exceeded in residential areas, the wind farm owner must develop measures to reduce wind farm noise (e.g., limiting wind turbines to a quieter operating mode at night).

After the completion of the wind farm (within 6 months), low-frequency noise measurements must be carried out in the interior of the residential buildings closest to the wind farm. Low-frequency noise measurements shall be carried out in accordance with standard EVS-EN ISO 16032:202453 or an equivalent document.

If it turns out that the sound insulation of the residential building is not sufficient to ensure compliance with low-frequency noise standards in the interior, the sound insulation must be improved (this is the responsibility of the wind farm owner, who must cooperate with the owner of the residential building to implement this). Low-frequency noise levels in indoor spaces must be ensured across the entire low-frequency noise frequency curve.

3.10 al effects related to shadowing

Disturbing levels of shadowing (i.e., more than 8 hours of shadowing per year or more than 30 minutes of shadowing per day, depending on climatic conditions) must be avoided in residential areas. Disturbing levels of shadowing may only be created in residential areas with the consent of the owner of the shadow-sensitive area. There are two ways to avoid shading:

- to reduce disturbance in areas sensitive to shading, a shading barrier should be created from vegetation – to ensure year-round effectiveness, evergreen species such as spruce should be used. The barrier (a dense row of trees) should be created to protect the residential area affected by shading from the windbreak

. As the measure should be implemented on registered immovable property that does not belong to the interested party outside the location selection area, its implementation may be complicated and require cooperation with the owner of the affected residential area and, if necessary, the establishment of an easement. The measure can be used to protect the courtyard area of the Pelgu residential area. To this end, the plan designates a forest area to be preserved/established to the east and north of the courtyard area of the Pelgu land parcel.

- Use an automatic shadow monitoring system on wind turbines that cause significant shadow flicker (more than 8 hours per year), which allows the wind turbine to be stopped during periods of disruptive shadow flicker in cooperation with light intensity sensors and the wind turbine's automatic control system. Alternatively, it is also possible to use smaller wind turbines than those assessed in the special plan SEA. When developing a control system-based shadow restriction plan, the location of the shadow impact points can be specified as follows:

- the exact impact point indoors is the center of the actual size of the window of the room most affected on the facade of the building
 - the center of the actual size of the window of the relevant room.
- The exact point of impact in the outdoor space is selected as the point that reflects the regular use of the outdoor space (e.g., the center of the terrace or seating area), which is no more than 15 m from the building.

The building permit application must include the parameters of the proposed wind turbine and a corresponding shadow level model, together with a description of the measures to be taken to avoid disruptive shadowing, on the basis of which the local government can verify that the use of the wind turbine model in question will not exceed the shadow disturbance level in sensitive areas.

3.11

Areas where habitat types listed in the Habitats Directive are present (known habitats of protected species and valuable forest habitats (marked on the planning map)) must be preserved in at least good condition (representativeness A and B). This condition has been taken into account in the preparation of the planning solution.

During the construction of the wind farm, care must be taken to ensure that construction materials, construction waste and soil are not stored in the habitats of protected plant species, valuable forest habitats and areas of habitat types in good condition (representativeness A and B) under the Habitats Directive.

In the case of structures that significantly alter the water regime, a 250 m buffer zone must be implemented for valuable forest habitats and habitat types of the Habitats Directive (as shown in the planning drawing) or provide for construction measures in the project (e.g., retaining walls, embanked ditches, etc.) to avoid significant drainage effects on drainage-sensitive communities. A smaller buffer zone is also acceptable in situations where the sensitive community is already adjacent to a road, ditch, route corridor, logging area, or other open landscape, i.e., the construction of the building area does not increase the risk of windbreak or change the water regime in the sensitive community area.

When designing a wind farm, an inventory of vegetation in the construction areas of wind turbines and routes and their 50 m buffer zone shall be carried out, during which the presence of possible protected species shall be inventoried. The inventory does not need to be carried out on cultivated land and artificial areas where the probability of finding protected species is very low. When protected species are found during the inventory, either the preservation of the site or appropriate relocation shall be planned, depending on the representativeness of the site and the protection category of the species. It must be taken into account that a specimen of a protected species may only be removed from the wild for relocation if this does not harm the favorable status of the species. The relocation of protected species shall be carried out in accordance with the procedure established by the Government of the Republic.

When further specifying the locations of wind turbines and routes during the design phase, it must be ensured that changing the locations does not cause a greater adverse impact on vegetation and plant communities than the assessed solution. The relevant assessment must be presented in the preliminary EIA assessment of the building permit application.

If it proves unavoidable to use the western access road, the following measures must be taken:

- When designing the access road, , attention must be paid to the forest valuable habitats in the area the need to minimize logging
minimization in the area of xml-ph-0005@deepl.internal valuable habitats xml-ph-0005@deepl.internal in the area of xml-ph-0006@deepl.internal logging
- in order to prevent a reduction in the area of valuable habitats in the register, logging in existing VEPs must be compensated for with equivalent VEPs in the surrounding area (within a 20 km radius of the destroyed VEPs). Compensation may be considered in the form of concluding a VEP protection agreement in a private forest, both for VEPs that do not currently have a protection agreement and for newly mapped VEPs. The developer will organize the selection of VEPs to be used as replacements. The selection will be coordinated with the Environmental Board.

3.12

In order to protect forest breeding birds, clearing and major soil works must be scheduled for the period 21.07–28.02. Avoid changes to the water regime and other impacts that are not essential from the point of view of development. When further specifying the locations of wind turbines and routes during the design phase, it must be ensured that changing the locations does not cause a greater adverse impact on birdlife than the assessed solution. The relevant assessment must be presented in the preliminary EIA assessment of the building permit application.

Upon completion of the wind farm, environmental monitoring must be carried out to search for dead birds, together with tests of search effectiveness and predation load, for two years after the construction of the wind farm in accordance with the methodology. The methodology is described in section 5.3 of the analysis of land birds⁹. Searches for dead birds shall be carried out twice a month during snow-free periods. Monitoring is carried out under all wind turbines in the wind farm (in the case of wind farms with more than ten wind turbines, the number of wind turbines to be monitored may be specified in cooperation with the Environmental Board) within a radius equal to the length of the wind turbine blade, measured from the tower of the wind turbine (the search area may be reduced depending on the search conditions). The monitoring scheme may be specified based on the analysis of the monitoring results. If the monitoring reveals an undesirable environmental impact on birdlife, the experts conducting the monitoring must propose a suitable set of measures to prevent, minimize, or compensate for the environmental impact. In order to prevent, minimize or compensate for any undesirable effects identified as a result of monitoring, it may be justified to amend or adjust the operating permits issued in relation to the wind farm.

There is a high abundance of hazel grouse in the area. In woodpecker habitats, the most effective measure known to prevent the death of individuals in collisions with wind turbine towers is to paint the lower part of the tower (up to 10 m above ground level) in dark or striped colors, as this reduces the risk of collision with birds by up to 48%. This measure also helps to prevent possible collisions between forest birds and wind turbine towers. The measure must be applied to all wind turbines erected on forest land.

In order to avoid a significant decline in bird populations, forest management practices that support population size and species diversity must be implemented in the pre-selected area (at least 80% of the forest land in the pre-selected area). Felling must be avoided during the peak nesting period from May 1 to July 15. Standing dead trees must be preserved during felling. During thinning and selective felling, leave at least two uncut areas of at least 0.1 ha per hectare, where the undergrowth and second-growth trees are also preserved.

To ensure connectivity between capercaillie habitats, regeneration felling should be carried out in areas of up to 2 ha. Preserve large scattered pines and keep as much of the ground covered with blueberry bushes as possible free of logging debris. In habitats suitable for pine, preserve pine as the main tree species in logging operations and, if possible, aspen in the first layer, and give preference to pine as the main tree species in forest regeneration.

⁹ <https://kliimaministeerium.ee/elurikkus-keskkonnakaitse/looduskaitse/uuringud-projektid-ja-analyses#analyses-and-addenda>



The forest management conditions of the preliminary selection area must be entered in the Forest Register when the plan is established.

Point observations of birdlife must be carried out in the pre-selected location in the autumn period before applying for a building permit. The methodology set out in section 1.7 of the guidelines prepared by the Environmental Board, "Methodology for wind farm biodiversity studies and minimum requirements for follow-up monitoring," must be followed. If significant use of airspace by birds of prey or geese is identified, additional measures to prevent significant mortality risk must be submitted in cooperation with an ornithologist. Possible measures to be considered include:

- if there is a large number of geese moving through the area in autumn and a high risk of collision as a result, the risk of collision must be mitigated by imposing restrictions on the operation of wind turbines or their control systems.

3.13 Reducing the impact on bats in the

Do not plan clearing in areas that are potentially suitable for bats as habitats in forests that have been mapped as important habitats, in order to avoid the destruction of potentially good habitats for bats. However, if logging is necessary in forests that are important habitats, it should be carried out outside the summer activity period of bats (May 1–September 30) to avoid disturbing protected animals.

If logging is carried out during the bats' active period (April–October), bats sheltering in tree hollows may be killed. Young animals that are unable to fly are particularly at risk. In forests and farmsteads where there may be large hollow trees that bats can use as shelters, logging must not be carried out during the bats' active period, April 15–October 15. The most critical period is the breeding season, from May 20 to July 15.

Bat monitoring must be carried out for at least two years: 1–2 years after the completion of the wind turbines and 5–6 years after the completion of the wind farm in order to identify long-term effects.

The first monitoring should provide answers to the following questions:

1. How great is the risk of bats being killed by wind turbines?

Determine when and at what height bats fly near wind turbines, including: near the ground, above tree crowns, at the height of the blades, at the height of the nacelle; at the same time, record weather data. Conduct observations for at least 14 nights in each of the three periods: spring migration period 01.05–31.05, breeding period 01.06–10.07, autumn migration period 01.08–15.09.

Determine the risk/frequency of bat mortality at least at the three locations with the highest risk of bat mortality at the wind turbine site.

Based on the data obtained, a decision will be made on the need for restrictions on wind turbine operation during periods of high bat activity (e.g., in the event of high bat mortality, wind turbines will be switched on in stronger winds and/or lower air temperatures).

2. Are there any previously undetected breeding colonies near the wind turbines?

Identify bat activity during the breeding season from June 1 to July 10 on at least three nights using transect counts. Focus on potential roosting sites (old wounds and other trees, buildings). If a colony is found near a wind turbine (up to 200 m away, measured from the vertical projection of the tip of the wind turbine blade on the ground), operating restrictions must be applied to the relevant wind turbine at night during the breeding season (to be determined more precisely on the basis of monitoring results).

During the second monitoring period, it is sufficient to carry out monitoring point 2.

Observations made at different times and locations must be comparable. Preferably, a similar methodology and the same equipment and software.

If the monitoring reveals undesirable environmental impacts on bats, the experts conducting the monitoring must propose a suitable set of measures to prevent, minimize, or compensate for the environmental impact. In order to prevent, minimize, or compensate for any undesirable effects identified as a result of monitoring, it may be justified to amend or adjust the operating permits issued in connection with the wind farm.

3.14 Reducing the impact on the green network

When planning wind farm construction areas, the proportion of natural areas in any element of the green network must not fall below 90% when considering the combined impact of different wind farms. In addition, the placement of wind turbines and related infrastructure in the green network must ensure minimal fragmentation of the green network.

To compensate for the decline in the quality of the green network in the wind farm area, the green network in the region must be supplemented. Based on the green network analysis, it is proposed to plan changes (supplementary areas) to the green network of Törva municipality in the planning area in connection with the establishment of the wind farm. These have been included in the planning drawing and must be transferred to the comprehensive plan of Törva municipality (see section 3.21).

According to county planning, clearing of forest land should generally be avoided in green network areas. As this is not possible when establishing wind farms, the extent of the forest area to be cleared must be minimized. In green network areas, underground cables should be used instead of overhead lines, which significantly reduces the area of forest to be cleared. Existing roads should be used as access roads as much as possible.

When planning a wind farm solution, the destruction or significant impact on amphibian breeding sites must be avoided. If this is unavoidable, it is necessary to establish replacement water bodies suitable for amphibian breeding. If water bodies (e.g., ditches or fire water reservoirs) are planned as part of the wind farm, they should be designed in such a way that they can also function as amphibian breeding sites. If it is unavoidable to affect amphibian breeding water bodies, this must be done at a time when the specimens are not associated with specific water bodies (i.e., avoid the breeding and wintering periods).

In the green network support area, additional drainage of forest areas that have not yet been drained or have been drained to a lesser extent must be avoided, as this would reduce the biodiversity of the area and the ecological and climate change mitigation value of the support area. Drainage may be carried out to the extent necessary for the construction of the wind farm, and mitigation measures must be integrated into the drainage facilities during the course of the work in order to increase biodiversity and prevent water pollution⁽¹⁰⁾.

In the further design of the wind farm, preference should be given to layout solutions for assembly sites, roads, and cable corridors that make use of existing infrastructure and minimize the area of forest to be cleared. If clearing is necessary, give preference to clear-cut areas and young forests over older forests.

3.15 Reducing the impact on water bodies in the

During construction work, especially when crossing water bodies to build roads and routes and when carrying out work in construction restriction zones, damage to the banks of water bodies, the risk of erosion and the entry of soil and pollution into water bodies must be avoided. Construction machinery and vehicles are not permitted to drive in water bodies.

¹⁰ Timmusk, T., Ots, H., D. 2024. Technical guide land improvement system environmental protection facilities Planning. Client: Environmental Board



Water drainage during construction must be addressed in the relevant construction project. The flow of sediment and larger particles into the headwater can be prevented and reduced in specially constructed sedimentation basins or directly in drainage ditches, using dams or extensions built there. The design must be based on current design standards and the best available technology, and practical experience and solutions in this field must also be used.

If additional drainage ditches or significant reconstruction of existing drainage ditches and water diversion during construction are planned in wind farm areas, flow stabilizers (settling ponds or purification beds) must be provided before the ditches flow into the receiving water body or natural water bodies in order to reduce sediment input. Measures must be taken to prevent sediment from being carried further in the ditches and reaching the streams/rivers in the area and/or to reduce the resulting negative impacts. Various methods can be used for this purpose:

- dimension ditches taking into account the possible sediment load and, if necessary, carry out regular cleaning of ditches;
- create temporary sediment basins in new or deepened ditches to stop the longer spread of soil particles carried along the sides of the ditch
the spread of soil particles carried along;
- plant new or deepened ditches as soon as possible to reduce sediment erosion;
- Install silt traps at the wind turbine foundation pits to clean the pumped water before
is sent to the receiving water body.

When designing, it is necessary to take into account existing land improvement structures, including, if necessary, planning their reconstruction or supplementation, and the activity must not change the water regime in the areas surrounding the system. Construction activities must not impair the functioning of existing land improvement systems (drainage). If it is unavoidable to affect the drainage, the drainage must be reconstructed if necessary to ensure the continued functioning of the land improvement system. Detailed planning solutions (if any) and construction projects must be coordinated with the Land and Spatial Planning Agency.

When designing a wind farm, a construction geological survey must be carried out to determine suitable foundation and infrastructure solutions. Where possible, the design should give preference to locations with more suitable construction geological conditions, which reduce the need for drainage and soil works.

During construction, construction machinery must be parked, refueled, and maintained on designated hard-surfaced areas. To minimize the risk of potential fuel leaks associated with construction sites, measures must be taken to protect groundwater and surface water when establishing temporary fuel and oil storage areas, e.g., for the duration of construction work, parking areas and material and soil storage areas must be secured with a geomembrane or similar base to prevent leaks into surface and groundwater.

Temporary storage areas and parking spaces for construction machinery during construction must be located more than 50 m away from

from drinking water wells and flowing and standing water bodies according to the Estonian Nature Information System EELIS.

Refrain from digging new ditches unless absolutely necessary. When constructing new roads, give preference to areas with existing ditches or other areas where the water regime has already been altered. When constructing new roads, design culverts/bridges with sufficient capacity for existing watercourses and ditches to prevent the formation of new areas that are excessively wet or dry.

In the case of structures that significantly alter the water regime, apply a 250 m buffer zone to wetlands in good condition (as shown on the main planning map) a 250 m buffer zone or provide for construction measures in the project (e.g., retaining walls, embankment ditches, etc.) to avoid significant drainage effects on drainage-sensitive communities. A smaller buffer zone is also acceptable in situations where the sensitive community is adjacent to

to a road, ditch, route corridor, logging area, or other open landscape, i.e., the construction area will not increase changes in the water regime in the sensitive community area.

When reconstructing the Öhne River bridge or building a new bridge, it must be taken into account that the consent of the Environmental Board is required for the felling of trees and shrubs in the river's water protection zone (in accordance with § 119 of the Water Act, see section 4.3 for more details). During and after the construction of the bridge, the structure must allow the water body's natural flow rates and must not cause any damming. The bottom of the water body must remain uniform under the bridge compared to the bottom of the water body upstream and downstream. Work in the water body must not be carried out during the active spawning and migration period of fish.

When reconstructing the Öhne River bridge or building a new bridge, the need to register the activity or obtain a water permit must be taken into account due to the risk to the aquatic environment (Water Act § 196(2), § 187). The need for a preliminary environmental impact assessment (EIA) must also be taken into account when constructing a bridge that will change the cross-sectional area of a water body or when dredging a water body with a volume of 100 cubic meters or more.

3.16 Reducing the impact on valuable agricultural land and the humus layer of

Transport and construction machinery in good working order and well maintained must be used for construction work. The leakage of hazardous substances from vehicles and machinery into the environment must be prevented. The topsoil to be removed must be reused on site as far as possible. On farmland, spread the excavated topsoil on the surrounding agricultural land. If on-site reuse is not possible, treat the soil in accordance with applicable regulations, ensuring maximum reuse. Upon completion of soil work, the area affected by the soil work must be restored.

When planning infrastructure on valuable agricultural land, place buildings on the edge of the array to ensure efficient use of the array. The wind farm must not significantly impair the intended use of valuable agricultural land.

3.17 Reducing the impact on the climate of

In the further design of the wind farm, attention should be paid to ensuring that the construction of the wind farm does not result in significant drainage of wetlands in the surrounding areas. The impact of forest clearing is subject to compensation in accordance with the Forest Act and the Environmental Charges Act.

3.18 Reducing the impact on cultural heritage

Well-preserved and very well-preserved cultural heritage sites must be preserved in the further planning of wind farms. According to the Cultural Heritage Register, there is a valuable forest site (Vastseveski land parcel; 20301:001:0024) and the Pelgu workers' house (Pelgu land parcel; 20301:001:0219) are located at the edge of the access road to the planned wind farm, and these are marked on the planning drawing. It is recommended that heritage cultural objects be restored, marked and made accessible to the public.

3.19 Impact on communications services in

In the further planning of the wind farm, cooperation with the Ministry of Defense, the Transport Agency, the Information Technology and Development Center of the Ministry of the Interior, and communications network operators is necessary to clarify the possible effects of the wind farm on radars and communications services.

3.20 Waste generation

During the construction and operation of a wind farm, the following must be done:

- appropriate waste prevention measures must be implemented and care must be taken to ensure that the waste generated does not pose an excessive risk to health, property, or the environment. The waste generated must be collected separately in a collection container that is suitable for the type of waste and resistant to the physical and chemical properties of the waste. When collecting in piles, preference should be given to hard-surfaced areas or, if necessary,

the ground and/or waste must be covered with a weatherproof and leak-proof cover to prevent pollutants from entering the environment as a result of leaching from the waste or

leaching of pollutants into the environment and their dispersion by wind;

- avoid long-term storage of waste at the place of origin and transfer the waste to an authorized waste handler for treatment at the earliest opportunity. When selecting a waste handler, it is advisable to apply the principle of proximity in order to reduce the negative impact of waste transport on the environment;
- be guided by the waste hierarchy in order of priority. Waste that can be recycled or reused must be directed to treatment accordingly. When directing waste for reuse, recycling must be given priority;
- Waste that is suitable and permitted for reuse at the place of origin (primarily topsoil and excavated soil) should be reused on site to the greatest extent possible. The reuse of waste at the place of origin must be guided by the requirements set out in the relevant legislation.
- In order to reduce the likelihood of emergency situations, continuous monitoring of waste management must be implemented and, in the event of pollution, its appropriate and rapid elimination must be ensured.

At the end of the wind farm's service life, the wind farm owner is responsible for dismantling the above-ground parts of the wind turbines and substations. Dismantling must be carried out in accordance with the dismantling project, including the proper handling of all waste generated during dismantling.

3.21 Amendment to the comprehensive plan for Tõrva municipality ()

The special plan amends the comprehensive plan of Tõrva municipality by adding two additional corridors to the green network and removing a private road planned for public use in Holdre village from the comprehensive plan (see Figure 8).



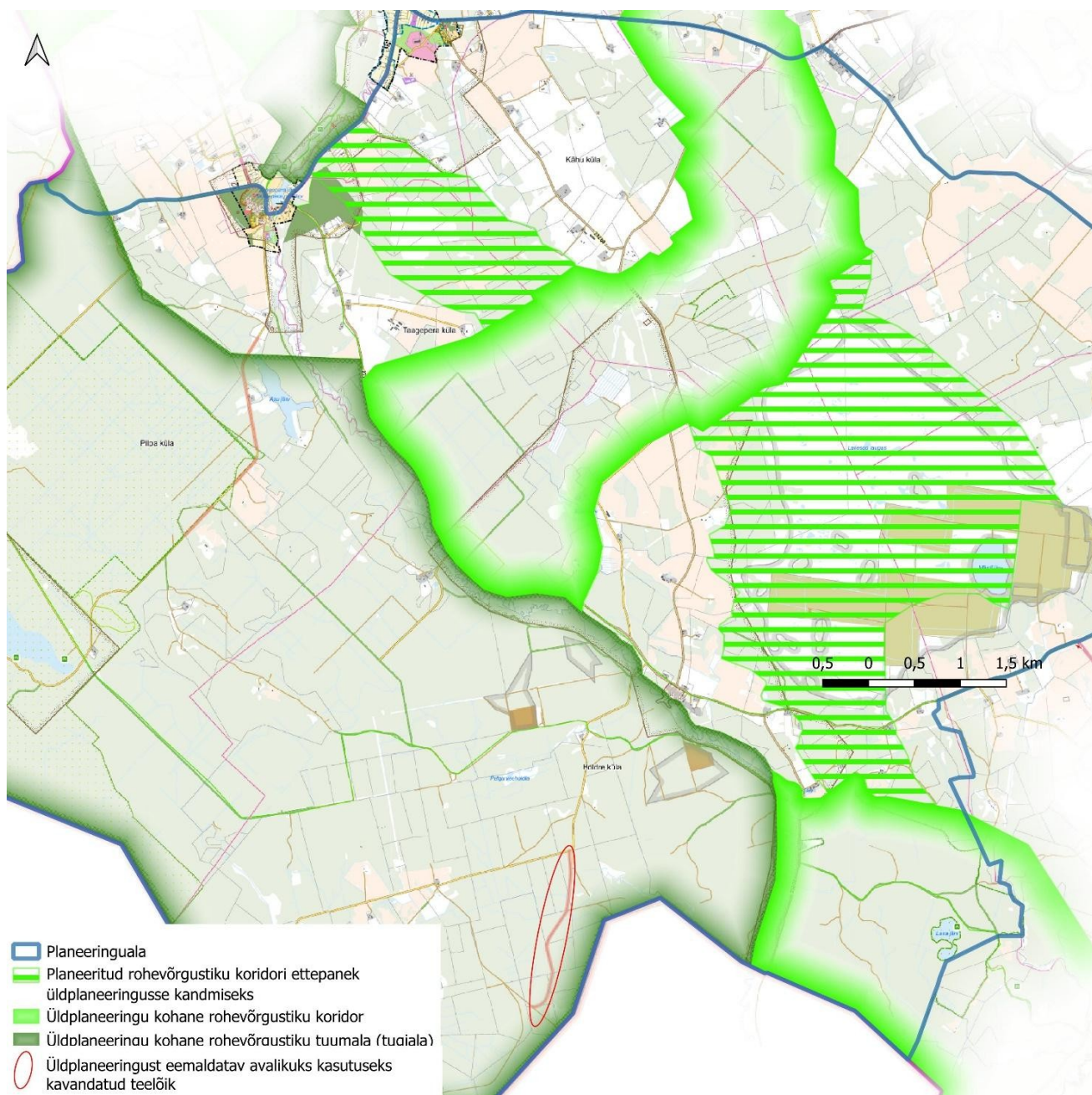


Figure 8. Proposal to amend the green network and the road planned for public use in the comprehensive plan.

3.22 Implementation of the plan

Following the preliminary selection decision for the special plan, the following steps are necessary for the establishment of the wind farm.

1. Establishment of a temporary planning and construction ban for the construction of noise-sensitive buildings in the noise category area after the preliminary selection of the planning location has been approved.
2. Issuing of design conditions.
3. Establishment of easements and other real right agreements (e.g., for road reinforcement or ensuring turning radii for their reconstruction) for roads, power transmission lines (underground cables), and, if necessary, other utility networks.
4. Implementation of measures necessary to reduce the impact of shadowing or conclusion of relevant agreements on the tolerance of shadowing in areas where shadowing occurs at a disturbing level.
5. Design, including other necessary studies and analyses. Preparation of a preliminary EIA assessment. Conclusion of additional agreements arising from the design.
6. Issuance of a building permit.

7. Project-specific implementation, i.e. construction and other activities, including all conditions specified in the planning and construction project.
8. Monitoring and necessary adjustments to activities based on monitoring in the future.

4 Drawing

Preliminary location plan 1:40000

5 Appendix

Strategic Environmental Assessment Report (SEA)

