New SMR Power Plant at the Temelín site

Biological surveys and assessment of the project's effects on nature-conservation interests pursuant to Section 67 of Act No. 114/1992 Coll. for the EIA Documentation



Prepared in Karlovy Vary on June 25, 2026

……..

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Melichar
přírodovědecký průzkum

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1. Assessor

Biological assessment prepared by:
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holder of authorization to assess the effects of major interventions on interests protected under Parts Two, Three, and Five, within the meaning of Section 67 of Act No. 114/1992 Coll., issued by the Ministry of the Environment under Ref. No. 27531/ENV/16, 1901/610/16 on June 9, 2016, and extended by Decision of the Ministry of the Environment Ref. No. MZP/2021/610/12 of April 1, 2026 until June 8, 2031.

holder of authorization to conduct assessments pursuant to Section 45i of Act No. 114/1992 Coll., issued by the Ministry of the Environment under Ref. No. 630/710/05 on May 19, 2005, and extended for five years by Decision of the Ministry of the Environment Ref. No. MZP/2025/620/1840 of April 29, 2025.

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This is an assessment within the meaning of Section 67(1) of Act No. 114/1992 Coll. The assessment meets the requirements for a project-impact assessment under Ministry of the Environment Decree No. 142/2018 Coll. and follows the methodology established by that Decree.

Front-cover photograph:
View of the Temelín Power Plant from the south
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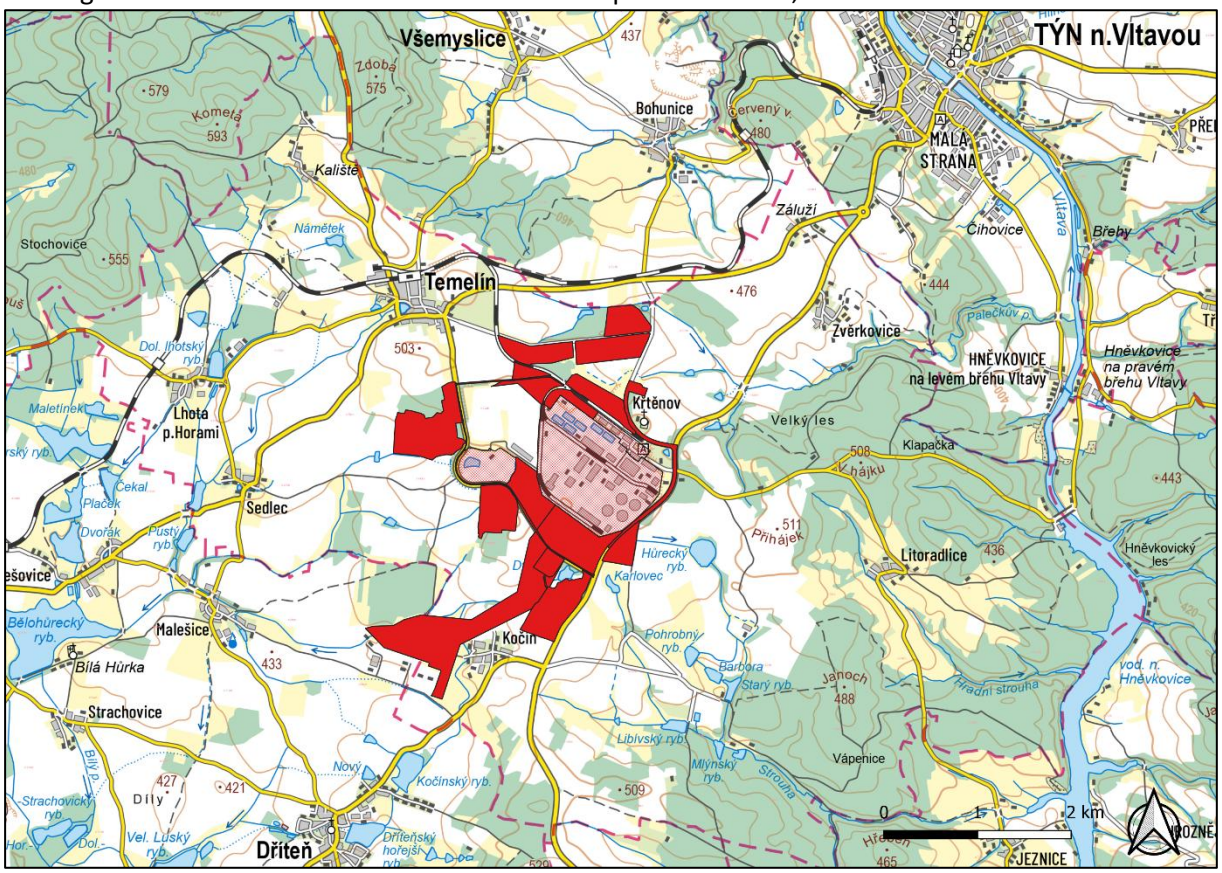
2. Project information

2.1. Location

Table 1: Location of the project within administrative units.

Region	District	Municipality with extended powers	Municipality	Cadastral area
South Bohemian	České Budějovice	Týn nad Vltavou	Temelín	Březí u Týna nad Vltavou
South Bohemian	České Budějovice	Týn nad Vltavou	Dříteň	Chvalešovice
South Bohemian	České Budějovice	Týn nad Vltavou	Temelín	Křtěnov
South Bohemian	České Budějovice	Týn nad Vltavou	Temelín	Kočín
South Bohemian	České Budějovice	Týn nad Vltavou	Temelín	Temelín
South Bohemian	České Budějovice	Týn nad Vltavou	Temelín	Temelínec

Figure 1: Project site (red) on a 1:100,000 base map. Solid color – project area; transparent color – existing Temelín Nuclear Power Plant site. Base-map source: ČÚZK, 2026.



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Figure 2: Project site (red) on an aerial map. Solid color – project area; transparent color – existing Temelín Nuclear Power Plant site. Base-map source: ČÚZK, 2026.

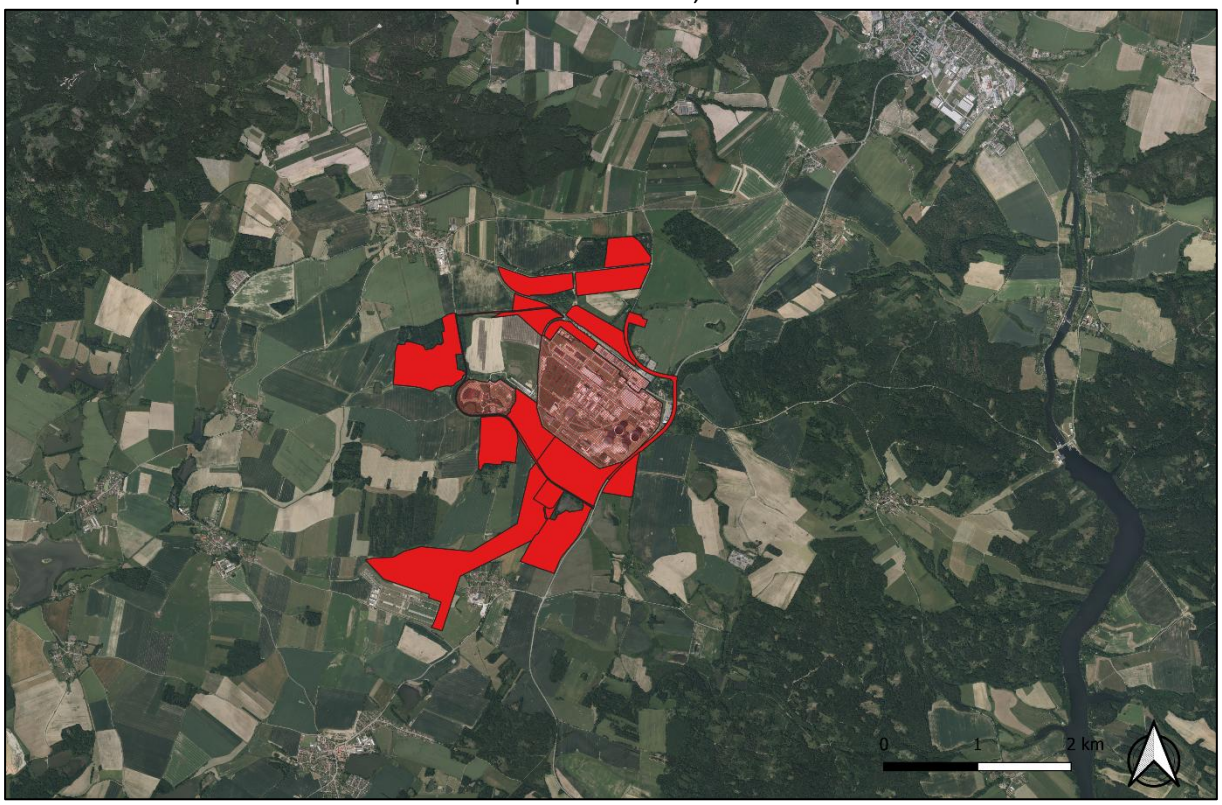
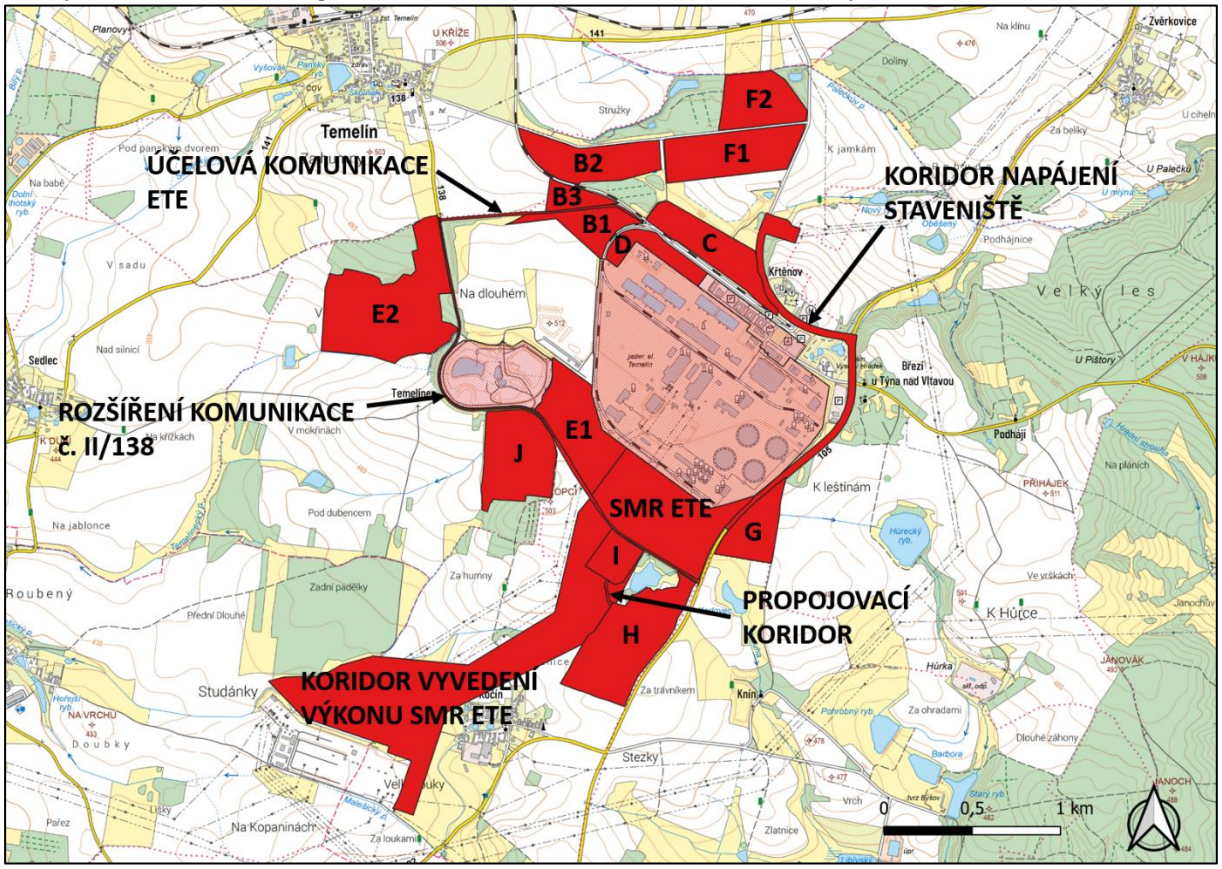


Figure 3: The project and its individual components on a 1:25,000 base map. Solid color – project area; transparent color – existing Temelín Nuclear Power Plant site. Base-map source: ČÚZK, 2026.



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ÚČELOVÁ KOMUNIKACE ETE	**ETE SERVICE ROAD**
KORIDOR NAPÁJENÍ STAVENIŠTĚ	**CONSTRUCTION-SITE POWER-SUPPLY CORRIDOR**
ROZŠÍŘENÍ KOMUNIKACE Č. II/138	**WIDENING OF ROAD II/138**
SMR ETE	**SMR ETE**
PROPOJOVACÍ KORIDOR	**INTERCONNECTION CORRIDOR**
KORIDOR VYVEDENÉ VÝKONU SMR ETE	**SMR ETE POWER EVACUATION CORRIDOR**

2.2. Basic information

2.2.1. Project name

New SMR Power Plant at the Temelín site

2.2.2. Developer

ČEZ, a. s.
Duhová 2/1444
140 53 Prague 4
Company ID: 452 74 649

2.2.3. Number of units

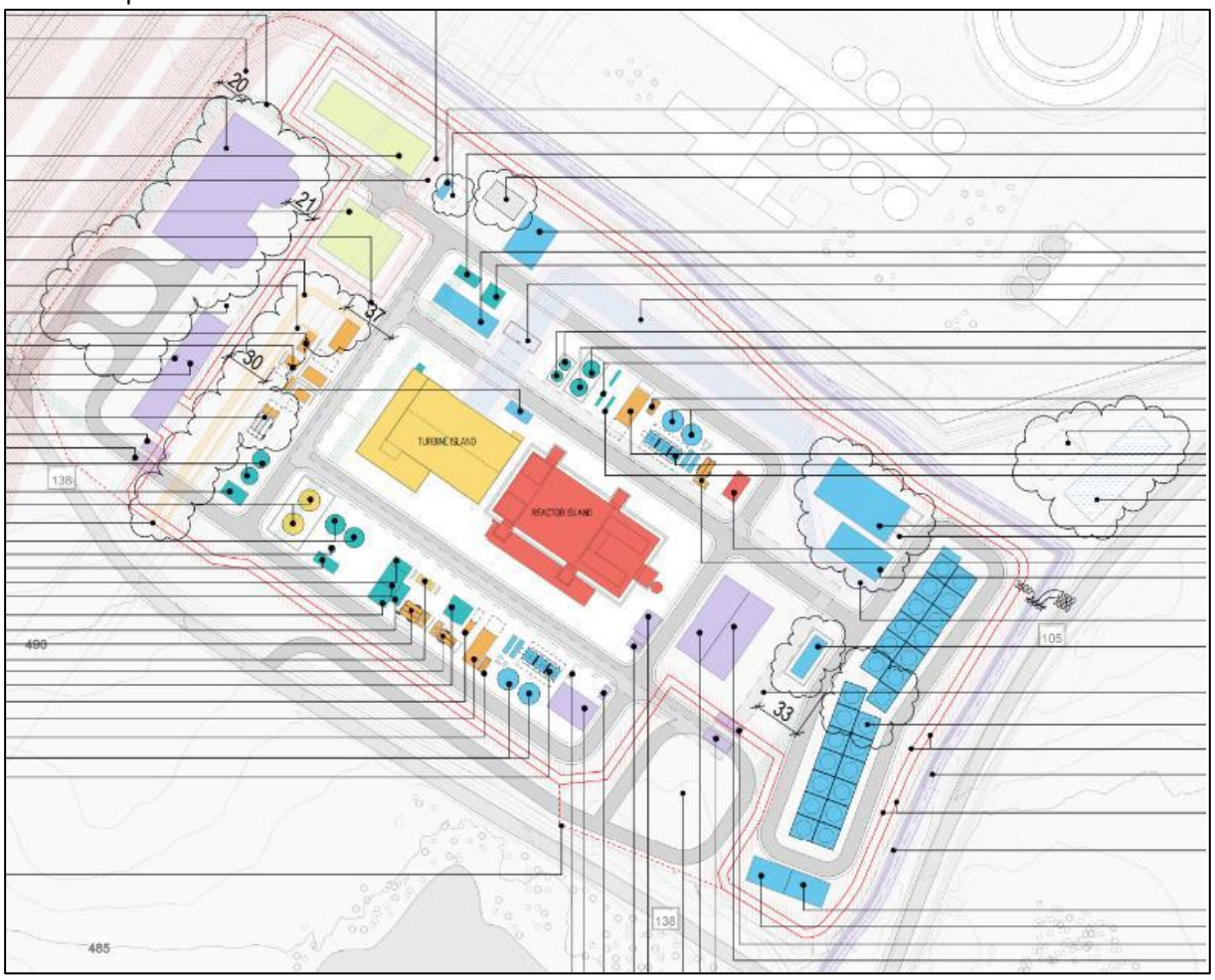
A nuclear power plant with one nuclear unit. A nuclear unit with a net electrical output of up to 500 MWe.

2.2.4. Basic parameters

A Generation III+ light-water pressurized-water reactor (PWR) with a high proportion of passive safety features.
The UK SMR is a pressurized-water reactor with a three-loop configuration and forced coolant circulation, using a combination of active and passive safety features. A substantial part of the construction will use a modular approach, and the design assumes a single-unit configuration. The reactor uses standard fuel (UO_2, enrichment <5%) and does not use boric acid for reactivity control. The fuel cycle is 18–24 months.

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Figure 4: Preliminary arrangement of buildings on the construction area – layout of the SMR unit and other components.



2.2.5. Project capacity

Total net electrical output of up to 500 MWe. The operating auxiliary consumption of one SMR unit is expected to range from 30 to 50 MWe depending on the equipment configuration, with maximum design auxiliary consumption of 70 MWe.

2.2.6. Utilization of installed capacity

The assessment assumes 100% annual utilization of installed capacity because the design provides for an 18–24 month fuel cycle. Capacity utilization of 92.5% is expected over the full fuel cycle. The design will also allow operation in load-following mode over 50–100% of installed capacity, with a ramp rate of at least 3% per minute.

2.2.7. Project components

An SMR at the Temelín site, including related structures and plant systems (technological equipment), used to generate and evacuate electricity, including transmission lines, to the Kočín substation and to provide a 110 kV backup power supply for safe operation of the nuclear installation.

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- The EIA will cover all facilities used for both operation and construction. The technology includes a spent fuel pool, including a requirement for emergency unloading of the reactor core, and allows spent nuclear fuel to be stored in the pool for 6–10 years.

Note: in the medium term, a dedicated spent fuel storage facility based on dry storage in cask systems is anticipated for the SMR ETE, similar to the ETE spent fuel storage facility. The SMR ETE spent fuel storage facility will be subject to a separate EIA process.

2.2.8. Project alternatives

Zero alternative – non-implementation of the project; the environmental conditions corresponding to those prevailing when the project notification was published, with the two Units 1 and 2 and the other nuclear installations at the Temelín site in operation.

Implementation alternative – construction and operation of one SMR unit at the Temelín site with a total net electrical output of up to 500 MWe. The implementation alternative will assess conditions during concurrent operation of the SMR ETE, Units 1 and 2, and the New NPP ETE, as well as conditions after Units 1 and 2 cease operation.

The supporting studies for the implementation alternative will assess concurrent operation of the SMR ETE with the New NPP ETE (2 × 1,700 MWe) and Units 1 and 2 (2 × 1,086 MWe)*. The EIA Documentation will also be prepared for this alternative.

2.2.9. Number of cooling towers

The preferred cooling method uses wet mechanical-draft cooling towers.

The supplier and parameters of the mechanical-draft cooling towers are not known at the time of delivery of the input documentation. One alternative under consideration is a cooling-system arrangement comprising 26 towers supplied by REKO, each with a 16 × 16 m footprint, occupying a total area of 6,656 m^2. A second alternative could be a system designed by Rolls-Royce with 40 cells, each measuring 14 × 14 m, and occupying 7,840 m^2. The southeastern part of the construction area has been allocated for cooling.

2.2.10. Height of the dominant structure

For the SMR project at the Temelín NPP site, the dominant structure is the reactor or containment building, which is not expected to exceed 60 m in height. Use of an assembly building is being considered during construction; this structure will be temporary only.

Other structures of significant height:

- containment building: up to 60 m
- turbine-generator building: up to 45 m (in all cases, the turbine-generator building is lower than the containment building)
- ventilation stack: anticipated height 56 m
- assembly building: up to 85 m (temporary structure, during construction only)
- mechanical-draft cooling towers: 14.5 m*

Comment:

- * Height excluding any superstructure or technical solution, such as measures affecting the vapor plume or noise emissions from the towers. Any such measure could increase the height by up to one-third.

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- The height of the ventilation stack will be optimized according to the results of the dispersion study and may reach up to 150 m.
- The assembly building will stand only during construction and will be dismantled before the unit is commissioned.
- Given the anticipated maximum height of the tallest or dominant structure, the SMR ETE will not fundamentally alter the surrounding landscape character because the cooling towers of the operating Temelín NPP Units 1 and 2, which exceed 154 m in height, are already located several dozen meters away.
- If a wet natural-draft cooling tower is used, this tower will be the dominant structure, with an anticipated height of up to 150 m.

2.2.11. Design life

Anticipated design life: 60 years.

2.2.12. Anticipated construction period

From 2029 to 2034.

2.2.13. Commissioning date

Commissioning is anticipated in 2034 (PAC).

2.2.14. Concurrent operation with Units 1 and 2 and the New NPP ETE

Long-term concurrent operation of the existing Units 1 and 2 and the New NPP ETE and SMR ETE projects is anticipated, differentiated by the capacity scenarios considered for the New NPP ETE:
1. SMR ETE (500 MWe) + New NPP ETE (2 × 1,200 MWe) + Units 1 and 2 (2 × 1,086 MWe)*
2. SMR ETE (500 MWe) + New NPP ETE (2 × 1,700 MWe) + Units 1 and 2 (2 × 1,086 MWe)*

*long-term achievable gross electrical output

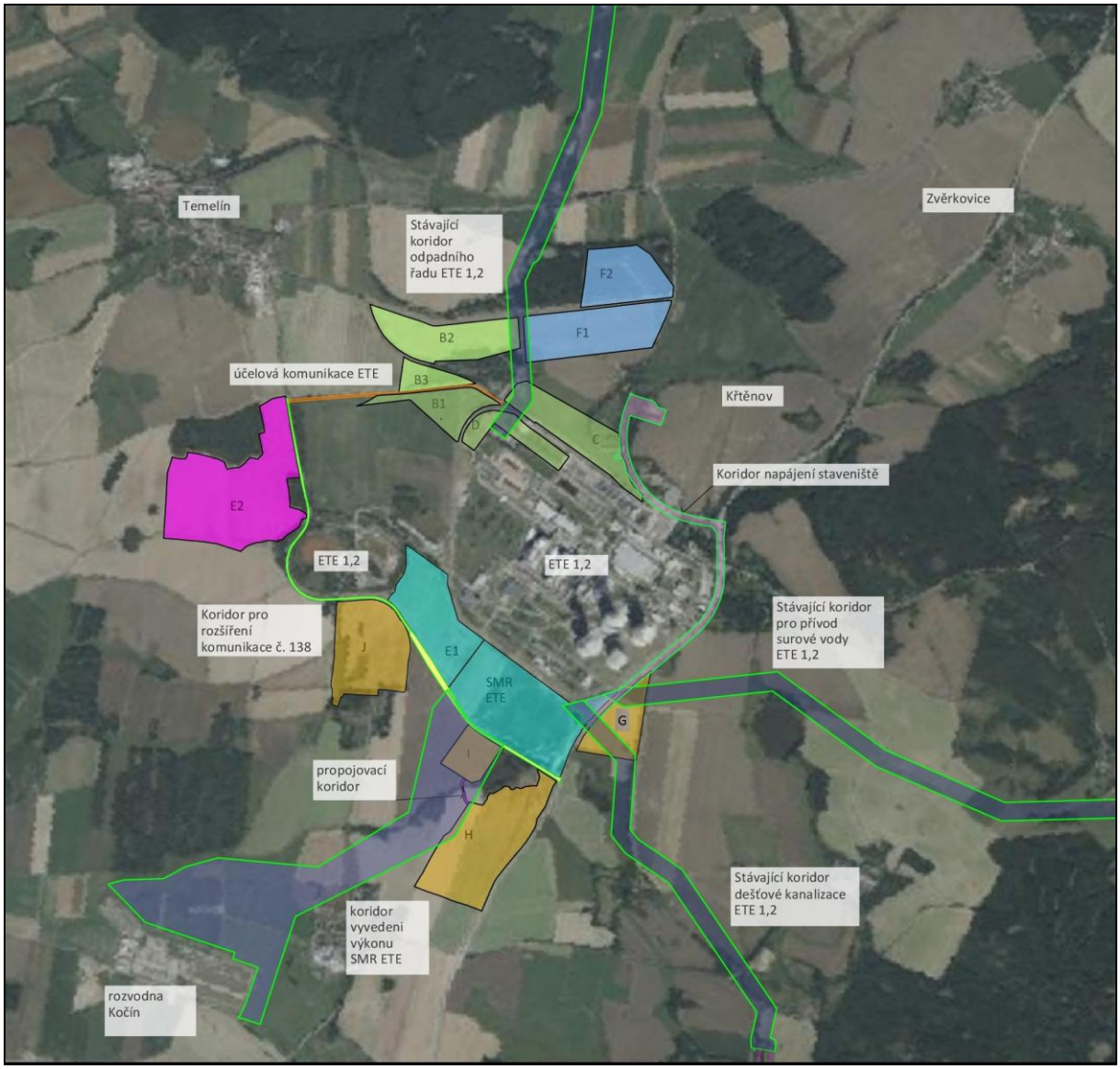
The supporting studies for the implementation alternative will assess concurrent operation of the SMR ETE with the New NPP ETE (2 × 1,700 MWe) and Units 1 and 2 (2 × 1,086 MWe)*. The EIA Documentation will also be prepared for this alternative.

2.2.15. Construction site

The construction site is defined south of the existing Temelín Nuclear Power Plant, as shown in Figure 5. The existing Units 1 and 2 corridors for raw-water supply, wastewater discharge, and storm sewers are shown; the SMR ETE infrastructure will connect to them.

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Figure 5: Construction site and designated areas and corridors.



Stávající koridor odpadního řadu ETE 1,2	Existing Units 1 and 2 wastewater-pipeline corridor
účelová komunikace ETE	ETE service road
Koridor napájení staveniště	Construction-site power-supply corridor
Koridor pro rozšíření komunikace č. 138	Corridor for widening of Road No. 138
Stávající koridor pro přívod surové vody ETE 1,2	Existing Units 1 and 2 raw-water-supply corridor
propojovací koridor	interconnection corridor
koridor vyvedení výkonu SMR ETE	SMR ETE power evacuation corridor
Stávající koridor dešťové kanalizace ETE 1,2	Existing Units 1 and 2 storm-sewer corridor
rozvodna Kočín	Kočín substation

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2.2.16. Project location and scope

The land within the SMR ETE area has been identified for project construction. The other areas shown in Figure 5 are designated for construction-site facilities.

Areas of the designated sites:

Area for siting the SMR unit:

SMR ETE area – main construction site (approximately 29.5 ha)

Construction-site facility areas (temporary):

B1 (approximately 7.8 ha),	E2 (approximately 36 ha)
B2 (approximately 15 ha),	F1, F2 (approximately 31 ha in total)
B3 (4 ha),	G (approximately 9.5 ha),
C (approximately 14 ha),	H (approximately 25.5 ha),
D (approximately 6.3 ha),	I (approximately 5.5 ha),
E1 (approximately 17.5 ha),	J (approximately 19 ha).

The construction-site facility areas were identified with regard to availability in terms of timing and ownership, taking account of the most suitable use of each area; they represent the maximum extent of the areas under consideration. The final selection of areas and the manner in which they will be used will be subject to further internal assessment.

Areas C, G, H, I, and J were selected for construction-site facilities. The remaining areas (B1, B2, B3, D, E1, E2, F1, and F2) are considered reserve areas.

Use of areas

Area C is proposed to contain:

- temporary construction-site facilities
- a temporary material transshipment area

Area G is proposed to contain:

- temporary construction-site facilities
- a temporary high-capacity parking lot

Area H is proposed to contain:

- temporary construction-site facilities
- a temporary technological structure
- a temporary topsoil stockpile
- temporary construction-material storage areas
- a temporary recycling line

Area I is proposed to contain:

- a temporary administrative building
- a temporary parking lot/reserve area

Area J is proposed to contain:

- temporary construction-site facilities

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- a temporary concrete batching plant
- a temporary technological structure
- temporary construction-material storage areas

Areas C, G, H, I, and J are expected to be used temporarily for construction of the SMR ETE. After construction is completed, these areas are planned to be restored to their original, current condition.

A topsoil stockpile is conservatively assumed in Area H.

The culverted Temelínský Stream crosses Area J. The culverted section of the stream should not be affected. If relocation is nevertheless required, it will follow the northern and western boundaries of Area J and then reconnect to the existing route.

2.2.17. Power evacuation, backup power supply, and construction-site power supply

Power will be evacuated by an aboveground 400 kV overhead line to the Kočín substation.

If required, the backup power supply will be provided by an aboveground 110 kV overhead line from the Kočín substation or, depending on technical considerations, partly by an underground 110 kV line. Operating auxiliary electricity consumption is anticipated to be 30–50 MWe, with maximum design auxiliary consumption of 70 MWe.

The anticipated construction-site power supply will be provided by a line from the Křtěnov substation, with either a 110 or 22 kV cable or overhead-line solution under consideration. Construction-site power demand will reach up to 16 MWe.

2.2.18. Cooling

Residual and process heat will be discharged to the atmosphere using recirculating cooling and wet mechanical-draft cooling towers.

The expected waste-heat and evaporation values for one SMR unit are:

- Waste heat from one SMR unit: up to 900 MW_t
- Evaporation from one SMR unit: up to 1,200 m^3/h

2.2.19. Water supply

The water-management systems of the SMR ETE project will connect to the existing infrastructure and related linear infrastructure of the Temelín Nuclear Power Plant. All water-management considerations are based on water abstraction from the existing Temelín NPP Units 1 and 2 supply systems.

2.2.20. Raw-water supply

The existing capacity for supplying the SMR ETE project with raw water from Hněvkovice Reservoir is sufficient, and concurrent operation of Units 1 and 2, the New NPP ETE, and a 500 MWe envelope SMR ETE has been assessed.

Maximum annual raw-water consumption for the SMR ETE is anticipated to be up to 12,000,000 m^3/year.

Of this raw-water quantity for the SMR ETE, evaporation from the cooling towers is anticipated to be approximately 1,200 m^3/h for one SMR unit. Raw-water consumption during construction of one SMR ETE unit is expected to be no more than several hundred thousand m^3/year.

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The raw-water-supply corridors are identical to the existing corridors for Units 1 and 2 and are shown in Figure 5.

- The raw-water-consumption values assume use of a wet natural-draft cooling tower. These values will not be exceeded if alternative cooling methods are used.
- Any expansion of the raw-water supply will not be addressed as part of the SMR ETE project.

2.2.21. Drinking-water supply

The anticipated drinking-water consumption is:

- during construction: 241 m^3/day (88,000 m^3/year)
- during operation: 83 m^3/day (31,000 m^3/year)

2.2.22. Number of workers

During construction:

- peak value – 2,160 workers (expected for approximately two months in 2032)
- average value – 750 workers

During operation: up to 400 workers.

The number of workers during construction will vary over time. The anticipated distribution among time periods will be discussed before the affected studies are commissioned. The construction values already include the recommended 20% contingency for construction of the SMR ETE.

2.2.23. Cooling-water treatment

The basic raw-water supply will be provided by connection to the existing Units 1 and 2 infrastructure using the existing service reservoir. The technology for further treatment of cooling and process water will form part of subsequent project preparation.

In view of raw-water quality, clarification of raw water to prepare cooling water is assumed to be necessary only during periods of elevated suspended-solids occurrence.

2.3. Input data

2.3.1. Land

Land take:

<u>SMR siting area, main construction site: up to 29.5 ha</u>

This value represents the area of the main construction site. The SMR project itself, including related structures and operating areas, will be located within this area. For conservative purposes, the entire area is assumed to be subject to permanent land take.

<u>electrical connection: up to 1 ha</u>

This value represents a conservative estimate of land take for the developed areas occupied by aboveground parts of the electrical lines, including the tower foundations for the power evacuation line to the Kočín substation and any consequential relocations of existing lines. In total, this constitutes permanent land take of no more than several thousand m^2. The power evacuation corridor covers a total area of approximately 73.46 ha, but the corridor as a whole is not subject to land take.

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construction-site facility areas: 191.1 ha

This value represents the total area designated for construction-site facilities. For conservative purposes, the entire area is assumed to be subject to temporary land take.

other areas – widening of Road II/138 (3.3 ha), the service road (1.5 ha), and the construction-site power-supply corridor (10.7 ha): according to the work carried out/developed-area land take. The service road will have two truck passing places, the exact locations of which will be confirmed during subsequent stages of project preparation.

2.3.2. Water
raw water: up to 12,000,000 m^3/year
drinking water: 88,000 m^3/year during construction and up to 31,000 m^3/year during operation

2.3.3. Other natural resources
no significant requirements
Operation, construction, and decommissioning of the project impose no requirements for the consumption of other natural resources.

2.3.4. Energy resources
nuclear fuel: up to 13.05 t UO_2/year (excluding the initial core load)
electricity: up to 50 MWe
operating materials: consumption not specified (standard)
Operating materials means chemicals, lubricants, propellants, fuels, and industrial gases. Their consumption is not specified in greater detail but will represent standard requirements of up to several hundred metric tons per year, depending on the nature and requirements of the individual chemicals or operating materials.

2.3.5. Construction materials
Standard construction materials are expected to be used for construction.
The anticipated concrete consumption for construction of one SMR unit is in the low hundreds of thousands of metric tons. Cement consumption is also anticipated to be in the tens of thousands of metric tons, with reinforcing and structural steel likewise in the tens of thousands of metric tons. Admixtures, sand, gravel, sand and gravel, and stone dust will be used in quantities ranging from tens of thousands to the low hundreds of thousands of metric tons.

Material / Anticipated quantity for one SMR unit
Reinforcing steel: 90,000 t
Structural steel (permanent works): 22,500 t
Structural steel (assembly building): 40,000 t
Cladding (permanent works): 125,000 m^2
Cladding (assembly building): 130,000 m^2
Asphalt: 180,000 t
Cement: 46,000 t
GGBS (CO_2-reducing admixture): 145,000 t
Aggregate, 10–20 mm: 182,500 t
Aggregate, 4–10 mm: 182,500 t
Sand, 0/4 mm: 151,500 t
Stone dust, 0/2 mm: 151,500 t

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Admixtures: 645 m^3

Use of cladding is also currently being considered, preliminarily 130,000 m^2 for one SMR unit.

Excavated soil
A total of approximately 1,100,000 m^3 of soil is expected to be handled, much of which will be reused for backfilling and grading.
The total quantity of excavated soil was calculated from:
- excavation required to level the terrain, totaling 542,000 m^3 of soil.
- excavation required to construct building foundations, totaling 275,000 m^3 of soil.

2.3.6. Biodiversity
no requirements
Siting, operation, and decommissioning of the project impose no requirements for biodiversity infrastructure inputs.

2.4. Output data

2.4.1. Air
In addition to emissions from construction machinery and transport, during both construction and operation, the following emission sources will be considered:
Existing sources:
• Units 1 and 2 (long-term achievable gross electrical output of 2 × 1,086 MWe)
Planned sources:
• New NPP ETE with a net electrical output of up to 2 × 1,700 MWe
New sources for one SMR unit:
• Diesel generator: 2 × 8 MWt / 2 × 4 MWe
• Diesel generator: 2 × 3 MWt / 2 × 1.5 MWe
• Diesel generator: 2 × 2 MWt / 2 × 0.4 MWe

2.4.2. Project-generated traffic
An average of up to 150 heavy vehicles over 3.5 t per day is expected during construction of the SMR ETE. An average of up to 300 passenger vehicles per day is expected, increasing to up to 550 passenger vehicles per day during the 2032 peak-workforce construction period. This is the average daily intensity of inbound destination traffic, expressed as the number of arrivals. The intensity of outbound origin traffic, expressed as the number of departures, will be identical. The total anticipated road traffic is therefore no more than 900 vehicles/day, including 300 heavy vehicles.

During operation of the SMR ETE, freight traffic will decrease to approximately 35 heavy vehicles over 3.5 t per day, and the average number of passenger vehicles to approximately 150 per day. This is the average daily intensity of inbound destination traffic, expressed as the number of arrivals. The intensity of outbound origin traffic, expressed as the number of departures, will be identical.

The precise project-generated traffic values for the entire construction phase will be determined by the traffic study for the EIA Documentation.

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Rail transport

The existing intensity of rail transport generated by activities at the ETE site is insignificant and does not exceed several trainsets per month. This situation will be maintained during concurrent operation.

2.4.3. Wastewater

The SMR ETE project will connect to the existing Units 1 and 2 infrastructure, including final wastewater conveyance to the Kořensko waterworks.

Connection to the Units 1 and 2 wastewater-discharge infrastructure is anticipated. Process wastewater depends on the water concentration ratio. Average discharge is expected to be 400 m^3/h (113 l/s), up to 3,564,000 m^3/year for one SMR ETE unit.

The water concentration ratio is expected to range from 4.0 to 4.3. Given the small difference from the concentration ratio of 4.5 for the existing Units 1 and 2 and the proposed New NPP ETE, similar output values may also be expected for wastewater-quality parameters. The anticipated quantity of pollutants in wastewater from the SMR ETE will be no more than 25% of the quantity from Units 1 and 2.

The anticipated quantity of domestic wastewater is a fraction of the process-wastewater quantity:

Construction of one unit: 39,200 m^3/year;

Operation of one unit: 20,000 m^3/year;

The wastewater-discharge corridors will be identical to the existing Units 1 and 2 corridors.

2.4.4. Stormwater

The quantity of stormwater from the developed part of the site of one SMR ETE unit is expected to reach up to 175,000 m^3/year. The storm sewer at the SMR ETE site should connect to the existing network that conveys stormwater from Units 1 and 2 to the receiving water, Strouha Stream. Stormwater from the SMR ETE site is planned to be discharged by connecting to the final trunk sewer at manhole Š29, based on the design intensity of the equivalent unreduced rainfall.

A description of stormwater drainage from the construction-site facility areas and an estimate of the quantity will be added.

2.4.5. Waste

Up to 100,000 metric tons of nonradioactive waste are expected to be generated during construction of one SMR unit, including up to 1,000 metric tons of hazardous waste.

Nonradioactive waste:

municipal and other waste: up to 660 t/year

hazardous waste: up to 75 t/year

sludge from raw-water treatment: up to 750 t/year

2.4.6. Other

Noise:

Note: The L_{pA} values below correspond to sound pressure at a distance of 1 m from the edge of the source. The $L_{A,W}$ values specify the sound power of the source

stationary sources:

essential service water system cooling towers (ESWS): L_{pA} = 75 dB

main cooling water system (MCWS): L_{pA} = 75* dB

turbine-generator building: L_{pA} = 60** dB

transformer: L_{pA} = 87 dB

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diesel generators: L_{pA} = 82 dB
other individual buildings: $L_{A,W}$ = up to 80 dB

*Value attainable using a suitable technical solution to reduce noise from the mechanical-draft cooling towers
**This value corresponds to the L_{pA} sound-pressure level at a distance of 1 m from the outer surface of the turbine-generator building.

machinery used during construction:
Dozer: $L_{A,W}$ = 111 dB
Excavator $L_{A,W}$ = 107 dB
Roller $L_{A,W}$ = 110 dB
Loader $L_{A,W}$ = 109 dB
Hydraulic breakers $L_{A,W}$ = 109 dB
Truck-mounted crane $L_{A,W}$ = 95 dB
Truck mixer* $L_{A,W}$ = 115 dB
Concrete pump $L_{A,W}$ = 107 dB
Tower crane $L_{A,W}$ = 95 dB
Heavy-duty crane $L_{A,W}$ = 102 dB
Crushing line $L_{A,W}$ = 109 dB
*For truck mixers, a conservatively elevated sound-power value was assumed to account for the most adverse scenario in terms of the mixer type actually used in the future.
transport on public routes: road or, where applicable, rail

Vibration: insignificant

Ionizing radiation:
radioactive airborne discharges:
noble gases: up to 4.26E+13 Bq/year
tritium: up to 1.00E+12 Bq/year
C-14: up to 4.38E+10 Bq/year
iodines: up to 2.74E+08 Bq/year
aerosols: up to 2.64E+08 Bq/year
Ar-41: up to 2.40E+12 Bq/year

liquid radioactive discharges:
tritium: up to 5.00E+12 Bq/year
corrosion, activation, and fission products: 2.89E+09 Bq/year

ionizing-radiation field: insignificant
radioactive waste before treatment: up to 55.6 m^3/year
spent nuclear fuel: up to 13.05 t UO2/year

Non-ionizing radiation: insignificant

Odor: no outputs

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Light pollution: no outputs

Other physical or biological factors: no outputs

Source: BOUNDING PARAMETERS FOR THE SMR ETE EIA DOCUMENTATION, ČEZ, a. s., Rev. 6, March 2026

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3. Condition of nature and the landscape in the affected area (identification of affected interests)

3.1. Description of the current condition of nature and the landscape

3.1.1. Characteristics of the affected area

The area of interest is located in the Bechyně Bioregion (Bioregion No. 1.21).
The Bechyně Bioregion lies in the northern part of South Bohemia and corresponds predominantly to the Tábor Uplands geomorphologic unit. The bioregion has a complex shape and a total area of 1,585 km^2.
The bioregion comprises plateaus and ridges dissected by the antecedent valley of the Vltava and its tributaries. The plateaus are occupied by acidophilous oak forests, and the Písek Mountains by herb-rich beech forests. The Vltava valley has a diverse habitat mosaic, including oak-hornbeam forests and relict pine forests, but its species composition is substantially poorer than in the Slapy Bioregion (1.20). The fourth, beech, forest vegetation zone predominates, while the third, oak-beech, zone occurs in the Vltava valley. Atypical parts comprise gradual transitions into the surrounding bioregions.
Arable land currently predominates; managed spruce stands dominate the forests, with fragments of oak-hornbeam forest on valley slopes and fragments of beech forest on ridges. Fishponds are more frequent on the adjacent plateaus. The Vltava valley was severely affected by dam construction.

3.1.2. Geology and relief

The bedrock consists largely of migmatites and migmatized gneisses, with paragneisses in the north and small intercalations of limestone and calc-silicate rock along the Lužnice and Vltava. Of the intrusive rocks, syenite is significant west of Tábor, together with outliers of the Čertovo břemeno syenodiorite at the northern edge of the region. Granites and granodiorites predominate between the Otava and Vltava. The projection of the bioregion east of Chýnov also contains larger marble belts with karst features.
Locally, islands of Neogene sands and clays, or gravel, have been preserved on the bedrock, particularly south of the Lužnice. The surficial deposits also comprise predominantly slope deposits; on east-facing slopes in north-south valleys, these contain a greater or lesser aeolian admixture. The plateaus south of Milevsko also have loess-loam cover. The relief ranges from upland to plateau, with variable relative relief; the Mehelnice Highlands, known as the Písek Mountains, are more dissected. A contrasting feature consists of the deeply incised, canyon-like valleys of the Vltava, Otava, and Lužnice, which are 60–160 m deep. On average, they are substantially shallower than in the Slapy Bioregion (1.20). The shallow but very rocky Židova strouha valley downstream of Bechyně is also notable. The valley phenomenon is developed in the rocky valleys of the Vltava, Lužnice, and Otava, substantially increasing the bioregion's overall biodiversity.
In undissected areas, the plateaus form dissected uplands with a relative relief of 75–120 m, locally approximately 50 m. Near the incised valleys, relative relief increases to more than 200 m and the terrain forms rolling to dissected highlands. The Mehelnice Highlands have the greatest relative relief, reaching 250 m. The lowest point is the floor of the Vltava valley near Orlík (298 m above sea level); the highest is Velký Mehelník in the Písek Mountains (633 m above sea level). The typical elevation of the bioregion is 400–550 m above sea level.

3.1.3. Climate

The climate is relatively homogeneous. According to Quitt, the lower northern parts lie in the moderately warm MT 11 region, the remainder in MT 10, and only the highest parts in the cooler, moderately warm MT 7 and MT 5 regions. The climate is therefore moderately warm and relatively dry, as shown by the data: Orlík 7.7 °C, 583 mm; Tábor 7.3 °C, 602 mm; Dobronice 590 mm; Hluboká-Stará obora 608 mm; Týn nad Vltavou 601 mm; Milevsko 574 mm; Vráž 588 mm. Locally, the climate

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is strongly influenced by inversions and by the configuration of the deep valley incisions of the Vltava, Lužnice, and lower Otava.

3.1.4. Hydrology

Under the hydrographic classification, the area of interest lies in the main Elbe catchment, within the Upper Vltava sub-basin. At the fourth-order catchment level, it lies in the catchments of Temelínecký Stream (hydrologic sequence No. 1-08-03-0792), Malešický Stream (1-08-03-0793), Strouha Stream (1-06-03-0730), and Palečkův Stream (hydrologic sequence No. 1-06-03-0770).
The project is not located in a floodplain.
The project is not located in a water-source protection zone.
The project is not located in a protected area of natural surface-water accumulation (CHOPAV).
The project is located in a sensitive area pursuant to Section 32 of Act No. 254/2001 Coll., the Water Act.
The project is not located in a vulnerable zone pursuant to Government Decree No. 262/2012 Coll., on the Designation of Vulnerable Zones and the Action Program.
The significant Hněvkovice Reservoir is located near the project.

3.1.5. Biota

Under the phytogeographic classification developed in 1976 (Skalický et al. 1977) for the Flora of Czechia, the area of interest lies in the Bohemian-Moravian Mesophyticum phytogeographic region, District 40, the South Bohemian Uplands, and the Písek-Hluboká Ridge subdistrict.
According to the reconstructed natural-vegetation map (Mikyška et al. 1972), the affected area was predominantly covered by acidophilous oak forests (*Quercion robori-petraeae*).
The potential natural vegetation of the project area (Neuhäuslová, Moravec 1997) consists of woodrush and/or fir-oak forest (*Luzulo albidae-Quercetum petraeae*, *Abieti-Quercetum*).

Table 2: Overview of protected interests in the area likely to be affected by the intervention. The affected area is considered to be the area directly affected by project inputs and outputs during construction and operation.

Characteristic	Project siting and construction areas	Affected area
national park	no	no
protected landscape area	no	no
small-scale specially protected areas	no	no
Natura 2000 sites (Sites of Community Importance)	no	no
Natura 2000 sites (Special Protection Areas)	no	yes
national territorial system of ecological stability	no	no
regional territorial system of ecological stability	no	no
local territorial system of ecological stability	yes	yes
habitat of specially protected large mammal species	yes	yes
registered significant landscape feature	no	no
statutory significant landscape feature	yes	yes
nature parks	no	no
memorial tree	no	no
occurrence of specially protected plant species	yes	yes
occurrence of specially protected animal species	yes	yes

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3.2. Information on the dates, content, scope, and results of the natural-history survey and field investigation

3.2.1. Assignment

The subject of the assessment is the **"New SMR Power Plant at the Temelín site"** project (hereinafter the "project") in the cadastral areas of Březí u Týna nad Vltavou, Chvalešovice, Křtěnov, Kočín, Temelín, and Temelínec in the South Bohemian Region.

This is an assessment within the meaning of Section 67(1) of Act No. 114/1992 Coll. The assessment meets the requirements for project-impact assessments under Ministry of the Environment Decree No. 142/2018 Coll.

The assessment contains a detailed characterization of the biodiversity of the area affected by the project, particularly through the natural-history surveys presented in the appendices (Sections 8.1 to 8.7).

3.2.2. Dates of the natural-history survey and field investigation

Natural-history surveys were conducted during the 2025 growing season on March 28; April 22–23 and 24; May 11, 16, and 27; June 4, 23, and 25–27; July 17 and 24–25; August 10 and 16–17; September 17–19; and October 4, 2025, and on May 5 and June 1, 7, and 11, 2026. Data collected by V. Kostkan (Kostkan 2024) on July 11 and 20 and September 15, 2023, and on February 2, March 31, April 20, May 2, and July 15 and 20, 2024 were also used.

3.2.3. Survey scope

The surveys were conducted in the area directly affected by the project and its immediate surroundings.

Floristic and vegetation, vertebrate, including ornithological, entomological, malacological, and hydrobiological surveys were conducted. The surveys used standard methods, at suitable times and in suitable weather, and were sufficient in scope.

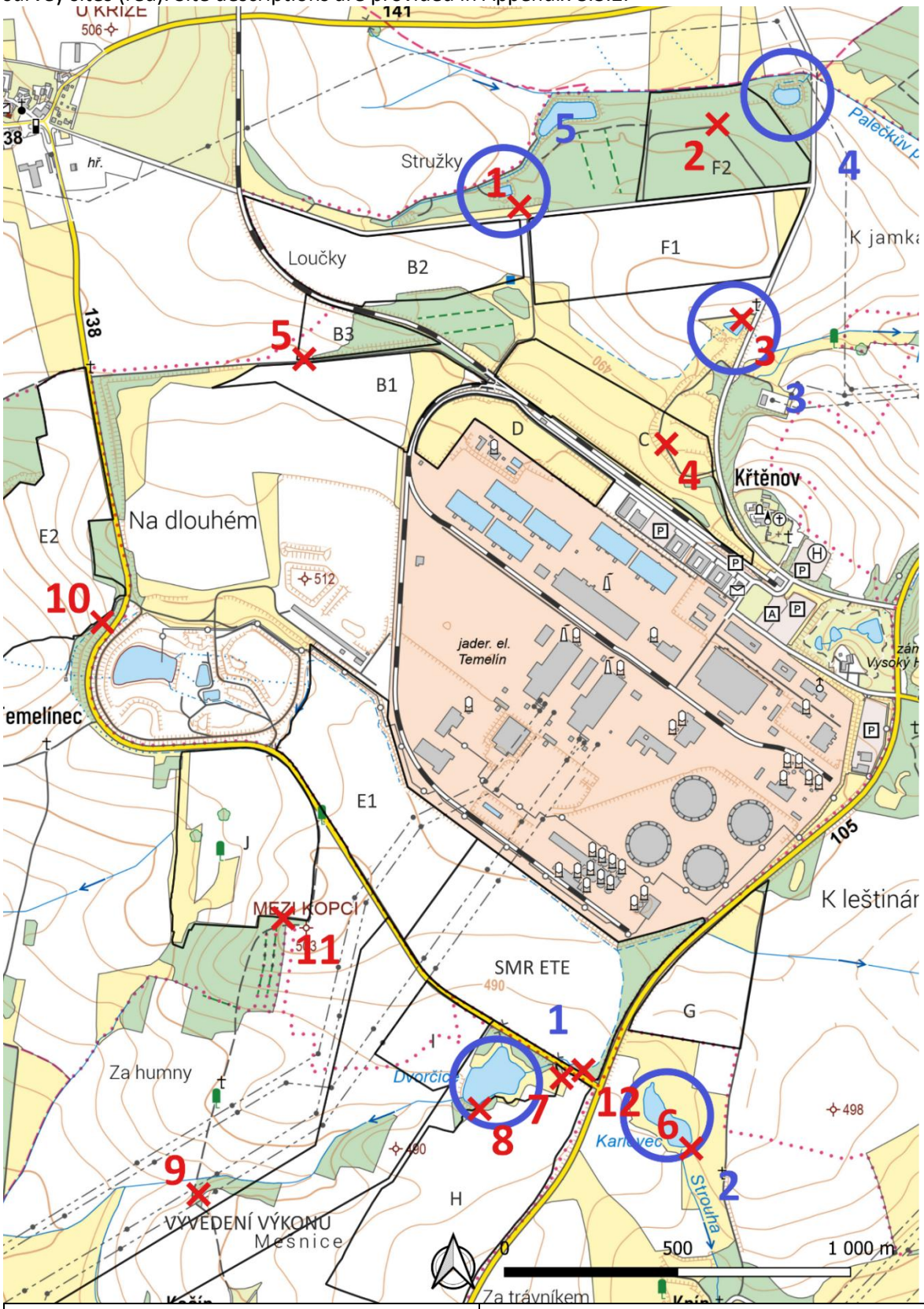
Vegetation was surveyed throughout the directly affected area, comprising the area for siting the SMR ETE unit, construction-site facility Areas B1–J, the SMR ETE power evacuation corridor, construction-site power-supply corridor, interconnection corridor, corridor for widening of Road II/138, and the ETE service road; at Karlovec and Dvorčice Ponds; and in the meadow east of Dvorčice Pond toward Area H. The floristic survey was conducted during the 2025 and 2026 growing seasons at all sites of greater biological value with potential for species of conservation importance. Field surveys were conducted during visits in different phases of the growing season in order to record all important plant species and different seasonal vegetation aspects.

The vertebrate survey focused primarily on fish, amphibians, reptiles, and mammals, including bats. Birds were examined as part of a separate ornithological survey.
The entomological survey was conducted in 15 subareas. Insect-occurrence data were recorded separately for each, and the importance of each subarea to insects was assessed individually.

Based on knowledge of local conditions and a review of mapping materials, ten sites potentially suitable for mollusk communities were selected. These were predominantly sites expected to have higher moisture levels, along watercourses, at fishpond margins, and in wet meadows. Microhabitats at the sites were surveyed by direct hand collection, examining leaf litter, the soil surface, stumps, trunks, and the moss and herb layers.

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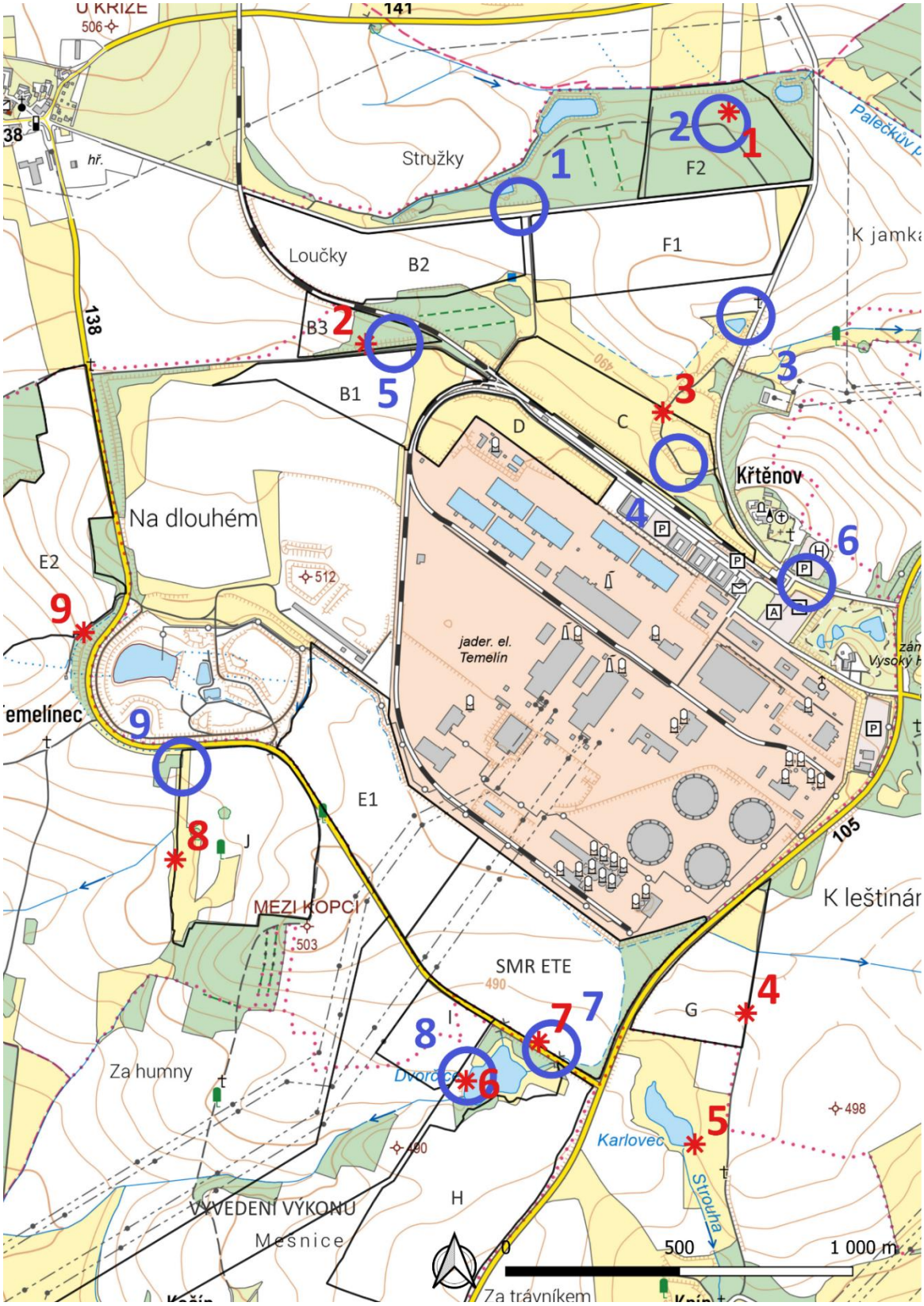
Figure 6: Overview map of ichthyological and batrachological survey sites (blue) and herpetological survey sites (red). Site descriptions are provided in Appendix 8.3.2.



jader el. Temelín	nuclear power plant Temelín
VYVEDENÍ VÝKONU	POWER EVACUATION

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Figure 7: Overview map of mammal survey sites: small mammals (red) and bats (blue). Site descriptions are provided in Appendix 8.3.2.



3.2.4. List of abbreviations

ad. – adult individual

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ass. – association
RC – reactor core
BAPP – active auxiliary systems building
SFP – spent fuel pool
CR – critically endangered species, according to the Red List
PS/RL – pumping station/Red List, according to context
COSMC – Czech Office for Surveying, Mapping and Cadastre
DBC-4 – limiting design-basis accident
DEC – design extension conditions; in the context of radiological-impact analysis, the designation concerns the source term for severe accidents
DEC-B – severe accident
ESWS – essential service water system cooling towers
EIA – environmental impact assessment
EN – endangered species, according to the Red List
SCI – Site of Community Importance
Temelín NPP Units 1 and 2 – Temelín Nuclear Power Plant
ex. – individual
PLA – protected landscape area
NICS – Nature and Landscape Conservation Information System
IUCN – International Union for Conservation of Nature
NPP – nuclear power plant
juv. – juvenile bird hatched in the current year
CR – critically endangered species listed in Ministry of the Environment Decree No. 395/1992 Coll.
RC – Real Estate Cadastre
c.a. – cadastral area
IAEA – International Atomic Energy Agency
MCWS – main cooling water system
SSPA – small-scale specially protected areas
MoE – Ministry of the Environment of the Czech Republic
NDOP – Nature Conservation Species Occurrence Database, Nature Conservation Agency of the Czech Republic portal
New NPP ETE – New Nuclear Power Plant at the Temelín site
NT – near threatened, according to the Red List
E – endangered species listed in Ministry of the Environment Decree No. 395/1992 Coll.
NCA – nature conservation authority
MEP – municipality with extended powers
P – pair
(F) – bird species flying over the site
PAC – Preliminary Acceptance Certificate
PZ – protection zone
WW – wastewater
SPA – Special Protection Area
NM – natural monument
NR – nature reserve
FL – land intended to fulfill forest functions
PWR – pressurized-water reactor
RBC – regional biocorridor
RB – retention basin
rSLF – registered significant landscape feature
scatt. – scattered occurrence
Coll. – Collection of Laws

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HE – highly endangered species listed in Ministry of the Environment Decree No. 395/1992 Coll.
SMR – small modular reactor nuclear installation
SMR ETE – New SMR Power Plant at the Temelín site
NE – northeast
SFSF – spent fuel storage facility
TG – turbine generator
TS – transformer substation
ESWS – essential service water system
LUP – land-use plan
TSES – territorial system of ecological stability
WW – waterworks
SNF – spent nuclear fuel
SLF – significant landscape feature
VU – vulnerable species, according to the Red List
EHV – extra-high voltage
Rare – rare occurrence
ALR – agricultural land resources
SPS – specially protected species
SPA – specially protected area
NLPA – Nature and Landscape Protection Act (No. 114/1992 Coll.)
SDP – Spatial Development Principles
environment

3.2.5. Floristic survey

The floristic survey was conducted during the 2025 and 2026 growing seasons at all sites of greater biological value with potential for species of conservation importance. Field surveys were conducted during visits in different phases of the growing season in order to record all important plant species and different seasonal vegetation aspects. Survey dates: March 28; April 22–23; June 26–27; August 16–17; and October 4, 2025, and April 7 and June 7, 2026. The survey methodology, list of species identified, and comments on them are provided in a separate appendix (Section 8.2).
A list of vascular plant species was compiled during the survey. Where species of greater conservation importance were identified, meaning species protected under Ministry of the Environment Decree No. 395/1992 Coll. or included in the Red List (Grulich 2012), their occurrence was quantified at least by estimation. Taxon nomenclature is standardized according to Kubát (Kubát 2002). Specially protected taxa listed in Decree No. 395/1992 Coll. are shown in bold in the floristic list, together with their protection status (Section 3 – endangered, Section 2 – highly endangered, Section 1 – critically endangered). Species included in the Red List are also shown in bold, together with their threat category: C1, C2, C3, C4.
The floristic survey outputs comprise a vegetation description and lists of vascular plants for each area of the area of interest, comments on species of greater importance, and an assessment of the project's effect on the flora of the affected area.
Three of the species identified are specially protected under Decree No. 395/1992 Coll.; one is in the highly endangered category and two are in the endangered category. Fifteen species included in the Red List of Czechia (2012) were also identified: one C2b species, highly endangered and declining; two C3 species, endangered; and 12 C4a species, requiring attention.

3.2.6. Vertebrate survey

A zoological survey of the project-affected area focusing on vertebrates was conducted during the 2025 and 2026 growing seasons. The methodology and list of species identified are provided in a separate appendix (Section 8.3).

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The vertebrate survey and review of species-occurrence data identified 163 vertebrate species in the area of interest: six fish species, 13 amphibian species, six reptile species, 113 bird species, and 41 mammal species, including ten bat species. Although the occurrence of additional species, particularly transient occurrence such as migrating birds, cannot be excluded, the list provides a very good overview of the affected vertebrate fauna. Of the 68 specially protected vertebrate species identified, eight are critically endangered, 39 are highly endangered, and 21 are endangered. Sixty species included in the Red List were also identified: two critically endangered (CR), seven endangered (EN), 16 near threatened (NT), and 35 vulnerable (VU) species.

3.2.7. Ornithological survey

The ornithological survey during the 2025–2026 season was conducted on March 28, April 24, May 11, June 27, August 17, and September 19, 2025, and April 7, June 7 and 13, 2026. The survey methodology, overview of species recorded, and comments on them are provided in a separate appendix (Section 8.4).

Including results from field surveys in 2023–2024, a data review identified a total of 113 bird species at the site monitored. Of these, five are critically endangered, 13 are highly endangered, and 12 are endangered. Thirty-five species are included in Red Lists: two critically endangered (CR), seven endangered (EN), 19 vulnerable (VU), and seven near threatened (NT) species. Eleven species are listed in Annex I to the Birds Directive (BD I).

3.2.8. Entomological survey

The entomological survey was conducted on May 16, June 4 and 23, July 17, and August 10, 2025, and May 5 and June 1, 2026. The survey methodology, list of species identified, and comments on them are provided in a separate appendix (Section 8.5).

The entomological survey identified 461 taxa at the site. Of the taxa identified, 19 are specially protected under Ministry of the Environment Decree No. 395/1992 Coll. and 25 species are included in the Red List of Invertebrates (Hejda et al. 2017).

Of the 19 specially protected species identified, one is critically endangered, four are highly endangered, and 14 are endangered. A further 25 species included in Red Lists occur here: eight vulnerable (VU) and 17 near threatened (NT) species.

3.2.9. Malacological survey

The malacological survey was conducted on September 18–19, 2025. The survey methodology, overview of the individual sites with lists of species found, and comments on them are provided in a separate appendix (Section 8.6).

A total of 35 mollusk species were found. The mollusk species recorded in the area of interest are generally common in Czechia. They were predominantly species with broad ecological tolerances inhabiting a wide range of habitat types.

The most notable finding was the occurrence of the narrow-mouthed whorl snail *Vertigo angustior* in the wet meadow near Dvorčice Pond, between the SMR ETE site and Area H. This species inhabits open, calcareous, well-preserved wetlands and riparian vegetation. It is internationally protected under the IUCN framework, monitored under the Natura 2000 program, and classified as vulnerable (VU) in the Red List of Czechia.

3.2.10. Hydrobiological survey

A total of 66 aquatic-invertebrate taxa were recorded in standing waters and 68 taxa in running waters. The numbers of taxa found at the individual sites differed substantially, ranging from seven to 41 taxa in the standing waters monitored and from 12 to 34 taxa in running waters. The survey methodology, overview of the individual sites with lists of species found, and comments on them are provided in a separate appendix (Section 8.7).

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The survey recorded two species included in the Red List of Invertebrates (Hejda et al. 2017): the shining ramshorn snail (*Segmentina nitida*), classified as vulnerable (VU), and *Hydraena belgica*, classified as near threatened (NT).

3.3. Consultations with specialists

The project was discussed, particularly in terms of potential effects on fauna and especially birds, with Ing. Jiří Bureš, an ornithological specialist and regional bird expert at the South Bohemia Regional Office of the Nature Conservation Agency of the Czech Republic, and, in terms of effects on entomofauna, with RNDr. Ondřej Konvička. The effect on flora and vegetation was discussed with RNDr. Alena Vydrová, a regional botanist. They consider the data obtained during the faunistic and floristic surveys to be representative of the local fauna. The project itself is considered potentially conflicting and requires further investigation and assessment of its effects on biota.

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4. Assessment of the effects of the intervention and its individual alternatives, where prepared

4.1. Objective of the assessment

The objective of the assessment is to assess the project's effects throughout its duration on interests protected under Parts Two, Three, and Five of Act No. 114/1992 Coll., particularly territorial systems of ecological stability, significant landscape features, generally and specially protected plants and animals, trees growing outside forests, caves, paleontological finds, landscape character and nature parks, temporarily protected areas, memorial trees, and specially protected areas. It determines whether the project's effects on biodiversity are tolerable, taking account of the critical level required for its preservation. It evaluates the significance of any adverse project effects and proposes effective measures that avoid, reduce, offset, or compensate for those effects.

4.2. Assessment of the adequacy of information for assessing the intervention's effects and a list of the information and sources used

The assessment was prepared using the following procedure:

Review of the project documentation supplied by the developer:

- Bounding Parameters for the SMR ETE EIA Documentation, ČEZ, a. s., Rev. 6, March 9, 2026
- Project notification pursuant to Section 6 of Act No. 100/2001 Coll., on Environmental Impact Assessment, “New Nuclear Power Plant at the Temelín site, Including Power Evacuation to the Kočín Substation.” ČEZ, 07/2008.
- New SMR Power Plant at the Temelín site, Including Power Evacuation to the Kočín Substation. Environmental Impact Assessment Documentation, May 2010. SCES - Group, spol. s r. o.
- New SMR Power Plant at the Temelín site. Project Notification. Jacobs, 10/2024.
- Project layout drawing
- Radiological Effects of the SMR on Biota. Source: DP17 – Study of the Radiological Effects of Normal Operation of the SMR ETE, ABmerit s.r.o., June 2025.
- Josef Vojtěch Datel & Anna Hrabánková, Výzkumný ústav vodohospodářský T. G. Masaryka, v.v.i.: DP20C Water-Management Study – Groundwater, SMR ETE EIA, Rev. 1, December 2025. Prague. 123 pp.
- Juranová E. & Marešová D., Výzkumný ústav vodohospodářský T. G. Masaryka, v.v.i.: Preparation of Supporting Information for the EIA Documentation for the SMR ETE Project – DP20 Water-Management Study – Quality – Basic Assessment of the SMR ETE. 11/2025.
- STUDIO B&M, Ing. Roman Bukáček. Assessment of the Project's Effect on Landscape Character, Study of Effects on the Landscape Character of the Area. Supporting document for the SMR ETE EIA Documentation. June 26, 2025.
- RNDr. Vlastimil Kostkan, Ph.D.: DP 12A – Biological Assessment (Extension of the Validity of the EIA Opinion for the New NPP ETE), August 31, 2024.
- RNDr. Vlastimil Kostkan, Ph.D.: Summary of Biological Surveys, Preliminary Biological Assessment, and Natura 2000 Screening for Construction and Operation of the SMR ETE, July 4, 2024.
- RNDr. Vlastimil Kostkan, Ph.D.: Summary of the Results of Autumn 2024 Biological Surveys for the SMR ETE, April 22, 2024.
- RNDr. Vlastimil Kostkan, PhD.: Biological Assessment within the Meaning of Section 67 pursuant to Section 45i of Act No. 114/92 Coll., on Nature and Landscape Protection, as amended, for the New Nuclear Power Plant at the Temelín site, Including Power Evacuation to the Kočín Substation, November 30, 2009.

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- ABmerit s.r.o.: SMR ETE EIA DP29 – Radiological Effects of SMR ETE Accident Conditions on Biota, March 2026.
- Josef Vojtěch Datel, Výzkumný ústav vodohospodářský T. G. Masaryka, v.v.i.: Expert Opinion on Issues Concerning Karlovec Pond in Connection with Construction of the SMR ETE, May 2026

Review of the Temelín Land-Use Plan. (Amendment No. 4 to the Temelín Land-Use Plan – Consolidated Version Following the Amendment, October 19, 2021. https://geoportal.kraj-jihocesky.gov.cz/portal/up/obce)

A review of available specialist sources was conducted; see the Literature section.

Natural-history surveys were then conducted in the affected area: floristic, vertebrate, entomological, malacological, and hydrobiological surveys. The methodology and results of the individual surveys are presented and discussed in detail in separate sections.

The field data were supplemented with requested species-occurrence data from the Nature Conservation Agency of the Czech Republic's species occurrence database, under a database-extraction license agreement: *Nature Conservation Agency of the Czech Republic (2026): Nature Conservation Species Occurrence Database. (Online georeferenced electronic database; portal.nature.cz). Version 2026. Prague. Nature Conservation Agency of the Czech Republic. (Accessed October 31, 2025 and June 14, 2026).*

A list of all other sources used is provided in the Literature section.

In the assessor's opinion, the submitted documentation, surveys conducted, and other data obtained provide sufficient information for assessing the effects of the intervention.

4.3. Identification and description of the anticipated effects of the intervention on protected interests

Under the assessment methodology, relevant effects comprise direct and indirect project effects that, by their nature, may affect the quantitative and qualitative characteristics of individual specially protected or threatened species. The following potential project effects were identified:

1/ Direct habitat take (take of occurrence sites and foraging habitat; disturbance of refuges, breeding sites, and nesting sites)

Habitat take will primarily affect terrestrial animals, both at the planned construction site and in the construction-site facility areas, where land take will be temporary.

Permanent land take – area for siting the SMR unit: SMR ETE area – main construction site (approximately 29.5 ha).

Permanent land take – passing places on the ETE service road and widening of Road II/138.

Temporary land take – construction-site facility areas: Area J (approximately 19 ha), Area H (approximately 25.5 ha), Area C (approximately 14 ha), Area I (approximately 5.5 ha), and Area G (approximately 9.5 ha). Area E1 only for transport on temporary paved roads, if necessary. Interconnection corridor (bridge) between Areas I and H.

Temporary land take – reserve construction-site facility areas: Area B1 (approximately 7.8 ha), Areas F1 and F2 (approximately 31 ha in total), Area B2 (approximately 15 ha), Area B3 (4 ha), Area D (approximately 6.3 ha), Area E1 (approximately 17.5 ha), and Area E2 (approximately 36 ha).

Power evacuation – habitat take concerns only the areas occupied by tower foundations

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Construction-site power-supply corridor

Interconnection corridor (bridge): Temporary connection of Areas I and H by roads linked by a bridge is being considered. The total road centerline length, including the bridge, will be 150 m. The road length excluding the bridge will be 120 m. The road will connect to the bridge by approach wedges approximately 40 m long, with a maximum gradient of 4.5%. The bridge will have two lanes and a clear width of 8.5 m, with a total width of 10 m, and a span of 30 m so that the bridge supports lie outside the streamside vegetation. A vertical clearance of 1 m between the bridge soffit and the ground surface will provide a migration passage.

2/ Effects on qualitative habitat characteristics.

In this case, effects on qualitative habitat characteristics include disturbance of soil and vegetation cover by the movement of construction machinery and equipment. Qualitative characteristics of aquatic habitats may also change in connection with disruption or modification of the water regime.

3/ Disturbance and harmful interference with natural development.

This effect is limited to the construction period and potentially to tree-felling activities. It will occur directly in the area of interest and in its immediate vicinity. This effect will apply particularly to birds nesting immediately around the project. The adverse effect can be substantially reduced by seasonal restrictions on the work.

4/ Accidental killing or injury of individuals or destruction of or damage to developmental stages.

Individual animals may be directly endangered during earthworks, construction, or vegetation removal. For birds, this concerns particularly any felling and cutting of woody plants during the nesting season. Ground-nesting birds are also at some risk of mortality from vehicle movements and earthworks. Potential breeding sites and permanent refuges of threatened animal species were specifically sought during the survey. This effect will apply particularly to amphibians and reptiles, but ground-nesting bird species and invertebrates may also be affected. The adverse effect on nesting birds can be substantially reduced by seasonal restrictions on the work.

5/ Risk of bird collisions with power lines

The effect includes the risk of birds colliding with power lines in the power evacuation corridor and the associated fragmentation of their habitat.

6/ Disruption of the ecological-stabilization function of significant landscape features

The ecological-stabilization function of significant landscape features, including forest stands, watercourses, fishponds, and floodplains, may be disrupted during construction and by project operation.

7/ Effects on the water regime, surface water, and groundwater

According to the documentation, the storm sewer at the SMR ETE site should connect to the existing network conveying stormwater from Units 1 and 2 to Strouha Stream, meaning to a different catchment than at present, which is the catchment of Dvorčice Pond and Dvorčický or Malešický Stream. This may affect the water regime of the affected catchments. Lowering the groundwater level in the excavation for construction of the reactor building, followed by

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permanent lowering beneath its foundations, will also constitute a significant intervention (Datel, Hrabánková, TGM WRI 2025).

There is also a risk of effects on the water regime, surface water, and groundwater if water from temporary-land-take areas is conveyed to another area or catchment because of unsuitable grading or intentional diversion.

A retention basin is planned in the northeastern part of the SMR ETE site to control stormwater discharge from the fenced site to the existing final trunk sewer for Units 1 and 2 and subsequently to Strouha Stream. The retention basin will be equipped with pumps allowing controlled transfer of accumulated stormwater to a drainage ditch that will convey stormwater to Dvorčice Pond when required.

8/ Radiological effect on biota

According to the Study of the Radiological Effects of Normal Operation of the SMR ETE (ABmerit s.r.o. 2025), the SMR ETE accounts for approximately one-tenth of doses from atmospheric discharges compared with the contribution from Units 1 and 2 and the New NPP ETE, and approximately one-twentieth of doses from liquid discharges. To illustrate the cumulative effect, the values must be multiplied by 10 for dry sectors and by 20 for wet sectors. Even then, they will remain far below the International Atomic Energy Agency reference levels. Because of the very low bounding discharges from the SMR ETE, the effect on the biological component of the environment is very small and negligible in every case analyzed, comprising the meteorological conditions considered in the given calendar year and the Vltava flows considered. For all design events during normal operation, radiological effects on humans will be too low to be detectable. Assessment of the radiological consequences of potential accidents is provided in Section 4.4.13.

9/ Wastewater discharge to the Vltava

According to the documentation, treated domestic wastewater should be discharged together with process wastewater through the existing Units 1 and 2 wastewater pipelines to the receiving water, the Vltava, at the Kořensko profile. The stormwater drainage system should connect to the existing network conveying stormwater from Units 1 and 2 to Strouha Stream and onward to the Vltava. A retention basin is planned in the northeastern part of the SMR ETE site to control stormwater discharge from the fenced site to the existing final trunk sewer for Units 1 and 2 and subsequently to Strouha Stream. The retention basin will be equipped with pumps allowing controlled transfer of accumulated stormwater to a drainage ditch that will convey stormwater to Dvorčice Pond when required.

The EIA Documentation for the New NPP ETE (2010) concluded that the discharge of heated wastewater to the Vltava would not cause water-temperature changes outside natural conditions and their interannual variation.

The same assessment was conducted for the SMR ETE and concluded that the proposed expansion of ETE would not have serious adverse effects on the temperature or quality of water in the Vltava or on eutrophication of Orlík Reservoir (Juranová E. & Marešová D. 2025). According to that study, modeled values for the temperature parameter at the Kořensko Reservoir profile for the SMR ETE plus Units 1 and 2 capacity scenario will not exceed maximum legislative limits under either the “Average Discharge” or “Maximum Discharge” scenario. The SMR ETE contribution to warming of water in the Vltava is very small.

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4.4. Assessment of the anticipated effects of the intervention on protected interests

This section characterizes and assesses the magnitude and significance of the project's anticipated direct, indirect, secondary, cumulative, transboundary, short-term, medium-term, long-term, permanent, temporary, positive, and negative effects arising from project construction and existence, including any demolition required for its implementation, on biodiversity, meaning fauna, flora, and ecosystems, and on the individual environmental characteristics of biodiversity.

Table 3: Significance of effects and the scale used to assess the project's effect on biota.

Effect	Value	Description
Significant adverse	**-2**	A significant disruptive to destructive effect on a protected area, the function of a significant landscape feature, a habitat, or a species population or a substantial part thereof; significant disruption of the ecological requirements of a habitat or species; or significant interference with the habitat or natural development of a species.
Moderate adverse	**-1**	Limited/moderate/insignificant adverse effect. A moderate disruptive effect on a protected area, the function of a significant landscape feature, a habitat, or a species population; moderate disruption of the ecological requirements of a habitat or species; or marginal interference with the habitat or natural development of a species.
None	**0**	The project has no effect.
Moderate beneficial	**+1**	A moderate beneficial effect on a protected area, the function of a significant landscape feature, a habitat, or a species population; moderate improvement in the ecological requirements of a habitat or species; or moderately beneficial interference with the habitat or natural development of a species.
Significant beneficial	**+2**	A significant beneficial effect on a protected area, the function of a significant landscape feature, a habitat, or a species population; significant improvement in the ecological requirements of a habitat or species; or significantly beneficial interference with the habitat or natural development of a species.

4.4.1. Assessment of the intervention's effects on specially protected areas

Affected sites will be identified as sites that:

- directly overlap spatially with the project or are located in its immediate vicinity;
- are affected in connection with inputs, including water abstraction, lines, and utility connections, during project preparation, implementation, operation, decommissioning, or removal; or
- are affected in connection with outputs, including waste, emissions, wastewater, and noise, during project preparation, implementation, operation, decommissioning, or removal.

All specially protected areas and Natura 2000 sites within 10 km of the project were assessed in greater detail. This is twice the threshold distance at which significant adverse effects during project implementation can be identified.

Table 4: Overview of the nearest specially protected areas, within 10 km, including their qualifying features.

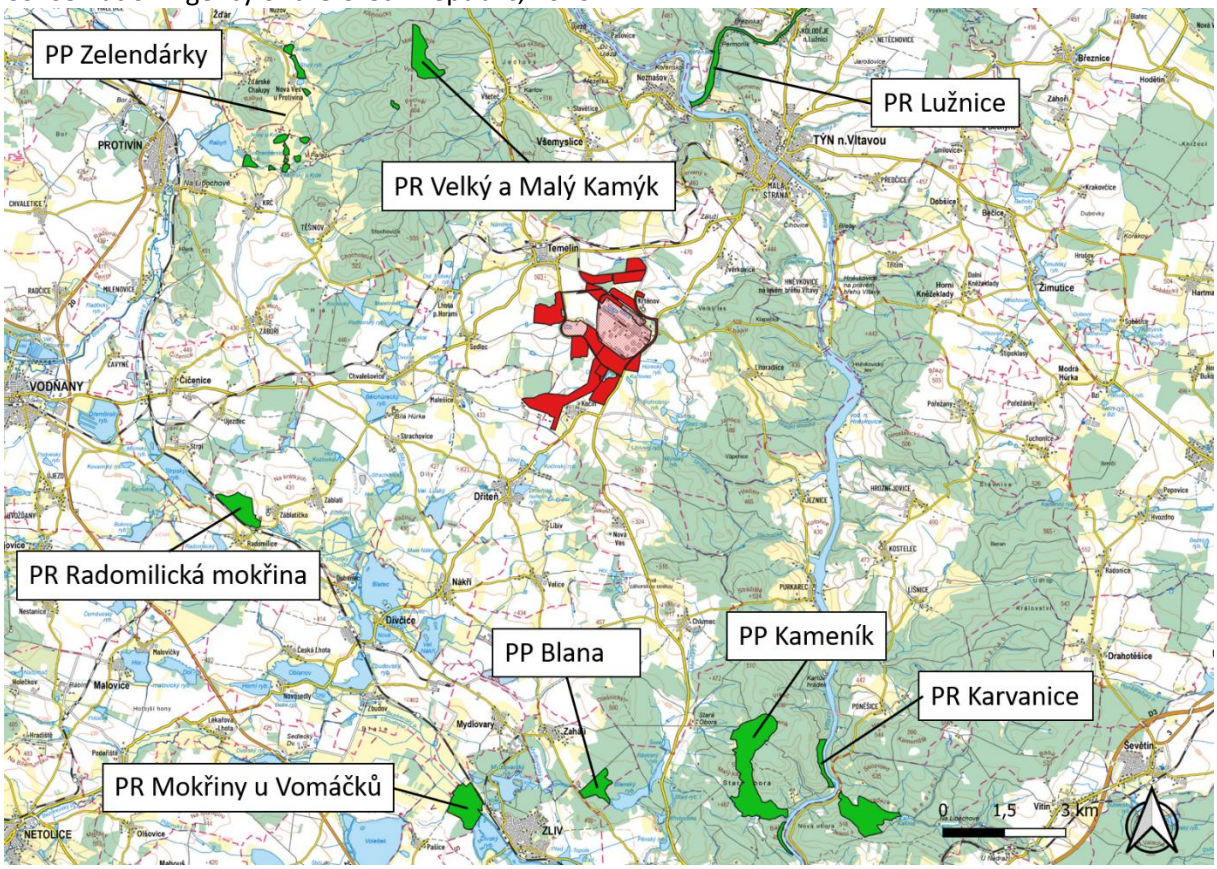
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Name	Qualifying feature	Distance from the project	Effect assessment (+2/+1+0/-1/-2)
Lužnice Natural Monument	Rare and threatened plant and animal species, particularly populations of the highly endangered thick-shelled river mussel (*Unio crassus*), the endangered European weatherfish (*Misgurnus fossilis*), and the highly endangered Eurasian otter (*Lutra lutra*), including their habitats.	4 km north of Area F2	0
Velký and Malý Kamýk Nature Reserve	Acidophilous beech forests of the ass. Luzulo luzuloidis-Fagetum sylvaticae and herb-rich beech forests of the ass. Galio odorati-Fagetum sylvaticae, and populations of associated species.	6 km northeast of Area B2	0
Zelendárky Natural Monument	A system of 11 fishponds northeast of the municipality of Protivín, containing protected aquatic plants and animals and high-quality riparian vegetation (Zukáček, Mlýnský, Uchcánek, Čejka, Starý and Nový u Krče, Prostřední, Nový and Starý u Nové Vsi, Lužný, and Skopec).	6.7 km northeast of Area E2	0
Radomilická mokřina Nature Reserve	Protection of a complex of non-forest wetland vegetation with abundant specially protected plant and animal species, particularly amphibians. It is also an important habitat for waterbirds.	7.3 km southwest of the power evacuation corridor	0
Blana Natural Monument	Valuable aquatic and wetland habitats created in depressions left by clay extraction, with significant occurrences of specially protected plant and animal species.	8.4 km southeast of the power evacuation corridor	0
Kameník Natural Monument	Rare and threatened plant and animal species, particularly populations of green shield-moss (*Dicranum viride*), the critically endangered violet click beetle (*Limoniscus violaceus*), the critically endangered hermit beetle (*Osmoderma eremita*), the endangered European stag beetle (*Lucanus cervus*), and the critically endangered wrinkled bark beetle (*Rhysodes sulcatus*), including their habitats	8.5 km southeast of the power evacuation corridor	0
Mokřiny u Vomáčků Nature Reserve	An important meadow and wetland community, a remnant of the formerly extensive "Zbudovská blata," with ornithologically and botanically valuable meadows and reedbeds; a refuge for a rare ecosystem close to its natural condition.	8.8 km south of the power evacuation corridor	0
Karvanice Nature Reserve	A complex of natural lime and hornbeam oak forests and ravine forest, and remnants of natural herb-rich to acidophilous beech forests, with abundant populations of characteristic avifauna and entomofauna; rare and threatened plant and animal species, particularly populations of green shield-moss (*Dicranum viride*), the critically endangered violet click beetle (*Limoniscus violaceus*), the critically endangered hermit beetle (*Osmoderma eremita*), the endangered European stag beetle (*Lucanus cervus*), and the critically	9.9 km southeast of the power evacuation corridor	0

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Name	Qualifying feature	Distance from the project	Effect assessment (+2/+1+0/-1/-2)
	endangered wrinkled bark beetle (*Rhysodes sulcatus*), including their habitats		

Figure 8: Location of Blana Natural Monument, Kameník Natural Monument, Karvanice Nature Reserve, Lužnice Natural Monument, Mokřiny u Vomáčků Nature Reserve, Radomilická mokřina Nature Reserve, Velký and Malý Kamýk Nature Reserve, and Zelendárky Natural Monument (green) relative to the project (red). Source: Czech Office for Surveying, Mapping and Cadastre and Nature Conservation Agency of the Czech Republic, 2026.



Assessment and justification of the adverse project effect:
The project site does not directly overlap spatially with any small-scale specially protected area and does not extend into any large-scale specially protected area within the meaning of Section 14 of Act No. 114/1992 Coll., on Nature and Landscape Protection, as amended.
Of the large-scale specially protected areas, the closest to the project are the Třeboňsko Protected Landscape Area 20 km to the east and the Blanský les Protected Landscape Area 20 km to the south.
Of the specially protected areas, the closest to the project is Lužnice Natural Monument, a small-scale specially protected area. Given the sufficient distances, the project is not expected to affect this Natural Monument or the more distant Natural Monuments and Nature Reserves. In addition to their distance from the project, consideration was given to the potential for specially protected areas to be affected in connection with project inputs, including water abstraction, lines, and utility connections, and outputs, including waste, emissions, wastewater, and noise. However, the effect of project inputs and outputs on these specially protected areas is expected to be zero.

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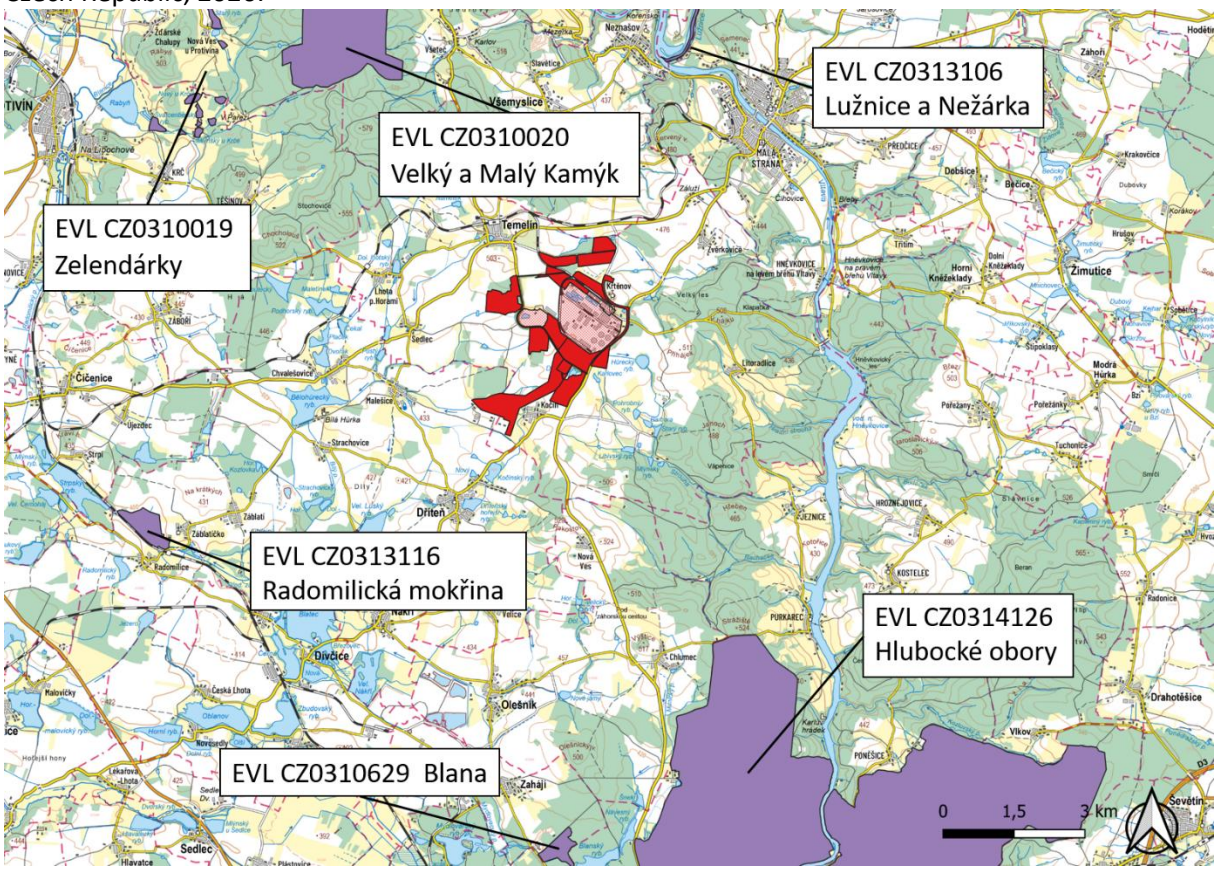
4.4.2. Assessment of the intervention's effects on Natura 2000 sites

Table 5: Overview of the nearest Natura 2000 sites, within 10 km, including their qualifying features.

Name	Qualifying features	Distance from the project	Effect assessment (+2/+1+0/-1/-2)
Sites of Community Importance (SCIs)			
SCI CZ0313106 Lužnice and Nežárka	site of the hermit beetle (*Osmoderma barnabita*), European weatherfish (*Misgrunus fossilis*), thick-shelled river mussel (*Unio crassus*), and Eurasian otter (*Lutra lutra*)	4 km north of Area F2	0
SCI CZ0310020 Velký and Malý Kamýk	Luzulo-Fagetum beech forests (9110)	4.6 km northwest of Area B2	0
SCI CZ0314126 Hlubocké obory	site of the hermit beetle (*Osmoderma barnabita*), green shield-moss (*Dicranum viride*), violet click beetle (*Limoniscus violaceus*), European stag beetle (*Lucanus cervus*), and wrinkled bark beetle (*Rhysodes sulcatus*)	6 km southeast of Area H	0
SCI CZ0310019 Zelendárky	oligotrophic to mesotrophic standing waters of the continental to alpine levels and mountain regions and other regions, with vegetation of the Littorelletea uniflorae or Isoëto-Nanojuncetea classes (3130); natural eutrophic lakes with Magnopotamion or Hydrocharition vegetation (3150)	6.7 km northeast of Area E2	0
SCI CZ0313116 Radomilická mokřina	site of the European fire-bellied toad (*Bombina bombina*)	7.3 km southwest of the power evacuation corridor	0
SCI CZ0310629 Blana	hard oligo-mesotrophic waters with benthic vegetation of stoneworts (3140); natural dystrophic lakes and ponds (3160)	8.4 km southeast of the power evacuation corridor	0
Special Protection Areas (SPAs)			
SPA CZ0311037 Českobudějovické rybníky	populations of the black-crowned night heron (*Nycticorax nycticorax*), common tern (*Sterna hirundo*), bluethroat (*Luscinia svecica*), greylag goose (*Anser anser*), and gadwall (*Anas strepera*), and their habitats	4.5 km southwest of the power evacuation corridor	-1
SPA CZ0311036 Hlubocké obory	populations of the middle spotted woodpecker (*Dendrocopos medius*) and collared flycatcher (*Ficedula albicollis*), and their habitats	6 km southeast of Area H	0

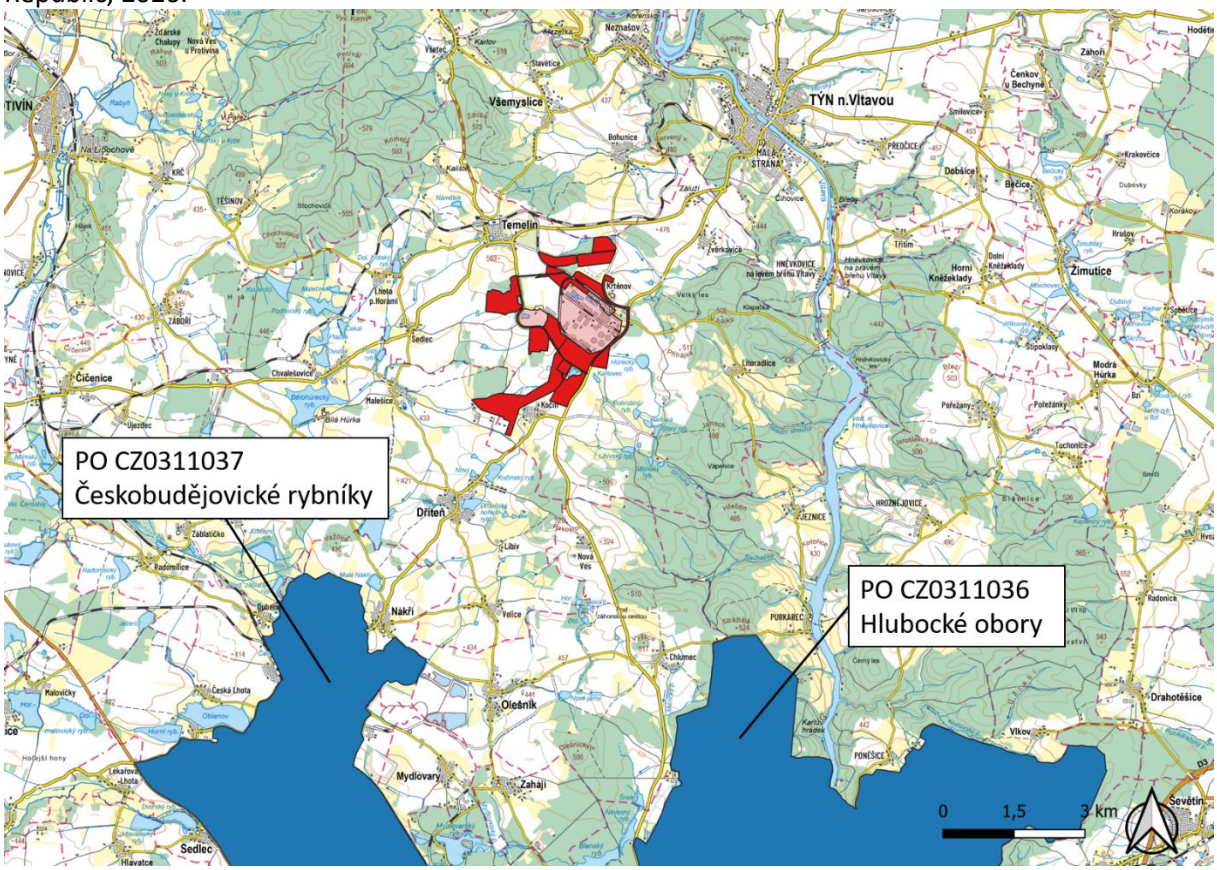
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Figure 9: Location of the nearest Sites of Community Importance (purple) relative to the project (red). Source: Czech Office for Surveying, Mapping and Cadastre and Nature Conservation Agency of the Czech Republic, 2026.



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Figure 10: Location of the nearest Special Protection Areas (blue) relative to the project (red). Source: Czech Office for Surveying, Mapping and Cadastre and Nature Conservation Agency of the Czech Republic, 2026.



Assessment and justification of the adverse project effect:
For the Sites of Community Importance and Special Protection Areas, the South Bohemian Regional Authority issued an opinion pursuant to Section 45i of Act No. 114/1992 Coll., on Nature and Landscape Protection, as amended, stating that the "New SMR Power Plant at the Temelín site" project, either alone or in combination with other projects and plans, cannot have a significant effect on the favorable conservation status of the qualifying features or the integrity of Sites of Community Importance and Special Protection Areas within the jurisdiction of the South Bohemian Regional Authority (Opinion Ref. No. KUJCK 126556/2024 of October 29, 2024).

A Natura 2000 screening report was prepared concurrently with the assessment pursuant to Section 67 of the Nature and Landscape Protection Act and describes the project's effects on the qualifying features and integrity of Natura 2000 sites. The Natura 2000 screening report concludes that the project does not directly extend into any Natura 2000 site. One qualifying feature of the Českobudějovické rybníky SPA, the greylag goose (Anser anser), could potentially be affected. Greylag geese disperse into the surrounding area to forage, often traveling considerable distances. Their use of the project area itself for grazing and resting was confirmed during the 2025 field survey, when a flock of geese was observed directly in Area H. A few individuals may therefore collide with conductors and earth wires in the SMR ETE power evacuation corridor. However, overhead power lines serving the existing Units 1 and 2 are already present in the area. No other Natura 2000 sites, qualifying features, or site integrity should be affected by the project.

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4.4.3. Assessment of the intervention's effects on significant landscape features

A significant landscape feature is defined in Section 3(1)(b) of Act No. 114/1992 Coll., on Nature and Landscape Protection, as amended (also referred to as the "Act" or the "Nature and Landscape Protection Act"), as "*an ecologically, geomorphologically, or aesthetically valuable part of the landscape that forms its characteristic appearance or contributes to maintaining its stability.*"
Significant landscape features are defined in two categories:
statutory significant landscape features – forests, peatlands, watercourses, fishponds, lakes, and floodplains;
registered significant landscape features – other parts of the landscape may be registered as such, particularly wetlands, steppe grasslands, copses, balks, permanent grasslands, mineral and fossil sites, artificial and natural rock formations, outcrops or exposures, and valuable areas of vegetation within settlements, such as historic gardens or parks. Other parts of the landscape may also be registered as significant landscape features.

List of ex lege significant landscape features under Section 3 of the Nature and Landscape Protection Act in the area of interest:

Table 6: Watercourses and floodplains.

Name of watercourse or floodplain	Location relative to project areas	Effect assessment (+2/+1+0/-1/-2)
unnamed stream, tributary of Hůrecký fishpond	northern part of Area G	-1
Dvorčický Stream, its tributaries, and its floodplain	SMR ETE site, SMR ETE power evacuation corridor	-1
Temelínecký Stream	southern boundary of Area E2	-1
Dubenecký Stream, a left-bank tributary of Temelínecký Stream	Areas E1 and J	-1
Palečkův Stream and its floodplain	northern boundary of Area F2	-1

Table 7: Fishponds.

Name of fishpond	Location relative to project areas	Effect assessment (+2/+1/0/-1/-2)
Dvorčice	between Area H, the SMR ETE site, and Area I	-1
Karlovec	south of Area G, west of Area H	-1
fishponds in the castle park	southwest of the construction-site power-supply corridor	0

Table 8: Forests.

Name of cadastral area, location	Location relative to project areas/land type according to the Real Estate Cadastre	Area of spatial overlap with the project area (estimate measured using GIS)	Effect assessment (+2/+1/0/-1/-2)
Křtěnov, south of the Units 1 and 2 site, with the existing Units 1 and 2 site forming its northern boundary and Road II/105 its eastern	northeastern corner of the SMR ETE site/other land	1 ha	-2

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Name of cadastral area, location	Location relative to project areas/land type according to the Real Estate Cadastre	Area of spatial overlap with the project area (estimate measured using GIS)	Effect assessment (+2/+1/0/-1/-2)
boundary			
Křtěnov, in the northern part of the cadastral area, with Palečkův Stream forming its northern boundary, north of the Units 1 and 2 site	all of Area F2/forest land	11.7 ha	-2
Křtěnov, northwest of the Units 1 and 2 site	southernmost part of Area B2/arable land	0.6 ha	-2
Křtěnov, northwest of the Units 1 and 2 site, around the rail siding leading to the Units 1 and 2 site	eastern half of Area B3/permanent grassland	2 ha	-2
Kočín, in the northern part of the cadastral area, on the left bank of Dvorčický Stream downstream of Dvorčice Pond	northern half of the power evacuation corridor/forest land	3.5 ha (two small forest units)	-2
Březí u Týna nad Vltavou, at the junction of Road No. II/105, west of Vysoký hrádek Chateau	northeastern part of the construction-site power-supply corridor	0.2	-1

Assessment and justification of the adverse project effect:
Under Section 3(1)(b) of the Nature and Landscape Protection Act, the significant landscape features in the affected area are watercourses, forests, fishponds, and floodplains. The project does not overlap spatially with lakes or peatlands, which are ex lege significant landscape features under Section 3 of the Nature and Landscape Protection Act. The project does not overlap spatially with any registered significant landscape feature.
Through its inputs and outputs, the project may affect the following ex lege significant landscape features:
Watercourses, floodplains, and fishponds
Dvorčický Stream, its tributaries and floodplain, and Dvorčice Pond. They are located south of the SMR ETE site, in the direction of groundwater flow. Permanent development of the SMR ETE site will change hydrologic conditions. The storm sewer at the SMR ETE site should connect to the existing network conveying stormwater from Units 1 and 2 to Strouha Stream. Lowering the groundwater level in the excavation for construction of the reactor building, followed by permanent lowering beneath its foundations, will also constitute a significant intervention, as stated in the study "DP20 Water-Management Study – Groundwater, SMR ETE EIA" (Datel & Hrabánková). To minimize the effect on the water balance of the affected catchment, support flows in Dvorčický Stream, and preserve the important habitat of Dvorčice Pond, this water should be retained within the relevant catchment.
A retention basin is planned in the northeastern part of the SMR ETE site to control stormwater discharge from the fenced site to the existing final trunk sewer for Units 1 and 2 and subsequently to Strouha Stream. The retention basin will be equipped with pumps allowing controlled transfer of accumulated stormwater to a drainage ditch that will convey stormwater to Dvorčice Pond when

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required. Downstream of Dvorčice Pond, Dvorčický Stream is very small and has little flow. It flows through extensive areas of arable land in a narrow belt of herb and shrub vegetation, including felled and resprouting willows, black elder, bramble, nettle, cleavers, and other species. The channel is straightened and incised approximately 1 m below ground level. It is probably armored, but the armoring is covered by sediment deposits and overgrown with vegetation. The channel is only 20–80 cm wide and the water is 2–3 cm deep. The substrate is predominantly muddy, with stones, probably from the bank reinforcement, and gravel accounting for approximately 10%.

Unnamed stream, a tributary of Hůrecký fishpond. It crosses the northern part of Area G, which is being considered for expansion of the construction-site support area. This is an artificial channel that was dry during the May 2025 field investigation and is bordered by shrub vegetation dominated by plum trees.

Temelínecký Stream. It rises west of the ash-disposal site at the former Temelínec settlement and flows westward from the project site before turning south toward Malešice. It may potentially be affected by changes in construction-site facility Area E2.

Dubenecký Stream, a left-bank tributary of Temelínecký Stream. It rises east of the ash-disposal site at the former Temelínec settlement and flows southwest from the project site, entering Temelínecký Stream at Na Křížkách. It may potentially be affected by changes in construction-site facility Areas E1 and J.

Palečkův Stream and its floodplain. It forms the northern boundary of Area F2. It forms part of the habitat of specially protected large mammal species. This is a small, shallow stream with little flow. The channel is straightened and incised approximately 2 m below ground level, is formed by bowl-section concrete units, and is approximately 90 cm wide. In some places the channel reinforcement is completely covered by fine sediments and overgrown with herbaceous vegetation. In some sections it is severely damaged and the stream is undergoing natural renaturalization. In these sections, the channel is approximately 0.6–1.5 m wide and, under normal water conditions, the water depth in the thalweg ranges from 1 to 10 cm. The substrate is heterogeneous and, in addition to remnants of the concrete units, contains stones, gravel, and muddy areas.

Karlovec Pond. A small, shallow fishpond, largely becoming overgrown with reeds and other emergent herbs; open water occurs only in the southern part near the dam. The riparian stand is essentially linear and is bordered by extensive areas of arable land. The fishpond has no inflow. Its outflow is Strouha Stream, whose channel downstream of the fishpond was dry during the surveys. The substrate is muddy and contains abundant decomposing organic material, including plant remains. Riprap occurs near the dam, and part of the bed consists of coarse gravel and stones. Permanent development of the SMR ETE site will change hydrologic conditions. Lowering the groundwater level in the excavation for construction of the reactor building, followed by permanent lowering beneath its foundations, will constitute a significant intervention, as stated in the study "DP20 Water-Management Study – Groundwater, SMR ETE EIA" (Datel & Hrabánková). According to the Expert Opinion on Issues Concerning Karlovec Pond in Connection with Construction of the SMR ETE (Datel, TGM WRI, 2026; May 2026), groundwater inflow to the fishpond is formed predominantly by deeper flow and only to a lesser extent by shallow groundwater flow. A direct effect of groundwater-level lowering on Karlovec Pond is excluded. An indirect effect of groundwater pumping may be considered to have a low, but nonzero, probability. If the pumping wells also abstract deeper-circulation water that can travel along preferential pathways close to the ground surface within the SMR ETE site, this will be the same deeper-circulation groundwater that also drains to Karlovec Pond. If it is removed from the environment by pumping at the SMR ETE site along its flow path, it will no longer reach Karlovec Pond, or will do so only partly, reducing groundwater inflow to the fishpond. If this development occurs, the maximum reduction in groundwater inflow to Karlovec Pond is expected to be approximately 0.2 l/s, or roughly one-half of the estimated groundwater inflow to the fishpond. Although this is a small quantity of water in absolute terms, its reduction would make the fishpond's hydrologic regime less stable, particularly by extending the dry period, during which water volume is lost, from the current 4–5 months to 6–7 months. It would probably also reduce the fishpond's overall area because a shorter winter period,

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months 11–3, would be insufficient to restore the original area and the stored water volume lost through summer evaporation. The period of zero flow in Strouha Stream downstream of Karlovec Pond could likewise increase from the current 2–3 months to 3–4 months.
The effects of climate change in the coming years and decades must also be taken into account. This potentially relatively minor effect may be amplified by the general effects of climate change, particularly more pronounced and longer dry periods. In combination with reduced groundwater recharge, the overall effects could be more pronounced.
The hydrologic regime of all significant landscape features in the watercourse, floodplain, and fishpond categories may be threatened by unsuitable stormwater drainage from temporary construction-site areas, meaning any of the other areas apart from the SMR ETE site. Stormwater from temporary construction-site areas must always be drained within the relevant hydrologic catchment, thereby reducing adverse effects on the hydrologic balance of the area affected by construction of the SMR ETE. Subsequent removal of the construction-site area should be carried out so that surface-drainage features are retained, thereby maintaining runoff to the relevant catchment after construction of the SMR ETE is completed. Construction on the SMR ETE site will cause permanent changes to the water regime, including changes in infiltration and groundwater pumping. For the other construction-site facility areas, the changes will be temporary if runoff conditions change only during construction and everything is restored to its original state after construction: correct grading of the areas; stormwater infiltration and drainage to the original receiving water or catchment, meaning a stream, floodplain, or fishpond; rehabilitation of the areas; and provision for natural recovery and migration of organisms from the surrounding area.
Fishponds in the Vysoký hrádek Chateau park. There is no direct conflict with the project. The construction-site power-supply corridor is planned nearby, but no effect on the water regime or other effect is expected.

Forests
SMR ETE site. A younger forest stand is located at the northeastern corner of the SMR ETE site. In the Real Estate Cadastre, it is recorded as other land rather than forest land. This is a reclamation plantation no more than 30 years old, dominated by Scots pine (Pinus sylvestris) and, in places, Austrian pine (Pinus nigra). A belt of blue spruce (Picea pungens) lies toward the power plant, and silver birch (Betula pendula) toward Road II/138. Other admixed woody plants include pedunculate oak (Quercus robur), small-leaved lime (Tilia cordata), and, in the shrub layer, European spindle (Euonymus europaeus), rowan (Sorbus aucuparia), common hazel (Coryllus avellana), blackthorn (Prunus spinosa), wild cherry (Prunus avium), eared willow (Salix aurita), and fly honeysuckle (Lonicera xylosteum). According to the design documentation, part of the area currently occupied by the tree stand, comprising the eastern part of Plot 606 in the Křtěnov cadastral area near Road II/105, will be subject to permanent land take over approximately 1 ha. This will probably destroy it completely. Also because this is a relatively uncommon habitat in the surroundings, with few trees in this part of the affected area, it is recommended that the greatest possible area of the existing stand be retained outside the SMR ETE construction site, as allowed by the project.
Area F2: Area F2 consists of a young managed pine forest that is to be removed completely. Scots pine (Pinus sylvestris) is entirely predominant in the stand, with admixtures of silver birch (Betula pendula), northern red oak (Quercus rubra), and pedunculate oak (Quercus robur). The shrub layer contains young individuals of European hornbeam (Carpinus betulus), Norway spruce (Picea abies), dog rose (Rosa canina), blackthorn (Prunus spinosa), and grey willow (Salix cinerea). At the northern edge, the pine plantation is bordered by a belt of naturally established woody plants dominated by European aspen (Populus tremula), with goat willow (Salix caprea) and bird cherry (Prunus padus) also present.
Area B2: The southern edge of Area B2 includes part of an extensive stand of naturally established woody plants recorded as arable land in the Real Estate Cadastre. The stands comprise silver birch (Betula pendula), Norway spruce (Picea abies), European aspen (Populus tremula), and goat willow (Salix caprea), with individual dog roses (Rosa canina). The stand in this area forms part of a larger

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stand that also occurs in Area B3 and in the area between Areas B1, B2, B3, C, and E1 that is not included in the project. If this area is used as a temporary construction site, the existing tree stand will have to be felled. Because this is a forest edge of limited area, it should be retained to its current extent and the remainder of the area, which is a field, should be used as the construction site. Although land take is planned to be temporary, an ecologically valuable, species-rich stand would be destroyed.
Area B3: The eastern part of Area B3, recorded as permanent grassland, consists of mixed stands of natural origin. A middle-aged mixed stand grows on the slope below the road and contains Scots pine (Pinus sylvestris), silver birch (Betula pendula), European aspen (Populus tremula), pedunculate oak (Quercus robur), and Norway spruce (Picea abies). The shrub layer contains European beech (Fagus sylvatica), northern red oak (Quercus rubra), midland hawthorn (Crataegus laevigata), domestic apple (Malus x domestica), European ash (Fraxinus excelsior), rowan (Sorbus aucuparia), wych elm (Ulmus glabra), small-leaved lime (Tilia cordata), common privet (Ligustrum vulgare), dog rose (Rosa canina), bird cherry (Padus racemosa), and goat willow (Salix caprea). Willows predominate in the waterlogged depression between the road and the railway: crack willow (Salix euxina), goat willow (Salix caprea), and grey willow (Salix cinerea), together with silver birch (Betula pendula). Other woody plants present include black elder (Sambucus nigra), dog rose (Rosa canina), and bird cherry (Prunus padus). Area B3 is a sloping plot, waterlogged in its lower part, that provides habitat for many organisms in the surrounding landscape. We recommend using the parts without tree cover for the construction site, namely the western half of Area B3 on arable land. Although land take is planned to be temporary, the stand would be destroyed.
Power evacuation corridor: The planned power evacuation corridor extends into two small groups of trees in the Kočín cadastral area. These will probably be felled to create the power-line protection zone. Eastern forest unit north of Kočín: approximately 0.7 ha recorded as forest land, Plots 410/2, 410/5, 410/9, 410/6, 410/10, 410/7, 410/8, 410/11, 410/4, 410/12, and 410/13 in the Kočín cadastral area; western forest unit northeast of Kočín: approximately 1.9 ha recorded as forest land, Plots 489/6, 489/5, 489/4, 489/7, 489/3, 489/8, 489/11, 489/9, 489/12, 489/10, 489/13, and 489/14 in the Kočín cadastral area. In habitat terms, these are plantations of nonnative coniferous trees (X9A), naturally established stands of pioneer woody plants and other stands (X12B), and non-forest tree plantations outside settlements (X13).
Permanent habitat take will occur at the tower locations. Woody plants will be cut periodically within the power-line protection zone. The character of the forest at these locations will be substantially altered by maintenance of the protection zone.
Construction-site power-supply corridor. Forest unit east of Road No. II/105, north of the junction with Road No. III/12221. Land take is planned to be temporary, but the effect will be adverse if the stand is destroyed.

4.4.4. Assessment of the intervention's effects on the territorial system of ecological stability

Table 9: Overview of affected TSES elements pursuant to Section 3 of Act No. 114/1992 Coll.

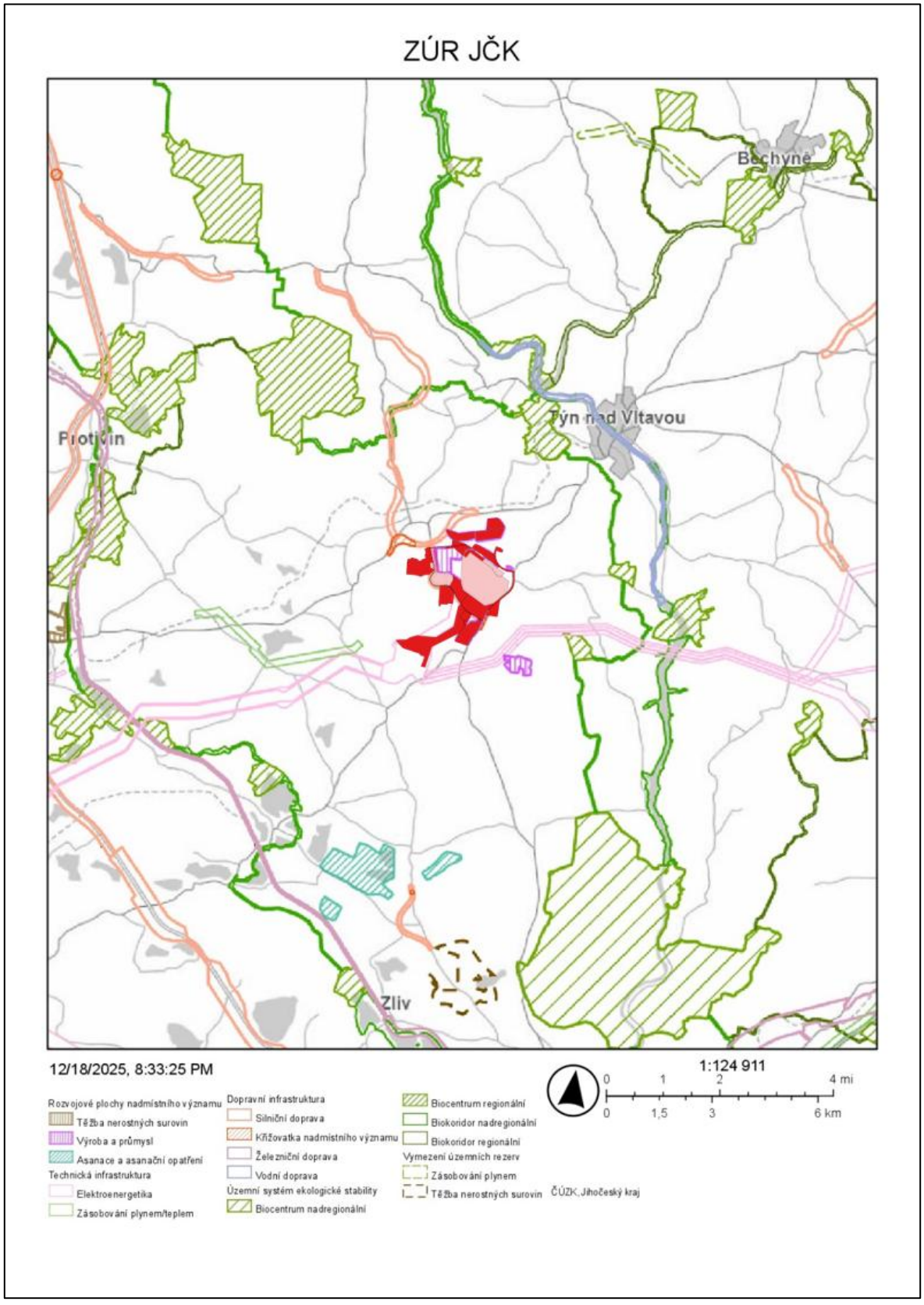
Type of TSES element	Name of TSES element	Area	Area of spatial overlap between the TSES element and the project area (estimate measured using GIS), ha	Effect assessment (+2/+1/0/-1/-2)
Municipality of Temelín				
functional local biocenter	LBC1a Dvorčice	between Area H, the SMR ETE site, and Area I	no direct spatial overlap	-1
partially functional local biocorridor	LBK2a Malešický Stream	power evacuation corridor, bridge	3.3 ha (functional part)	-1

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partially functional local biocorridor	LBK3 Karlovec	Areas G and H	0.1 ha (functional part)	-1
nonfunctional local biocorridor	LBK26 Palečkův Stream	F2	0.3	-1
functional interaction element	IP13b Za humny	power evacuation	0.1	0/-1
functional interaction element	IP15b Na sádce	power evacuation	0.3	0/-1
functional interaction element	IP16b Náhon	power evacuation	0.2	0/-1
functional interaction element	IP17b Velké louky	power evacuation	no direct spatial overlap	0
functional interaction element	IP40 Vysoký hrádek – park	construction-site power-supply corridor	0.4	-1
functional interaction element	IP42 Palečkův Stream	F2	0.2	-1
functional interaction element	IP45 Křtěnov	construction-site power-supply corridor	1	-1
functional interaction element	IP46 Mezi cestami	SMR ETE site, E1, H, I, J, Road II/138	4.5	-1
functional interaction element	IP47 K Temelínu	E2, Road II/138	1.1	0
functional interaction element	IP48 Temelínecký Stream	E2	0.4	-1
functional interaction element	IP49 V mokřinách	J	no direct spatial overlap	-1
Municipality of Dříteň				
functional local biocenter	LBC 0205 Na studánkách	power evacuation	4	-1
nonfunctional local biocorridor	LBK 0332 Malešovický Stream – Studánky	power evacuation	0.05	

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Figure 11: Location of the project (red) relative to national and regional TSES elements. Source: South Bohemian Regional Authority, 2025.

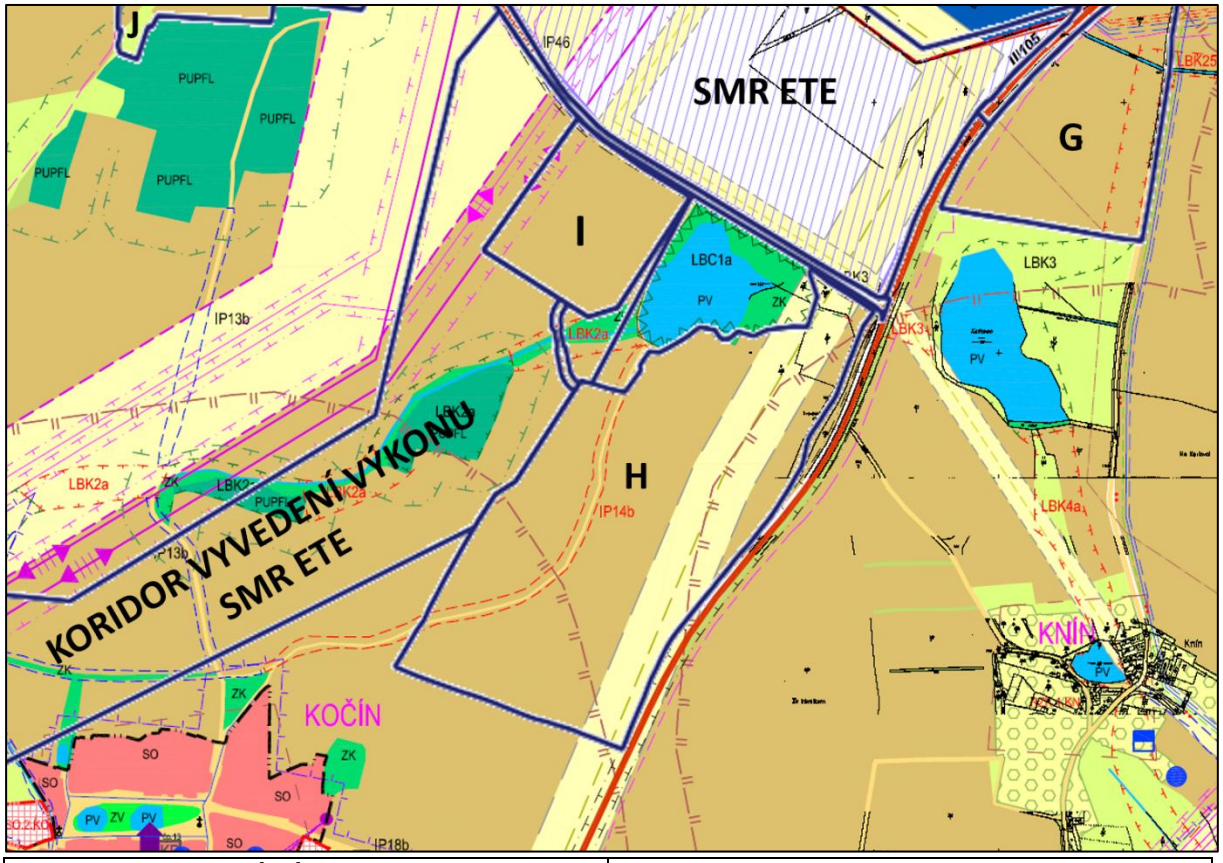


Rozvojové plochy nadmístního významu	Development areas of supra-local importance
Těžba nerostných surovin	Mineral extraction

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Výroba a průmysl	Production and industry
Asanace a sanační opatření	Clearance and remediation measures
Technická infrastruktura	Technical infrastructure
Elektroenergetika	Electric-power infrastructure
Zásobování plynem/teplem	Gas/heat supply
Dopravní infrastruktura	Transport infrastructure
Silniční doprava	Road transport
Křižovatka nadmístního významu	Junction of supra-local importance
Železniční doprava	Rail transport
Vodní doprava	Water transport
Územní systém ekologické stability	Territorial system of ecological stability
Biocentrum nadregionální	National biocenter
Biocentrum regionální	Regional biocenter
Biokoridor nadregionální	National biocorridor
Biokoridor regionální	Regional biocorridor
Vymezení územních rezerv	Designation of land-use reserves
Zásobovaní plynem	Gas supply
Těžba nerostných surovin	Mineral extraction

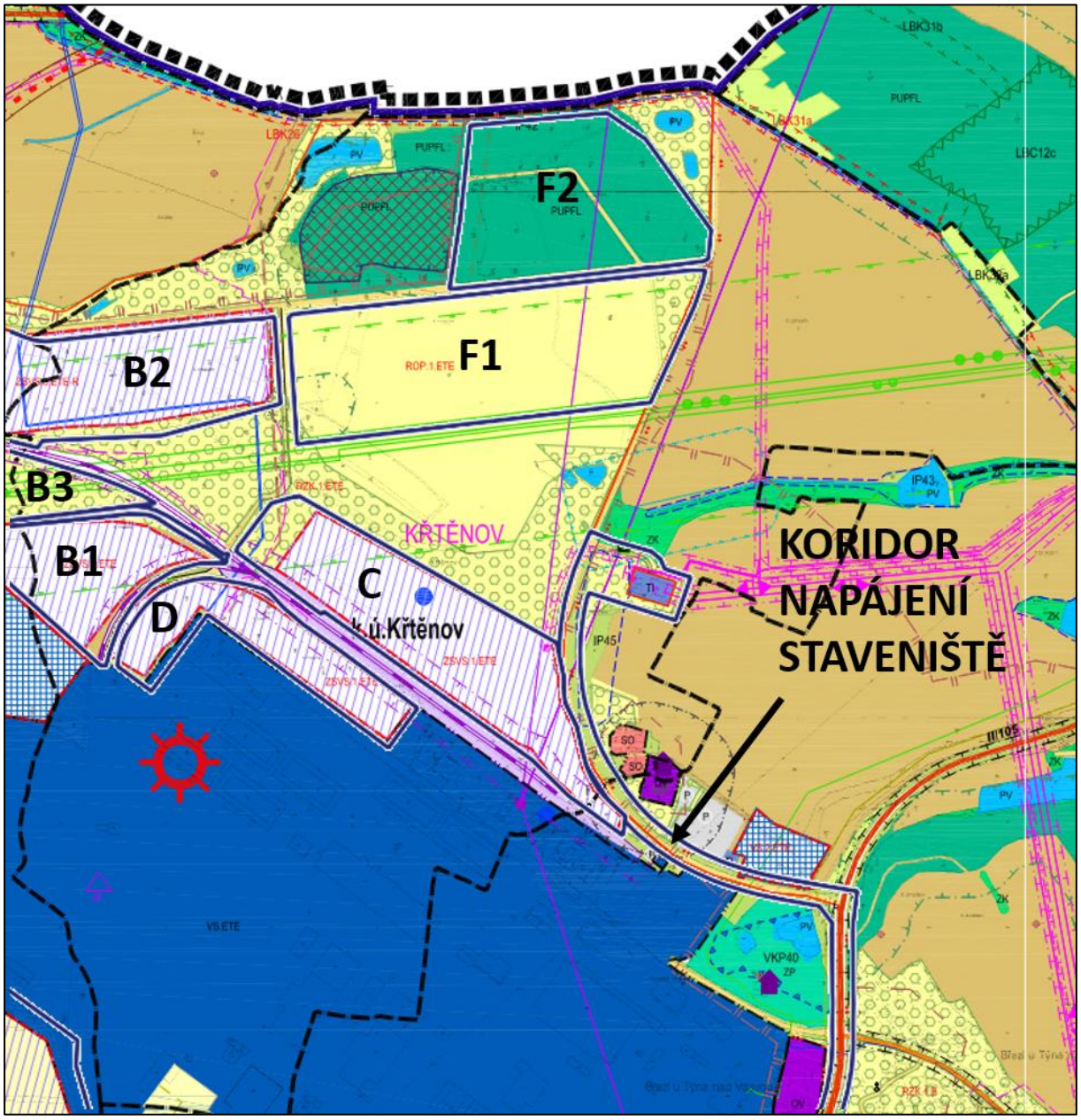
Figure 12: Excerpt from the Temelín municipal land-use plan showing local-level TSES elements (LBC1a, LBK2a, LBK3, IP13b, and IP46) that conflict with the project.



KORIDOR VYVEDENÍ VÝKONU SMRT ETE	**SMR ETE POWER EVACUATION CORRIDOR**

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Figure 13: Excerpt from the Temelín municipal land-use plan showing local-level TSES elements (LBK26, IP40, IP42, and IP45) that conflict with the project.



KORIDOR NAPÁJENÍ STANOVŠITĚ	CONSTRUCTION-SITE POWER-SUPPLY CORRIDOR

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Figure 14: Excerpt from the Temelín municipal land-use plan showing local-level TSES elements (IP15b, IP16b, and IP17b) that conflict with the project.

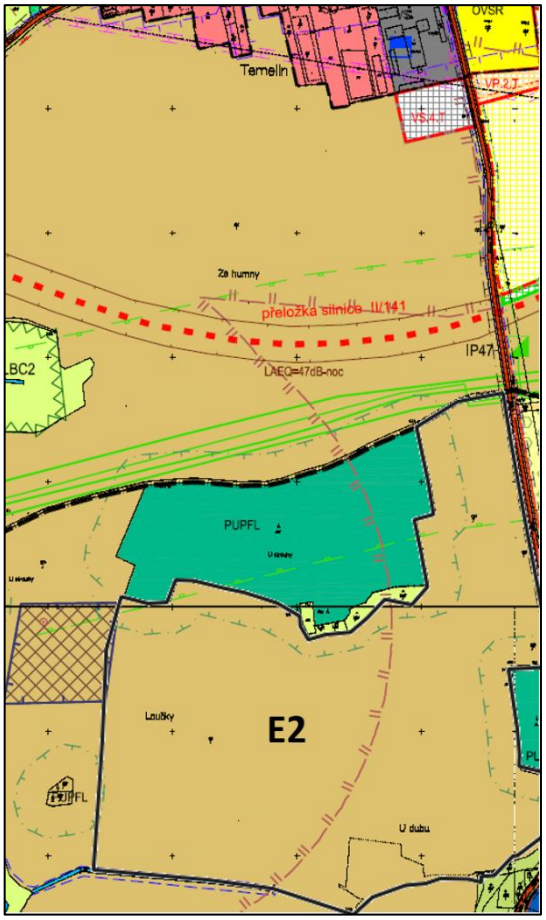
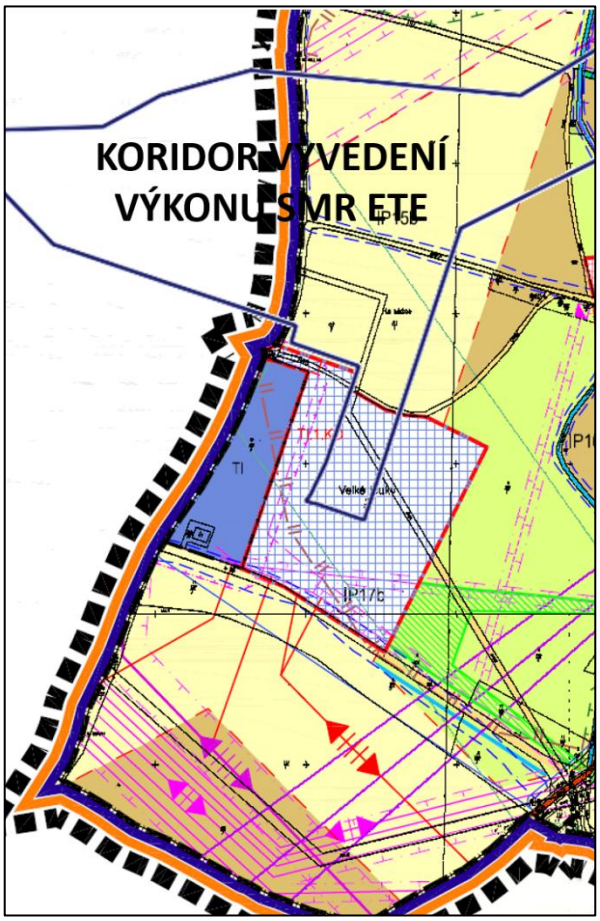


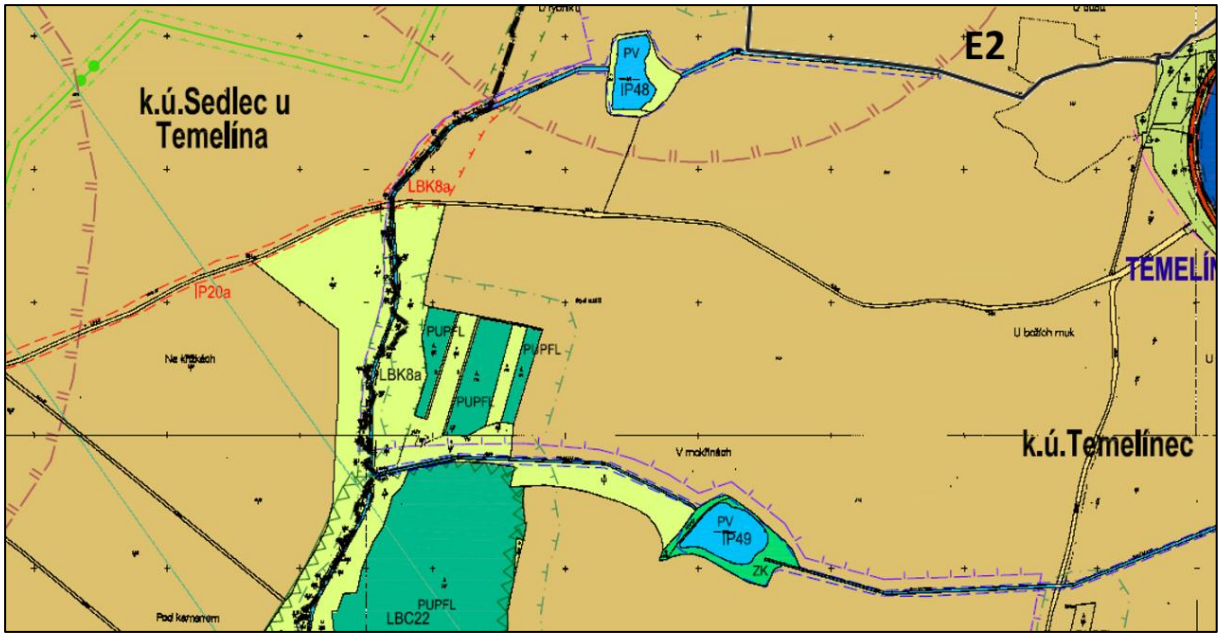
Figure 15: Excerpt from the Temelín municipal land-use plan showing the local-level TSES element (IP47) that conflicts with the project.



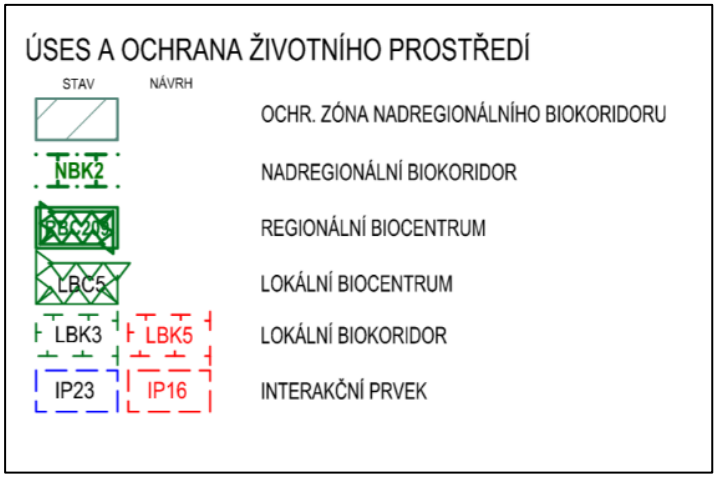
KORIDOR VYVEDENÝ VÝKONU SMR ETE	SMR ETE POWER EVACUATION CORRIDOR

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Figure 16: Excerpt from the Temelín municipal land-use plan showing local-level TSES elements (IP48 and IP49) that may conflict with the project because of stormwater drainage from the construction-site facility areas.



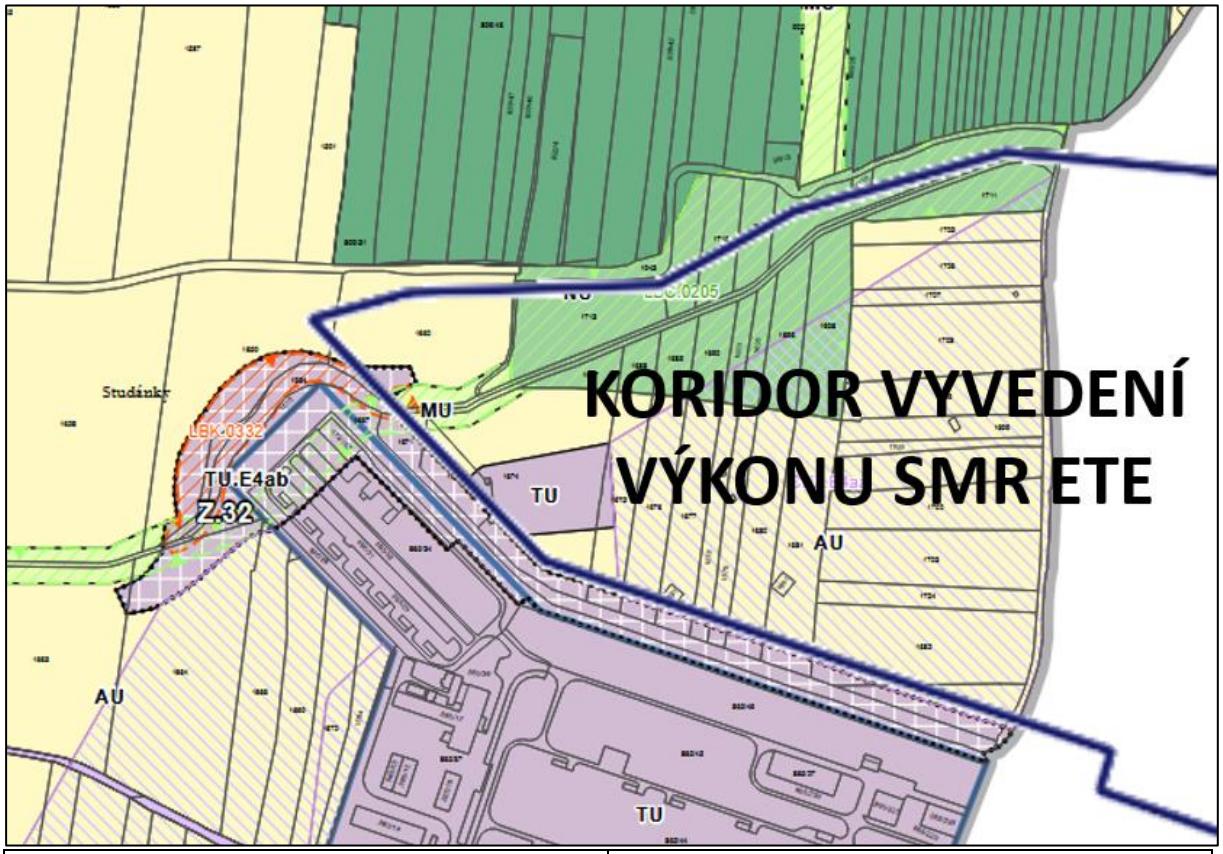
Legend to Figures 12–16:



ÚSES A OCHRANA ŽIVOTNÍHO PROSTŘEDÍ	TSES AND ENVIRONMENTAL PROTECTION
STAV	EXISTING
NÁVRH	PROPOSED
OCHR. ZÓNA NADREGIONÁLNÍHO BIOKORIDORU	PROTECTION NATIONAL BIOCORRIDOR ZONE
NADREGIONÁLNÍ BIOKORIDOR	NATIONAL BIOCORRIDOR
REGIONÁLNÍ BIOCENTRUM	REGIONAL BIOCENTER
LOKÁLNÍ BIOCENTRUM	LOCAL BIOCENTER
LOKÁLNÍ BIOKORIDOR	LOCAL BIOCORRIDOR
INTERAKČNÍ PRVEK	INTERACTION ELEMENT

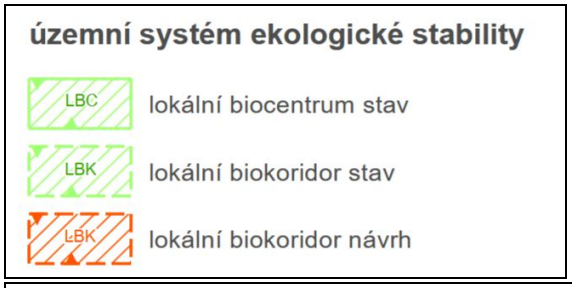
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Figure 17: Excerpt from the Dříteň municipal land-use plan showing local-level TSES elements (LBC 0205 and LBK 0332).



KORIDOR VYVEDENÍ VÝKONU SMR ETE	SMR ETE POWER EVACUATION CORRIDOR

Legend:



územní systém ekologické stability	territorial system of ecological stability
lokální biocentrum stav	existing local biocenter
lokální biokoridor stav	existing local biocorridor
lokální biokoridor návrh	proposed local biocorridor

Assessment and justification of the adverse project effect:
Regional and national elements of the territorial system of ecological stability do not overlap spatially with the project. Local-level TSES elements and interaction elements are designated around the project. The local TSES elements are designated in the Temelín municipal land-use plan.
Direct land take or disruption of the function of a functional TSES element is considered an adverse effect of the intervention.
<u>LBC1a Dvorčice and LBK2a Malešický Stream (partially functional).</u> LBC1a Dvorčice does not directly overlap spatially with the project. In the section downstream of Dvorčice Pond, LBK2a Malešický Stream is crossed by the power evacuation corridor. Both are located south of the SMR ETE site, in the direction

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of water flow. Permanent development of the SMR ETE site will also change hydrologic conditions in the connected area. The initial design assumed that surface-water inflow would decrease to approximately 60% of the current level, which would very probably fundamentally alter the character of both elements. A retention basin is planned in the northeastern part of the SMR ETE site to control stormwater discharge from the fenced site to the existing final trunk sewer for Units 1 and 2 and subsequently to Strouha Stream. The retention basin will be equipped with pumps allowing controlled transfer of accumulated stormwater to a drainage ditch that will convey stormwater to Dvorčice Pond when required. With respect to groundwater inflow, water from the wells lowering the groundwater level to the foundation base will be conveyed to the fishpond to compensate for groundwater drawdown. The functional parts of LBK2a Malešický Stream directly overlap spatially with the power evacuation area. The forest stands will therefore be affected by felling and subsequent maintenance within the power-line protection zone. Construction of an interconnection corridor between Areas I and H, comprising a bridge, is planned across Malešický Stream downstream of Dvorčice Pond. To minimize the adverse effect of this temporary structure, parameters allowing animal migration along the stream beneath the corridor must be used.

LBK3 Karlovec. The biocorridor directly overlaps spatially with Area G, in its nonfunctional part, and Area H, in both its functional and nonfunctional parts. The biocorridor crosses the divide between Dvorčice and Karlovec Ponds through a flat saddle and then continues northward. In its northern part, the biocorridor consists predominantly of mesophilic meadows and then includes the whole of Karlovec Pond with its riparian vegetation. The crossing of the České Budějovice–Týn nad Vltavou road (II/105) forms an unsuitable section. The biocorridor then continues toward Dvorčice Pond along an approximately 100 m section formed by young woody growth. If Area H is used as a construction site, woody plants in the functional part of the biocorridor will be felled. This will result in both direct land take and disruption of the biocorridor's function. This effect will be temporary, lasting while the area is used as a construction site. After construction is completed, the area concerned can be replanted with woody plants and the biocorridor's function restored. Permanent development of the SMR ETE site will change hydrologic conditions. Lowering the groundwater level in the excavation for construction of the reactor building, followed by permanent lowering beneath its foundations, will constitute a significant intervention, as stated in "DP20 Water-Management Study – Groundwater, SMR ETE EIA" (Datel & Hrabánková). There is a low probability that these changes could also affect the water regime of Karlovec Pond and therefore the function of local biocorridor LBK3 Karlovec. For details, see Section 4.4.3, in the part concerning Karlovec Pond.

LBK26 Palečkův Stream (nonfunctional) and IP42 Palečkův Stream. They run parallel to the northern boundary of Area F2. An adverse effect could occur if Area F2 is used as a temporary construction site and the existing stand is felled, which could also adversely affect the water regime and riparian vegetation of Palečkův Stream.

Interaction elements IP13b Za humny and IP15b Na sádce. The project directly overlaps spatially with these elements: the interaction elements run across the power evacuation area. These interaction elements consist of open tree and shrub stands along field roads and already pass beneath an existing power line. Their structure may be affected by any felling within the power-line protection zone.

Interaction element IP16b Náhon. It directly overlaps spatially with the power evacuation corridor. The interaction element comprises the millrace supplying Kočínský fishpond. Sections without woody plants alternate with closed linear stands. The structure of the interaction element may be affected by any felling within the power-line protection zone.

Interaction element IP17b Velké louky. The interaction element lies immediately adjacent to the power evacuation area, south of the Kočín substation. The interaction element comprises a linear stand along the service road to the substation. It consists of artificial plantations, in places with an admixture of naturally established woody plants. No adverse effect on it is expected.

Interaction element IP40 Vysoký hrádek – park and interaction element IP45 Křtěnov. The interaction elements run immediately alongside the construction-site power-supply corridor. Depending on the technology or structure type used, they may be adversely affected, for example by tree felling.

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Interaction element IP46 Mezi cestami. The interaction element consists of linear plantings dominated by poplar along the road south of the SMR ETE site and north of Dvorčice Pond. If the entire SMR ETE site is used for construction, its northeastern part will be destroyed completely by felling the trees on the northern side of Road II/138.
Interaction element IP47. The element directly overlaps spatially with the edge of Area E2. It consists of linear plantings along the road from the former Temelínec settlement to Temelín. An adverse effect could occur if Area E2 is used as a temporary construction site and the existing woody plants are felled.
Interaction elements IP48 Temelínecký Stream and IP49 V mokřinách. There is no direct spatial overlap with the project areas. These interaction elements may be threatened by unsuitable stormwater drainage from temporary construction-site areas, particularly Areas E2 and J. Stormwater from temporary construction-site areas must always be drained within the relevant hydrologic catchment. Subsequent removal of the construction-site area should be carried out so that surface-drainage features are retained, thereby maintaining water inflow to the relevant catchment after construction of the SMR ETE is completed and reducing adverse effects on the hydrologic balance of the project-affected area.
Local biocenter LBC 0205 Na studánkách. The core of the biocenter is a meadow that is currently managed intensively. The element directly overlaps spatially with the SMR ETE power evacuation corridor. The element may be affected both by direct land take beneath the towers and by machinery movements during their construction.
Local biocorridor LBK 0332 Malešovický Stream – Studánky (nonfunctional). The biocorridor follows the Malešický Stream floodplain. The stream is straightened and the channel technically modified with concrete panels. The channel has a typical trapezoidal shape, is approximately 1 m wide at the bed, and runs through the middle of a block of arable land. It conflicts with the project only in its eastern part. If the stream is not directly disturbed, for example by permanent siting of a tower, no effect on it is expected.

4.4.5. Assessment of the intervention's effects on nature parks and landscape character

Landscape character is protected under Section 12 of the Nature and Landscape Protection Act. Landscape character, meaning particularly the natural, cultural, and historical characteristics of a particular place or area, is protected from activities that reduce its aesthetic and natural value.

Nature parks are established to protect landscape character in places with significant concentrations of aesthetic and natural values.

Assessment and justification of the adverse project effect:
The area of interest does not lie within any nature park. Construction of the project itself adjoins the developed areas of the existing power plant. A specialized assessment of the project's effect on landscape character was prepared (Bukáček 2025). As the preparer of the assessment pursuant to Section 67 of the Nature and Landscape Protection Act, I concur with its conclusions.
The landscape-character assessment concludes that the submitted project will primarily affect the landscape character of the site represented by the defined affected landscape area by reinforcing the existing visual presence of the Temelín NPP and will likewise manifest itself in the context of the submitted projects at the site. This effect is assessed as minor from more distant locations and as minor to moderate from immediately adjoining locations. This means that the change will primarily reinforce the existing and future visual presence of the industrial complex in the landscape, thereby reinforcing its existing effects on landscape character, particularly with respect to harmonious relationships and harmonious scale in the landscape, and suppressing the aesthetic value of the landscape character of the defined affected landscape area.
The project will change the overall visual presence of the Temelín NPP site in the landscape. In the context of the projects considered above, this change is acceptable in terms of landscape character. It may therefore be concluded that the project is tolerable in terms of landscape-character protection

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within the meaning of Section 12 of Act No. 114/1992 Coll., on Nature and Landscape Protection, as amended.

4.4.6. Assessment of the intervention's effects on woody plants growing outside forests

The protection of woody plants growing outside forests is defined in Section 7 of the Nature and Landscape Protection Act. Under this provision, woody plants are protected against damage and destruction. A felling permit for the assessed project, including an order for appropriate replacement planting, is issued by the competent building authority on the basis of a binding opinion from the nature conservation authority or, where applicable, the authority responsible for the unified environmental opinion.

Extent of felling:

A broad estimate of the extent of felling was determined conservatively from the aerial map, using the full extent of woody plants within the designated areas. However, felling to this extent is not required for the SMR ETE project. This is the maximum conservative extent of felling used to assess the project's environmental effects.

Table 10: Estimated broad conservative extent of felling.

Area	Areas of woody vegetation [m^2]
B1	6,608
B2	6,232
B3	19,495
C	27,981
D	14,719
E1	3,850
E2	6,257
F1	1,057
F2	116,778*
G	3,158
H	2,385
I	118
J	7,882
SMR ETE	17,428
Construction-site power-supply corridor	30,953
Corridor for widening of Road II/138	1,109
ETE service road	26
Interconnection corridor	48
SMR ETE power evacuation corridor (Kočín substation)	29,801*
Total	**295,885**

**predominantly forest stand*

An estimate of the quantity and characteristics of the woody plants to be felled is provided in Appendix 8.1.

Assessment and justification of the adverse project effect:
Woody plants will be felled as part of construction of the SMR ETE project itself. The felling will be duly authorized, and a standard dendrological survey will be prepared after the work areas have been staked out as supporting documentation for the felling-permit application. The area contains no woody plants of aesthetic, dimensional, or other significance. All woody plants are no more than middle-aged

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and comprise naturally established stands or reclamation plantations. Felling will be conducted in accordance with the felling permit and should take place outside the nesting season to avoid endangering nesting birds and other species.

4.4.7. Assessment of the intervention's effects on memorial trees

Memorial trees defined in Section 46(1) of the Nature and Landscape Protection Act are exceptionally important trees, groups of trees, and avenues declared memorial trees by decision of the nature conservation authority. Under subsection 2 of the same provision, damaging, destroying, or disturbing their natural development is prohibited.

Assessment and justification of the adverse project effect:
No memorial trees occur in the affected area or its immediate vicinity. The nearest memorial tree is a small-leaved lime in Litoradlice, 2.9 km away. Other memorial trees occur in Týn nad Vltavou, 4 km away. It may reasonably be assumed that the project will have no effect on them.

4.4.8. Assessment of the intervention's effects on caves and paleontological finds

Caves are protected against destruction and damage under Section 10 of the Nature and Landscape Protection Act.

Under the karstologic classification, the project is located in karstologic unit 123, Karst and Pseudokarst Areas of the Bohemian-Moravian Unit. No caves are registered in the affected area.

Assessment and justification of the adverse project effect:
According to the available data, no caves occur immediately around the project and they will therefore not be affected.

Paleontological finds are protected against destruction, damage, and theft under Section 11 of the Nature and Landscape Protection Act. In practical terms, their protection therefore begins only when they are found and recognized. Such a situation may arise during construction work, in which case the procedure under this provision must be followed.

4.4.9. Assessment of the intervention's effects on temporarily protected areas

Temporarily protected areas may be declared under Section 13 of the Nature and Landscape Protection Act, including restrictive conditions.

Assessment and justification of the adverse project effect:
No temporarily protected area is currently declared in the affected area.

4.4.10. Assessment of the intervention's effects on contractually protected areas

Contractually protected areas may be protected under an agreement between the owner and the nature conservation authority pursuant to Section 39 of the Nature and Landscape Protection Act, including an agreement on how they will be managed.

Assessment and justification of the adverse project effect:
No contractually protected areas occur in the affected area or its immediate vicinity.

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4.4.11. Assessment of the intervention's effects on vascular plants

Natural habitats

A framework vegetation survey was conducted in the area of interest to the extent stated in Appendix 8.2. Vegetation was classified into units according to the Habitat Catalogue (Chytrý et al. 2010).

Table 11: Overview of natural habitats in the area of interest, according to the Habitat Catalogue (Chytrý et al. 2010), that may be affected by the project.

Habitat code and name (according to the Habitat Catalogue – Chytrý et al. 2010)	**Location**	**Project effect**
V1F – macrophyte vegetation of naturally mesotrophic and eutrophic waters, other stands	Dvorčice Pond, Karlovec Pond	yes
M1.1 – reedbeds of eutrophic standing waters	Dvorčice Pond, Karlovec Pond	yes
T1.1 – mesic Arrhenatherum meadows	C, J	yes
T1.5 – wet Cirsium meadows	B3, C, J, meadow near Dvorčice Pond	yes
T1.6 – wet Filipendula tall-forb stands	Construction-site power-supply corridor	yes
T1.9 – intermittently wet Molinia meadows	B3, J, meadow near Dvorčice Pond, power evacuation corridor	yes
T4.2 – mesic herbaceous fringes	F2	yes
K1 – wetland willow scrub	B3, Dvorčice Pond, Karlovec Pond	yes
K3 – tall mesic and xeric scrub	F1, G, power evacuation corridor, construction-site power-supply corridor	yes
L7.1 – dry acidophilous oak forests	B3, C, construction-site power-supply corridor	yes

Assessment and justification of the adverse project effect:
Agricultural crops, fields, and managed mown or occasionally grazed meadows predominate around the Temelín Nuclear Power Plant in the area affected by the planned construction of the SMR ETE. Some areas contain plantations with naturally established or commercially planted woody species. Representative natural habitats have been preserved in parts of Areas B3 and J and around Dvorčice and Karlovec Ponds. The most notable are the wetland meadow near Dvorčice Pond and the meadow in the southwestern part of the power evacuation corridor.
These sites should not be disturbed during construction work, and effects on the water regime of Dvorčice and Karlovec Ponds and their surroundings should in particular be minimized. Only heavily human-influenced habitats were identified at the site designated directly for construction of the SMR ETE.

General plant protection

The general protection of plants and animals is defined in Section 5 of the Nature and Landscape Protection Act, which states in particular in subsections 1 and 3:
"(1) All plant and animal species are protected against destruction, damage, collection, or capture that causes or could cause a threat to the existence of those species or their degeneration, disruption of the species' reproductive capacity, extinction of a species population, or destruction of the ecosystem of which they form part. If these protection conditions are breached, the nature conservation authority is authorized to prohibit or restrict the disruptive activity.

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(3) In carrying out agricultural, forestry, and construction work, water-management modifications, transport, and energy activities, natural and legal persons shall proceed so as to avoid excessive plant mortality, injury or mortality of animals, or destruction of their habitats where this can be prevented by technically and economically available means. The nature conservation authority shall order the provision or use of such means if the obligated person fails to do so."

The overview of vascular plant species identified by the 2025 and 2026 surveys follows on from the other site surveys listed in Section 4.2. The survey results generally overlap within the areas assessed jointly, while the survey conducted this year also provided information on the occurrence of additional species not previously identified in the area, including species of conservation importance. Minor differences result from natural changes in population abundance over the years, the weather in the relevant year or during the surveys, survey dates, the specializations of the individual experts, and similar factors.

Table 12: Overview of identified plant species included in the Red List in the area of interest, including effect assessment.
The "Effect assessment" column presents a qualified synthesis of the level of threat to the species' local population from project implementation: (+ – beneficial effect, 0 – population not affected, -1 – insignificant adverse effect, -2 – significant adverse effect)

Species	**Project effect** (identification)	**Project-effect assessment (+/0/-1,-2)**	**Comment**
Category C2b (highly endangered, declining taxa)			
changing forget-me-not (*Myosotis discolor*)	yes	-2	Several individuals grow at the edge of a field in Area G. These individuals could be affected by habitat take during construction of the SMR ETE.
Category C3 (endangered taxa)			
rat's-tail fescue (*Vulpia myorus*)	yes	-1	Several individuals were found in a field within the SMR ETE power evacuation corridor. These individuals could be affected by habitat take during construction of the planned line towers. It has also been reported near the line towers leading from the existing Units 1 and 2 site.
shining meadow-rue (*Thalictrum lucidum*)	yes	-1	It was identified only at the Meadow by Dvorčice Pond site, where 30 flowering individuals were observed. Its habitat could be affected by changes in the water regime during construction of the SMR ETE.
hoary willowherb (*Epilobium parviflorum*)	yes	-1	It grows in dozens of individuals at the Meadow by Dvorčice Pond site. Its habitat could be affected by changes in the water regime during construction of the SMR ETE.
Category C4a (taxa requiring attention)			
southern bladderwort (*Utricularia australis*)	yes	-1	It occurs as a large population in Dvorčice Pond and was also found in Karlovec Pond. Its habitat could be affected by changes in the water regime during construction of the SMR ETE.
marsh valerian (*Valleriana dioica*)	yes	-1	It grows in hundreds of individuals at the Meadow by Dvorčice Pond site. Its habitat could be affected by changes in the water regime during construction of the SMR ETE.
broad-leaved helleborine (*Epipatis heleborine*)	yes	-1	It grows in dozens of individuals in Area F2. Its local population could be affected by habitat take during construction of the SMR ETE.

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Species	Project effect (identification)	Project-effect assessment (+/0/-1,-2)	Comment
two-ranked sedge (*Carex disticha*)	yes	-1	It grows in dozens of ramets at the Meadow by Dvorčice Pond site. Its habitat could be affected by changes in the water regime during construction of the SMR ETE.
Hartman's sedge (*Carex hartmanii*)	yes	-1	It grows in dozens of ramets at the Meadow by Dvorčice Pond site. Its habitat could be affected by changes in the water regime during construction of the SMR ETE.
cyperus sedge (*Carex pseudocyperus*)	yes	-1	It grows in dozens of individuals on the bank and dam of Karlovec Pond and near Dvorčice Pond. Its habitat could be affected by changes in the water regime during construction of the SMR ETE.
Bohemian sedge (*Carex bohemica*)	yes	-1	It grows in dozens of individuals on the exposed bed and bank of Karlovec Pond. Its habitat could be affected by changes in the water regime during construction of the SMR ETE.
night-flowering catchfly (*Silene noctiflora*)	yes	-1	Several dozen individuals grow in a field in Area H. These individuals could be affected by habitat take during construction of the SMR ETE.
northern bedstraw (*Galium boreale*)	yes	-1	It grows in dozens of individuals in Area C and thousands of individuals in the southwestern part of the power evacuation corridor. Its local population could be affected by habitat take during construction of the SMR ETE.
bay willow (*Salix pentandra*)	yes	-1	Several individuals grow at the Meadow by Dvorčice Pond site. Its habitat could be affected by changes in the water regime during construction of the SMR ETE.
common centaury (*Centaurium erythraea*)	yes	-1	It grows in dozens of individuals in Area F2 and thousands in Area C. Its local populations could be affected by habitat take during construction of the SMR ETE.

Assessment and justification of the adverse project effect:
A total of 18 plant species included in Red Lists were identified in the area of interest. Some Red List species are also specially protected species, and the potential effects on them are assessed in the section concerning the intervention's effects on specially protected plant species. During project implementation, individual specimens may be damaged or their habitat taken in the case of plants occurring at the site of planned SMR ETE construction, where land take is permanent, or in temporary construction-site facility areas, where land take is temporary. Species growing in or around Dvorčice or Karlovec fishponds could be affected by changes in the water regime of these fishponds. No plant species will be significantly affected at the species, population, including local population, or supporting ecosystem level.

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Assessment of the intervention's effects on specially protected plant species

The botanical survey identified three plant species specially protected under Ministry of the Environment Decree No. 395/1992 Coll. in the affected area. A list of vascular plant species identified and comments on the individual specially protected and threatened species are provided in Appendix 8.2.

Table 13: Overview of identified specially protected plant species in the area of interest, including effect assessment.

The "Effect assessment" column presents a qualified synthesis of the level of threat to the species' local population from project implementation: (+ – beneficial effect, 0 – population not affected, -1 – insignificant adverse effect, -2 – significant adverse effect). The "Effect characteristics" column includes only the relevant types of adverse project effect from the complete list in Section 4.3.

Species	Project phase	Project effect (Identification)	Effect characteristics (project capacity, duration of the project, effect intensity)	Project-effect assessment (+2/+/0/-1/-2)	Comment
Highly endangered species – Annex II to Decree No. 395/1992 Coll.					
Siberian iris (*Iris sibirica*)	construction/ operation	yes	7/ Effects on the water regime, surface water, and groundwater.	-1	It was identified at the Meadow by Dvorčice Pond site, where approximately 15 clumps were observed, and in the wet meadow in the southwestern part of the power evacuation corridor, where more than 110 clumps were observed. Its habitat could be affected by changes in the water regime during construction of the SMR ETE and by machinery movements during construction of new towers.
Endangered species – Annex II to Decree No. 395/1992 Coll.					
Cornelian cherry (*Cornus mas*)	construction	yes	1/ Direct habitat take.	-2	It grows at the F1 site as 45 shrubs originating from a former planting. These individuals could be destroyed by habitat take during construction of the SMR ETE.
broad-leaved marsh orchid (*Dactylorhiza majalis*)	construction/ operation	yes	7/ Effects on the water regime, surface water, and groundwater.	-1	It was identified only at the Meadow by Dvorčice Pond site, where approximately 22 flowering individuals were observed. Its habitat could be affected by changes in the water regime during construction of the SMR ETE.

Assessment and justification of the adverse project effect:

Three specially protected plant species were identified in the area of interest. The project may adversely affect several dozen individuals belonging to three specially protected plant species. The effects will be limited to individual specimens. For Cornelian cherry, the effect will be limited to the construction period: if felling occurs at the occurrence site because the area in which it grows is used as a temporary construction site, the specimens will be destroyed directly. For Siberian iris and broad-leaved marsh orchid, changes in the water regime and machinery movements during construction of new towers may alter conditions at their occurrence sites.

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4.4.12. Assessment of the intervention's effects on fauna

General protection of animals

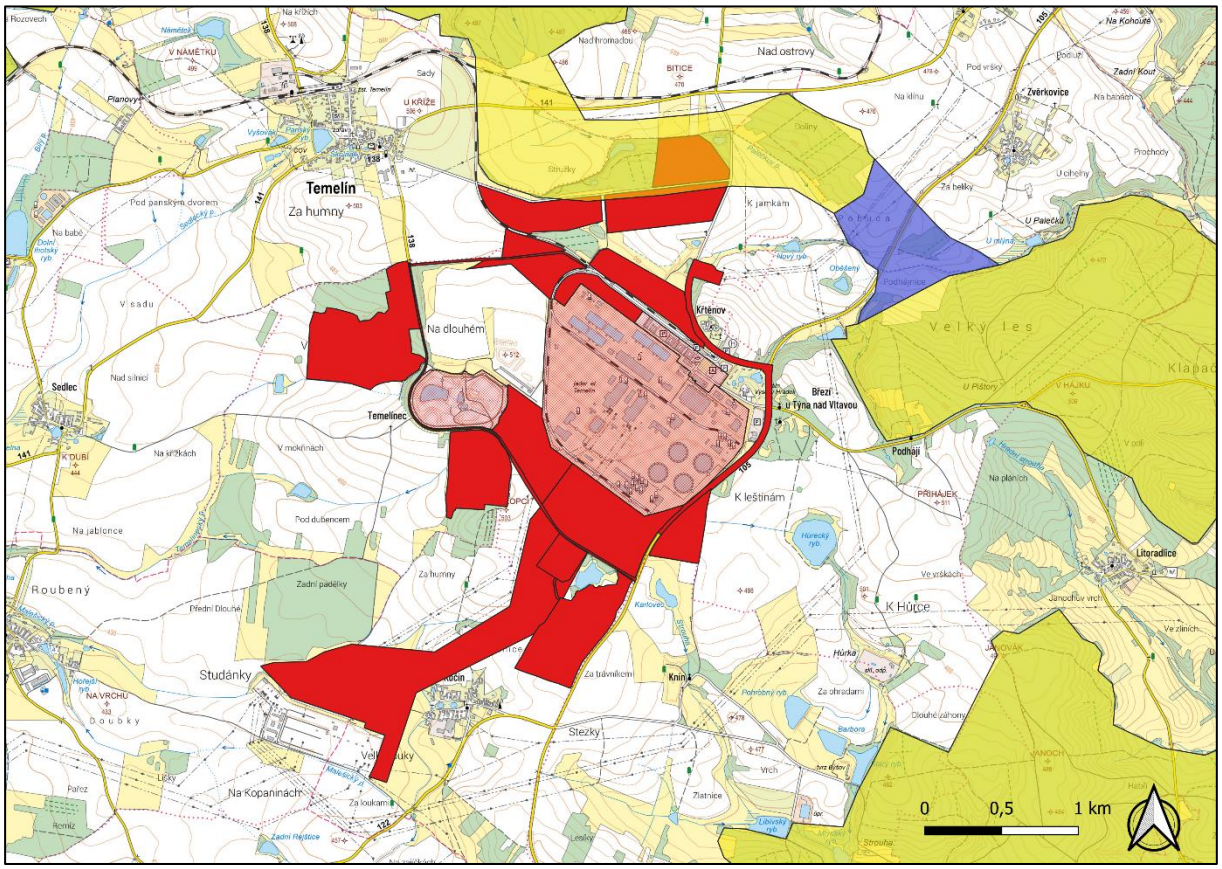
The general protection of plants and animals is defined in Section 5 of the Nature and Landscape Protection Act.

For wild animals, vertebrate, including ornithological, entomological, malacological, and hydrobiological surveys were conducted in 2025 through repeated field visits. In addition to common animal species, the surveys and reviews of species-occurrence data identified specially protected amphibians, reptiles, birds, mammals, and invertebrates.

The surveys clearly show that the project will not adversely affect any species at population level. Common vertebrate species can be protected against excessive injury and mortality by mitigation measures; see below.

The northern part of Area F1, all of Area F2, and the margin of Area B2 conflict with a migration corridor, see Figure 17, that forms the habitat of specially protected large mammal species. Only the migration of the grey wolf and Eurasian lynx need be considered in this area.

Figure 18: Map of the overlap between the assessed project (red) and the habitat of specially protected large mammals (corridor – yellow, critical site – blue). Source: Nature Conservation Agency of the Czech Republic and Czech Office for Surveying, Mapping and Cadastre



Protection of wild birds

The protection of wild birds is defined in Section 5a of the Nature and Landscape Protection Act. The following provisions of subsection 1 are particularly relevant to the project-impact assessment:

(1) In the interest of protecting bird species living in the wild in the European territory of the Member States of the European Communities (hereinafter "birds"), the following are prohibited:

(a) intentionally killing or capturing them by any means;

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(b) intentionally damaging or destroying their nests and eggs, or removing nests.

Assessment and justification of the adverse project effect:
The survey identified breeding occurrence of numerous bird species at the project site. Potential project effects on birds comprise particularly disturbance, felling and cutting of woody plants, earthworks, and terrestrial habitat take. Some groups of birds, including waterfowl, rails, gulls and terns, and waders, may also be at risk of collision with conductors in the planned power evacuation area.
Under Section 5a of the Nature and Landscape Protection Act, mitigation measures must be used to prevent bird mortality. If the mitigation measures are not accepted, a derogation under the Nature and Landscape Protection Act must be obtained. To minimize the project's effect on wild birds, appropriate mitigation measures and conditions are proposed, consisting particularly of restrictions on the periods for felling woody plants and commencing earthworks. Suitable visibility-enhancement devices, known as bird flight diverters, may be installed to reduce the risk of collision with conductors. Following analysis of the occurrence of bird species sensitive to collision with conductors in the affected area, installation of visibility-enhancement devices is not proposed.

Assessment of the project's effect on specially protected vertebrate species
A total of 179 vertebrate species were identified: six fish species, 13 amphibian species, six reptile species, 113 bird species, and 41 mammal species, including ten bat species. Although the occurrence of additional species, particularly transient occurrence such as migrating birds, cannot be excluded, the list provides a very good overview of the affected vertebrate fauna. Of the 68 specially protected vertebrate species identified, 64 were preliminarily assessed as potentially affected. The remaining species occur in the area only temporarily, during migration or wintering, or cannot be directly affected by the project in any way.

The list of animals identified by the 2025 survey follows on from the other site surveys listed in Section 4.2. The survey results generally overlap within the areas assessed jointly, while the survey conducted this year also provided information on the occurrence of additional species not previously identified in the area, including species of conservation importance. Minor differences result from natural changes in population abundance over the years, the weather in the relevant year or during the surveys, survey dates, the specializations of the individual experts, and similar factors.

The list of vertebrate species identified and comments on the individual specially protected species are presented in the tables in Appendices 8.3 and 8.4. Both surveys assessed which specially protected species will not be affected by the project: common merganser, white-tailed eagle, common swift, and peregrine falcon. These species use only the airspace above the site or occur in the area as occasional visitors, and their relevant requirements will remain entirely unaffected. Overview of identified specially protected vertebrate species potentially affected by the project:

<u>Critically endangered species under the Nature and Landscape Protection Act – Annex III to Decree No. 395/1992 Coll.:</u>

great crested newt (*Triturus cristatus*)
marsh frog (*Pelophylax ridibundus*)
common European adder (*Vipera berus*)
red kite (*Milvus milvus*)
corn bunting (*Emberiza calandra*)

<u>Highly endangered species under the Nature and Landscape Protection Act – Annex III to Decree No. 395/1992 Coll.:</u>

smooth newt (*Lissotriton vulgaris*)
alpine newt (*Ichthyosaura alpestris*)

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common spadefoot (*Pelobates fuscus*)
European fire-bellied toad (*Bombina bombina*)
agile frog (*Rana dalmatina*)
pool frog (*Pelophylax lessonae*)
edible frog (*Pelophylax esculentus*)
European tree frog (*Hyla arborea*)
European green toad (*Bufotes viridis*)
sand lizard (*Lacerta agilis*)
viviparous lizard (*Zootoca vivipara*)
smooth snake (*Coronella austriaca*)
common snipe (*Gallinago gallinago*)
water rail (*Rallus aquaticus*)
black stork (*Ciconia nigra*)
western yellow wagtail (*Motacilla flava*)
Eurasian sparrowhawk (*Accipiter nisus*)
Eurasian wryneck (*Jynx torquilla*)
common quail (*Coturnix coturnix*)
common kingfisher (*Alcedo atthis*)
Montagu's harrier (*Circus pygargus*)
Eurasian hobby (*Falco subbuteo*)
great reed warbler (*Acrocephalus arudinaceus*)
European honey buzzard (*Pernis apivorus*)
green sandpiper (*Tringa ochropus*)
great egret (*Ardea alba*)
Eurasian golden oriole (*Oriolus oriolus*)
grey long-eared bat (*Plecotus austriacus*)
common pipistrelle (*Pipistrellus pipistrellus*)
soprano pipistrelle (*Pipistrellus pygmaeus*)
Nathusius's pipistrelle (*Pipistrellus nathusii*)
common noctule (*Nyctalus noctula*)
Natterer's bat (*Myotis nattereri*)
northern bat (*Eptesicus nilsonii*)
brown long-eared bat (*Plecotus auritus*)
serotine bat (*Eptesicus serotinus*)
Daubenton's bat (*Myotis daubentonii*)
hazel dormouse (*Muscardinus avellanarius*)
Eurasian otter (*Lutra lutra)*

Endangered species under the Nature and Landscape Protection Act – Annex III to Decree No. 395/1992 Coll.:

common toad (*Bufo bufo*)
slow worm (*Anguis fragilis*)
grass snake (*Natrix natrix*)
European stonechat (*Saxicola rubicola*)
whinchat (*Saxicola rubetra*)
white stork (*Ciconia ciconia*)
northern goshawk (*Accipiter gentilis*)
gadwall (*Mareca strepera*)
grey partridge (*Perdix perdix*)
common raven (*Corvus corax*)
western marsh harrier (*Circus aeruginosus*)

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little grebe (*Tachybaptus ruficollis*)
common nightingale (*Luscinia megarhynchos*)
middle spotted woodpecker (*Dendrocoptes medius*)
red-backed shrike (*Lanius collurio*)
great grey shrike (*Lanius excubitor*)
barn swallow (*Hirundo rustica*)
bicolored shrew (*Crocidura leucodon*)
red squirrel (*Sciurus vulgaris*)

Assessment and justification of the adverse project effect:

Fish
Fish occurrence in the affected area is limited to water bodies because the streams are intermittent or have little flow. Dvorčice Pond is the only fishpond used for fish farming; Karlovec Pond has a strongly fluctuating water column and is becoming heavily overgrown. Several European chubs and common roaches were found in one of the concrete containment basins.
Potential project effects on fish consist of effects on water and the site's water regime. No specially protected or threatened species were recorded.

Amphibians
Potential project effects on amphibians comprise the risk of disturbing or killing individuals during earthworks, permanent or temporary terrestrial habitat take, increased road mortality during construction, and effects on the water regime of terrestrial and breeding habitats.

Reptiles
Potential project effects on reptiles comprise the risk of disturbing or killing individuals during earthworks, permanent or temporary terrestrial habitat take, and increased road mortality during construction.

Birds
The species identified and their abundance at the site reflect the survey date and local conditions. Most of the surveyed areas are managed fields: the SMR ETE site, B1, most of B2, part of B3, E1, E2, F1, G, I, H and most of the power evacuation corridor. The areas contain little tree or shrub vegetation: a small part of the SMR ETE site, a small part of Area B2, approximately one-half of Area B3, all of Area F2, a small part of the power evacuation corridor, and the construction-site power-supply corridor. For this reason as well, Dvorčice and Karlovec Ponds and their surroundings, including riparian vegetation and meadows, are the most valuable areas in ornithological terms.
The species recorded in the project area and at the two fishponds are:
1) Species using managed fields and other open habitats for nesting, including European stonechat, whinchat, Eurasian skylark, common pheasant, grey partridge, common quail, and corn bunting, or species hunting in fields, including on the ground the common kestrel, western marsh harrier, common buzzard, and red kite, and in the air the common swift, common house martin, and peregrine falcon. For most of these species, project implementation will reduce their current nesting opportunities and foraging habitats.
2) Species using the limited tree and shrub vegetation present, including Eurasian blue tit, common chiffchaff, common linnet, European goldfinch, European greenfinch, goldcrests, and Eurasian golden oriole. If felling occurs, the nesting and foraging habitats of these species will be reduced or lost.
3) Species inhabiting fishponds and their surroundings form an important group. These are principally waterbird and reed-bed species, including mute swan, little grebe, reed warblers, common kingfisher, water rail, common snipe, and western marsh harrier. They may be affected by project implementation particularly through changes in the water regime or collisions with conductors and earth wires, in the

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case of the white stork, black stork, mute swan, greylag goose, water rail, black-headed gull, and green sandpiper.

Mammals

Potential project effects on mammals comprise particularly the risk of disturbance during earthworks, permanent or temporary terrestrial habitat take, and increased road mortality during construction and operation of the SMR ETE. For the hazel dormouse and red squirrel, cutting vegetation beneath the extra-high-voltage line in the power evacuation corridor will also constitute a permanent but intermittent disturbance.

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Assessment of the project's effect on specially protected invertebrate species

The entomological survey identified specially protected invertebrate species and species included in Red Lists. A list of the invertebrate species identified is provided in Appendix 8.5.

Table 14: Overview of identified specially protected invertebrate species.

The "Threat level" column presents a qualified synthesis of the level of threat to the species' local population from project implementation: (+ – beneficial effect, 0 – population not affected, -1 – insignificant adverse effect, -2 – significant adverse effect). The "Effect characteristics" column includes only the relevant types of adverse project effect from the complete list in Section 4.3.

Species	**Project phase in the area**	**Project effect** (Identification)	**Effect characteristics** (project capacity, duration of the project, effect intensity)	**Project-effect assessment (+/0/-1,-2)**	**Comment**
Critically endangered species under the Nature and Landscape Protection Act – Annex III to Decree No. 395/1992 Coll.					
European mantis (*Mantis religiosa*)	construction	yes	1/ Direct habitat take. 2/ Effects on qualitative habitat characteristics. 4/ Accidental killing or injury of individuals or destruction of or damage to developmental stages.	-1	It was recorded in Area C. Given its mobility, spread, and habitats occupied, however, it may also occur in other areas over time. Some individuals or their oothecae may be affected by the project if machinery movements destroy their occurrence sites, and some individual mortality is likely. However, the project will have no significant effect on the mantis population.
Highly endangered species under the Nature and Landscape Protection Act – Annex III to Decree No. 395/1992 Coll.					
cinnabar flat bark beetle (*Cucujus cinnaberinus*)	construction	yes	1/ Direct habitat take. 2/ Effects on qualitative habitat characteristics. 4/ Accidental killing or injury of individuals or destruction of or damage to developmental stages.	-1	It was recorded on a dead poplar in a copse in Area J. Implementation could theoretically cause individual mortality and a minor reduction in the species' habitat. Given its broad and locally extensive distribution, the project effect on the population will be very small to negligible.
dusky large blue (*Phengaris nausithous*)	construction	yes	1/ Direct habitat take. 2/ Effects on qualitative habitat characteristics.	-1	One individual was recorded in a wet meadow immediately adjacent to Area G. All work should avoid the wet meadow adjoining Area G. It was also recorded in the wet meadow in the southwestern part of the power evacuation corridor.

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Species	Project phase in the area	Project effect (Identification)	Effect characteristics (project capacity, duration of the project, effect intensity)	Project-effect assessment (+/0/-1,-2)	Comment
			4/ Accidental killing or injury of individuals or destruction of or damage to developmental stages.		
large copper (*Lycaena dispar*)	construction	yes	1/ Direct habitat take. 2/ Effects on qualitative habitat characteristics. 4/ Accidental killing or injury of individuals or destruction of or damage to developmental stages.	-1	It was recorded in a wet meadow adjoining Area H near Dvorčice Pond.
large white-faced darter (*Leucorrhinia pectoralis*)	construction	yes	7/ Effects on the water regime, surface water, and groundwater.	-1	The species was recorded at the edge of Area H around Dvorčice Pond. It primarily uses nearby Karlovec Pond for breeding.
Endangered species under the Nature and Landscape Protection Act – Annex III to Decree No. 395/1992 Coll.					
lesser purple emperor (*Apatura ilia*)	construction	yes	1/ Direct habitat take. 4/ Accidental killing or injury of individuals or destruction of or damage to developmental stages.	-1	It was recorded in Areas B3, C, F2, and J and could theoretically occur at all sites containing its host woody plants. Given the presence of this species, large-scale felling of its host plants, poplars and willows, particularly *Salix caprea* and *Populus tremula*, should be avoided. Felling will affect individual caterpillars on host trees and reduce the species' habitat.
purple emperor (*Apatura iris*)	construction	yes	1/ Direct habitat take. 4/ Accidental killing or injury of individuals or destruction of or damage to developmental stages.	-1	The species was found in Areas B3 and C. Given its presence, felling of willows, particularly goat willows, should be minimized as far as possible in its occurrence areas. Felling will affect individual caterpillars on host trees and reduce the species' habitat.
bumblebees (*Bombus* sp.)	construction	yes	1/ Direct habitat take. 3/ Disturbance and harmful interference with natural development.	-1	They occur throughout the area surveyed. Individuals are likely to be killed and some underground nests may be destroyed during earthworks or machinery movements.

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Species	**Project phase in the area**	**Project effect** (Identification)	**Effect characteristics** (project capacity, duration of the project, effect intensity)	**Project-effect assessment (+/0/-1,-2)**	**Comment**
red-tailed bumblebee (*Bombus lapidarius*), common carder bee (*Bombus pascuorum*), buff-tailed bumblebee (*Bombus terrestris*), red-shanked carder bee (*Bombus ruderarius*)			4/ Accidental killing or injury of individuals or destruction of or damage to developmental stages.		
ants (*Formica* sp.) *Formica fusca*, *Formica rufibarbis*	construction	yes	1/ Direct habitat take. 3/ Disturbance and harmful interference with natural development. 4/ Accidental killing or injury of individuals or destruction of or damage to developmental stages.	-1	They occur throughout the area surveyed. Individuals are likely to be killed and some underground nests may be destroyed during earthworks or machinery movements.
Old World swallowtail (*Papilio machaon*)	construction	yes	1/ Direct habitat take. 3/ Disturbance and harmful interference with natural development. 4/ Accidental killing or injury of individuals or destruction of or damage to developmental stages.	-1	It was recorded in Areas B1, C, D, G, H, and J. The project may cause mortality of some caterpillars if they are present at the site in the year of implementation. The effect on the population of this widespread and common species will, however, be effectively zero.
Scheidler's ground beetle (*Carabus scheidleri*)	construction	yes	1/ Direct habitat take. 3/ Disturbance and harmful interference with natural development. 4/ Accidental killing or injury of individuals or destruction of or damage to developmental stages.	-1	The species was found at the SMR ETE site, in Areas B1, B3, C, D, F2, G, H, and J, and in the power evacuation corridor. It may also occur at other sites that it can reach because of its mobility. Earthworks and machinery movements may cause individual mortality and loss of occupied habitat.

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Species	**Project phase in the area**	**Project effect** (Identification)	**Effect characteristics** (project capacity, duration of the project, effect intensity)	**Project-effect assessment (+/0/-1,-2)**	**Comment**
green tiger beetle (*Cicindela campestris*)	construction	yes	4/ Accidental killing or injury of individuals or destruction of or damage to developmental stages.	-1	The species was found in Areas C, D, and J but may also occur occasionally in other non-forest areas. The project effect on the population will be negligible, and the adverse effect will be minor and limited to no more than a few affected individuals.
white-spotted rose beetle (*Oxythyrea funesta*)	construction	yes	4/ Accidental killing or injury of individuals or destruction of or damage to developmental stages.	-1	It was recorded in all areas surveyed. Earthworks could theoretically cause larval mortality, but the effect on the population will be entirely negligible and insignificant.

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Assessment and justification of the adverse project effect:
Of the taxa identified, 19 are specially protected under Decree No. 395/1992 Coll. and 25 species are included in the Red List of Invertebrates (Hejda et al. 2017). A total of 462 taxa were identified. The individual areas surveyed and their importance in terms of entomofauna are discussed in Appendix 8.5. The survey identified a standard spectrum of insect species in the area surveyed. With the exception of the large white-faced darter and dusky large blue, the specially protected species identified are common in the surrounding area and have no specific habitat requirements. Construction work may accidentally kill individuals or larvae of the lesser purple emperor, purple emperor, cinnabar flat bark beetle, green tiger beetle, and white-spotted rose beetle; individuals of the cinnabar flat bark beetle; and may damage the nests of buff-tailed, red-tailed, red-shanked carder, and common carder bumblebees and nests of ants of the genus Formica. Construction will also reduce the habitat area of the lesser purple emperor, purple emperor, cinnabar flat bark beetle, bumblebees of the genus Bombus, and ants of the genus Formica. If earthworks affect the location of a nest of ants of the genus Formica, the adverse effects can be mitigated by a rescue transfer.

4.4.13. Assessment of the radiological effects of SMR ETE accident conditions on biota

A modeling study entitled Radiological Effects of SMR ETE Accident Conditions on Biota was prepared in March 2026 (ABmerit, s.r.o.).

The radiological effect on biota was assessed in spatially defined areas:

- the 1–3 km zone around the SMR ETE;
- the 3–6 km, 6–10 km, 10–20 km, 20–30 km, and 30–50 km zones around the SMR ETE;

and specifically in the following areas:

- Zelendárky Landscape Natural Monument (aquatic animals and plants);
- Řežabinec National Nature Reserve (waterbirds);
- Třeboňsko Protected Landscape Area (waterbirds, fish), including Velký and Malý Tisý National Nature Reserve and Horusický fishpond;
- Luční National Nature Reserve (fungi)

For each calculation sequence, in this case out of a total of 431 or 317 sequences, and in each distance zone monitored around the SMR ETE or in each area of interest monitored, the maximum values of the radiological parameter monitored, for example daily dose rate to deer, were determined and subsequently used for statistical calculations, including calculation of the 50th and 95th percentiles.

For a **design-basis accident (DBC-4),** all calculated radiological-parameter values, including the 95th percentile, expressing the radiological effect on reference animals and plants, are at least one order of magnitude below the derived reference values established by the International Atomic Energy Agency (IAEA). Under the procedure recommended by the IAEA, the effect of a DBC event on flora and fauna populations may be considered negligible and the level of protection of flora and fauna adequate.

For a **severe accident (DEC-B),** the maximum calculated radiological-parameter values, comprising averages and 95th percentiles, expressing the radiological effect on the Deer, Rat, Pine Tree, and Duck reference animals and plants are at the level of the IAEA derived reference values. For Deer, Rat, and Pine Tree, the maxima occur within 3 km of the SMR ETE. For Duck, they occur in the zone containing the nearest water body considered, namely 6–10 km from the SMR ETE. For Duck, the 95th percentile at 6–10 km from the SMR ETE is above the upper bound of the IAEA derived reference value.

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Under the procedure recommended by the IAEA, where estimated dose rates fall between the lower and upper bounds, the level of protection may still be considered acceptable. The regulatory authority may, however, decide whether additional factors should be considered, meaning that the level of detail in the assessment should be improved, or practical mitigation measures applied, in view of the fact that the derived reference levels are reference values rather than limits.

For the Grass, Bee, Earthworm, Trout, and Frog groups, all calculated radiological-parameter values, including the 95th percentiles, expressing the radiological effect on reference animals and plants are below the lower bound of the IAEA derived reference values. The effect of a DEC event on flora and fauna populations represented by these reference animals or plants may be considered negligible and the level of protection of flora and fauna adequate. This applies to the overall level of protection of flora and fauna, meaning that the reference animals and plants are intended to represent flora and fauna as a whole.

Zelendárky Natural Monument, Řežabinec National Nature Reserve, and Třeboňsko Protected Landscape Area (Velký and Malý Tisý National Nature Reserve, Horusický fishpond)

The maximum calculated radiological-parameter values, comprising averages and 95th percentiles, expressing the radiological effect on reference animals and plants are at the level of the IAEA derived reference values for the Duck reference animal. For Zelendárky Natural Monument, the 95th percentile is above the upper bound of the IAEA derived reference value.

Under the procedure recommended by the IAEA, where estimated dose rates fall between the lower and upper bounds, the level of protection may still be considered acceptable. The regulatory authority may, however, decide whether additional factors should be considered, meaning that the level of detail in the assessment should be improved, or practical mitigation measures applied, in view of the fact that the derived reference levels are reference values rather than limits.

Because this is not a radiological effect on Duck from operational discharges to the atmosphere and hydrosphere, but the radiological effect of a postulated severe accident, the study authors consider a requirement to apply “practical mitigation measures” entirely inappropriate, apart, of course, from requiring the SMR ETE operator to make every realistically available effort, which it certainly will, to prevent a severe DEC accident at the SMR ETE.

A more detailed analysis shows that, for the representative animal Duck, including at the 95th percentile within 6–10 km of the SMR ETE, which also includes Zelendárky Natural Monument, the upper bound of the IAEA derived reference value is exceeded slightly only on the first day after the event. It is not exceeded for the average value even on the first day, and from the second day onward it is not exceeded at the 95th percentile either. The average value for the first seven days is only slightly above the lower bound of the derived reference value for Duck. The reference values were established primarily for assessing long-term radiological exposure. IAEA-TECDOC-1986, Radiation Protection of Wildlife: Modeling the Exposure and Effects (2021), states that dose rates of approximately 10 mGy/day (1E-02 Gy/day) over five years cause a significant reduction in large-mammal populations, while 80–100% of the control population survives in small-mammal populations. The document does not report results for Duck, but similar results may be assumed because similar modeling assumptions are applied to mammals and birds. The value of 10 mGy/day is one order of magnitude above the upper bound of the IAEA derived reference value for birds and mammals, and no such value was reached anywhere around the SMR ETE for any assessed species during the DEC-B event.

Luční National Nature Reserve

All calculated radiological-parameter values, including the 95th percentiles, expressing the radiological effect on reference animals and plants are below the lower bound of the IAEA derived reference values. The effect of a DEC event on flora and fauna populations represented by these reference

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animals or plants may be considered negligible and the level of protection of flora and fauna adequate. This applies to the overall level of protection of flora and fauna, meaning that the reference animals and plants are intended to represent flora and fauna as a whole. This conclusion may therefore also be applied to fungi at the Luční site.

4.4.14. Assessment of cumulative projects, synergistic effects, and interacting phenomena

Potential cumulative effects result from interaction with other existing or planned projects in the area. The project is being sited within the Temelín energy-system area, meaning the area connected to the existing Units 1 and 2, the Hněvkovice and Kořensko waterworks, and the Kočín transformer substation, which has long been used for energy purposes, specifically generation of electricity and heat, and is equipped with all necessary infrastructure connections.

The following operating nuclear installations are located at the Temelín power plant site:
- **two Temelín Nuclear Power Plant units (Units 1 and 2);**
- **a spent fuel storage facility;**
- **a fresh nuclear fuel store forming part of the active auxiliary systems building for Units 1 and 2;**

the following facilities are also being prepared:
- **a New Nuclear Power Plant at the Temelín site (New NPP ETE, or Units 3 and 4);**
- **expansion of the storage capacity of the spent fuel storage facility;**

Cumulative effects with operation of the existing Units 1 and 2 and other existing and planned facilities consist primarily of increased raw-water abstraction volumes, domestic and process-wastewater volumes, evaporation and heat, land take, traffic load in the area, noise, and waste generation. Project implementation will also expand the power evacuation corridor to the Kočín substation by increasing the number of conductors and earth wires.

No other factors or projects with the potential for significant cumulative effects with those of the notified project were identified. The environmental effects of the SMR ETE project are therefore examined against the background of the projects listed above and the overall environmental baseline and development trends in the affected area.

Synergistic effects and interacting phenomena

Synergistic effects must include the long-term effects of climate change, including temperature changes, climate extremes, and drought episodes, and human land management, including drainage of agricultural and forest land, eutrophication, and water loads associated with fisheries management. They also include the increasing traffic load in the surrounding area.

4.4.15. Transboundary effects

Given the project's distance from the borders of the surrounding countries, ranging from tens to hundreds of kilometers: the Republic of Austria 49 km, the Federal Republic of Germany 59 km, the Republic of Poland 191 km, and the Slovak Republic 198 km, and the absence of significant long-range effects, no significant transboundary project effects on biota are expected.

4.5. Ranking of intervention alternatives by their level of adverse effect on protected interests, where alternatives have been prepared and can be ranked

The project is submitted as a single implementation alternative.

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Recommendations for use of the individual areas:
Extensive areas around the existing Units 1 and 2 designated B1–J are proposed for construction of the SMR ETE. Areas J, H, C, I, and G are expected to be used for construction-site facilities, while Areas B1, B2, B3, D, E1, E2, F1, and F2 are considered reserve areas only. Area E1 is to be used for transport only.
The area designated for SMR ETE construction includes younger woody-plant stands and an avenue of poplars along its southern, eastern, and northeastern edges. The stands could also perform an important screening function. It is recommended that stands not conflicting with the project be retained.
Of the construction-site facility areas, Area I, apart from its waterlogged eastern edge, and most of Areas H and G may be considered unproblematic for use. For Areas H and G, it is again advisable to retain the edges containing woody-plant stands; in Area H, the valuable wet meadow at the northern edge must also be protected.
Area J can be divided into two parts: the existing field, which can be used as a construction site without difficulty, and a lower-lying part with a species-rich meadow, watercourse, and naturally established woody plants, which should be retained without construction activity.
Area C includes land heavily modified during construction of Units 1 and 2 and subsequently reclaimed with numerous successful plantings. It may be used as a construction site provided that the planted woody plants and existing grassland are restored.
From the perspective of biota, reserve Areas B1, B2, E2, F1, and D present little conflict, but if they are used, their planted or naturally established woody margins should be retained.
Area F2 is already entirely covered by an established forest stand and its use as a construction site is not recommended. The habitat of specially protected large mammal species also crosses the area.
Area B3 can be divided into western and eastern parts. The western part, which is arable land, is suitable for use as a construction site. The eastern, more waterlogged part and the slope below the road containing woody-plant stands should be retained.
Area E1 is suitable for transporting materials; only the woody fringe along its northern and western edges is recommended for retention.
The most valuable part of the SMR ETE power evacuation corridor is the intermittently wet meadow in its southwestern part, where the protected Siberian iris (*Iris sibirica*) occurs. Dvorčický Stream flows through the area. To protect the iris, the water regime of Dvorčický Stream must be preserved or improved, and machinery movements and direct land take at iris occurrence sites must be restricted during tower construction.

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5. Overall assessment of the intervention's effect on biodiversity

Biodiversity is defined in Article 2 of the Convention on Biological Diversity as the variability among all living organisms, including terrestrial, marine, and other aquatic ecosystems and the ecological complexes of which they form part, and includes diversity within species, between species, and of ecosystems. In accordance with the Ministry of the Environment methodological guidance, Methodological Interpretation of the Application of Selected New Terms and Requirements of Act No. 100/2001 of October 20, 2017, the location and adverse effects of the project make the following particularly necessary:

- assess the effect on preserving species diversity, with emphasis on species of Community interest;
- assess the effect on preserving habitat diversity, with emphasis on habitats of Community interest;
- assess the effect on preserving the reproductive capacity of ecosystems;
- assess the effect on preserving internal functional relationships within ecosystems;
- assess the effect on the diversity of qualifying features of specially protected areas;
- assess the effect on the spread of nonnative invasive species;
- establish measures to support species essential to preserving biodiversity;
- establish measures to prevent the introduction and naturalization of new nonnative invasive species;
- establish an environmental project limit for preserving biodiversity.

Table 15: Assessment of the project's effect on biodiversity-status criteria.

Parameter assessed	Value (0,-,+)	Justification
Species diversity	**0**	The project will not affect species diversity in any way.
Habitat diversity	-	The project will have an insignificant effect on habitat diversity in the surrounding area.
Reproductive capacity of ecosystems	-	Aquatic ecosystems may be affected moderately, particularly in connection with the temperature of discharged wastewater
Functional relationships within ecosystems	-	Functional relationships within ecosystems may be disrupted, for example by power evacuation and the extensive construction-site facility areas.
Diversity of qualifying features of specially protected areas	**0**	The project will not affect the diversity of qualifying features of specially protected areas, but it will affect individual specimens of species that constitute qualifying features.
Effect on the spread of invasive species	**0**	The project is not expected to have a significant effect on the spread of invasive species, but the risk of spread during construction must be addressed.
Environmental project limit	**0**	The environmental project limit relating to biodiversity will be met.

Table 16: Summary of the project's effect on the individual characteristics of biodiversity.
Explanation of the "Value" column: Project effect: -2 significant adverse, -1 moderate adverse, 0 none, +1 moderate beneficial, +2 significant beneficial.

Characteristic	Value (-2, -1, 0, +1, +2)
national park	0
protected landscape area	0

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small-scale specially protected areas	0
Natura 2000 sites (Sites of Community Importance)	0
Natura 2000 sites (Special Protection Areas)	-1
national territorial system of ecological stability	0
regional territorial system of ecological stability	0
local territorial system of ecological stability	-1
habitat of specially protected large mammal species	-1
registered significant landscape feature	0
statutory significant landscape feature	-1/-2
nature parks	0
memorial tree	0
specially protected plant species	-1
specially protected animal species	-1

Environmental project limit relating to biodiversity:
Local plant and animal populations and their habitats must not be affected significantly adversely.

Table 17: Measures proposed to avoid, prevent, reduce, and offset adverse effects.

Measure	Description
Measures to support key species	Seasonal restriction on felling woody plants. Temporary barriers preventing small animals from entering the construction site. Safeguarding construction trenches and culvert inlet sumps against small-animal mortality. Preservation of the water regime in the area and provision of suitable drainage conditions from all areas. Protection from construction work or rescue transfer of animals where required.
Measures addressing invasive species	It is proposed that construction-site areas be monitored during and after construction, including reclaimed areas, compensatory-measure areas, and the SMR ETE site, and that invasive plant species be eradicated where required.

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6. Conclusions

The current condition of the site, including the intended project's direct and indirect effects, was described. The intended project was assessed throughout its duration, including preparation and operation.
The assessment of the intended project's effect on the individual groups of organisms also included a comparison with current site conditions. Deterioration was identified.

The assessed **"New SMR Power Plant at the Temelín site"** project
will adversely affect certain interests protected under Act No. 114/1992 Coll., on Nature and Landscape Protection.

The project has a moderate adverse effect on certain interests protected under Act No. 114/1992 Coll., on Nature and Landscape Protection, particularly the significant landscape features comprising Dvorčice and Karlovec Ponds; Dvorčický Stream and its floodplain; Temelínecký Stream and its floodplain; Palečkův Stream; the unnamed stream crossing Area G; and forests in the Křtěnov and Kočín cadastral areas. The project will affect their functionality and stability, certain TSES elements, natural habitats, and specially protected animal and plant species.

The overall degree of adverse effect is assessed as acceptable provided that suitable mitigation and compensatory measures are implemented.

Local populations of specially protected species will not be substantially disrupted.
The project will increase landscape fragmentation, particularly through power evacuation, meaning expansion of the existing power evacuation corridor from Units 1 and 2 to the Kočín substation, and temporary use of extensive areas for construction-site facilities.

The project is expected to involve harmful interference with the natural development of the following specially protected species:
Cornelian cherry (*Cornus mas*),
Siberian iris (*Iris sibirica*),
broad-leaved marsh orchid (*Dactylorhiza majalis*),
alpine newt (*Ichthyosaura alpestris*),
smooth newt (*Lissotriton vulgaris*),
great crested newt (*Triturus cristatus*),
common spadefoot (*Pelobates fuscus*),
European fire-bellied toad (*Bombina bombina*),
pool frog (*Pelophylax lessonae*),
marsh frog (*Pelophylax ridibundus*),
agile frog (*Rana dalmatina*),
edible frog (*Pelophylax esculentus*),
common toad (*Bufo bufo*),
European green toad (*Bufotes viridis*),
European tree frog (*Hyla arborea*),
sand lizard (*Lacerta agilis*)
viviparous lizard (*Zootoca vivipara*),
slow worm (*Anguis fragilis*),
smooth snake (*Coronella austriaca*),
grass snake (*Natrix natrix*),
common European adder (*Vipera berus*),

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common snipe (*Gallinago gallinago*),
European stonechat (*Saxicola rubicola*),
whinchat (*Saxicola rubetra*),
white stork (*Ciconia ciconia*),
black stork (*Ciconia nigra*),
water rail (*Rallus aquaticus*),
northern goshawk (*Accipiter gentilis*),
western yellow wagtail (*Motacilla flava*),
gadwall (*Mareca strepera*)
grey partridge (*Perdix perdix*),
Eurasian sparrowhawk (*Accipiter nisus*),
common raven (*Corvus corax*),
Eurasian wryneck (*Jynx torquilla*),
common quail (*Coturnix coturnix*),
common kingfisher (*Alcedo atthis*),
red kite (*Milvus milvus*),
Montagu's harrier (*Circus pygargus*),
western marsh harrier (*Circus aeruginosus*),
Eurasian hobby (*Falco subbuteo*),
little grebe (*Tachybaptus ruficollis*),
great reed warbler (*Acrocephalus arudinaceus*),
common nightingale (*Luscinia megarhynchos*),
middle spotted woodpecker (*Dendrocoptes medius*),
corn bunting (*Emberiza calandra*),
red-backed shrike (*Lanius collurio*),
great grey shrike (*Lanius excubitor*),
European honey buzzard (*Pernis apivorus*),
barn swallow (*Hirundo rustica*),
green sandpiper (*Tringa ochropus*),
great egret (*Ardea alba*),
Eurasian golden oriole (*Oriolus oriolus*),
bicolored shrew (*Crocidura leucodon*),
grey long-eared bat (*Plecotus austriacus*)
common pipistrelle (*Pipistrellus pipistrellus*),
soprano pipistrelle (*Pipistrellus pygmaeus*),
Nathusius's pipistrelle (*Pipistrellus nathusii*),
common noctule (*Nyctalus noctula*),
Natterer's bat (*Myotis nattereri*),
northern bat (*Eptesicus nilsonii*),
brown long-eared bat (*Plecotus auritus*),
serotine bat (*Eptesicus serotinus*),
Daubenton's bat (*Myotis daubentonii*),
hazel dormouse (*Muscardinus avellanarius*),
red squirrel (*Sciurus vulgaris*),
Eurasian otter (*Lutra lutra*),
lesser purple emperor (*Apatura ilia*),
purple emperor (*Apatura iris*),
bumblebee (*Bombus* sp.),
European mantis (*Mantis religiosa*)
cinnabar flat bark beetle (*Cucujus cinnaberinus*),

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dusky large blue (*Phengaris nausithous*),
ant (*Formica* sp.),
large copper (*Lycaena dispar*),
Old World swallowtail (*Papilio machaon*)
Scheidler's ground beetle (*Carabus scheidleri*),
green tiger beetle (*Cicindela campestris*),
large white-faced darter (*Leucorrhinia pectoralis*),
white-spotted rose beetle (*Oxythyrea funesta*).

For the **species shown in bold,** harmful interference with natural development is expected, and a derogation from the prohibitions under Section 56 of the Nature and Landscape Protection Act will therefore be required.

Substantive measures required to prevent, restrict, avoid, and compensate for adverse effects associated with project implementation are formulated to minimize those effects.

6.1. Proposed measures to avoid adverse effects of the intervention

6.1.1. Summary of proposed mitigation measures

The following mitigation measures are proposed to minimize the project's adverse effects on nature and landscape conservation interests:

1. To protect nesting birds under Section 5a of the Nature and Landscape Protection Act, cutting and felling of woody plants is recommended only outside the bird nesting season, meaning that no felling will take place from March 15 to August 15. By agreement with the ecological supervision, the seasonal restriction on felling may be adjusted at the developer's request to reflect the actual course of the nesting season.
2. Rescue transfers of animals and plants from the construction area and construction-site facility areas shall be conducted in advance, with a final inspection immediately before earthworks begin. Rescue transfers will cover all species, both specially and generally protected under the Nature and Landscape Protection Act, that are directly threatened by construction activity, are found in the endangered area, and for which a rescue transfer is meaningful, such as nests of bumblebees of the genus Bombus, nests of ants of the genus Formica, larval stages and adults of amphibians, reptiles, ground-nesting birds, and individual clumps of Siberian iris.
3. Throughout project construction, it is recommended that the developer appoint competent “on-site ecological supervision.” The role of the supervision will be to ensure correct implementation of conditions arising from decisions of nature conservation authorities, particularly by being present during work in or immediately adjacent to valuable natural habitats and at sites where specially protected and threatened species occur. The assistance of the ecological supervision is particularly desirable during felling and commencement of earthworks. It will assist in staking out access routes and handling areas and will be present during earthworks. During a biologically suitable period immediately before construction work begins, the ecological supervision will survey the staked-out construction site to exclude the presence of bumblebee nests of the genus *Bombus*, ant nests of the genus *Formica*, and cavities occupied by bats, and, where required, ensure their protection from construction work or rescue transfer.
4. During and after construction, as much stormwater as possible should be conveyed from the project areas into the existing catchments.
5. To the greatest extent possible, avoid affecting tree stands at the edges of temporary construction-site facility areas (felling will be minimized). Many are statutory significant landscape features, such as floodplains and forests, or perform the function of TSES elements:

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the belt of woody plants along Road II/138 at the SMR ETE site; the riparian vegetation of Palečkův Stream in Area F2; and the belt of woody plants at the southern edge of Area B2.

6. The interconnection corridor between Areas I and H, comprising a bridge, must be designed with parameters that allow animals to migrate along the stream beneath it. The bridge should provide unrestricted passage for animals in Categories C1, C2, and D and at least restricted passage for Category B. If earthworks are conducted near the watercourse, the area must be inspected thoroughly and any nonnative plant species eradicated before work begins and during construction. Invasive knotweed (*Reynoutria* sp.) was recorded near the watercourse. During soil transfers, its spread to new sites must be prevented.

6.1.2. Summary of proposed compensatory measures

The following compensatory measures are proposed to compensate for the project's adverse effects on nature and landscape conservation interests:

1. Preserve the key amphibian breeding sites and their immediate surroundings, Dvorčice and Karlovec Ponds, and implement or fund measures to improve their condition, such as partial desilting, removal of some woody plants, and creation of littoral pools. Support the water regime of these water bodies so that they do not dry out during summer. Augmenting both water bodies is appropriate and highly desirable. Their water supply will be ensured, for example by diverting part of the captured stormwater through a suitable retention system.
   Preserving Dvorčice Pond and Dvorčický Stream requires surface-water and groundwater augmentation to be maintained in quantities similar to the present level. This means conveying groundwater pumped from the SMR ETE construction area to the fishpond and allowing surface-water inflow from part of Area E1 and from Area H (Datel & Hrabánková). A retention basin is planned in the northeastern part of the SMR ETE site to control stormwater discharge from the fenced site to the existing final trunk sewer for Units 1 and 2 and subsequently to Strouha Stream. The retention basin will be equipped with pumps allowing controlled transfer of accumulated stormwater to a drainage ditch that will convey stormwater to Dvorčice Pond when required.
   Measures recommended in the Expert Opinion on Issues Concerning Karlovec Pond in Connection with Construction of the SMR ETE (Datel, May 2026):
   - Convey some captured stormwater from roofs and paved surfaces, particularly from the eastern part of the SMR ETE site, through suitable retention to Karlovec Pond.
   - Within the hydrologic catchment of Karlovec Pond, implement a suite of nature-based measures to retain water in the landscape and promote its infiltration into groundwater. Converting some surface stormwater runoff into shallow groundwater runoff in this manner would help equalize natural augmentation of Karlovec Pond because a greater proportion of inflow would consist of more stable groundwater runoff over time.
2. To compensate permanently for adverse effects from the SMR ETE construction area and Area H, ensure proper, suitable management of the wetland meadow between Area H and Dvorčice Pond by mowing manually once a year after August 20.
3. At least once every two years during September–October, regularly remove all fish from water bodies N1, N2, and N3, see Figure 6, and do not stock them with fish.
4. After construction is completed, build retention basins or drainable pools in the construction-site facility areas as replacement amphibian habitats. All construction-site facility areas that will not be managed entirely as arable land are potentially suitable, particularly Areas B1, B3, F2, C, D, J, and G.
5. The area has a relative lack of refuges for small vertebrates, particularly reptiles, in the form of stone and wood piles. Several tens, and at least 20, smaller refuges that will also function as reptile hibernacula should be built at suitable locations throughout the affected landscape

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before construction begins; their number will need to be supplemented when the temporarily affected areas are reclaimed.

6. Replacement planting of woody plants is recommended over an area equal to at least twice the area of vegetation felled. Plantings will be located around the project, primarily in areas used for construction-site facilities during construction, while respecting utility protection zones and property rights.
7. Create a replacement biodiversity area in meadows around Karlovec Pond with temporary pools as potential nesting and foraging habitat for the northern lapwing, western yellow wagtail, and other species. These meadows must be mown regularly and the cut material removed. Mowing should preferably use light machinery. Areas becoming ruderalized along the site boundary must be mown at least once a year. Mow the areas after July 15. This is primarily compensation for habitats in Area G and the SMR ETE construction area. The replacement habitat should be functional before construction begins and maintained throughout project operation.
8. If the road structure is reconstructed in connection with the SMR ETE project, construct a migration passage beneath Road No. II/105 on the axis of local biocorridor LBK3 Karlovec. The culvert should comply with the applicable "Road and Biocorridor Crossings" methodology. A functional box culvert measuring 1 × 1 m to 1 × 2 m is recommended as the ideal solution, as it will meet the parameters for all small animals up to the size of smaller mammals. The connection should be constructed no later than upon completion of construction activity.
9. As part of replacement planting for authorized felling and shrub cutting during project implementation, and to support the corn bunting, red-backed shrike, and great grey shrike, it is recommended that scattered or linear shrub stands be planted, for example along municipality-owned service roads, at the edges of construction-site facility areas used, along balks, and along other natural linear features in the terrain. Use autochthonous species appropriate to the region for the plantings.
10. Nest boxes of various sizes may be installed to support cavity-nesting birds, including tits, common starling, and Eurasian wryneck, as well as the hazel dormouse and bats. The boxes will replace cavity trees felled for project implementation. The boxes will be maintained permanently during operation of the SMR ETE.
11. Maintain in working order the SMR ETE water-management facilities used to augment fishponds and water bodies around the project.
12. To support the management of protected areas within 10 km of the SMR ETE, greylag goose habitats in the Českobudějovické rybníky SPA, and the mapping and management of habitat trees within 3 km of the SMR ETE, enter into an agreement with the Nature Conservation Agency of the Czech Republic and the South Bohemian Region. In the same manner, support leaving large-diameter dead wood to decay in stands around the SMR ETE during forest management.

The measures above constitute framework proposals, the scope of which will be refined according to actual land take.

6.1.3. Comparison of the degree of adverse project effect without implementation of mitigation and compensatory measures

If the mitigation measures are not implemented, a greater degree of adverse project effect may be expected, consisting particularly of:

- greater risk of disturbance and accidental animal mortality during machinery movements and construction work, and disturbance of their habitats;

- deterioration of the ecological-stabilization function of significant landscape features and disruption of TSES-element functions.

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6.2. Proposed follow-up monitoring and assessment of adverse project effects

Continuous biomonitoring of the condition of biota and the effectiveness of mitigation and compensatory measures around the project, focusing on key species and habitats. If results are unsatisfactory, corrective measures are recommended. The competent nature conservation authority will be the South Bohemian Regional Authority. Output reports will be prepared one year before construction begins, annually during construction, potentially in conjunction with ecological supervision, and once every three years after construction is completed.

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[1] The map is available through non-public access.

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8. Appendices

8.1. Estimate of the extent and characteristics of tree and shrub felling

Prepared by:

Ing. Katarína Vysloužilová
Mgr. Vladimír Melichar

Requirement arising from the project notification:

12. With regard to fauna, flora and ecosystems, landscape and landscape character:

d	Based on the documents prepared to date, state the estimated approximate extent of tree and shrub felling and vegetation removal during construction.

Extent of felling:

The estimated approximate extent of felling was determined conservatively by measuring the full extent of trees and shrubs within the defined areas from an aerial map:

Table 18: Estimated approximate extent of felling.

Area	Areas of woody vegetation [m^2]
B1	6,608
B2	6,232
B3	19,495
C	27,981
D	14,719
E1	3,850
E2	6,257
F1	1,057
F2	116,778*
G	3,158
H	2,385
I	118
J	7,882
SMR ETE	17,428
SMR ETE power evacuation corridor (Kočín substation)	29,801*
Construction-site power-supply corridor	30,953
Corridor for widening of Road II/138	1,109
ETE service road	26
Interconnection corridor	48
Total	**295,885**

**predominantly forest stand*

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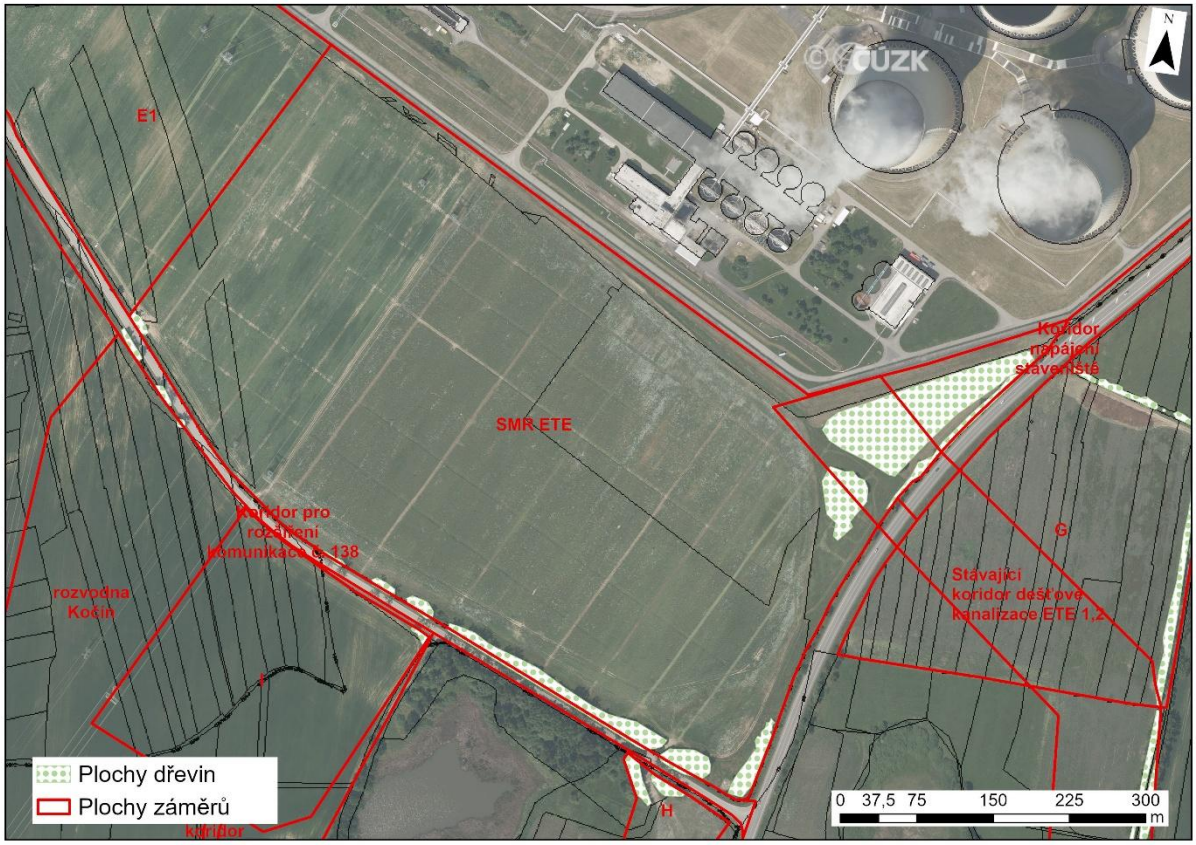
Description of the areas:

SMR ETE

Along the southwestern edge of the area by Road II/138, there is a row of mature Canadian poplars (*Populus x canadensis*), accompanied in the lower layer by younger naturally regenerated woody plants, principally European aspen (*Populus tremula*), silver birch (*Betula pendula*), black alder (*Alnus glutinosa*) and, locally, sessile oak (*Quercus petraea*). At the junction of Roads II/138 and II/105, the stand already has the character of a pure aspen woodland.

Other groups of woody plants are present at the northeastern tip of the area. These are reclamation plantings up to 30 years old, dominated by Scots pine (*Pinus sylvestris*) and, locally, Austrian pine (*Pinus nigra*). There is a belt of Colorado spruce (*Picea pungens*) towards the power plant and silver birch (*Betula pendula*) towards the road. Other scattered woody plants include pedunculate oak (*Quercus robur*) and small-leaved lime (*Tilia cordata*); the shrub layer contains European spindle (*Euonymus europaeus*), rowan (*Sorbus aucuparia*), common hazel (*Coryllus avellana*), blackthorn (*Prunus spinosa*), wild cherry (*Prunus avium*), eared willow (*Salix aurita*) and fly honeysuckle (*Lonicera xylosteum*).

Figure 19: Areas of trees and shrubs within the SMR ETE site.



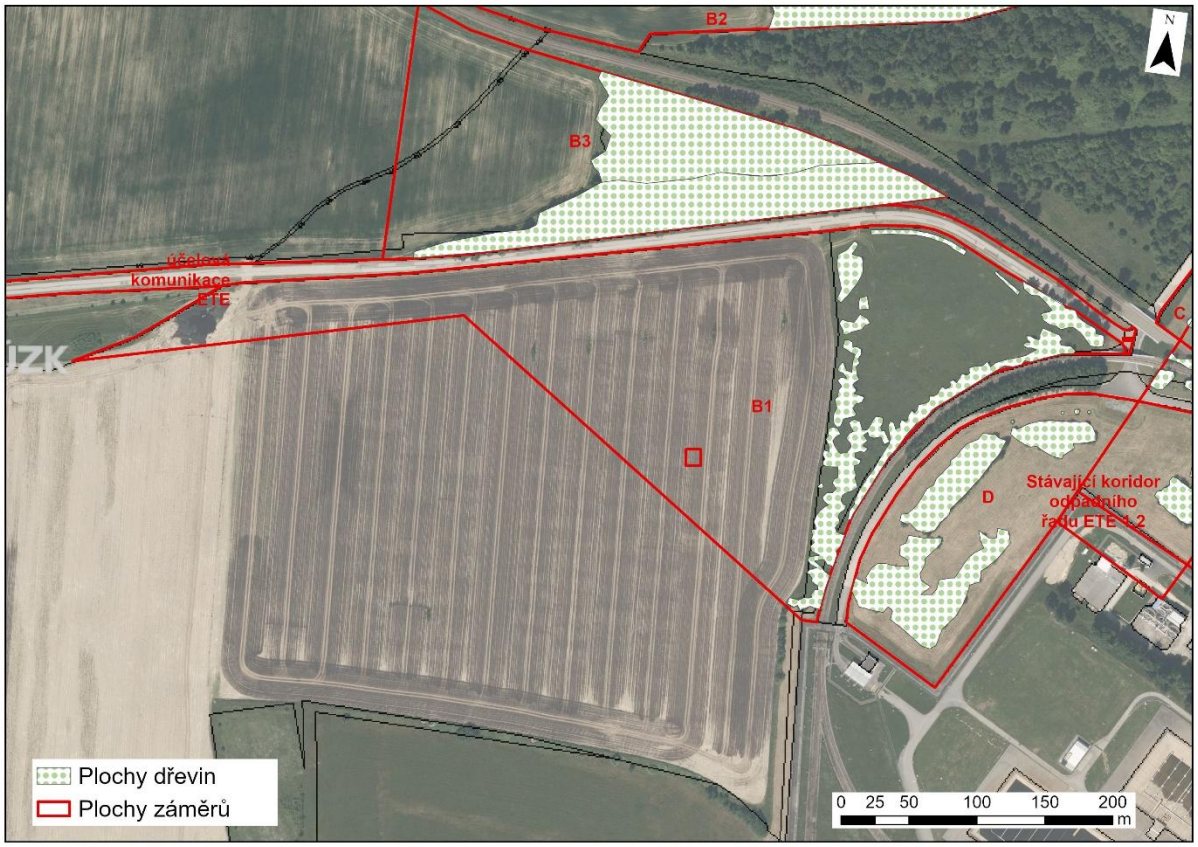
Koridor napájení staveniště	Construction-site power-supply corridor
Koridor pro rozdělení komunikace č. 138	Corridor for widening Road 138
rozvodna Kočín	Kočín substation
Stávající koridor dešťové kanalizace ETE 1,2	Existing Units 1 and 2 storm-sewer corridor
Plochy dřevin	Areas of trees and shrubs
Plochy záměrů	Project areas
koridor	corridor

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B1

Discontinuous belts of woody plants have been planted in the eastern part of Area B1: Scots pine (*Pinus sylvestris*), apple (*Malus* x *domestica*), field maple (*Acer campestre*) and wild cherry (*Prunus avium*). Along the railway line, they are supplemented by a naturally regenerated belt of silver birch (*Betula pendula*).

Figure 20: Areas of trees and shrubs within Area B1.



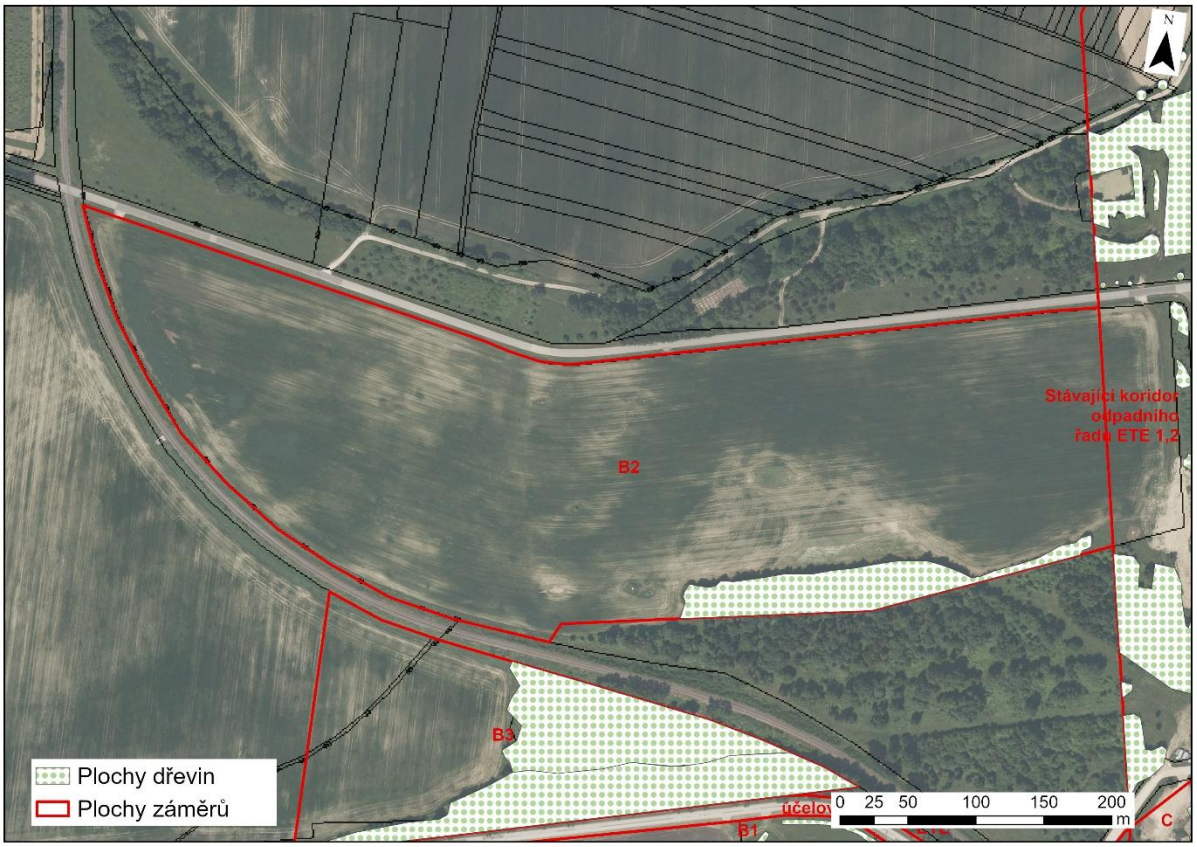
účelová komunikace ETE	ETE service road
Stávající koridor odpadního řádu ETE 1,2	Existing Units 1 and 2 wastewater pipeline corridor
Plochy dřevin	Areas of trees and shrubs
Plochy záměrů	Project areas

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B2

The southern edge of Area B2 includes part of an extensive naturally regenerated stand containing silver birch (*Betula pendula*), Norway spruce (*Picea abies*), European aspen (*Populus tremula*) and goat willow (*Salix caprea*), with occasional dog rose (*Rosa canina*).

Figure 21: Areas of trees and shrubs within Area B2.



Stávající koridor odpadního řádu ETE 1,2	Existing Units 1 and 2 wastewater pipeline corridor
Plochy dřevin	Areas of trees and shrubs
Plochy záměrů	Project areas

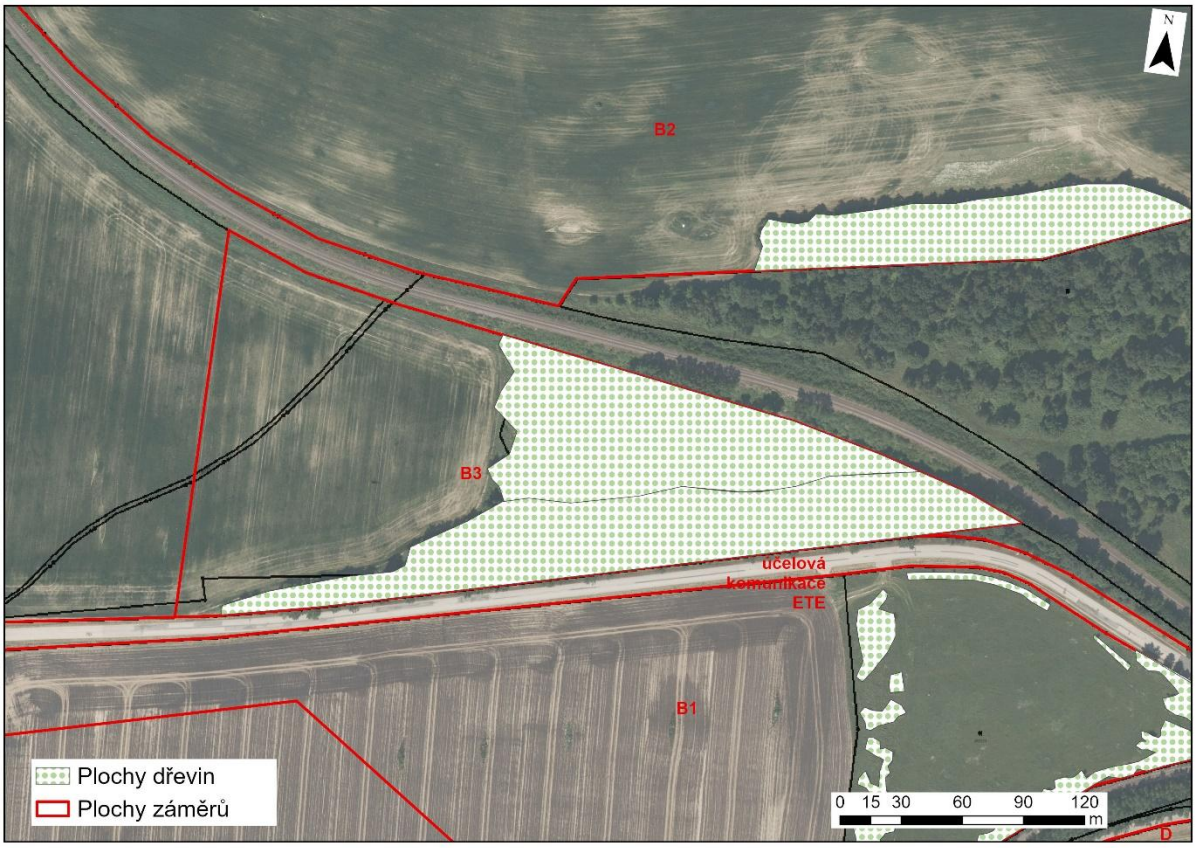
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B3

A middle-aged mixed stand grows on the slope below the road and consists of Scots pine (*Pinus sylvestris*), silver birch (*Betula pendula*), European aspen (*Populus tremula*), pedunculate oak (*Quercus robur*) and Norway spruce (*Picea abies*). The shrub layer contains European beech (*Fagus sylvatica*), northern red oak (*Quercus rubra*), midland hawthorn (*Crataegus laevigata*), domestic apple (*Malus x domestica*), European ash (*Fraxinus excelsior*), rowan (*Sorbus aucuparia*), wych elm (*Ulmus glabra*), small-leaved lime (*Tilia cordata*), common privet (*Ligustrum vulgare*), dog rose (*Rosa canina*), bird cherry (*Padus racemosa*), and goat willow (*Salix caprea*).

In the waterlogged depression between the road and the railway line, crack willow (*Salix euxina*), goat willow (*Salix caprea*), grey willow (*Salix cinerea*) and silver birch (*Betula pendula*) predominate. Other woody plants present include elder (*Sambucus nigra*), dog rose (*Rosa canina*) and bird cherry (*Prunus padus*).

Figure 22: Areas of trees and shrubs within Area B3.



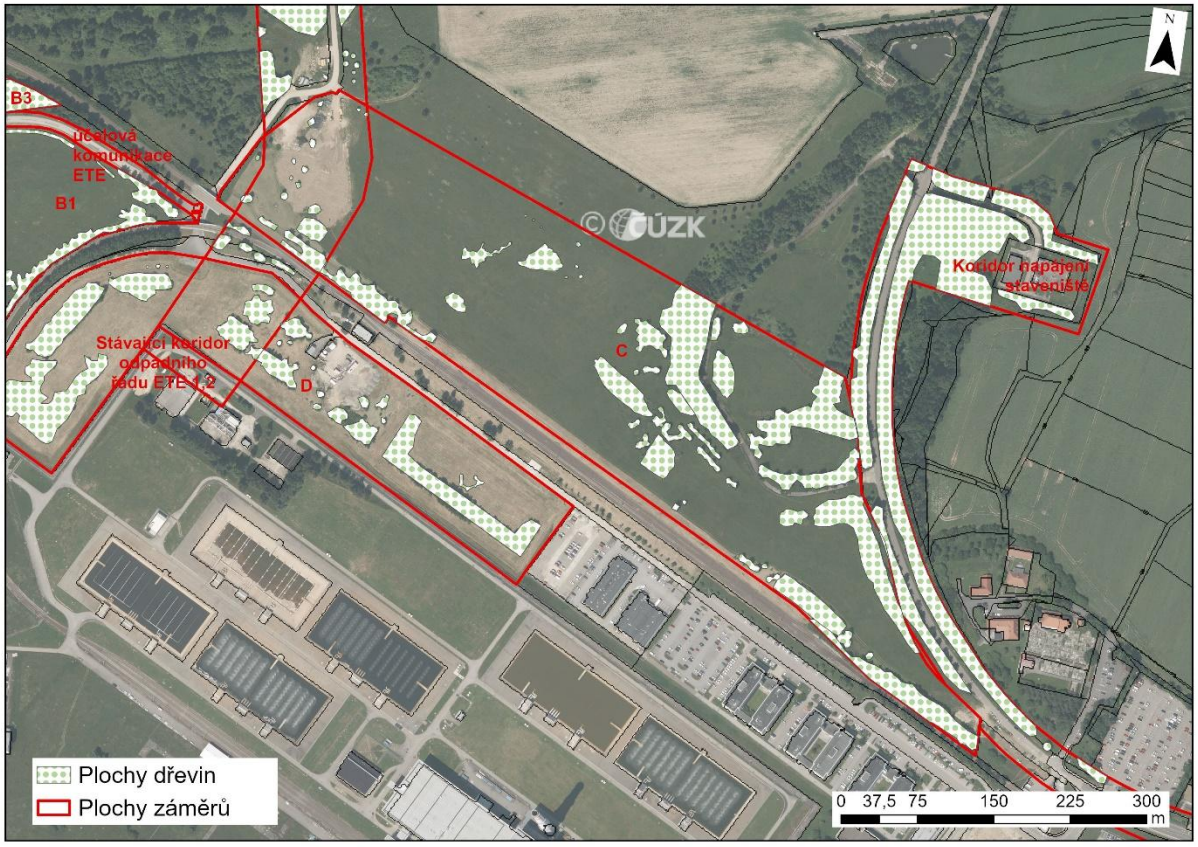
účelová komunikace ETE	ETE service road
Plochy dřevin	Areas of trees and shrubs
Plochy záměrů	Project areas

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C

Area C is covered by groups or individual plantings of woody plants. A continuous naturally regenerated stand forms an arc along the edge of a broad sunken lane in the northeastern part of the area. The species present are Scots pine (*Pinus sylvestris*), elder (*Sambucus nigra*), silver birch (*Betula pendula*), pedunculate oak (*Quercus robur*), European hornbeam (*Carpinus betulus*), common hawthorn (*Crataegus monogyna*), European ash (*Fraxinus excelsior*), field maple (*Acer campestre*), rowan (*Sorbus aucuparia*), wych elm (*Ulmus glabra*), large-leaved lime (*Tilia platyphyllos*), common hazel (*Corylus avellana*), dog rose (*Rosa canina*), common buckthorn (*Rhamnus cathartica*), Norway spruce (*Picea abies*), bird cherry (*Prunus padus*), wild cherry (*Prunus avium*) and goat willow (*Salix caprea*).

Figure 23: Areas of trees and shrubs within Area C.



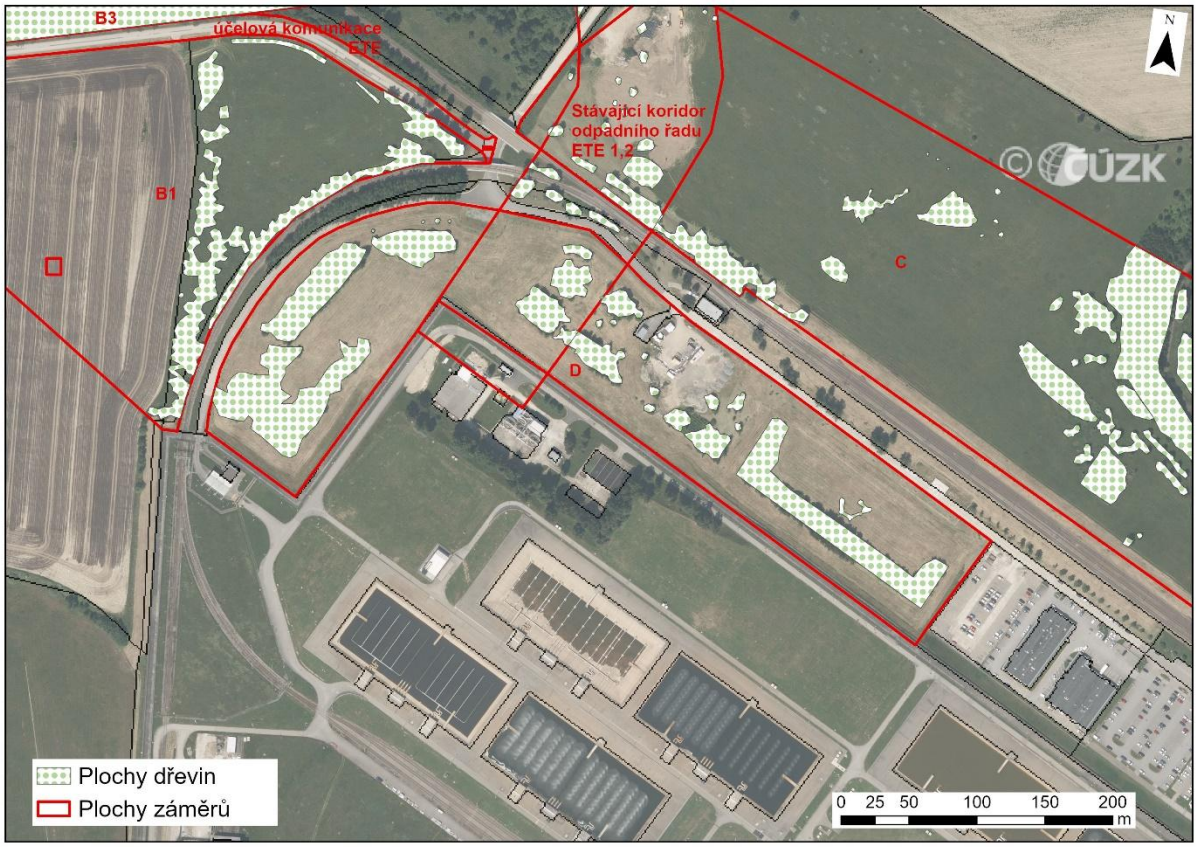
účelová komunikace ETE	ETE service road
Koridor napájení staveniště	Construction-site power-supply corridor
Stávající koridor odpadního řádu ETE 1,2	Existing Units 1 and 2 wastewater pipeline corridor
Plocha dřevin	Area of trees and shrubs
Plochy záměrů	Project areas

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D

Area D is covered by groups or individual plantings of woody plants. The following species are present: Scots pine (*Pinus sylvestris*), silver birch (*Betula pendula*), pedunculate oak (*Quercus robur*), common hawthorn (*Crataegus monogyna*), European ash (*Fraxinus excelsior*), field maple (*Acer campestre*), rowan (*Sorbus aucuparia*), small-leaved lime (*Tilia cordata*), dog rose (*Rosa canina*), common buckthorn (*Rhamnus cathartica*), Norway spruce (*Picea abies*), European aspen (*Populus tremula*), wild cherry (*Prunus avium*) and goat willow (*Salix caprea*).

Figure 24: Areas of trees and shrubs within Area D.



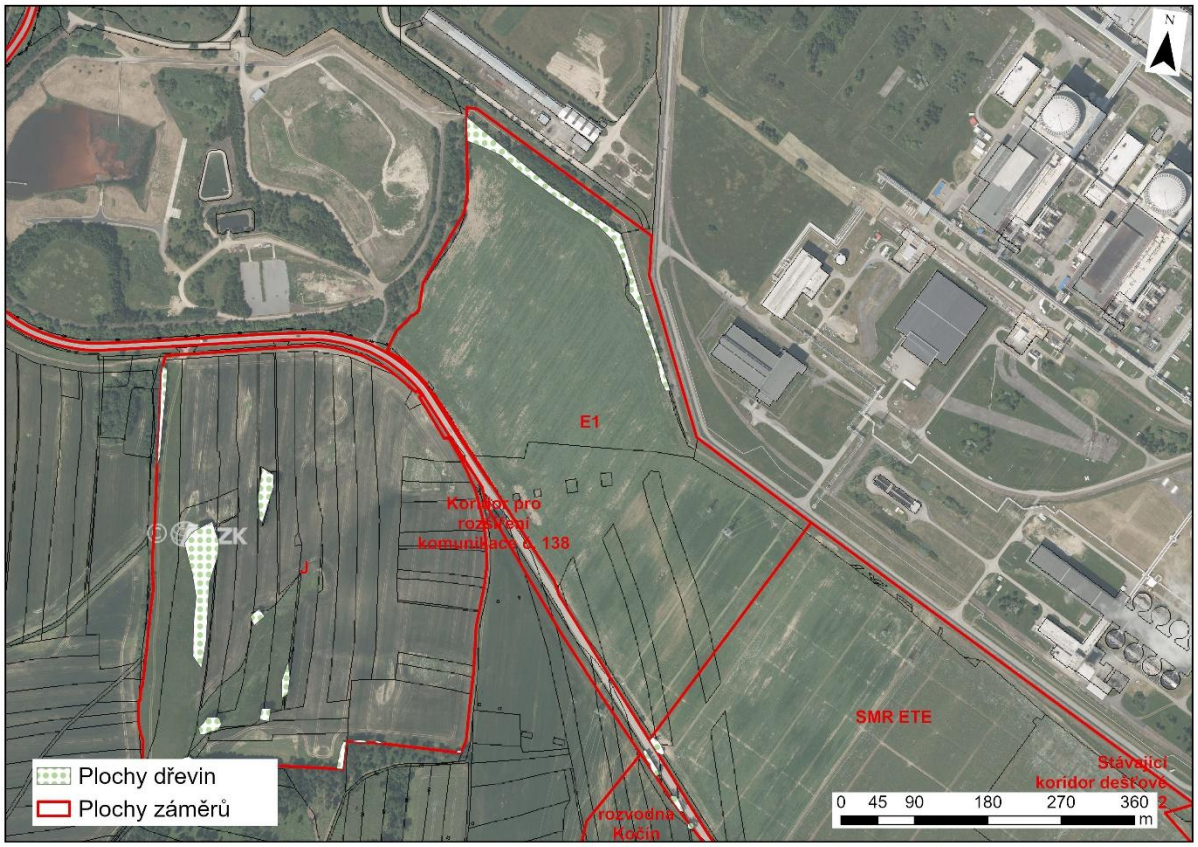
účelová komunikace ETE	ETE service road
Stávající koridor odpadního řádu ETE 1,2	Existing Units 1 and 2 wastewater pipeline corridor
Plocha dřevin	Area of trees and shrubs
Plochy záměrů	Project areas

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E1

A narrow strip of naturally regenerated woody plants runs along the Temelín NPP fence. It consists principally of silver birch (*Betula pendula*), European aspen (*Populus tremula*) and goat willow (*Salix caprea*), with scattered sessile oak (*Quercus petraea*).

Figure 25: Areas of trees and shrubs within Area E1.



Koridor pro rozšíření komunikace č. 138	Corridor for widening of Road No. 138
rozvodna Kočín	Kočín substation
Plocha dřevin	Area of trees and shrubs
Plochy záměrů	Project areas

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E2

The project will affect the woodland edge vegetation of the surrounding stands around the perimeter of Area E2. It consists of Scots pine (*Pinus sylvestris*), sessile oak (*Quercus petraea*), silver birch (*Betula pendula*) and, locally, European aspen (*Populus tremula*) and blackthorn (*Prunus spinosa*). A younger avenue of small-leaved lime (*Tilia cordata*) runs along Road II/138.

Figure 26: Areas of trees and shrubs within Area E2.



Koridor pro rozšíření komunikace č. 138	Corridor for widening of Road No. 138
Plocha dřevin	Area of trees and shrubs
Plochy záměrů	Project areas

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F1

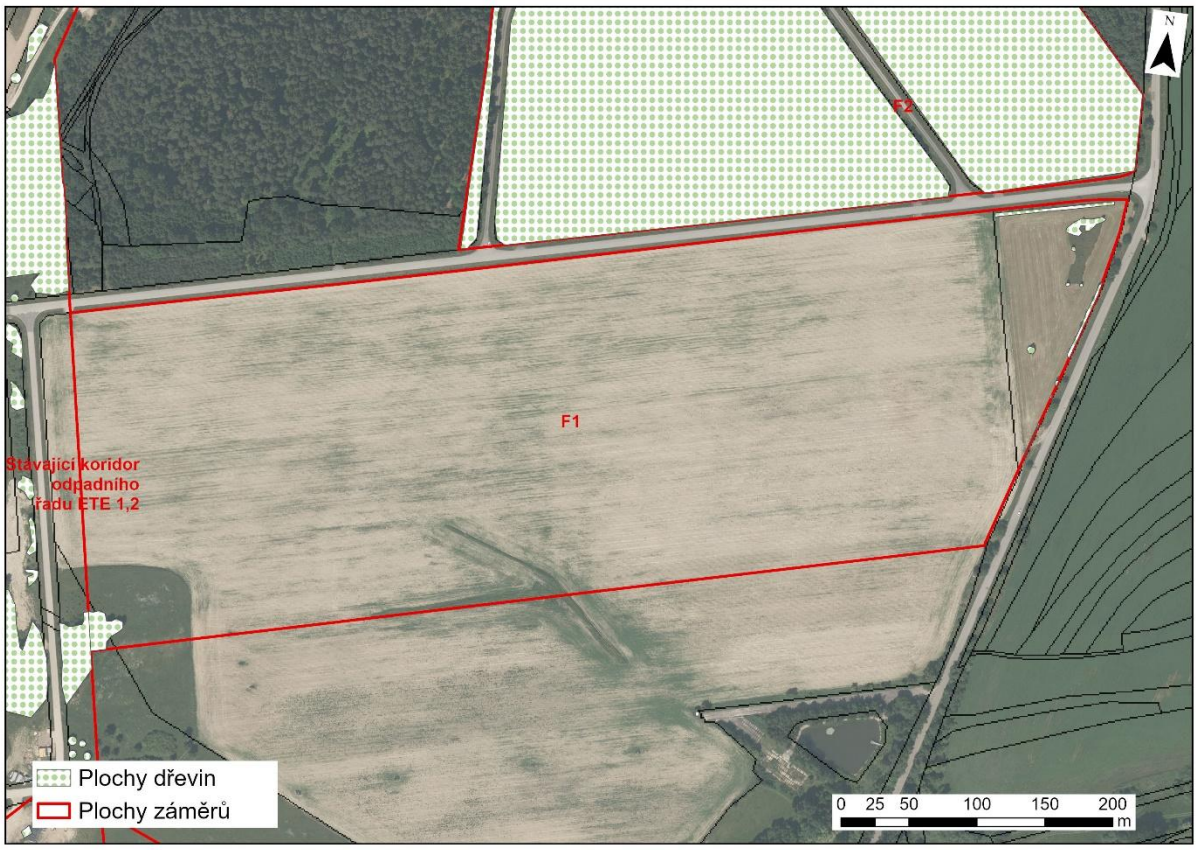
F1 – eastern tip

In the eastern part of Area F1, there is a mown grassed area planted with silver birch (*Betula pendula*), pedunculate oak (*Quercus robur*), apple (*Malus* x *domestica*), Norway maple (*Acer platanoides*) and wild cherry (*Prunus avium*).

F1 – western edge

At the western edge of Area F1, there is a group of naturally regenerated trees and shrubs with scattered planted trees. The species present are Scots pine (*Pinus sylvestris*), silver birch (*Betula pendula*), pedunculate oak (*Quercus robur*), European hornbeam (*Carpinus betulus*), dog rose (*Rosa canina*), blackthorn (*Prunus spinosa*) and European aspen (*Populus tremula*). **European cornel (*Cornus mas*)**, a specially protected species in the endangered category (Section 3 of the Nature and Landscape Protection Act) and included in Red List category C4a, was also planted here.

Figure 27: Areas of trees and shrubs within Area F1.



Stávající koridor odpadního řádu ETE 1,2	Existing Units 1 and 2 wastewater pipeline corridor
Plocha dřevin	Area of trees and shrubs
Plochy záměrů	Project areas

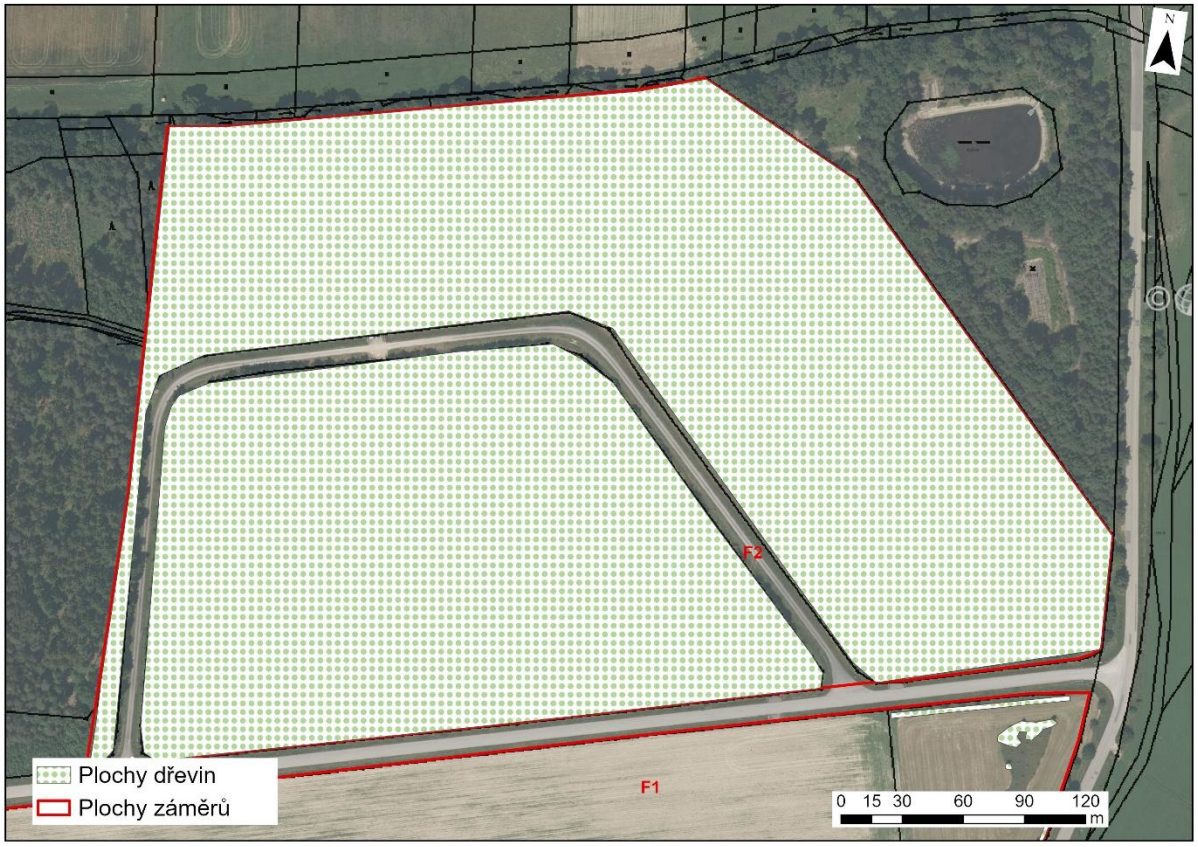
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F2

Area F2 consists of a young managed pine forest overwhelmingly dominated by Scots pine (*Pinus sylvestris*), with scattered silver birch (*Betula pendula*), northern red oak (*Quercus rubra*) and pedunculate oak (*Quercus robur*). The shrub layer contains young European hornbeam (*Carpinus betulus*), Norway spruce (*Picea abies*), dog rose (*Rosa canina*), blackthorn (*Prunus spinosa*) and grey willow (*Salix cinerea*).

Along the northern edge, the pine plantation adjoins a belt of naturally regenerated woody plants dominated by European aspen (*Populus tremula*), with goat willow (*Salix caprea*) and bird cherry (*Prunus padus*).

Figure 28: Areas of trees and shrubs within Area F2.



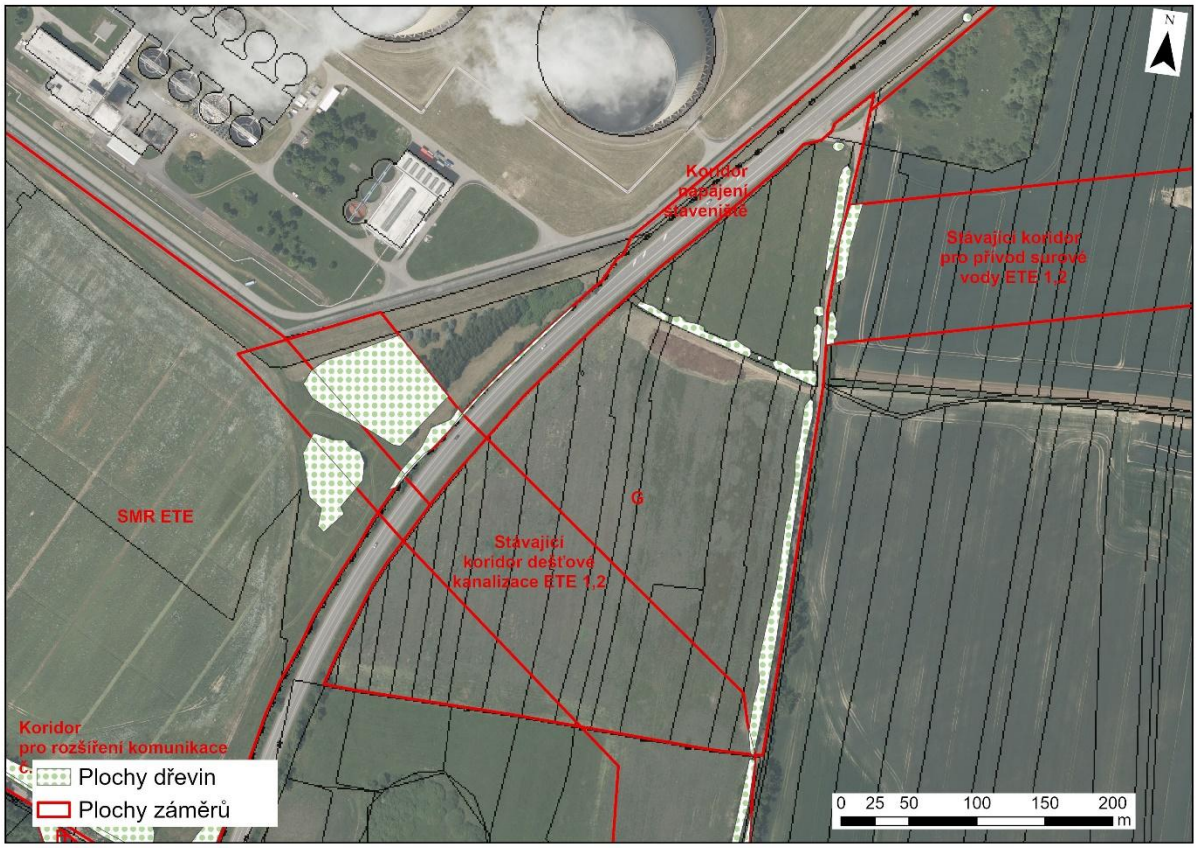
Plocha dřevin	Area of trees and shrubs
Plochy záměrů	Project areas

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G

A row of shrubs along the eastern edge of Area G consists of plum (*Prunus domestica*), blackthorn (*Prunus spinosa*) and dog rose (*Rosa canina*).

Figure 29: Areas of trees and shrubs within Area G, east of Road II/105.



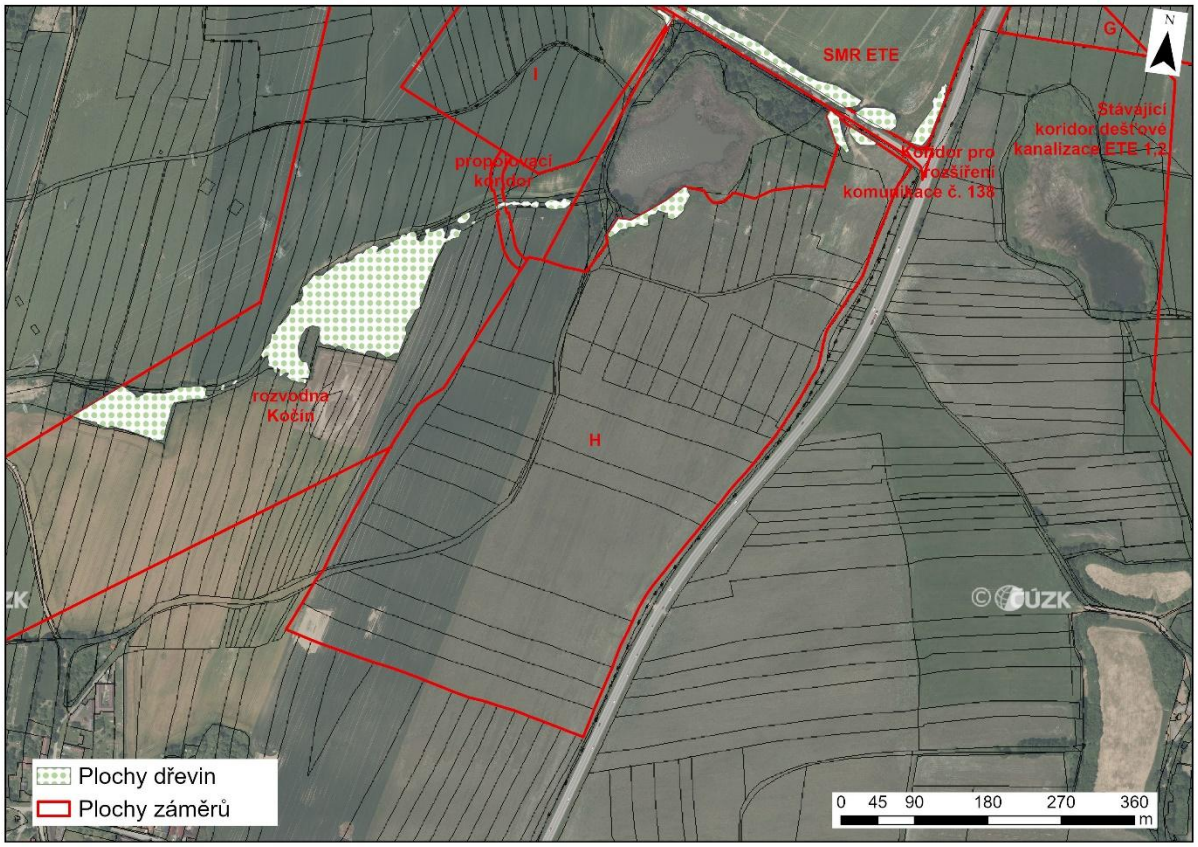
Koridor napájení staveniště	Construction-site power-supply corridor
Stávající koridor pro přívod surové vody ETE 1,2	Existing Units 1 and 2 raw-water-supply corridor
Stávající koridor dešťové kanalizace ETE 1,2	Existing Units 1 and 2 storm-sewer corridor
Plochy dřevin	Areas of trees and shrubs
Plochy záměrů	Project areas

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H

Area H includes part of the naturally regenerated stands around Dvorčice Pond. They consist of black alder (*Alnus glutinosa*), silver birch (*Betula pendula*), European aspen (*Populus tremula*), crack willow (*Salix euxina*), grey willow (*Salix cinerea*), pedunculate oak (*Quercus robur*) and apple (*Malus* x *domestica*). To the north, the avenue along Road II/138 also contains several younger small-leaved limes (*Tilia cordata*).

Figure 30: Areas of trees and shrubs within Area H.

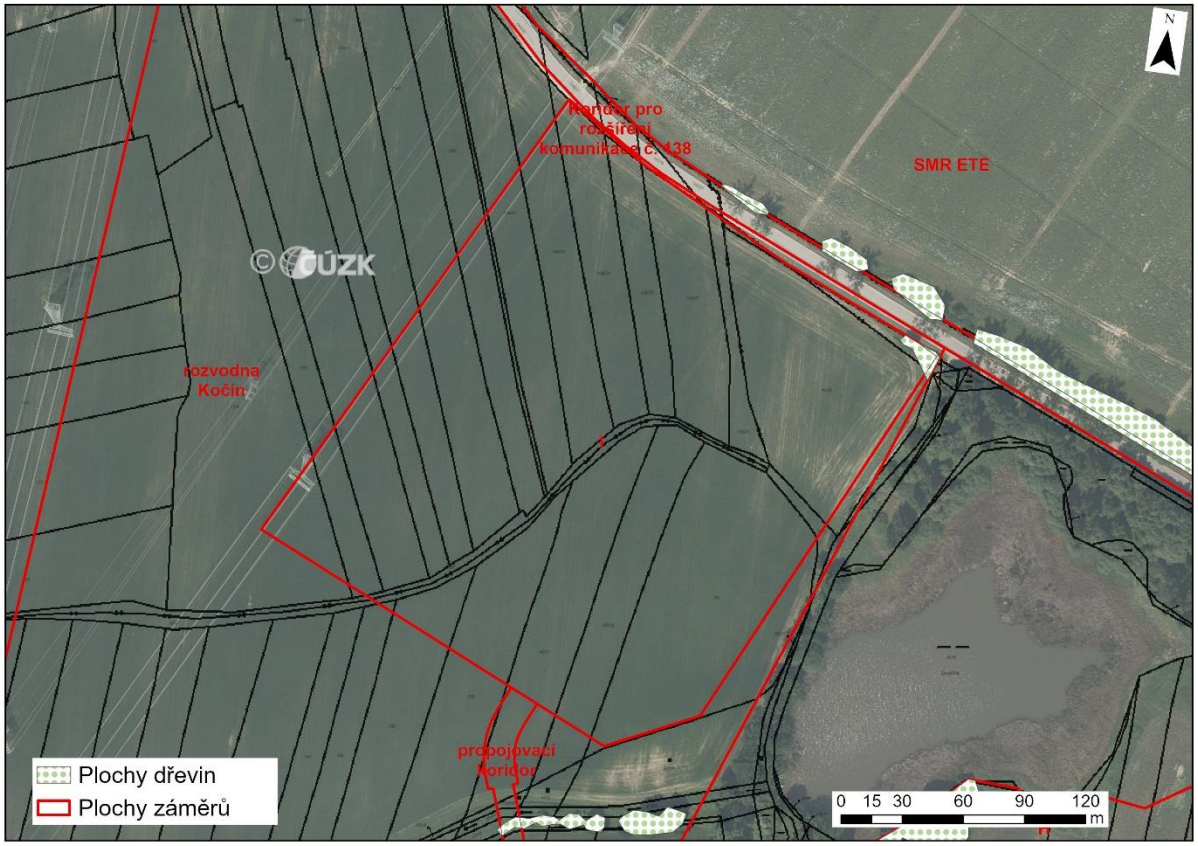


Koridor pro rozšíření komunikace č. 138	Corridor for widening of Road No. 138
Stávající koridor dešťové kanalizace ETE 1,2	Existing Units 1 and 2 storm-sewer corridor
rozvodna Kočín	Kočín substation
Plochy dřevin	Areas of trees and shrubs
Plochy záměrů	Project areas

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I

Figure 31: Areas of trees and shrubs within Area I.



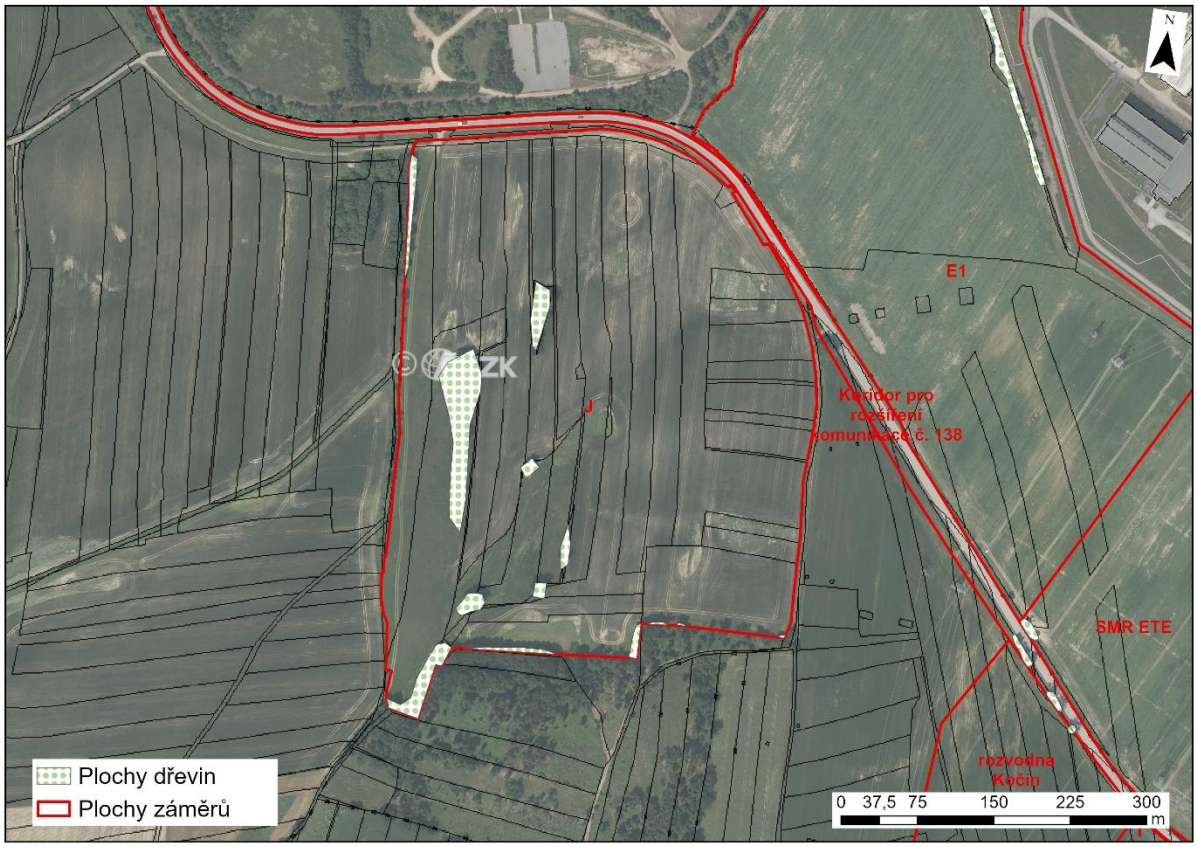
Koridor pro rozšíření komunikace č. 138	Corridor for widening of Road No. 138
rozvodna Kočín	Kočín substation
propojovací koridor	interconnection corridor
Plochy dřevin	Areas of trees and shrubs
Plochy záměrů	Project areas

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J

Area J contains several groups of mature naturally regenerated trees, groups of shrubs and part of the woodland edge vegetation of the adjacent managed forest. The woody plants present are Scots pine (*Pinus sylvestris*), pedunculate oak (*Quercus robur*), European ash (*Fraxinus excelsior*), small-leaved lime (*Tilia cordata*), European aspen (*Populus tremula*), Norway spruce (*Picea abies*) and crack willow (*Salix euxina*). Shrubs include European spindle (*Euonymus europeus*) and blackthorn (*Prunus spinosa*).

Figure 32: Areas of trees and shrubs within Area J.



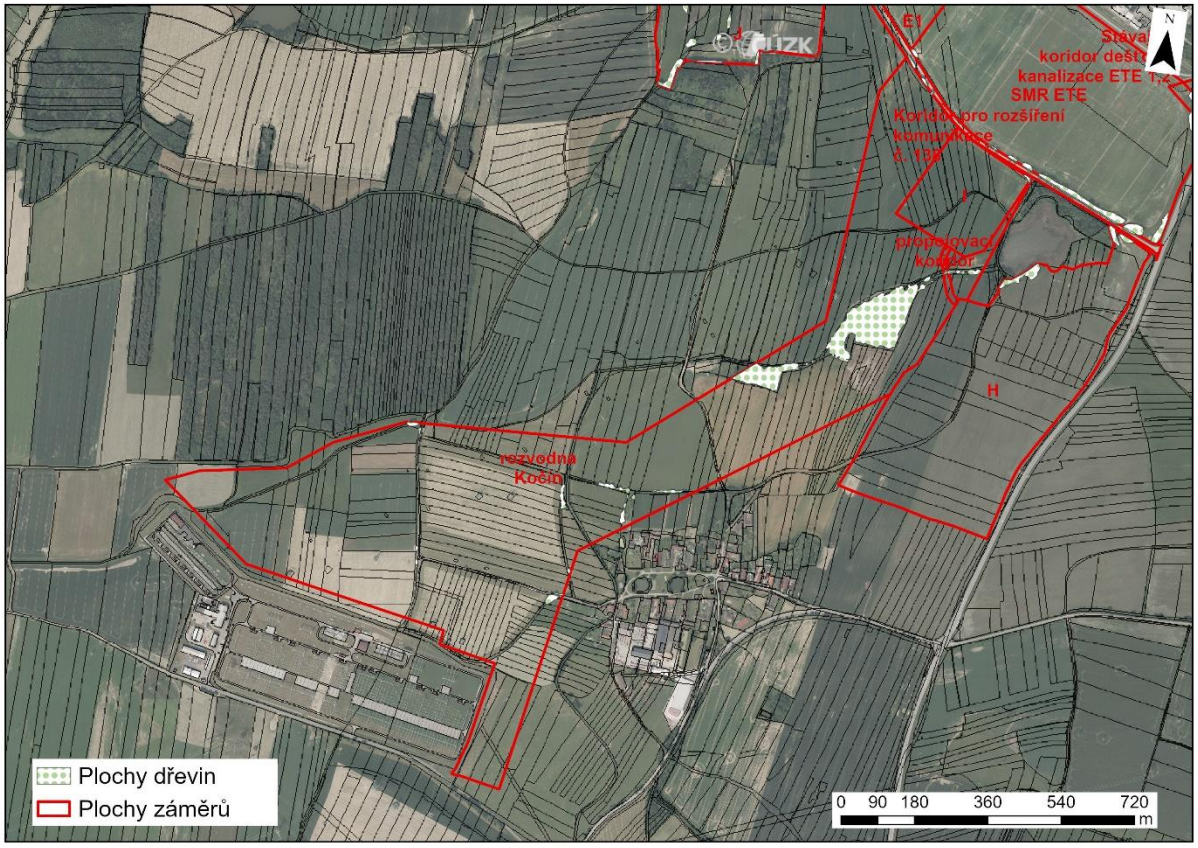
Koridor pro rozšíření komunikace č. 138	Corridor for widening of Road No. 138
Plochy dřevin	Areas of trees and shrubs
Plochy záměrů	Project areas
rozvodna Kočín	Kočín substation

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SMR ETE POWER EVACUATION CORRIDOR

Within the extensive power evacuation corridor, stands of woody plants are concentrated principally on the slope along Dvorčický Stream below Dvorčice Pond. Moisture-loving woody plants such as crack willow (*Salix euxina*), goat willow (*Salix caprea*) and black alder (*Alnus glutinosa*) grow along the stream itself in this section, together with elder (*Sambucus nigra*) and blackthorn (*Prunus spinosa*); however, a fully developed riparian alluvial forest is not present. Higher on the slope, there are mature mixed stands substantially broken up by drought, bark beetle infestation and wind. The principal species is Norway spruce (*Picea abiea*); the tree layer also contains pedunculate oak (*Quercus robur*), Scots pine (*Pinus sylvestris*), European ash (*Fraxinus excelsior*), silver birch (*Betula pendula*) and small-leaved lime (*Tilia cordata*), while the shrub layer consists principally of elder (*Sambucus nigra*), together with European spindle (*Euonymus eurapeus*). Elsewhere within this area, woody plants occur only sporadically. Further downstream along the stream, they consist of individual eared willows (*Salix aurita*); along field tracks, they consist of dog rose (*Rosa canina*), blackthorn (*Prunus spinosa*) and younger specimens of the species listed above.

Figure 33: Areas of trees and shrubs within the SMR ETE power evacuation corridor.



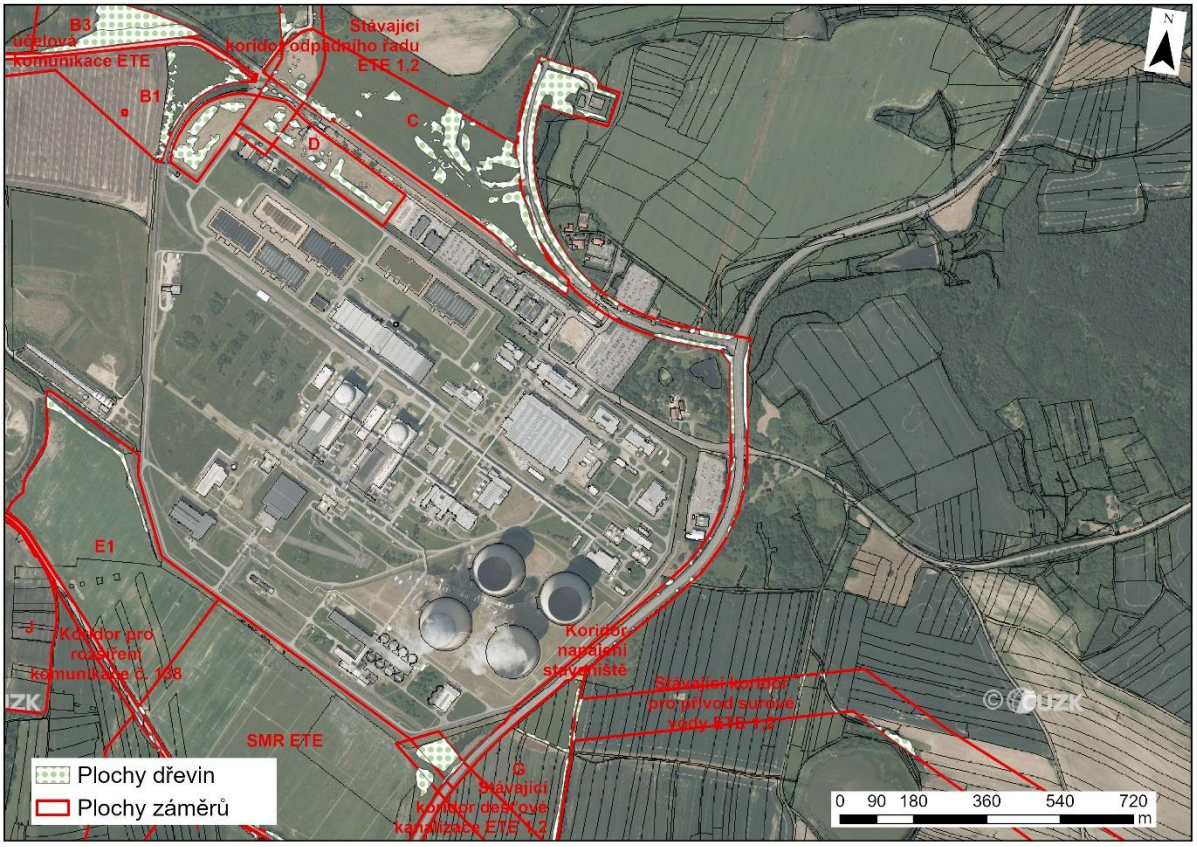
Koridor pro rozšíření komunikace č. 138	Corridor for widening of Road No. 138
Plochy dřevin	Areas of trees and shrubs
Plochy záměrů	Project areas
rozvodna Kočín	Kočín substation

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CONSTRUCTION-SITE POWER-SUPPLY CORRIDOR

This ecologically heterogeneous linear area follows existing tracks and roads. In its northern section, it enters a larger stand at the connection to the existing substation. Woody-plant species composition is diverse throughout the area, with planted and naturally regenerated stands of young and middle-aged trees intermingling. Mature trees include pedunculate oak (*Quercus robur*), sessile oak (*Quercus petraea*), Scots pine (*Pinus sylvestris*), silver birch (*Betula pendula*), sycamore maple (*Acer pseudoplatanus*), European ash (*Fraxinus excelsior*), small-leaved lime (*Tilia cordata*), European larch (*Larix decidua*), Norway spruce (*Picea abies*), European aspen (*Populus tremula*), black locust (*Robinia pseudoacacia*), goat willow (*Salix caprea*) and crack willow (*Salix euxina*). Fruit trees such as apple (*Malus* x *domestica*), common walnut (*Juglans regia*) and wild cherry (*Prunus avium*) are also frequent. The shrub layer contains elder (*Sambucus nigra*), European hornbeam (*Carpinus betulus*), hawthorn (*Crataegus* spp.), field maple (*Acer campestre*), common hazel (*Coryllus avellana*), wild privet (*Ligustrum vulgare*), dog rose (*Rosa canina*), blackthorn (*Prunus spinosa*), common dogwood (*Cornus sanguinea*), grey willow (*Salix cinerea*) and fly honeysuckle (*Lonicera xylosteum*); Colorado spruce (*Picea pungens*) has been planted occasionally.

Figure 34: Areas of trees and shrubs within the construction-site power-supply corridor.



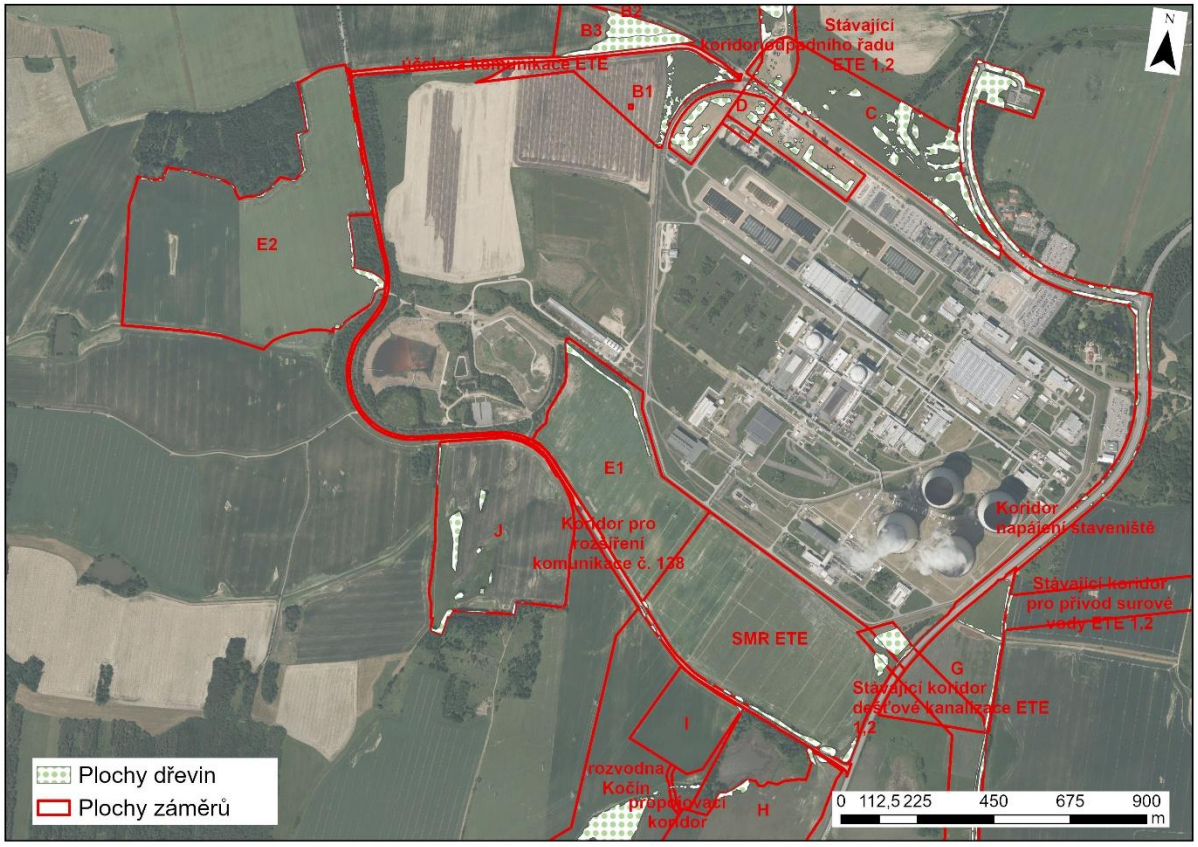
účelová komunikace ETE	ETE service road
Stávající koridor odpadního řádu ETE 1,2	Existing Units 1 and 2 wastewater pipeline corridor
Koridor pro rozšíření komunikace č. 138	Corridor for widening of Road No. 138
Koridor napájení staveniště	Construction-site power-supply corridor
Stávající koridor pro přívod surové vody ETE 1,2	Existing Units 1 and 2 raw-water-supply corridor
Stávající koridor dešťové kanalizace ETE 1,2	Existing Units 1 and 2 storm-sewer corridor
Plochy dřevin	Areas of trees and shrubs
Plochy záměrů	Project areas

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CORRIDOR FOR WIDENING OF ROAD No. II/138

Discontinuous rows and individual roadside trees have been planted within the corridor for widening Road II/138: Scots pine (*Pinus sylvestris*), 10 specimens; silver birch (*Betula pendula*), 1 specimen; sessile oak (*Quercus petraea*), 16 specimens; Norway maple (*Acer platanoides*), 22 specimens; small-leaved lime (*Tilia cordata*), 26 specimens; black alder (*Alnus glutinosa*), 3 specimens; Canadian poplar (*Populus* x *canadensis*), 22 specimens; and wild cherry (*Prunus avium*), 4 specimens. Shrubs and naturally regenerated woody plants also occur sporadically: dog rose (*Rosa canina*), goat willow (*Salix caprea*), hawthorn (*Crataegus* spp.), wild privet (*Ligustrum vulgare*), young wild cherry (*Prunus avium*) and crack willow (*Salix euxina*).

Figure 35: Areas of trees and shrubs within the corridor for widening Road II/138.



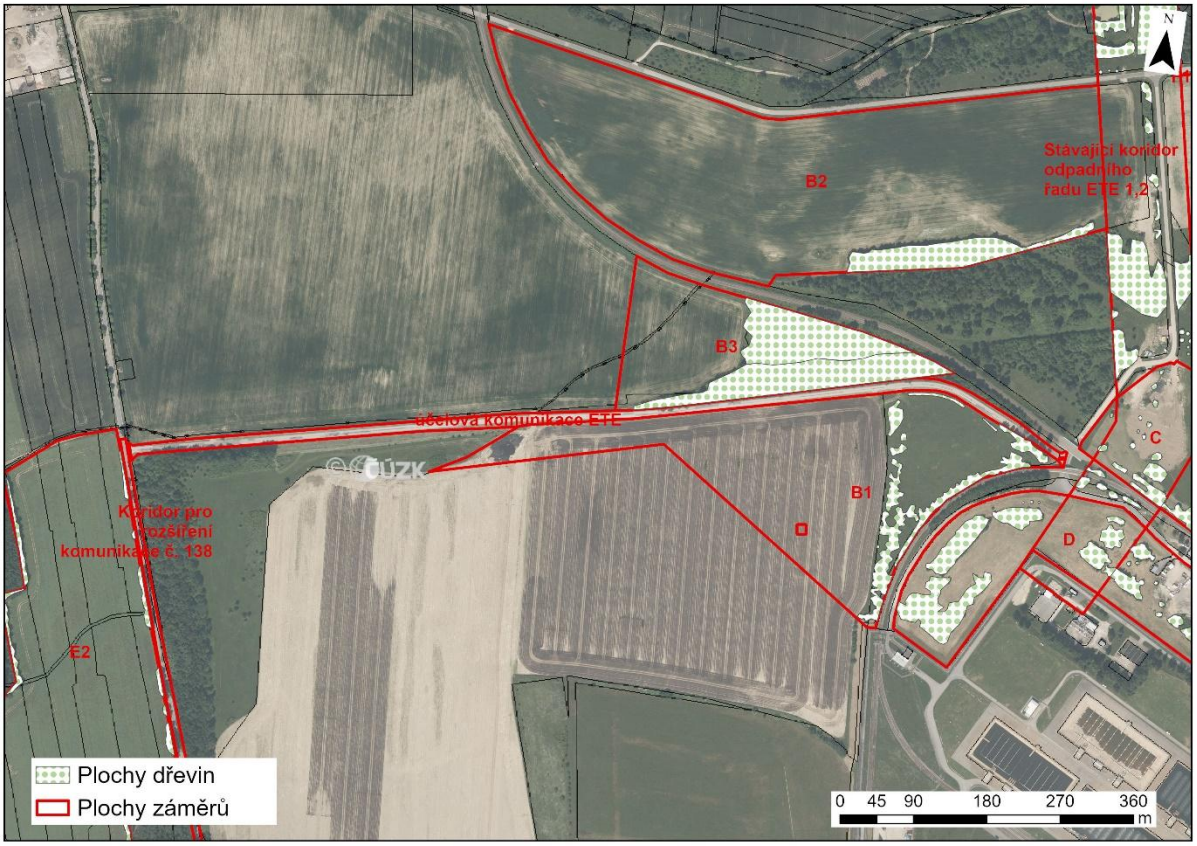
účelová komunikace ETE	ETE service road
Stávající koridor odpadního řádu ETE 1,2	Existing Units 1 and 2 wastewater pipeline corridor
Koridor pro rozšíření komunikace č. 138	Corridor for widening of Road No. 138
Koridor napájení staveniště	Construction-site power-supply corridor
Stávající koridor pro přívod surové vody ETE 1,2	Existing Units 1 and 2 raw-water-supply corridor
Stávající koridor dešťové kanalizace ETE 1,2	Existing Units 1 and 2 storm-sewer corridor
rozvodna Kočín	Kočín substation
připojovací koridor	connection corridor
Plochy dřevin	Areas of trees and shrubs
Plochy záměrů	Project areas

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ETE SERVICE ROAD

Woody plants in the service-road widening corridor are concentrated in its northeastern and southwestern sections; several younger specimens with a diameter at breast height of up to 20 cm also grow elsewhere. The species present are Scots pine (*Pinus sylvestris*), silver birch (*Betula pendula*), dog rose (*Rosa canina*), Norway spruce (*Picea abies*), goat willow (*Salix caprea*) and European aspen (*Populus tremula*).

Figure 36: Areas of trees and shrubs within the ETE service-road area.



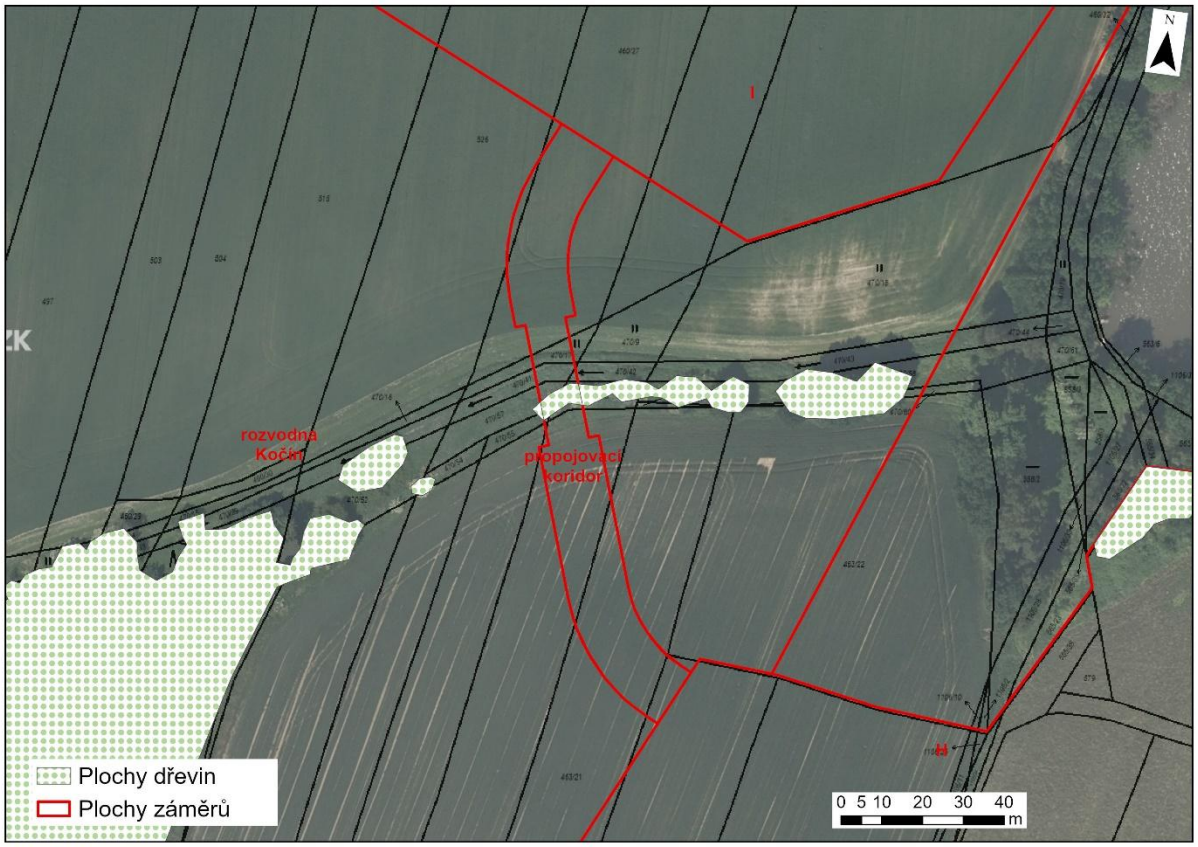
účelová komunikace ETE	ETE service road
Stávající koridor odpadního řádu ETE 1,2	Existing Units 1 and 2 wastewater pipeline corridor
Koridor pro rozšíření komunikace č. 138	Corridor for widening of Road No. 138
Plochy dřevin	Areas of trees and shrubs
Plochy záměrů	Project areas

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INTERCONNECTION CORRIDOR

Crack willow (*Salix euxina*), elder (*Sambucus nigra*) and several young sessile oaks (*Quercus petraea*) grow along Dvorčický Stream at the connection corridor.

Figure 37: Areas of trees and shrubs within the connection corridor.



rozvodna Kočín	Kočín substation
připojovací koridor	connection corridor
Plochy dřevin	Areas of trees and shrubs
Plochy záměrů	Project areas

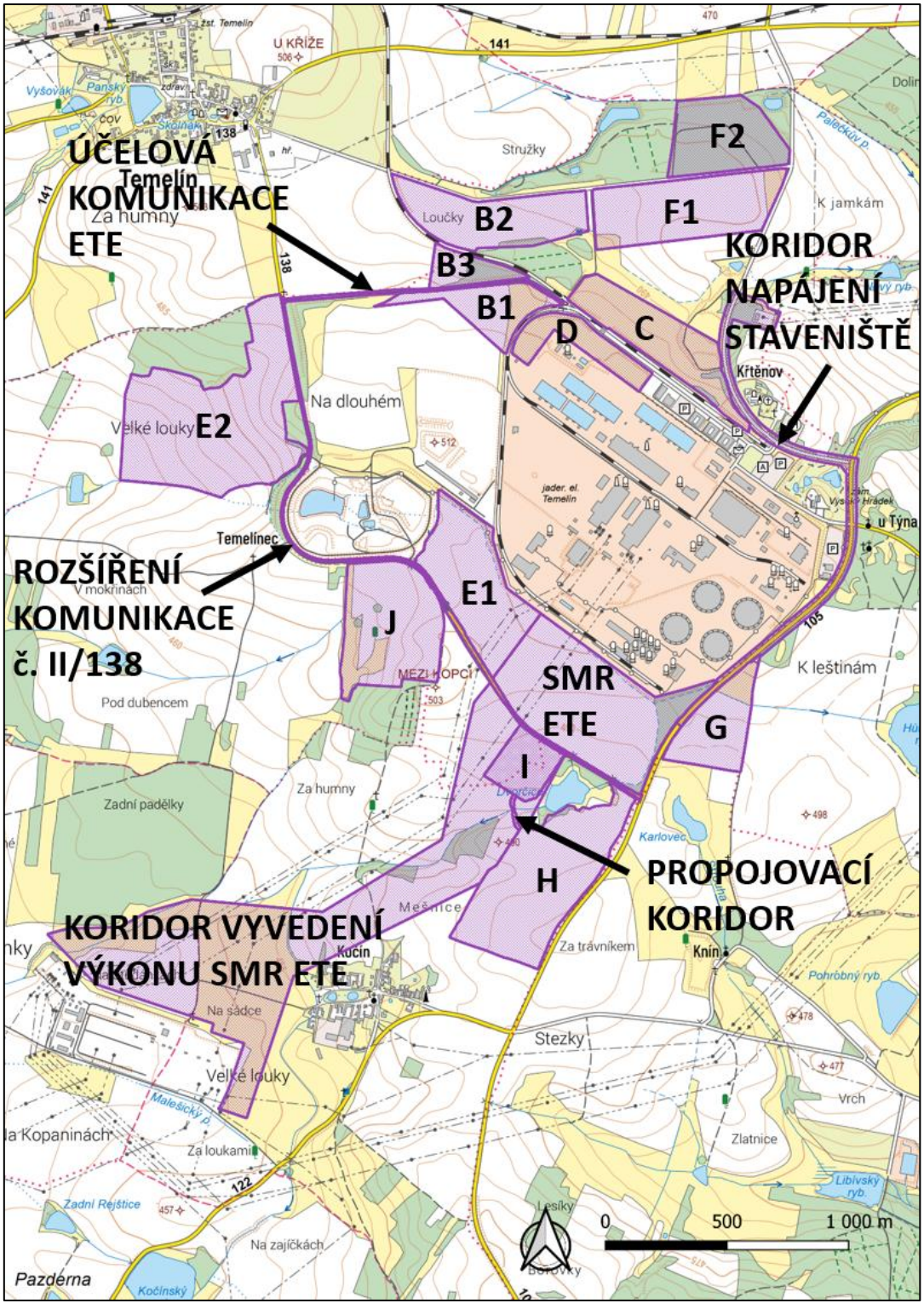
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8.2. Botanical survey

Authors

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Figure 41: Botanical survey sites.



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Melichar přírodovědecký průzkum

ÚČELOVÁ KOMUNIKACE ETE	**ETE SERVICE ROAD**
KORIDOR NAPÁJENÍ STAVENIŠTĚ	**CONSTRUCTION-SITE POWER-SUPPLY CORRIDOR**
ROZŠÍŘENÍ KOMUNIKACE Č. II/138	**WIDENING OF ROAD II/138**
KORIDOR VYVEDENÉ VÝKONU SMR ETE	**SMR ETE POWER EVACUATION CORRIDOR**
PROPOJOVACÍ KORIDOR	**INTERCONNECTION CORRIDOR**

Methodology

The floristic survey was conducted during the 2025 and 2026 growing seasons at all sites of higher biological value with potential for the occurrence of species of conservation importance. Field surveys were conducted during visits in different phases of the growing season in order to record all important plant species and different seasonal vegetation aspects. Survey dates: March 28; April 22–23; June 26–27; August 16–17; and October 4, 2025, and April 7 and June 7, 2026. Where significant species protected under Decree No. 395/1992 Coll. or included in the Red List (Grulich, 2012) were found, their occurrence was quantified at least by estimation.

A list of vascular plant species was compiled during the survey. Where species of greater conservation importance, protected under Decree No. 395/1992 Coll. or included in the Red List (Grulich, 2012), were identified, their occurrence was quantified at least by estimation. Taxon nomenclature is standardized according to Kubát (Kubát 2002). Specially protected taxa listed in Decree No. 395/1992 Coll. are shown in **bold** in the floristic list, together with their protection status (Section 3, endangered; Section 2, highly endangered; Section 1, critically endangered). Species included in the Red List are also shown in **bold**, together with their threat category: **C1, C2, C3, C4**.

The outputs of the floristic survey are a description of the vegetation and lists of vascular plants for the individual areas within the area of interest, a commentary on the more significant species, and an assessment of the project's effects on the flora of the affected area.

The inventory of vascular plants from the 2025 and 2026 survey follows on from the other surveys at the site listed in Section 4.2. The survey results generally overlap within the areas assessed jointly, while the survey conducted this year also provided information on the occurrence of additional species not previously identified in the area, including species of conservation importance. Minor differences result from natural changes in population abundance over the years, the weather in the relevant year or during the surveys, survey dates, the specializations of the individual experts, and similar factors.

Natural conditions

Geology

The Temelín Nuclear Power Plant site lies in the southern part of the Bohemian Massif, on the crystalline basement of the Moldanubian Zone. The bedrock consists predominantly of metamorphic rocks (paragneisses and migmatites) with granitoid intrusions. (Geological Map of Czechia, 1: 50,000).

Pedology (soil conditions)

The soil cover around the ETE site is a mosaic of brown earths on loamy sediments and gleyic luvisols in the floodplains of smaller watercourses and at locations with a higher groundwater table (GEO ČR, soil map at 1:50,000).

Climate

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The area around the ETE site has a moderately warm continental climate. According to MeteoNews data for 1994–2005, mean monthly precipitation is approximately 30 mm in winter, approximately 35–60 mm in spring and autumn, and highest in summer (June–August) at approximately 75–85 mm. Mean daily maximum temperatures are around 1 °C in winter, with minima around −4 to −5 °C, and up to approximately 24 °C in summer, with minima around 13 °C; values in the transitional seasons are appropriate to the respective season (spring/autumn).

Catchment and hydrology

The ETE site lies in an area draining to the Vltava River. A network of smaller streams and wetland sites is present in the immediate vicinity of the power plant and forms the local hydrographic network.

Phytogeographical classification

The area is part of the Bohemian-Moravian Mesophyticum, the South Bohemian Uplands and the Písek-Hluboká Ridge. (Regional phytogeographical classification of Czechia).

Geomorphological classification

Geomorphologically, the area lies at the boundary between the Central Bohemian Uplands and the Tábor Uplands within the South Bohemian part of the Bohemian Massif. The relief is gently undulating to hilly, with small valley depressions and floodplain enclaves.

Potential vegetation

The map of potential natural vegetation (Neuhauslová et al.) shows a predominance of deciduous oak-hornbeam and beech forests around the ETE site, combined with floodplain and wetland communities near watercourses.

Current vegetation

The area around the ETE site consists predominantly of managed vegetation. This comprises permanent grassland overseeded with grasses and common meadow species, and arable crops, most frequently oilseed rape and cereals. There are also various small woodland patches and naturally regenerated woody vegetation, including along roads and tracks. No small-scale specially protected area or natural habitat is located in the immediate vicinity of Units 1 and 2.

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SMR ETE SITE

Figure 42: A field planted with oilseed rape (*Brassica napus*); common arable weeds occur only at the margins. No specially protected or rare plant species occur here.



Habitats:
X2 – intensively managed arable fields
X7B – ruderal herbaceous vegetation outside settlements, other stands
X9A – forest plantations of non-native conifers
X12B – naturally regenerated pioneer woody vegetation, other stands
X13 – non-forest tree plantings outside settlements
Proportion of natural habitats: 0%.

Timothy (*Phleum pratense*)
Scarlet pimpernel (*Anagalis arvensis*)
German chamomile (*Matricaria chamomilla*)
Pineappleweed (*Matricaria discoidea*)
Scentless mayweed (*Tripleurospermum maritimum*)
Red dead-nettle (*Lamium purpureum*)
Barnyard grass (*Echinochloa crus-galli*)
Greater plantain (*Plantago major*)
Shepherd's purse (*Capsella bursa –pastoris*)
White sweet clover (*Melilotus albus*)
Bifid hemp-nettle (*Galeopsis bifida*)
Prickly lettuce (*Lactuca serriola*)
Long-headed poppy (*Papaver argemone*)
Common goosefoot (*Chenopodium album*)
Many-seeded goosefoot (*Chenopodium polyspermum*)

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Common whitlowgrass (*Erophilla verna*)
Field penny-cress (*Thlaspi arvense*)
Bugloss (*Lycopsis arvensis*)
Celery-leaved buttercup (*Ranunculus sceleratus*)
Sun spurge (*Euphorbia helioscopia*)
Pale persicaria (*Persicaria lapathifolia*)
Germander speedwell (*Veronica chamaedrys*)
Common dandelion (*Taraxacum* sect. *Ruderalia*)
Common knotgrass (*Polygonum aviculare*)
Wood small-reed (*Calamagrostis epigeois*)
Field pansy (*Viola arvensis*)
Wild pansy (*Viola tricolor*)
Tansy (*Tanacetum vulgare*)
American willowherb (*Epilobium adenocaulon*)
Common fumitory (*Fumaria officinalis*)

At the northeastern tip of the site, there is a small patch of naturally regenerated or planted woodland up to 30 years old, with ruderal vegetation:

Austrian pine (*Pinus nigra*) – tree layer
Scots pine (*Pinus sylvestris*) – tree layer
European spindle (*Euonymus auropaeus*)
Silver birch (*Betula pendula*) – tree layer
Pedunculate oak (*Quercus robur*) – tree and shrub layers
Rowan (*Sorbus aucuparia*)
Common nettle (*Urtica dioica*)
Great burnet (*Sanguisorba officinalis*)
Wood avens (*Geum urbanum*)
Small-leaved lime (*Tilia cordata*) – tree layer
Common hazel (*Coryllus avellana*)
Wild carrot (*Daucus carota*)
Bramble (*Rubus* sp.)
Meadow foxtail (*Alopecurus pratensis*)
Blackthorn (*Prunus spinosa*)
Colorado spruce (*Picea pungens*) – tree layer
Norway spruce (*Picea abies*) – tree layer
Common groundsel (*Senecio vulgaris*)
Wild cherry (*Prunus avium*)
Perforate St John's-wort (*Hypericum perforatum*)
Wood small-reed (*Calamagrostis epigeois*)
Eared willow (*Salix aurita*)
Fly honeysuckle (*Lonicera xylosteum*)

A mature avenue of Canadian poplar with eutrophic undergrowth runs along Road II/138.
Ground elder (*Aegopodium podagraria*)
Silver birch (*Betula pendula*)
Sessile oak (*Quercus petraea*)
Common nettle (*Urtica dioica*)
Wood avens (*Geum urbanum*)
Black alder (*Alnus glutinosa*)

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False oat-grass (*Arrhenatherum elatius*)
Canadian poplar (*Populus* x *canadensis*)
European aspen (*Populus tremula*)

SMR ETE POWER EVACUATION CORRIDOR

Habitats:
X2 – intensively managed arable fields
X5 – intensively managed meadows and pastures
X6 – anthropogenic areas with sparse vegetation outside settlements (field track)
X7B – ruderal herbaceous vegetation outside settlements, other stands
X9A – forest plantations of non-native conifers
X12B – naturally regenerated pioneer woody vegetation, other stands
X13 – non-forest tree plantings outside settlements
K3 – tall mesic and xeric scrub
T1.9 – intermittently wet purple moor-grass meadow, grading into T1.1 mesic Arrhenatherum meadows at the margins
Proportion of natural habitats: 7%.

Figure 43: Managed mown meadow, also grazed at times.



Mown managed meadow with common species. Grasses predominate; clovers are also dominant, while common dandelion and ribwort plantain are abundant. No specially protected or rare plant species occur here.

Timothy (*Phleum pratense*)
Selfheal (*Prunella vulgaris*)
Scentless mayweed (*Tripleurospermum maritimum*) – by the track
Red clover (*Trifolium pratense*)
White clover (*Trifolium repens*)
Perennial ryegrass (*Lolium perenne*)

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Ribwort plantain (*Plantago lanceolata*)
Greater plantain (*Plantago major*)
Tufted hair-grass (*Deschampsia cespitosa*)
Silverweed (*Potentilla anserina*)
False oat-grass (*Arrhenatherum elatium*)
Downy oat-grass (*Avenula pubescens*)
Creeping thistle (*Cirsium arvense*)
Creeping buttercup (*Ranunculus repens*)
Meadow buttercup (*Ranunculus acris*)
Meadow foxtail (*Alopecurus pratensis*)
Common bent (*Agrostis capillaris*)
Germander speedwell (*Veronica chamaedrys*)
Yarrow (*Achillea millefolium*)
Common daisy (*Bellis perennis*)
Common dandelion (*Taraxacum* sect. *Ruderalia*)
Cock's-foot (*Dactylis glomerata*)
Field bindweed (*Convalaria arvensis*) – by the track
Rough hawk's-beard (*Crepis biennis*)
Common bird's-foot-trefoil (*Lotus corniculatus*)
Perforate St John's-wort (*Hypericum perforatum*)
Tufted vetch (*Vicia cracca*)

The area also includes a field track with an avenue of naturally regenerated woody plants:
European spindle (*Euonymus europaea*) – shrub layer
Silver birch (*Betula pendula*) – shrub layer
Pedunculate oak (*Quercus robur*) – tree and shrub layers
Norway maple (*Acer platanoides*) – shrub layer
Small-leaved lime (*Tilia cordata*) – shrub layer
Dog rose (*Rosa canina*) – shrub layer
Wild cherry (*Prunus avium*) – shrub layer
Goat willow (*Salix caprea*) – shrub layer
Common nettle (*Urtica dioica*)
Bramble aggregate (*Rubus fruticosus* agg.)
Field horsetail (*Equisetum arvense*)
Hedge bedstraw (*Galium album*)

Managed mown meadow, also grazed at times:
Greater burnet-saxifrage (*Pimpinella major*)
Timothy (*Phleum pratense*)
Selfheal (*Prunella vulgaris*)
Scentless mayweed (*Tripleurospermum maritimum*) – by the track
Meadow vetchling (*Lathyrus pratensis*)
Loose silky-bent (*Apera spica-venti*)
Red clover (*Trifolium pratense*)
White clover (*Trifolium repens*)
Lesser trefoil (*Trifolium dubium*)
Italian ryegrass (*Lolium multiflorum*)
Perennial ryegrass (*Lolium perenne*)
Ribwort plantain (*Plantago lanceolata*)
Common nettle (*Urtica dioica*) – at the margin

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Great burnet (*Sanguisorba officinalis*)
Yorkshire-fog (*Holcus lanatus*)
Tufted hair-grass (*Deschampsia cespitosa*)
Silverweed (*Potentilla anserina*)
Wild carrot (*Daucus carota*)
False oat-grass (*Arrhenatherum elatium*)
Downy oat-grass *(Avenula pubescens)*
Creeping thistle (*Cirsium arvense*)
Coltsfoot (*Tussilago farfara*) – by the track
Creeping buttercup (*Ranunculus repens*)
Meadow buttercup (*Ranunculus acris*)
Meadow foxtail (*Aloperurus pratensis*)
Common bent (*Agrostis capillaris*)
Common couch (*Elytrigia repens*)
Germander speedwell (*Veronica chamaedrys*)
Common mouse-ear (*Cerastium holosteoides*)
Yarrow (*Achillea millefolium*)
Common dandelion (*Taraxacum* sect. *Ruderalia*)
Cock's-foot (*Dactylis glomerata*)
Marsh ragwort (*Senecio aquaticus*)
Soft brome (*Bromus mollis*)
Hedge bedstraw (*Galium album*)
Rough hawk's-beard (*Crepis biennis*)
Common bird's-foot-trefoil (*Lotus corniculatus*)
Broad-leaved dock (*Rumex obtusifolius*)
Wood small-reed (*Calamagrostis epigeois*) – in the ditch
Field pansy (*Viola arvensis*)

Intermittently wet meadow in the southwestern part of the area:
Woody plants:
European spindle (*Euonymus eurapeus*)
Pedunculate oak (*Quercus robur*)
Black alder (*Alnus glutinosa*)
Dog rose (*Rosa canina*)
Blackthorn (*Prunus spinosa*)
Eared willow (*Salix aurita*)

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Figure 44: Clumps of Siberian iris in the intermittently wet meadow in the southwestern part of the area.



Herbaceous plants:
Betony (*Betonica officinalis*)
Meadow vetchling (*Lathyrus pratensis*)
Reed canary-grass (*Phalaris arundinacea*)
Brown knapweed (*Centaurea jacea*)
Ragged-robin (*Lychnis flos-cuculi*)
Common nettle (*Urtica dioica*) – very abundant
Siberian iris (*Iris sibirica*); at least 119 clumps observed. It is a specially protected species in the highly endangered category (Section 2) and is also included in Red List category C3.
Common comfrey (*Symphytum officinale*)
Red fescue (*Festuca rubra*)
Meadow fescue (*Festuca pratensis*)
Great burnet (*Sanguisorba officinalis*)
Smooth meadow-grass (*Poa pratensis*)
Yorkshire-fog (*Holcus lanatus*)
Tufted hair-grass (*Deschampsia cespitosa*)
Silverweed (*Potentilla anserina*)
Lesser celandine (*Ficaria verna*)
Bladder sedge (*Carex vesicaria*)
Quaking-grass sedge (*Carex brizoides*)
False oat-grass (*Arrhenatherum elatium*)
Meadow oat-grass (*Helictotrichon pratense*)

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Marsh thistle (*Cirsium palustre*)
Creeping thistle (*Cirsium arvense*)
Meadow buttercup (*Ranunculus acris*)
Wood horsetail (*Equisetum sylvaticum*)
Field horsetail (*Equisetum arvense*)
Meadow foxtail (*Alopecurus pratensis*)
Lesser stitchwort (*Stelaria graminea*)
Yarrow (*Achillea millefolium*)
Wood club-rush (*Scirpus sylvaticus*)
Cock's-foot (*Dactylis glomerata*)
Northern bedstraw (*Galium boreale*), included in Red List category C4a. Thousands of individuals occur in the area.
Lady's bedstraw (*Galium verum*)
Common bird's-foot-trefoil (*Lotus corniculatus*)
Perforate St John's-wort (*Hypericum perforatum*)
Wood small-reed (*Calamagrostis epigeois*)
Tufted vetch (*Viccia cracca*)
Yellow loosestrife (*Lysimachia vulgaris*)
Spreading bellflower (*Campanula patula*)

Figure 45: Mown managed meadow with common species. Grasses predominate; clovers are also dominant, while common dandelion and ribwort plantain are abundant. No specially protected or rare plant species occur here. The occurrence of great burnet and marsh ragwort is noteworthy.



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Figure 46: Field of oilseed rape (*Brassica napus*).



A field planted with oilseed rape (*Brassica napus*); common arable weeds occur only at the margins. The occurrence of rat's-tail fescue (*Vulpia myorus*) is noteworthy. This species is classified as endangered in Czechia and included in category C3 of the Czech Red List of threatened species. One small group of plants, comprising several individuals, was found here.

Scarlet pimpernel (*Anagalis arvensis*)
Scentless mayweed (*Tripleurospermum maritimum*)
Loose silky-bent (*Apera spica-venti*)
Barnyard grass (*Echinochloa crus-galli*)
Perennial ryegrass (*Lolium perenne*)
Greater plantain (*Plantago major*)
Small-flowered cranesbill (*Geranium pusillum*)
Bifid hemp-nettle (*Galeopsis bifida*)
Annual meadow-grass (*Poa annua*)
Yorkshire-fog (*Holcus lanatus*)
Rat's-tail fescue (*Vulpia myorus*) – category C3 of the Czech Red List of threatened species.
False oat-grass (*Arrhenatherum elatium*)
Bugloss (*Lycopsis arvensis*)
Creeping bent (*Agrostis stolonifera*)
Common stork's-bill (*Erodium cicutarium*)
Water-pepper (*Persicaria hydropiper*)
Persian speedwell (*Veronica persica*)
Common mouse-ear (*Cerastium holosteoides*)
Common dandelion (*Taraxacum* sect. *Ruderalia*)
Broad-leaved dock (*Rumex obtusifolius*)
Field pansy (*Viola arve*nsis)

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Naturally regenerated stands:
This is a very eutrophic, overgrown area with naturally regenerated vegetation below the retention basin. Naturally regenerated trees and shrubs are present, while common nettle and reed canary-grass predominate in the herbaceous undergrowth.

Elder (*Sambucus nigra*) – shrub layer
Hogweed (*Heracleum sphondilium*)
Scots pine (*Pinus sylvestris*) – tree layer
Silver birch (*Betula pendula*) – tree layer
Pedunculate oak (*Quercus robur*) – tree and shrub layers
German chamomile (*Matricaria chamomilla*) – at the margin
Scentless mayweed (*Tripleurospermum maritimum*)
Reed canary-grass (*Phalaris arundinacea*)
European ash (*Fraxinus excelsior*) – tree layer
Common nettle (*Urtica dioica*) – very abundant
Tuberous chervil (*Chaerophyllum bulbosum*)
Small-leaved lime (*Tilia cordata*) – tree layer
Yorkshire-fog (*Holcus lanatus*)
Common goosefoot (*Chenopodium album*)
Raspberry (*Rubus idaeus*)
Creeping thistle (*Cirsium arvense*)
Common couch (*Elytrigia repens*)
Pale persicaria (*Persicaria lapathifolia*)
Dog rose (*Rosa canina*) – shrub layer
Wood club-rush (*Scirpus sylvaticus*)
Norway spruce (Picea abiea) – tree layer
Broad-leaved dock (*Rumex obtusifolius*)
Meadowsweet (*Filependula ulmaria*)
Goat willow (*Salix caprea*) – tree layer
Crack willow (*Salix euxina*) – shrub layer

An arable field sown with common oat (*Avena sativa*), with several arable weeds at the margin:
Wild garlic (*Allium vineale*)
Scarlet pimpernel (*Anagalis arvensis*)
Scentless mayweed (*Tripleurospermum maritimum*)
Bramble aggregate (*Rubus fruticosus* agg.)
False oat-grass (*Arrhenatherum elatium*)
Sun spurge (*Euphorbia helioscopia*)
Field horsetail (*Equisetum arvense*)
Dog rose (*Rosa canina*) – juvenile
Perforate St John's-wort (*Hypericum perforatum*)
Wood small-reed (*Calamagrostis epigeois*)

CONSTRUCTION FACILITIES – AREA I

Timothy (*Phleum pratense*)
German chamomile (*Matricaria chamomilla*)
Scentless mayweed (*Tripleurospermum maritimum*)
Reed canary-grass (*Phalaris arundinacea*)
Cornflower (*Centaurea cynaus*)

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Loose silky-bent (*Apera spica-venti*)
Barnyard grass (*Echinochloa crus-galli*)
Greater plantain (*Plantago major*)
Shepherd's purse (*Capsella bursa –pastoris*)
Common hemp-nettle (*Galeopsis tetrahit*)
Annual meadow-grass (*Poa annua*)
Fig-leaved goosefoot (*Chenopodium ficifolium*)
Field penny-cress (*Thlaspi arvense*)
Creeping thistle (*Cirsium arvense*)
Bugloss (*Lycopsis arvensis*)
Sun spurge (*Euphorbia helioscopia*)
Orange foxtail (*Alopecurus aequalis*)
Creeping bent (*Agrostis stolonifera*)
Water-pepper (*Persicaria hydropiper*)
Persian speedwell (*Veronica persica*)
Common mouse-ear (*Cerastium holosteoides*)
Perforate St John's-wort (*Hypericum perforatum*)
Field pansy (*Viola arve*nsis)
American willowherb (*Epilobium adenocaulon*)
Small sweet-grass (*Glyceria declinata*)

Figure 47: An arable field sown with common oat (*Avena sativa*), with several arable weeds at the margin; the field is quite wet near the pond. No specially protected or rare plant species occur here.



Habitats:
X2 – intensively managed arable fields
Proportion of natural habitats: 0%.

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CONSTRUCTION FACILITIES – AREA E1

Figure 48: Field of oilseed rape (*Brassica napus*). Arable weeds are scattered across the area. A narrow strip of naturally regenerated woody plants runs along the Units 1 and 2 fence. No specially protected or rare plant species occur here.



Habitats:
X2 – intensively managed arable fields
X12B – naturally regenerated pioneer woody vegetation, other stands
Proportion of natural habitats: 0%.

Silver birch (*Betula pendula*)
Scarlet pimpernel (*Anagalis arvensis*)
Sessile oak (*Quercus petraea*)
German chamomile (*Matricaria chamomilla*)
Scentless mayweed (*Tripleurospermum maritimum*)
Loose silky-bent (*Apera spica-venti*)
Barnyard grass (*Echinochloa crus-galli*)
Shepherd's purse (*Capsella bursa –pastoris*)
Common nettle (*Urtica dioica*)
Common goosefoot (*Chenopodium album*)
Many-seeded goosefoot (*Chenopodium polyspermum*)
Black bindweed (*Fallopia convolvulus*)
Bramble aggregate (*Rubus fruticosus* agg.)
Common oat (*Avena sativa*)
Field penny-cress (*Thlaspi arvense*)
Creeping thistle (*Cirsium arvense*)
Creeping bent (*Agrostis stolonifera*)
Common couch (*Elytrigia repens*)
Pale persicaria (*Persicaria lapathifolia*)
Persian speedwell (*Veronica persica*)
Cleavers (*Galium aparine*)
Broad-leaved dock (*Rumex obtusifolius*)

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European aspen (*Populus tremula*)
Common knotgrass (*Polygonum aviculare*)
Perforate St John's-wort (*Hypericum perforatum*)
Wood small-reed (*Calamagrostis epigeios*)
Flixweed (*Descurainia sophia*)
Field pansy (*Viola arvensis*)
Goat willow (*Salix caprea*)

CONSTRUCTION FACILITIES – AREA E2

Figure 49: Field of oilseed rape (*Brassica napus*). Arable weeds are scattered across the area. No specially protected or rare plant species occur here.



Habitats:
X2 – intensively managed arable fields
X9A – coniferous stands of non-native woody plants
Proportion of natural habitats: 0%.

Timothy (*Phleum pratense*)
Scots pine (*Pinus sylvestris*)
Silver birch (*Betula pendula*)
Sessile oak (*Quercus petraea*)
Scentless mayweed (*Tripleurospermum maritimum*)
Cornflower (*Centaurea cyanus*)
Loose silky-bent (*Apera spica-venti*)
Shepherd's purse (*Capsella bursa –pastoris*)
Common nettle (*Urtica dioica*)
Small-leaved lime (*Tilia cordata*)

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Prickly lettuce (*Lactuca serriola*)
Lesser burdock (*Arctium minus*)
Woolly burdock (*Arctium tomentosum*)
Yorkshire-fog (*Holcus lanatus*)
Common goosefoot (*Chenopodium album*)
Wild carrot (*Daucus carota*)
Common oat (*Avena sativa*)
False oat-grass (*Arrhenatherum elatium*)
Mugwort (*Artemisia vulgaris*)
Field penny-cress (*Thlaspi arvense*)
Spear thistle (*Cirsium vulgare*)
Creeping thistle (*Cirsium arvense*)
Common couch (*Elytrigia repens*)
Persian speedwell (*Veronica persica*)
Yarrow (*Achillea millefolium*)
Blackthorn (*Prunus spinosa*)
Field bindweed (*Convolvulus arvensis*)
European aspen (*Populus tremula*)
Perforate St John's-wort (*Hypericum perforatum*)
Canadian fleabane (*Conyza canadensis*)
Field pansy (*Viola arvensis*)
Tansy (*Tanacetum vulga*re)

CONSTRUCTION FACILITIES – AREA H

Figure 50: Desiccated field, subsequently sown with cereals, with scattered weeds. Dozens of specimens of **night-flowering catchfly (*Silene noctiflora*)**, which is included in Red List category C4a, grow here.



Habitats:
X2 – intensively managed arable fields

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Proportion of natural habitats: 0%.

Timothy (*Phleum pratense*)
Scentless mayweed (*Tripleurospermum maritimum*)
Reed canary-grass (*Phalaris arundinacea*)
Barnyard grass (*Echinochloa crus-galli*)
Greater plantain (*Plantago major*)
Common nettle (*Urtica dioica*)
Common goosefoot (*Chenopodium album*)
False oat-grass (*Arrhenatherum elatium*)
Spear thistle (*Cirsium vulgare*)
Creeping thistle (*Cirsium arvense*)
Field horsetail (*Equisetum arvense*)
Creeping bent (*Agrostis stolonifera*)
Water-pepper (*Persicaria hydropiper*)
Night-flowering catchfly (*Silene noctiflora*), included in Red List category C4a.
Common dandelion (*Taraxacum* sect. *Ruderalia*)
Field bindweed (*Convolvulus arvensis*)
Curled dock (*Rumex crispus*)
Broad-leaved dock (*Rumex obtusifolius*)
Perforate St John's-wort (*Hypericum perforatum*)
Smooth tare (*Vicia tetrasperma*)
Yellow loosestrife (*Lysimachia vulgaris*)

Area H includes part of the naturally regenerated stands around Dvorčice Pond.
Pedunculate oak (*Quercus robur*)
Silver birch (*Betula pendula*)
Apple (*Malus* x *domestica*)
Small-leaved lime (*Tilia cordata*)
Black alder (*Alnus glutinosa*) European aspen (*Populus tremula*)
Crack willow (*Salix euxina*)
Grey willow (*Salix cinerea*)

CONSTRUCTION FACILITIES – AREA G

Habitats:
X2 – intensively managed arable fields
X5 – intensively managed meadows and pastures
K3 – tall mesic and xeric scrub
Proportion of natural habitats: 3%.

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Figure 51: Mown managed meadow dominated by grasses, without any significant meadow species.



Mown managed meadow:
Hogweed (*Heracleum sphondylium*)
Selfheal (*Prunella vulgaris*)
Meadow vetchling (*Lathyrus pratensis*)
Maiden pink (*Dianthus deltoides*)
Field scabious (*Knautia arvensis*)
Brown knapweed (*Centaurea jacea*)
Red clover (*Trifolium pratense*)
White clover (*Trifolium repens*)
Lesser trefoil (*Trifolium dubium*)
Alsike clover (*Trifolium hybridum*)
Ribwort plantain (*Plantago lanceolata*)
Shepherd's purse (*Capsella bursa –pastoris*)
Red fescue (*Festuca rubra*)
Meadow fescue (*Festuca pratensis*)
Tufted hair-grass (*Deschampsia cespitosa*)
Wild carrot (*Daucus carota*)
False oat-grass (*Arrhenatherum elatium*)
Cat's-ear (*Hypochoeris radicata*)
Meadow foxtail (*Alopecurus pratensis*)
Common bent (*Agrostis capillaris*)
Germander speedwell (*Veronica chamaedrys*)
Yarrow (*Achillea millefolium*)
Cuckooflower (*Cardamine pratensis*)
Slender rush (*Juncus tenuis*)
Common dandelion (*Taraxacum* sect. *Ruderalia*)

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Cock's-foot (*Dactylis glomerata*)
Marsh ragwort (*Senecio aquaticus*)
Hedge bedstraw (*Galium album*)
Rough hawk's-beard (*Crepis biennis*)
Common bird's-foot-trefoil (*Lotus corniculatus*)
Black medick (*Medicago lupulina*)
Perforate St John's-wort (*Hypericum perforatum*)
Canadian fleabane (*Conyza canadensis*)
Tufted vetch (*Vicia cracca*)

A row of shrubs on a field boundary with eutrophic undergrowth:
Bramble (*Rubus* sp.)
False oat-grass (*Arrhenatherum elatium*)
Dog rose (*Rosa canina*)
Plum (*Prunus domestica*)
Blackthorn (*Prunus spinosa*)
Hedge bedstraw (*Galium album*)
Lady's bedstraw (*Galium verum*)
Wood small-reed (*Calamagrostis epigeios*)

Arable field:
Scentless mayweed (*Tripleurospermum maritimum*)
Red dead-nettle (*Lamium purpureum*)
Shepherd's purse (*Capsella bursa –pastoris*)
Annual meadow-grass (*Poa annua*)
Wild carrot (*Daucus carota*)
Bramble aggregate (*Rubus fruticosus* agg.)
False oat-grass (*Arrhenatherum elatium*)
Creeping thistle (*Cirsium arvense*)
Changing forget-me-not (*Myosotis discolor*) – included in Red List category C2b.
Creeping bent (*Agrostis stolonifera*)
Persian speedwell (*Veronica persica*)
Hedge bedstraw (*Galium album*)
Broad-leaved dock (*Rumex obtusifolius*)
Perforate St John's-wort (*Hypericum perforatum*)
Wood small-reed (*Calamagrostis epigeios*)

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Figure 52: Cereal field, desiccated in spring. Arable weeds are scattered across the area. Several highly endangered changing forget-me-nots (*Myosotis discolor*) were found at the field margin towards the shrub-covered field boundary.



CONSTRUCTION FACILITIES – AREA J

Habitats:
T1.1 – mesic Arrhenatherum meadows
T1.5 – wet Cirsium meadows
T1.9 – intermittently wet Molinia meadows
X2 – intensively managed arable fields
X13 – non-forest tree plantings outside settlements
Proportion of natural habitats: 20%.

Area J includes three different habitat types. The upper parts, which account for approximately 70% of its area, consist of a cereal field that is wet in places and has therefore been drained. Grasses and ruderal species are scattered along its margins. The lower part of the area is dominated by a slightly waterlogged meadow with elements of Cirsium meadows and, locally, purple moor-grass meadows; at drier locations, it contains species of mesic Arrhenatherum meadows. The meadow is species-rich and of high quality. Rows and groups of mature woody plants, principally limes, ashes and aspen, grow along an abandoned mill race and locally elsewhere. No rare species were found here.

Naturally regenerated stands:
Scots pine (*Pinus sylvestris*)
European spindle (*Euonymus eurapeus*)
European ash (*Fraxinus excelsior*) – tree layer
Common nettle (*Urtica dioica*)

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Small-leaved lime (*Tilia cordata*) – tree layer
Wood meadow-grass (*Poa nemoralis*)
Norway spruce (*Picea abies*) – tree layer
Cleavers (*Galium aparine*)
European aspen (*Populus tremula*) – tree layer
Blackthorn (*Prunus spinosa*) – shrub layer
Wood small-reed (*Calamagrostis epigeois*)
Bramble aggregate (*Rubus fruticosus* agg.)
Raspberry (*Rubus idaeus*)
Crack willow (*Salix euxina*) – tree layer

Figure 53: Arable field within Area J.



Arable field:
Scentless mayweed (*Tripleurospermum maritimum*)
Greater plantain (*Plantago major*)
Cow parsley (*Anthriscus sylvestris*)
Common nettle (*Urtica dioica*)
Mugwort (*Artemisia vulgaris*)
Creeping thistle (*Cirsium arvense*)
Common couch (*Elytrigia repens*)
Pale persicaria (*Persicaria lapathifolia*)
Common knotgrass (*Polygonum aviculare*)
Yarrow (*Achillea millefolium*)
Common dandelion (*Taraxacum* sect. *Ruderalia*)
Cock's-foot (*Dactylis glomerata*)

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Cleavers (*Galium aparine*)
Broad-leaved dock (*Rumex obtusifolius*)
Wood small-reed (*Calamagrostis epigeois*)
Tansy (*Tanacetum vulga*re)

Wet Cirsium meadow:
Field wood-rush (*Luzula campestris*)
Timothy (*Phleum pratense*)
Betony (*Betonica officinalis*)
Devil's-bit scabious (*Succisa pratensis*)
Meadow vetchling (*Lathyrus pratensis*)
Reed canary-grass (*Phalaris arundinacea*)
Red clover (*Trifolium pratense*)
Ribwort plantain (*Plantago lanceolata*)
Red fescue (*Festuca rubra*)
Great burnet (*Sanguisorba officinalis*)
Yorkshire-fog (*Holcus lanatus*)
Tufted hair-grass (*Deschampsia cespitosa*)
Silverweed (*Potentilla anserina*)
Common sedge (*Carex nigra*)
False oat-grass (*Arrhenatherum elatium*)
Water forget-me-not (*Myosotis palustris*)
Ground ivy (*Glechoma hederacea*)
Meadow buttercup (*Ranunculus acris*)
Creeping buttercup (*Ranunculus repens*)
Meadow foxtail (*Alopecurus pratensis*)
Germander speedwell (*Veronica chamaedrys*)
Common mouse-ear (*Cerastium holosteoides*)
Yarrow (*Achillea millefolium*)
Cuckooflower (*Cardamine pratensis*)
Soft rush (*Juncus effuzus*)
Wood club-rush (*Scirpus sylvaticus*)
Common dandelion (*Taraxacum* sect. *Ruderalia*)
Mat-grass (*Nardus stricta*)
Cock's-foot (*Dactylis glomerata*)
Hedge bedstraw (*Galium album*)
Common bird's-foot-trefoil (*Lotus corniculatus*)
Broad-leaved dock (*Rumex obtusifolius*)
Sweet vernal-grass (*Anthoxanthum odoratum*)
Meadowsweet (*Filipendula ulmaria*)
Perforate St John's-wort (*Hypericum perforatum*)
Heath dog-violet (*Viola canina*)
Yellow loosestrife (*Lysimachia vulgaris*)
Bugle (*Ajuga reptans*)
Floating sweet-grass (*Glyceria fluitans*)
Spreading bellflower (*Campanula patula*)

CONSTRUCTION FACILITIES – AREA B1

Habitats:

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X2 – intensively managed arable fields
X5 – intensively managed meadows and pastures
X13 – non-forest tree plantings outside settlements
Proportion of natural habitats: 0%.

Figure 54: B1A) Mown meadow with woody-plant planting at its margin.



Mown managed meadow without any significant species. A belt of planted trees, including pines, birches and apples, between the meadow and the field, with ruderal vegetation in the undergrowth.

Scots pine (*Pinus sylvestris*)
Silver birch (*Betula pendula*) – tree and shrub layers
Selfheal (*Prunella vulgaris*)
Meadow vetchling (*Lathyrus pratensis*)
Apple (*Malus* x *domestica*) – shrub layer
Field maple (*Acer campestre*) – shrub layer
Hop trefoil (*Trifolium campestre*)
White clover (*Trifolium repens*)
Alsike clover (*Trifolium hybridum*)
Ribwort plantain (*Plantago lanceolata*)
Ragged-robin (*Lychnis flos-cuculi*)
Irkutsk oxeye daisy (*Leucanthemum ircutsianum*)
Red fescue (*Festuca rubra*)
Meadow fescue (*Festuca pratensis*)
Prickly lettuce (*Lactuca serriola*)
Yorkshire-fog (*Holcus lanatus*)
Silverweed (*Potentilla anserina*)
Wild carrot (*Daucus carota*)
False oat-grass (*Arrhenatherum elatium*)
Spear thistle (*Cirsium vulgare*)

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Crested dog's-tail (*Cynosurus cristatus*)
Creeping buttercup (*Ranunculus repens*)
Yarrow (*Achillea millefolium*)
Common dandelion (*Taraxacum* sect. *Ruderalia*)
Cock's-foot (*Dactylis glomerata*)
Hedge bedstraw (*Galium album*)
Rough hawk's-beard (*Crepis biennis*)
Common bird's-foot-trefoil (*Lotus corniculatus*)
Wild cherry (*Prunus avium*) – shrub layer
Spreading bellflower (*Campanula patula*)

Species beneath the woody-plant planting:
Timothy (*Phleum pratense*)
Ground elder (*Aegopodium podagraria*)
Scentless mayweed (*Tripleurospermum maritimum*)
Alsike clover (*Trifolium hybridum*)
Smooth meadow-grass (*Poa pratensis*)
Yorkshire-fog (*Holcus lanatus*)
Bramble aggregate (*Rubus fruticosus* agg.)
False oat-grass (*Arrhenatherum elatium*)
Spear thistle (*Cirsium vulgare*)
Hedge bedstraw (*Galium album*)
Wood small-reed (*Calamagrostis epigeois*)
Yellow loosestrife (*Lysimachia vulgaris*)

Figure 55: B1B) Slightly waterlogged arable field.



Arable field planted with maize (*Zea mays*). Naturally regenerated woody plants between the meadow and the field. Common arable weeds at the field margin.

Scentless mayweed (*Tripleurospermum maritimum*)
Common knotgrass (*Polygonum aviculare*)

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Barnyard grass (*Echinochloa crus-galli*)
Pale persicaria (*Persicaria lapathifolia*)
Field bindweed (*Convolvulus arvensis*)
Canadian fleabane (*Conyza canadensis*)
Common couch (*Elytrigia repens*)
American willowherb (*Epilobium adenocaulon*)

CONSTRUCTION FACILITIES – AREA B2

Figure 56: Area B2 consists of a slightly waterlogged field of common wheat (*Triticum aestivum*), with arable weeds growing at the margins. The area also includes the edge of a naturally regenerated stand at the boundary between an embankment and the field.



Habitats:
X2 – intensively managed arable fields
X12B – naturally regenerated pioneer woody vegetation, other stands
Proportion of natural habitats: 0%.

Pineappleweed (*Matricaria discoidea*)
Scentless mayweed (*Tripleurospermum maritimum*)
Cornflower (*Centaurea cyanus*)
Crimson clover (*Trifolium incarnatum*)
Barnyard grass (*Echinochloa crus-galli*)
Ribwort plantain (*Plantago lanceolata*)
Greater plantain (*Plantago major*)
Shepherd's purse (*Capsella bursa –pastoris*)
Corn salad (*Valerianella locusta*)
Prickly lettuce (*Lactuca serriola*)

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Common goosefoot (*Chenopodium album*)
Creeping cinquefoil (*Potentilla reptans*)
Wild carrot (*Daucus carota*)
False oat-grass (*Arrhenatherum elatium*)
Field penny-cress (*Thlaspi arvense*)
Spear thistle (*Cirsium vulgare*)
Creeping thistle (*Cirsium arvense*)
Creeping bent (*Agrostis stolonifera*)
Common couch (*Elytrigia repens*)
Pale persicaria (*Persicaria lapathifolia*)
Persian speedwell (*Veronica persica*)
Soft brome (*Bromus moll*is)
Black medick (*Medicago lupulina*)
Perforate St John's-wort (*Hypericum perforatum*)
Wood small-reed (*Calamagrostis epigeois*)
Annual fleabane (*Erigeron annuus*)
Tufted vetch (*Vicia cracca*)
Tansy (*Tanacetum vulga*re)
American willowherb (*Epilobium adenocaulon*)

Naturally regenerated woody stands
Silver birch (*Betula pendula*) – tree and shrub layers
Wild strawberry (*Fragaria vesca*)
Red fescue (*Festuca rubra*)
Sheep's-fescue (*Festuca ovina*)
Dog rose (*Rosa canina*) – shrub layer
Norway spruce (*Picea abies*) – tree and shrub layers
European aspen (*Populus tremula*) – tree layer
Wood small-reed (*Calamagrostis epigeois*)
Goat willow (*Salix caprea*) – tree layer

CONSTRUCTION FACILITIES – AREA B3

Area B3 consists of three different habitat types. The western part is a wet field currently planted with wheat, with a small number of arable weeds. To the east, between the road and the railway line, is a remnant of the original meadow and wetland vegetation, almost completely overgrown with naturally regenerated willows and birches. There is also a stand of natural-regeneration origin on the slope below the road, but it is clearly developing towards acidophilous oak woodland. No specially protected plant species or Red List species were found here.

Habitats:
T1.5 – wet Cirsium meadows
T1.9 – intermittently wet purple moor-grass meadows, lowest quality W
K1 – wetland willow scrub
L7.1 – dry acidophilous oak forests
X2 – intensively managed arable fields
X12B – naturally regenerated pioneer woody vegetation, other stands
Proportion of natural habitats: 52%.

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Figure 57: Naturally regenerated stands on the slope below the road.



Figure 58: Wet meadows becoming overgrown with naturally regenerated willows and birches.



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Arable weed vegetation in the field:
Timothy (*Phleum pratense*)
Pineappleweed (*Matricaria discoidea*)
Scentless mayweed (*Tripleurospermum maritimum*)
Cornflower (*Centaurea cyanus*)
Barnyard grass (*Echinochloa crus-galli*)
Shepherd's purse (*Capsella bursa –pastoris*)
Autumn hawkbit (*Leontodon autumnalis*)
Silverweed (*Potentilla anserina*)
Field penny-cress (*Thlaspi arvense*)
Spear thistle (*Cirsium vulgare*)
Creeping thistle (*Cirsium arvense*)
Creeping buttercup (*Ranunculus repens*)
Common couch (*Elytrigia repens*)
Pale persicaria (*Persicaria lapathifolia*)
Common knotgrass (*Polygonum aviculare*)
Persian speedwell (*Veronica persica*)
Creeping yellow-cress (*Rorippa sylvestris*)
Yarrow (*Achillea millefolium*)
Common dandelion (*Taraxacum* sect. *Ruderalia*)
Hedge bedstraw (*Galium album*)
Cleavers (*Galium aparine*)
Wood small-reed (*Calamagrostis epigeois*)
Perforate St John's-wort (*Hypericum perforatum*)
Annual fleabane (*Erigeron annuus*)
Tansy (*Tanacetum vulga*re)

Vegetation of the naturally regenerated stands on the slope below the road:
Scots pine (*Pinus sylvestris*)
Silver birch (*Betula pendula*) – tree layer
European beech (*Fagus sylvatica*) – shrub layer
Northern red oak (*Quercus rubra*) – shrub layer, invasive species
Pedunculate oak (*Quercus robur*) – tree and shrub layers
Male-fern (*Dryopteris filix-mas*)
Red fescue (*Festuca rubra*)
Sheep's-fescue (*Festuca ovina*)
Wood avens (*Geum urbanum*)
English hawthorn (*Crataegus laevigata*) – shrub layer
Apple (*Malus* x *domestica*)
Wild strawberry (*Fragaria vesca*)
European ash (*Fraxinus excelsior*) – shrub layer
Rowan (*Sorbus aucuparia*) – shrub layer
Savoy hawkweed (*Hieracium sabaudum*)
Zigzag clover (*Trifolium medium*)
Hare's-foot clover (*Trifolium arvense*)
Ribwort plantain (*Plantago lanceolata*)
Wych elm (*Ulmus glabra*) – shrub layer
Wild liquorice (*Astragalus glycyphyllos*)
Wood meadow-grass (*Poa nemoralis*)
Small-leaved lime (*Tilia cordata*) – shrub layer

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Large-leaved lupin (*Lupinus polyphyllus*) – invasive species
Wavy hair-grass (*Avenella flexuosa*)
Bramble aggregate (*Rubus fruticosus* agg.)
Raspberry (*Rubus idaeus*)
False oat-grass (*Arrhenatherum elatium*)
Wild privet (*Ligustrum vulgare*) – shrub layer
Dog rose (*Rosa canina*) – shrub layer
Yarrow (*Achillea millefolium*)
European aspen (*Populus tremula*) – tree layer
Wild cherry (*Prunus avium*) – shrub layer
Perforate St John's-wort (*Hypericum perforatum*)
Hairy small-reed (*Calamagrostis villosa*)
Wood small-reed (*Calamagrostis epigeois*)
Purple small-reed (*Calamagrostis arundinacea*)
Dog rose (*Rosa canina*) – shrub layer
Norway spruce (*Picea abies*) – tree and shrub layers
Cock's-foot (*Dactylis glomerata*)
Bird cherry (*Padus racemosa*) – shrub layer
Smooth hawk's-beard (*Crepis capillaris*)
Common bird's-foot-trefoil (*Lotus corniculatus*)
Goat willow (*Salix caprea*) – tree layer

Vegetation of overgrown waterlogged meadows and naturally regenerated stands:
Elder (*Sambucus nigra*)
Ground elder (*Aegopodium podagraria*)
Silver birch (*Betula pendula*) – shrub layer
Meadow vetchling (*Lathyrus pratensis*)
Reed canary-grass (*Phalaris arundinacea*)
Zigzag clover (*Trifolium medium*)
Gypsywort (*Lycopus europaeus*)
Common nettle (*Urtica dioica*)
Red fescue (*Festuca rubra*)
Common valerian (*Valeriana officinalis* agg.)
Swamp meadow-grass (*Poa palustris*)
Yorkshire-fog (*Holcus lanatus*)
Tufted hair-grass (*Deschampsia cespitosa*)
Silverweed (*Potentilla anserina*)
Wild carrot (*Daucus carota*)
Hairy sedge (*Carex hirta*)
Bladder sedge (*Carex vesicaria*)
False oat-grass (*Arrhenatherum elatium*)
Marsh thistle (*Cirsium palustre*)
Ground ivy (*Glechoma hederacea*)
Creeping buttercup (*Ranunculus repens*)
Meadow buttercup (*Ranunculus acris*)
Meadow foxtail (*Alopecurus pratensis*)
Water horsetail (*Equisetum fluviatille*)
Field horsetail (*Equisetum arvense*)
Common reed (*Phragmites australis*)
Dog rose (*Rosa canina*) – shrub layer

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Soft rush (*Juncus effuzus*)
Wood club-rush (*Scirpus sylvaticus*)
Cock's-foot (*Dactylis glomerata*)
Bird cherry (*Prunus padus*) – shrub layer
Fen bedstraw (*Galium uliginosum*)
Perforate St John's-wort (*Hypericum perforatum*)
Wood small-reed (*Calamagrostis epigeois*)
Meadowsweet (*Filipendula ulmaria*)
Crack willow (*Salix euxina*) – tree layer
Goat willow (*Salix caprea*) – tree layer
Grey willow (*Salix cinerea*) – shrub layer
Yellow loosestrife (*Lysimachia vulgaris*)
Spreading bellflower (*Campanula patula*)

CONSTRUCTION FACILITIES – AREA C

Figure 59: View of Area C.



The area includes mown managed meadows, with individual or group plantings of woody plants in part of the area. The meadow is dominated by grasses and clovers, while common dandelion is also abundant. In places, the meadows already have the semi-natural character of lower-quality mesic Arrhenatherum meadows or wet Cirsium meadows. At the northeastern edge, the area grades into a shallow valley lined with a mature naturally regenerated stand. Principally in this part, but also elsewhere, there are large populations numbering in the thousands of **common centaury (*Centaurium erythraea*)**, which is included in Red List category C4a. At wetter locations, **northern bedstraw (*Galium boreale*)**, also included in Red List category C4a, occurs sporadically. Part of the area is still used for handling operations and temporary material stockpiles.

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Habitats:
T1.1 – mesic Arrhenatherum meadows
T1.5 – wet Cirsium meadows
L7.1 – dry acidophilous oak forests
X5 – intensively managed meadows and pastures
X12B – naturally regenerated pioneer woody vegetation, other stands
X13 – non-forest tree plantings outside settlements
Proportion of natural habitats: 18%.

Plantings and naturally regenerated vegetation:
Scots pine (*Pinus sylvestris*) – shrub layer
Elder (*Sambucus nigra*) – shrub layer
Silver birch (*Betula pendula*) – shrub layer
Pedunculate oak (*Quercus robur*) – tree and shrub layers
European hornbeam (*Carpinus betulus*) – shrub layer
Common hawthorn (*Crataegus monogyna*) – shrub layer
European ash (*Fraxinus excelsior*) – shrub layer
Field maple (*Acer campestre*) – shrub layer
Rowan (*Sorbus aucuparia*) – shrub layer
Wych elm (*Ulmus glabra*) – shrub layer
Large-leaved lime (*Tilia platyphyllos*) – shrub layer
Common hazel (*Corylus avellana*) – shrub layer
Dog rose (*Rosa canina*) – shrub layer
Common buckthorn (*Rhamnus cathartica*) – shrub layer
Norway spruce (*Picea abies*) – tree and shrub layers
Bird cherry (*Prunus padus*) – shrub layer
Wild cherry (*Prunus avium*) – tree layer
Goat willow (*Salix caprea*) – tree layer

Mown meadow:
Timothy (*Phleum pratense*)
Scentless mayweed (*Tripleurospermum maritimum*)
Maiden pink (*Dianthus deltoides*)
Brown knapweed (*Centaurea jacea*)
Red clover (*Trifolium pratense*)
White clover (*Trifolium repens*)
Alsike clover (*Trifolium hybridum*)
Ribwort plantain (*Plantago lanceolata*)
Greater plantain (*Plantago major*)
Ragged-robin (*Lychnis flos-cuculi*)
Irkutsk oxeye daisy (*Leucanthemum irrcucianum*)
Common nettle (*Urtica dioica*)
Red fescue (*Festuca rubra*)
Meadow fescue (*Festuca pratensis*)
Yellow star-of-Bethlehem (*Gagea lutea*)
Wood meadow-grass (*Poa nemoralis*)
Broad-leaved meadow-grass (*Poa chaixii*)
Smooth meadow-grass (*Poa pratensis*)
Autumn hawkbit (*Leontodon autumnalis*)

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Creeping soft-grass (*Holcus mollis*)
Yorkshire-fog (*Holcus lanatus*)
Silverweed (*Potentilla anserina*)
Wild carrot (*Daucus carota*)
False oat-grass (*Arrhenatherum elatium*)
Cat's-ear (*Hypochoeris radicata*)
Meadow buttercup (*Ranunculus acris*)
Meadow foxtail (*Alopecurus pratensis*)
Yarrow (*Achillea millefolium*)
Wood anemone (*Anemone nemorosa*)
Common dandelion (*Taraxacum* sect. *Ruderalia*)
Cock's-foot (*Dactylis glomerata*)
Northern bedstraw (*Galium boreale*), included in Red List category C4a.
Common bird's-foot-trefoil (*Lotus corniculatus*)
Common sorrel (*Rumex acetosa*)
Yellow oat-grass (*Trisetum flavescens*)
Perforate St John's-wort (*Hypericum perforatum*)
Wood small-reed (*Calamagrostis epigeois*)
Tansy (*Tanacetum vulga*re)
Common centaury (*Centaurium erythraea*), included in Red List category C4a.

CONSTRUCTION FACILITIES – AREA D

Figure 60: View of Area D.



The area includes mown managed meadows by the Units 1 and 2 fence, naturally regenerated woody plants, and individual or group plantings of woody plants. The meadow is dominated by grasses and

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clovers, while common dandelion is also abundant. No notable plant species. Part of the area is still used for handling operations and temporary material stockpiles.

Habitats:
X5 – intensively managed meadows and pastures
X12B – naturally regenerated pioneer woody vegetation, other stands
X13 – non-forest tree plantings outside settlements
Proportion of natural habitats: 0%.

Plantings and naturally regenerated vegetation:
Scots pine (*Pinus sylvestris*)
Silver birch (*Betula pendula*)
Pedunculate oak (*Quercus robur*)
Common hawthorn (*Crataegus monogyna*)
European ash (*Fraxinus excelsior*)
Field maple (*Acer campestre*)
Rowan (*Sorbus aucuparia*)
Small-leaved lime (*Tilia cordata*)
Dog rose (*Rosa canina*)
Common buckthorn (*Rhamnus cathartica*)
Norway spruce (*Picea abies*)
European aspen (*Populus tremula*)
Wild cherry (*Prunus avium*)
Goat willow (*Salix caprea*)

Mown meadow:
Timothy (*Phleum pratense*)
Maiden pink (*Dianthus deltoides*)
Brown knapweed (*Centaurea jacea*)
Red clover (*Trifolium pratense*)
White clover (*Trifolium repens*)
Alsike clover (*Trifolium hybridum*)
Ribwort plantain (*Plantago lanceolata*)
Greater plantain (*Plantago major*)
Ragged-robin (*Lychnis flos-cuculi*)
Irkutsk oxeye daisy (*Leucanthemum irrcucianum*)
Red fescue (*Festuca rubra*)
Meadow fescue (*Festuca pratensis*)
Smooth meadow-grass (*Poa pratensis*)
Autumn hawkbit (*Leontodon autumnalis*)
Creeping soft-grass (*Holcus mollis*)
Yorkshire-fog (*Holcus lanatus*)
Silverweed (*Potentilla anserina*)
Wild carrot (*Daucus carota*)
False oat-grass (*Arrhenatherum elatium*)
Cat's-ear (*Hypochoeris radicata*)
Meadow buttercup (*Ranunculus acris*)
Meadow foxtail (*Alopecurus pratensis*)
Yarrow (*Achillea millefolium*)
Common dandelion (*Taraxacum* sect. *Ruderalia*)

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Cock's-foot (*Dactylis glomerata*)
Common bird's-foot-trefoil (*Lotus corniculatus*)
Common sorrel (*Rumex acetosa*)
Yellow oat-grass (*Trisetum flavescens*)
Perforate St John's-wort (*Hypericum perforatum*)
Wood small-reed (*Calamagrostis epigeois*)
Tansy (*Tanacetum vulga*re)

CONSTRUCTION FACILITIES – AREA F1

This is predominantly a field of maize (*Zea mays*), with arable weeds occurring only occasionally at the field margin. At the eastern tip of the area, there is a mown grassed area with young tree plantings; in the western part, there is a naturally regenerated stand with shrub plantings. The plantings contain 45 thriving shrubs of **European cornel (*Cornus mas*)**, which is a specially protected species in the endangered category (Section 3) and is also included in Red List category C4a.

Habitats:
X2 – intensively managed arable fields
X5 – intensively managed meadows and pastures
X7B – ruderal herbaceous vegetation outside settlements, other stands
X12B – naturally regenerated pioneer woody vegetation, other stands
X13 – non-forest tree plantings outside settlements
K3 – tall mesic and xeric scrub
Proportion of natural habitats: 1%.

Figure 61: View of the eastern part of Area F1.



Mown grassed area in the eastern part, with tree plantings:

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Silver birch (*Betula pendula*)
Pedunculate oak (*Quercus robur*)
Apple (*Malus* x *domestica*)
Norway maple (*Acer platanoides*)
Wild cherry (*Prunus avium*)
Timothy (*Phleum pratense*)
Maiden pink (*Dianthus deltoides*)
Brown knapweed (*Centaurea jacea*)
Red clover (*Trifolium pratense*)
White clover (*Trifolium repens*)
Alsike clover (*Trifolium hybridum*)
Ribwort plantain (*Plantago lanceolata*)
Ragged-robin (*Lychnis flos-cuculi*)
Irkutsk oxeye daisy (*Leucanthemum ircutsianum*)
Red fescue (*Festuca rubra*)
Meadow fescue (*Festuca pratensis*)
Smooth meadow-grass (*Poa pratensis*)
Autumn hawkbit (*Leontodon autumnalis*)
Silverweed (*Potentilla anserina*)
Hoary cinquefoil (*Potentilla argentea*)
Wild carrot (*Daucus carota*)
False oat-grass (*Arrhenatherum elatium*)
Cat's-ear (*Hypochoeris radicata*)
Meadow buttercup (*Ranunculus acris*)
Meadow foxtail (*Alopecurus pratensis*)
Yarrow (*Achillea millefolium*)
Common dandelion (*Taraxacum* sect. *Ruderalia*)
Cock's-foot (*Dactylis glomerata*)
Common bird's-foot-trefoil (*Lotus corniculatus*)
Common sorrel (*Rumex acetosa*)
Yellow oat-grass (*Trisetum flavescens*)
Perforate St John's-wort (*Hypericum perforatum*)
Wood small-reed (*Calamagrostis epigeios*)

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Figure 62: View of the scrub in the western part of Area F1.



Naturally regenerated woody vegetation and scrub in the western part:
Scots pine (*Pinus sylvestris*)
Silver birch (*Betula pendula*)
European cornel (*Cornus mas*), specially protected in the endangered category (Section 3) and included in Red List category C4a.
Pedunculate oak (*Quercus robur*)
European hornbeam (*Carpinus betulus*)
Dog rose (*Rosa canina*)
Blackthorn (*Prunus spinosa*)
European aspen (*Populus tremula*)

White clover (*Trifolium repens*)
Ribwort plantain (*Plantago lanceolata*)
Ragged-robin (*Lychnis flos-cuculi*)
Irkutsk oxeye daisy (*Leucanthemum ircutsianum*)
Red fescue (*Festuca rubra*)
Autumn hawkbit (*Leontodon autumnalis*)
Silverweed (*Potentilla anserina*)
Hoary cinquefoil (*Potentilla argentea*)
Wild carrot (*Daucus carota*)
False oat-grass (*Arrhenatherum elatium*)
Meadow buttercup (*Ranunculus acris*)

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Meadow foxtail (*Alopecurus pratensis*)
Yarrow (*Achillea millefolium*)
Common dandelion (*Taraxacum* sect. *Ruderalia*)
Cock's-foot (*Dactylis glomerata*)
Common bird's-foot-trefoil (*Lotus corniculatus*)
Perforate St John's-wort (*Hypericum perforatum*)
Wood small-reed (*Calamagrostis epigeois*)

Arable field:
Great mullein (*Verbascum thapsus*)
Scentless mayweed (*Tripleurospermum maritimum*)
Reed canary-grass (*Phalaris arundinacea*)
Barnyard grass (*Echinochloa crus-galli*)
Common nettle (*Urtica dioica*)
Silverweed (*Potentilla anserina*)
False oat-grass (*Arrhenatherum elatium*)
Creeping thistle (*Cirsium arvense*)
Field penny-cress (*Thlaspi arvense*)
Field horsetail (*Equisetum arvense*)
Persian speedwell (*Veronica persica*)
Perforate St John's-wort (*Hypericum perforatum*)
Wood small-reed (*Calamagrostis epigeios*)

CONSTRUCTION FACILITIES – AREA F2

Area F2 includes young woody-plant plantings, principally Scots pine (*Pinus sylvestris*), with naturally regenerated woody plants at the margin. The herbaceous undergrowth corresponds to the dry acidophilous oak woodland habitat or, in the marginal sections, to mesic herbaceous fringes. Among the rarer Red List species, dozens of scattered specimens of **common centaury (*Centaurium erythraea*) and broad-leaved helleborine (*Epipatis heleborine*)** grow here. Both species are included in Red List category C4a.

Habitats:
T4.2 – mesic herbaceous fringes
X9A – forest plantations of non-native conifers
Proportion of natural habitats: 1%.

In the tree layer:
Scots pine (*Pinus sylvestris*) – tree layer
Silver birch (*Betula pendula*) – tree and shrub layers, including juveniles
Northern red oak (*Quercus rubra*) – tree and shrub layers, including juveniles; invasive species
Pedunculate oak (*Quercus robur*) – tree and shrub layers, including juveniles
European hornbeam (*Carpinus betulus*) – tree layer
Dog rose (*Rosa canina*) – shrub layer
Norway spruce (*Picea abies*) – shrub layer
Bird cherry (*Prunus padus*) – shrub and herbaceous layers
European aspen (*Populus tremula*) – tree and shrub layers, including juveniles
Blackthorn (*Prunus spinosa*) – shrub layer
Goat willow (*Salix caprea*) – shrub layer
Grey willow (*Salix cinerea*) – shrub layer

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Figure 63: View of Area F2.



In the herbaceous undergrowth beneath the woody plants:
Timothy (*Phleum pratense*)
Ground elder (*Aegopodium podagraria*)
Bilberry (*Vaccinium myrtillus*)
Wild strawberry (*Fragaria vesca*)
Savoy hawkweed (*Hieracium sabaudum*)
Zigzag clover (*Trifolium medium*)
Hare's-foot clover (*Trifolium arvense*)
Ribwort plantain (*Plantago lanceolata*)
Male-fern (*Dryopteris filix-mas*)
Common nettle (*Urtica dioica*)
Common comfrey (*Symphytum officinale*)
Wild liquorice (*Astragalus glycyphyllos*)
Red fescue (*Festuca rubra*)
Sheep's-fescue (*Festuca ovina*)
Broad-leaved helleborine (*Epipatis heleborine*), included in Red List category C4a.
Wood avens (*Geum urbanum*)
Purging flax (*Linum catharticum*)
Wavy hair-grass (*Avenella flexuosa*)
Tufted hair-grass (*Deschampsia cespitosa*)
Bramble aggregate (*Rubus fruticosus* agg.)
Hairy sedge (*Carex hirta*)
False oat-grass (*Arrhenatherum elatium*)
Creeping thistle (*Cirsium arvense*)
Creeping thistle (*Cirsium arvense*)

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Cat's-ear (*Hypochaeris radicata*)
Creeping buttercup (*Ranunculus repens*)
Field horsetail (*Equisetum arvense*)
May lily (*Mainthemum bifolium*)
Heath speedwell (*Veronica officinalis*)
Field mouse-ear (*Cirsium arvense*)
Yarrow (*Achillea millefolium*)
Jointed rush (*Juncus articulatus*)
Compact rush (*Juncus conglomeratus*)
Soft rush (*Juncus effusus*)
Slender rush (*Juncus tenuis*), invasive species
Cock's-foot (*Dactylis glomerata*)
Hedge bedstraw (*Galium album*)
Rough hawk's-beard (*Crepis biennis*)
Common bird's-foot-trefoil (*Lotus corniculatus*)
Perforate St John's-wort (*Hypericum perforatum*)
Wood small-reed (*Calamagrostis epigeios*)
Tufted vetch (*Viccia cracca*)
Early dog-violet (*Viola reichenbachiana*)
Tansy (*Tanacetum vulgar*e)
Creeping-Jenny (*Lysimachia nummularia*)
Common centaury (*Centaurium erythraea*), included in Red List category C4a.
Canadian goldenrod (*Solidago canadensis*), invasive species
Spreading bellflower (*Campanula patula*)

KARLOVEC POND

Figure 64: Karlovec Pond.



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An overgrown pond with extensive broadleaf cattail beds and a fluctuating water level. Two rarer sedge species included in the Red List occur here in dozens of specimens. **Bohemian sedge (*Carex bohemica*)** and **cyperus sedge (*Carex pseudocyperus*)**. Both are included in Red List category C4a. Both species grow along the banks of the pond.

Habitats:
M1.1 – reedbeds of eutrophic standing waters
K1 – wetland willow scrub
V1F – macrophyte vegetation of naturally mesotrophic and eutrophic waters, other stands
Proportion of natural habitats: 100%.

Fine-leaved water-dropwort (*Oenathe aquatica*)
Gypsywort (*Lycopus europaeus*)
Common nettle (*Urtica dioica*)
Yellow iris (*Iris pseudacorus*)
Purple-loosestrife (*Lythrum salicaria*)
Broadleaf cattail (*Typha latifolia*)
Cyperus sedge (*Carex pseudocyperus*), included in Red List category C4a.
Bohemian sedge (*Carex bohemica*), included in Red List category C4a.
Slender tufted-sedge (*Carex acuta*)
Celery-leaved buttercup (*Ranunculus sceleratus*)
Common chickweed (*Stelaria media*)
Common dogwood (*Cornus sanguinea*)
Skullcap (*Scutellaria galericulata*)
European aspen (*Populus tremula*) – tree layer
Perforate St John's-wort (*Hypericum perforatum*)
Wood small-reed (*Calamagrostis epigeios*)
Purple small-reed (*Calamagrostis canescens*)
Crack willow (*Salix euxina*) – shrub and tree layers
Grey willow (*Salix cinerea*) – shrub layer
Reed sweet-grass (*Glyceria maxima*)

DVORČICE POND

An overgrown pond with extensive broadleaf cattail and common reed beds. A belt of naturally regenerated woody plants with alder undergrowth surrounds the pond. A large population of **southern bladderwort (*Utricularia australis*)**, a rarer species included in Red List category C4a, is abundant in the pond itself.

Habitats:
M1.1 – reedbeds of eutrophic standing waters
K1 – wetland willow scrub
V1F – macrophyte vegetation of naturally mesotrophic and eutrophic waters, other stands
X12B – naturally regenerated pioneer woody vegetation, other stands
Proportion of natural habitats: 90%.

Tall purple moor-grass (*Molinia arundinacea*)
Marsh-marigold (*Caltha palustris*)
Fine-leaved water-dropwort (*Oenathe aquatica*)
Meadow vetchling (*Lathyrus pratensis*)

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Reed canary-grass (*Phalaris arundinacea*)
Compact rush (*Juncus conglomeratus*)
Soft rush (*Juncus effusus*)
Gypsywort (*Lycopus europaeus*)
Common nettle (*Urtica dioica*)
Yellow iris (*Iris pseudacorus*)
Purple-loosestrife (*Lythrum salicaria*)
Broadleaf cattail (*Typha latifolia*)
Narrowleaf cattail (*Typha angustifolia*)
Bladder sedge (*Carex vesicaria*)
Cyperus sedge (*Carex pseudocyperus*), included in Red List category C4a.
Slender tufted-sedge (*Carex acuta*)
Celery-leaved buttercup (*Ranunculus sceleratus*)
Common chickweed (*Stelaria media*)
Amphibious bistort (*Polygonum viviparum*)
Rigid hornwort (*Ceratophyllum demersum*)
Skullcap (*Scutellaria galericulata*)
European aspen (*Populus tremula*) – tree layer
Perforate St John's-wort (*Hypericum perforatum*)
Wood small-reed (*Calamagrostis epigeios*)
Purple small-reed (*Calamagrostis canescens*)
Crack willow (*Salix euxina*) – shrub and tree layers
Grey willow (*Salix cinerea*) – shrub layer
Yellow loosestrife (*Lysimachia vulgaris*)
Reed sweet-grass (*Glyceria maxima*)

Figure 65: Dvorčice Pond.



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MEADOW BY DVORČICE POND

Figure 66: Meadow by Dvorčice Pond.



The botanically most interesting site in the area is the meadow adjoining the littoral zone of Dvorčice Pond. It represents a habitat of highly waterlogged Cirsium and purple moor-grass meadows. A range of rare and threatened plant species occurs here:

- **Siberian iris (*Iris sibirica*)**; approximately 15 clumps observed. It is a specially protected species in the highly endangered category (Section 2) and is also included in Red List category C3.
- **Western marsh orchid (*Dactylorhiza majalis*)**; 22 flowering specimens observed. It is a specially protected species in the endangered category (Section 3) and is also included in Red List category C3.
- **Shining meadow-rue (*Thalictrum lucidum*)**; 30 flowering specimens observed. The species is included in Red List category C3.
- **Marsh valerian (*Valleriana dioica*)**; hundreds of specimens grow here. The species is included in Red List category C4a.
- **Brown sedge (*Carex disticha*)**; dozens of ramets grow here. The species is included in Red List category C4a.
- **Hartman's sedge (*Carex hartmanii*)**; dozens of ramets grow here. The species is included in Red List category C4a.
- **Bay willow (*Salix pentandra*)**; several small trees grow here. The species is included in Red List category C4a.
- **Hoary willowherb (*Epilobium parviflorum*)**; dozens of specimens grow here. The species is included in Red List category C3.

The waterlogged meadows adjoin a wet, naturally regenerated stand with alder species in the undergrowth and groups of shrubby willows extending towards the pond's littoral zone.

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Habitats:
T1.5 – wet Cirsium meadows
T1.9 – intermittently wet Molinia meadows
X12B – naturally regenerated pioneer woody vegetation, other stands
Proportion of natural habitats: 95%.

Vegetation of wet naturally regenerated stands:
Scots pine (*Pinus sylvestris*) – tree layer
Silver birch (*Betula pendula*) – tree and shrub layers, including juveniles
Pedunculate oak (*Quercus robur*) – tree and shrub layers, including juveniles
Apple (*Malus* x *domestica*) – shrub layer
Black alder (*Alnus glutinosa*) – tree layer
Dog rose (*Rosa canina*) – shrub layer
Norway spruce (*Picea abies*) – shrub layer
Bird cherry (*Prunus padus*) – shrub and herbaceous layers
European aspen (*Populus tremula*) – tree and shrub layers, including juveniles
Blackthorn (*Prunus spinosa*) – shrub layer
Crack willow (*Salix euxina*) – tree layer
Goat willow (*Salix caprea*) – shrub layer
Grey willow (*Salix cinerea*) – shrub layer

Vegetation of waterlogged meadows:
Purple moor-grass (*Molinia caerulea*)
Marsh-marigold (*Caltha palustris*)
Ground elder (*Aegopodium podagraria*)
Devil's-bit scabious (*Succisa pratensis*)
Meadow vetchling (*Lathyrus pratensis*)
Reed canary-grass (*Phalaris arundinacea*)
Red clover (*Trifolium pratense*)
Ragged-robin (*Lychnis flos-cuculi*)
Siberian iris (*Iris sibirica*), a specially protected species in the highly endangered category (Section 2) and included in Red List category C3.
Red fescue (*Festuca rubra*)
Marsh valerian (*Valleriana dioica*), included in Red List category C4a.
Common valerian (*Valeriana officinalis* agg.)
Great burnet (*Sanguisorba officinalis*)
Swamp meadow-grass (*Poa palustris*)
Yorkshire-fog (*Holcus lanatus*)
Tufted hair-grass (*Deschampsia cespitosa*)
Silverweed (*Potentilla anserina*)
Tormentil (*Potentilla erecta*)
Pale sedge (*Carex pallescens*)
Common sedge (*Carex nigra*)
Brown sedge (*Carex disticha*), included in Red List category C4a.
Hartman's sedge (*Carex hartmanii*), included in Red List category C4a.
Hairy sedge (*Carex hirta*)
True fox-sedge (*Carex vulpina*)
Bladder sedge (*Carex vesicaria*)
Oval sedge (*Carex leporina*)
False oat-grass (*Arrhenatherum elatium*)

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Marsh thistle (*Cirsium palustre*)
Water forget-me-not (*Myosotis palustris*)
Ground ivy (*Glechoma hederacea*)
Western marsh orchid (*Dactylorhiza majalis*), a specially protected species in the endangered category (Section 3) and included in Red List category C3.
Creeping buttercup (*Ranunculus repens*)
Meadow buttercup (*Ranunculus acris*)
Meadow foxtail (*Alopecurus pratensis*)
Marsh horsetail (*Equisetum palustre*)
Water horsetail (*Equisetum fluviatille*)
Field horsetail (*Equisetum arvense*)
Lesser stitchwort (*Stelaria graminea*)
Cuckooflower (*Cardamine pratensis*)
Wood anemone (*Anemone nemorosa*)
Jointed rush (*Juncus articulatus*)
Compact rush (*Juncus conglomeratus*)
Soft rush (*Juncus effusus*)
Wood club-rush (*Scirpus sylvaticus*)
Cock's-foot (*Dactylis glomerata*)
Fen bedstraw (*Galium uliginosum*)
Lady's bedstraw (*Galium verum*)
Sweet vernal-grass (*Anthoxanthum odoratum*)
Quaking-grass (*Briza media*)
Perforate St John's-wort (*Hypericum perforatum*)
Wood small-reed (*Calamagrostis epigeois*)
Meadowsweet (*Filipendula ulmaria*)
Tufted vetch (*Vicia cracca*)
Bay willow (*Salix pentandra*), included in Red List category C4a.
Eared willow (*Salix aurita*)
Yellow loosestrife (*Lysimachia vulgaris*)
Hoary willowherb (*Epilobium parviflorum*), included in Red List category C4a.
Reed sweet-grass (*Glyceria maxima*)
Spreading bellflower (*Campanula patula*)
Shining meadow-rue (*Thalictrum lucidum*), included in Red List category C3.

CONSTRUCTION-SITE POWER-SUPPLY CORRIDOR

Habitats:
X1 – urbanized areas (road body, carriageway and substation)
X5 – intensively managed meadows (mown grass verges along the road)
X7B – ruderal herbaceous vegetation outside settlements, other stand (along roads)
X13 – non-forest tree plantings outside settlements
X12B – naturally regenerated pioneer woody vegetation, other stands (natural-regeneration and reclamation stands, a mixture dominated by birch, aspen and goat willow)
X2 – intensively managed arable fields (cereals and oilseed rape)
L7.1 – dry acidophilous oak woodland
T1.6 – Wet Filipendula grasslands (small occurrence near the substation)
K1 – wetland willow scrub, small occurrence near the substation
Proportion of natural habitats: 20%.

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Woody plants:
Elder (*Sambucus nigra*)
Scots pine (*Pinus sylvestris*)
Silver birch (*Betula pendula*)
Pedunculate oak (*Quercus robur*)
Sessile oak (*Quercus petraea*)
European hornbeam (*Carpinus betulus*)
Hawthorn (*Crataegus* spp.)
Apple (*Malus* x *domestica*)
European ash (*Fraxinus excelsior*)
Field maple (*Acer campestre*)
Sycamore maple (*Acer pseudoplatanus*)
Small-leaved lime (*Tilia cordata*)
Common hazel (*Coryllus avellana*)
European larch (*Larix decidua*)
Common walnut (*Juglans regia*)
Bramble (*Rubus* sp.)
Wild privet (*Ligustrum vulgare*)
Dog rose (*Rosa canina*)
Blackthorn (*Prunus spinosa*)
Colorado spruce (*Picea pungens*)
Norway spruce (*Picea abies*)
Common dogwood (*Cornus sanguinea*)
European aspen (*Populus tremula*)
Black locust (*Robinia pseudoacacia*)
Wild cherry (*Prunus avium*)
Goat willow (*Salix caprea*)
Crack willow (*Salix euxina*)
Grey willow (*Salix cinerea*)
Fly honeysuckle (*Lonicera xylosteum*)

Grasses and sedges:
Red fescue (*Festuca rubra*) – dominant species
Wood meadow-grass (*Poa nemoralis*)
Smooth meadow-grass (*Poa pratensis*)
Hairy sedge (*Carex hirta*)
Lesser pond-sedge (*Carex acutiformis*)
Quaking-grass sedge (*Carex brizoides*)
False oat-grass (*Arrhenatherum elatium*) – dominant species
Meadow foxtail (*Alopecurus pratensis*)
Common bent (*Agrostis capillaris*)
Slender cock's-foot (*Dactylis polygama*)
Cock's-foot (*Dactylis glomerata*)
Sweet vernal-grass (*Anthoxanthum odoratum*)
Yellow oat-grass (*Trisetum flavescens*)
Wood small-reed (*Calamagrostis epigeois*)
Reflexed saltmarsh-grass (*Puccinela distans*) Populations on salt marshes are included in Red List category C1. The plants at this saline road margin are not considered threatened.

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Figure 67: Construction-site power-supply corridor – northern part. Photo: V. Melichar, June 13, 2026.



Figure 68: Construction-site power-supply corridor – southern part. Photo: V. Melichar, June 7, 2026.



Herbaceous plants:
Crown vetch (*Securigera varia*)

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Meadow vetchling (*Lathyrus pratensis*)
Field scabious (*Knautia arvensis*)
Brown knapweed (*Centaurea jacea*)
Hop trefoil (*Trifolium campestre*)
Red clover (*Trifolium pratense*)
White clover (*Trifolium repens*)
Alsike clover (*Trifolium hybridum*)
Greater plantain (*Plantago major*)
Irkutsk oxeye daisy (*Leucanthemum ircutsianum*)
Wild liquorice (*Astragalus glycyphyllos*)
Wood avens (*Geum urbanum*)
Silverweed (*Potentilla anserina*)
Creeping cinquefoil (*Potentilla reptans*)
Hoary cinquefoil (*Potentilla argentea*)
Small balsam (*Impatiens parviflora*)
Wild parsnip (*Pastinaca sativa*)
Creeping thistle (*Cirsium arvense*)
Marsh horsetail (*Equisetum palustre*)
Field horsetail (*Equisetum arvense*)
Tasteless stonecrop (*Sedum sexangulare*)
Germander speedwell (*Veronica chamaedrys*)
Common daisy (*Bellis perennis*)
Common dandelion (*Taraxacum* sect. *Ruderalia*)
Hedge bedstraw (*Galium album*)
Field bindweed (*Convolvulus arvensis*)
Common bird's-foot-trefoil (*Lotus corniculatus*)
Broad-leaved dock (*Rumex obtusifolius*)
Black medick (*Medicago lupulina*)
Annual fleabane (*Erigeron annuus*)
Meadowsweet (*Filipendula ulmaria*)
Perforate St John's-wort (*Hypericum perforatum*)
Kidney vetch (*Anthyllis vulneraria*)
Hoary cress (*Cardaria draba*)
Tufted vetch (*Viccia cracca*)
Tansy (*Tanacetum vulga*re)
Spreading bellflower (*Campanula patula*)

WIDENING OF ROAD II/138

Habitats:
X13 – non-forest tree plantings outside settlements (discontinuous avenue of trees)
T1.1 – mesic Arrhenatherum meadows
X7B – ruderal herbaceous vegetation outside settlements, other stands
X12B – naturally regenerated pioneer woody vegetation, other stands
Proportion of natural habitats: 2%.

Avenues along the road:
Scots pine (*Pinus sylvestris*), 10 specimens.
Silver birch (*Betula pendula*), 1 specimen.

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Sessile oak (*Quercus petraea*), 16 specimens.
Norway maple (*Acer platanoides*), 22 specimens.
Small-leaved lime (*Tilia cordata*), 26 specimens.
Black alder (*Alnus glutinosa*), 3 specimens.
Canadian poplar (*Populus* x *canadensis*), 22 specimens.
Wild cherry (*Prunus avium*), 4 specimens.

Other woody-plant species along the road:
Dog rose (*Rosa canina*)
Goat willow (*Salix caprea*)
Hawthorn (*Crataegus* spp.)
Wild privet (*Ligustrum vulgare*)
Wild cherry (*Prunus avium*)
Crack willow (*Salix euxina*)

Figure 69: Road II/138 – eastern part. Photo: V. Melichar, June 13, 2026.



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Figure 70: Road II/138 – western part. Photo: V. Melichar, June 7, 2026.



Ruderal vegetation (X7B), occasionally with species of mesic grassland (T1.1), in ditches along the road:
Crown vetch (*Securigera varia*)
Hop trefoil (*Trifolium campestre*)
White clover (*Trifolium repens*)
Alsike clover (*Trifolium hybridum*)
Ribwort plantain (*Plantago lanceolata*)
Red fescue (*Festuca rubra*)
Meadow fescue (*Festuca pratensis*)
Common nettle (*Urtica dioica*)
Wild liquorice (*Astragalus glycyphyllos*)
Wood avens (*Geum urbanum*)
Smooth meadow-grass (*Poa pratensis*)
Annual meadow-grass (*Poa annua*)
Silverweed (*Potentilla anserina*)
Creeping cinquefoil (*Potentilla reptans*)
Bramble (*Rubus* sp.)
False oat-grass (*Arrhenatherum elatius*)
Mugwort (*Artemisia vulgaris*)
Creeping thistle (*Cirsium arvense*)
Field horsetail (*Equisetum arvense*)
Yarrow (*Achillea millefolium*)
Common daisy (*Bellis perennis*)
Common dandelion (*Taraxacum* sect. *Ruderalia*)
Cock's-foot (*Dactylis glomerata*)
Hedge bedstraw (*Galium album*)
Cleavers (*Galium aparine*)
Lady's bedstraw (*Galium verum*)
Field bindweed (*Convolvulus arvensis*)

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Common bird's-foot-trefoil (*Lotus corniculatus*)
Tufted vetch (*Vicia cracca*)
Spreading bellflower (*Campanula patula*)

Young naturally regenerated stands, predominantly on the side towards Units 1 and 2, X12B, up to 30 years old.
Scots pine (*Pinus sylvestris*)
Silver birch (*Betula pendula*) – dominant species
Sessile oak (*Quercus petraea*)
Rowan (*Sorbus aucuparia*)
Small-leaved lime (*Tilia cordata*)
Black alder (*Alnus glutinosa*)
European aspen (*Populus tremula*) – dominant species
Goat willow (*Salix caprea*)
Crack willow (*Salix euxina*)
Ruderal species and, further away, more resilient woodland species in the undergrowth:
Zigzag clover (*Trifolium medium*)
Red fescue (*Festuca rubra*)
Wood avens (*Geum urbanum*)
Wood meadow-grass (*Poa nemoralis*)
Bramble (*Rubus* sp.)
Perforate St John's-wort (*Hypericum perforatum*)
Wood small-reed (*Calamagrostis epigeois*)

At some locations, the corridor runs very close and parallel to managed forest (X9A–L7.1).
Commercial tree species predominate: Norway spruce (*Picea abies*) and Scots pine (*Pinus sylvestris*), with an admixture of sessile oak (*Quercus petraea*), European larch (*Larix decidua*) and silver birch (*Betula pendula*).
Other species:
Rowan (*Sorbus aucuparia*)
Common hazel (*Coryllus avellana*)
Sycamore maple (*Acer pseudoplatanus*)
Dog rose (*Rosa canina*)
Wych elm (*Ulmus glabra*)
European ash (*Fraxinus excelsior*)
Elder (*Sambucus nigra*)
In the herbaceous layer:
Wood meadow-grass (*Poa nemoralis*)
Bramble (*Rubus* sp.)
Hairy small-reed (*Calamagrostis villosa*) – dominant species
Other species:
Wild strawberry (*Fragaria vesca*)
Sheep's-fescue (*Festuca ovina*)
Bladder campion (*Silene vulgaris*)
Perforate St John's-wort (*Hypericum perforatum*)

CONNECTION CORRIDOR (BRIDGE) I–H

Habitats:
X2 – intensively managed arable fields (wheat and rye on both sides of the area)

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X8 – scrub with ruderal and non-native species
X7B – ruderal herbaceous vegetation outside settlements, other stands (with Phragmites australis)
X14 – watercourses and water bodies without vegetation of conservation importance (ditch/stream)
X5 – intensively managed meadows

Figure 71: Proposed bridge site.



Elder (*Sambucus nigra*)
Sessile oak (*Quercus petraea*)
Perennial ryegrass (*Lolium perenne*) Dm
Cow parsley (*Anthriscus sylvestris*)
Common nettle (*Urtica dioica*) – dominant species
Red fescue (*Festuca rubra*)
Wood avens (*Geum urbanum*)
Purple-loosestrife (*Lythrum salicaria*)
Smooth meadow-grass (*Poa pratensis*)
Common poppy (*Papaver rhoeas*)
Tufted hair-grass (*Deschampsia cespitosa*)
Field penny-cress (*Thlaspi arvense*)
Creeping thistle (*Cirsium arvense*)
Common bugloss (*Anchusa officinalis*)
Field forget-me-not (*Myosotis arvensis*)
Field horsetail (*Equisetum arvense*)
Dog rose (*Rosa canina*)
Lesser celandine (*Ficaria verna*)
Bramble (*Rubus* sp.)
False oat-grass (*Arrhenatherum elatius*)
Corn chamomile (*Anthemis arvensis*)
Wood club-rush (*Scirpus sylvaticus*)
Cleavers (*Galium aparine*)
Broad-leaved dock (*Rumex obtusifolius*)

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Wood small-reed (*Calamagrostis epigeois*)
Crack willow (*Salix euxina*)

ETE SERVICE ROAD

Figure 72: ETE service road – western part. Photo: V. Melichar, June 7, 2026.



Figure 73: ETE service road – eastern part. Photo: V. Melichar, June 7, 2026.



The margin of the multipurpose road, mown once or twice a year, has ruderal vegetation (X7B) and naturally regenerated woody plants (X12B), both of which also extend into the cereal field (X2).

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Habitats:
X2 – intensively managed arable fields (wheat and rye on both sides of the area)
X7B – ruderal herbaceous vegetation outside settlements, other stands (with Phragmites australis)
X12B – naturally regenerated pioneer woody vegetation, other stands

Dominant species:
Red fescue (*Festuca rubra*)
False oat-grass (*Arrhenatherum elatius*)
Wood small-reed (*Calamagrostis epigeois*)

Woody plants, all up to 30 years old and up to 20 cm in diameter:
Scots pine (*Pinus sylvestris*)
Silver birch (*Betula pendula*)
Dog rose (*Rosa canina*)
Norway spruce (*Picea abies*)
Goat willow (*Salix caprea*)
European aspen (*Populus tremula*)

Other species:
Creamy strawberry (*Fragaria viridis*)
Hop trefoil (*Trifolium campestre*)
Smooth meadow-grass (*Poa pratensis*)
Wild carrot (*Daucus carota*)
Field forget-me-not (*Myosotis arvensis*)
Cat's-ear (*Hypochaeris radicata*)
Field horsetail (*Equisetum arvense*)
Common dandelion (*Taraxacum* sect. *Ruderalia*)
Cock's-foot (*Dactylis glomerata*)
Field bindweed (*Convolvulus arvensis*)
Common bird's-foot-trefoil (*Lotus corniculatus*)
Sheep's sorrel (*Rumex acetosella*)
Perforate St John's-wort (*Hypericum perforatum*)
Spreading bellflower (*Campanula patula*)

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COMMENTARY ON SPECIALLY PROTECTED SPECIES AND RED LIST SPECIES

European cornel (*Cornus mas*), Section 3, C4a, occurs on scrubby slopes and in woodland clearings, on limestone, from the lowlands to the uplands. It occurs at Site F1 as a former planting comprising 45 shrubs. These individuals could be destroyed by habitat take during construction of the SMR ETE.

Siberian iris (*Iris sibirica*), Section 2, C3, grows in wet fen and peat meadows, wetlands, woodland edges and scrub, from the lowlands to the mountains. It was recorded at the Meadow by Dvorčice Pond site, where approximately 15 clumps were observed, and a very large population of more than 100 clumps was found in the meadow at the southwestern edge of the power evacuation corridor. Its habitat could be affected by changes in the water regime during construction of the SMR ETE.

Western marsh orchid (*Dactylorhiza majalis*), Section 3, C3, grows from the lowlands to the mountains, predominantly in wet or marshy meadows, both alkaline and acidic. It was identified only at the Meadow by Dvorčice Pond site, where approximately 22 flowering individuals were observed. Its habitat could be affected by changes in the water regime during construction of the SMR ETE.

Shining meadow-rue (*Thalictrum lucidum*), C3, grows in damp to wet meadows, alluvial forests and riparian scrub. It was identified only at the Meadow by Dvorčice Pond site, where 30 flowering individuals were observed. Its habitat could be affected by changes in the water regime during construction of the SMR ETE.

Southern bladderwort (*Utricularia australis*), C4a, prefers nutrient-rich standing waters, often shallow ones, such as old quarries, pools, canals and ditches. It occurs as a large population in Dvorčice Pond and was also found in Karlovec Pond. Its habitat could be affected by changes in the water regime during construction of the SMR ETE.

Marsh valerian (*Valleriana dioica*), C4a, grows in fen and peat meadows, as well as in wet, waterlogged meadows undergoing peat formation, and in waterlogged valley forests. It grows in hundreds of individuals at the Meadow by Dvorčice Pond site. Its habitat could be affected by changes in the water regime during construction of the SMR ETE.

Broad-leaved helleborine (*Epipatis heleborine*), C4a, is most commonly encountered in open woodland and woodland edges, but also along roads and tracks, and therefore in secondary habitats. Dozens of specimens grow in Area F2. Its local population could be affected by habitat take during construction of the SMR ETE.

Rat's-tail fescue (*Vulpia myorus*), C3, grows on warm, dry, predominantly sandy soils along tracks and at the edges of dry woodland, and often at ruderal sites such as railway stations. Several specimens were found in the field within the SMR ETE power evacuation corridor. These individuals could be affected by habitat take during construction of the planned line towers. It has also been reported from the existing ETE site.

Brown sedge (*Carex disticha*), C4a, grows in wet and fen meadows and on pond banks. Dozens of ramets grow at the Meadow by Dvorčice Pond site. Its habitat could be affected by changes in the water regime during construction of the SMR ETE.

Hartman's sedge (*Carex hartmanii*), C4a, grows in fen and peat meadows and in waterlogged alder woodland. Dozens of ramets grow at the Meadow by Dvorčice Pond site. Its habitat could be affected by changes in the water regime during construction of the SMR ETE.

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Cyperus sedge (*Carex pseudocyperus*), C4a, colonizes the banks and shallow margins of ponds, reservoirs and oxbow lakes, exposed banks along the lower reaches of larger rivers, eutrophic wetlands and swamp alder woodland at lower elevations. Dozens of specimens grow on the bank and dam of Karlovec Pond and by Dvorčice Pond; the species is included in Red List category C4a. Its habitat could be affected by changes in the water regime during construction of the SMR ETE.

Bohemian sedge (*Carex bohemica*), C4a, grows on nutrient-rich, often wet to inundated soils, principally on exposed pond bottoms and banks with fluctuating water levels. Dozens of specimens grow on the exposed bottom and bank of Karlovec Pond; the species is included in Red List category C4a. Its habitat could be affected by changes in the water regime during construction of the SMR ETE.

Changing forget-me-not (*Myosotis discolor*), C2b, grows on fallow land, field boundaries, dry stony slopes, grassy banks and the edges of sandy pine forests. It prefers drier sites and nutrient-poor, neutral to slightly acidic soils. Several individuals grow at the edge of a field in Area G. These individuals could be affected by habitat take during construction of the SMR ETE.

Night-flowering catchfly (*Silene noctiflora*), C4a, is a weed of arable crops and sometimes gardens; it is frequent on fallow land and less common on waste ground, at railway stops and similar sites. It occurs most frequently on calcareous soils. Several dozen specimens grow in the field within Area H. These specimens could be affected by habitat take during construction of the SMR ETE.

Northern bedstraw (*Galium boreale*), C4a, grows on moist, relatively nutrient-rich soils, most frequently in fen and purple moor-grass meadows, but also in wetter alpine grasslands and sometimes in sub-xerothermic grasslands (subsp. *exoletum*). Dozens of specimens grow in Area C; it was also found in the meadow at the southwestern edge of the power evacuation corridor. Thousands of specimens are distributed across this area. Its local population could be affected by habitat take during construction of the SMR ETE.

Bay willow (*Salix pentandra*), C4a, grows on acidic, wet to peaty, permeable, moist, skeletal soils; in peat and fen meadows, waterlogged alder woodland and the alluvia of mountain streams at higher elevations. Several specimens grow at the Meadow by Dvorčice Pond site. Its habitat could be affected by changes in the water regime during construction of the SMR ETE.

Hoary willowherb (*Epilobium parviflorum*), C3, prefers fen and peat meadows, meadow springs, the edges of peat pools, and peaty or muddy banks of ponds and streams. Dozens of specimens grow at the Meadow by Dvorčice Pond site. Its habitat could be affected by changes in the water regime during construction of the SMR ETE.

Common centaury (*Centaurium erythraea*), C4a, is a light-demanding species that grows in clearings, along woodland tracks and at woodland edges. Dozens of specimens grow in Area F2 and thousands in Area C. Its local populations could be affected by habitat take during construction of the SMR ETE.

Previous surveys found the following additional specially protected or threatened vascular plant species within the affected area and its immediate surroundings:
Field cudweed (*Filago arvensis*), C3, reported by Rozínek et al. (2009) from the existing Units 1 and 2 site, where it continues to occur.

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Marsh speedwell (*Veronica scutellata*), C3, reported by Rozínek et al. (2009) from an area approximately corresponding to Construction Facilities Area C. The occurrence of this species could not be confirmed.
Viper's-grass (*Scorzonera humilis*), C3, reported by Kostkan et al. (2024) from the wetland meadow by Dvorčice Pond in 2017 and 2018. The occurrence of this species could not be confirmed.

CONCLUSION

The area affected by the proposed construction of the SMR ETE, near the Temelín Nuclear Power Plant, is dominated by agricultural land comprising arable fields and managed meadows that are mown or occasionally grazed. Some areas contain plantings with naturally regenerated or commercially managed woody plants. Representative natural habitats have been preserved in parts of Areas B3 and J and around Dvorčice and Karlovec ponds; the most interesting site is the wetland meadow by Dvorčice Pond. Three specially protected plant species and a further 15 species included in the Czech Red List of threatened species were recorded in the area.

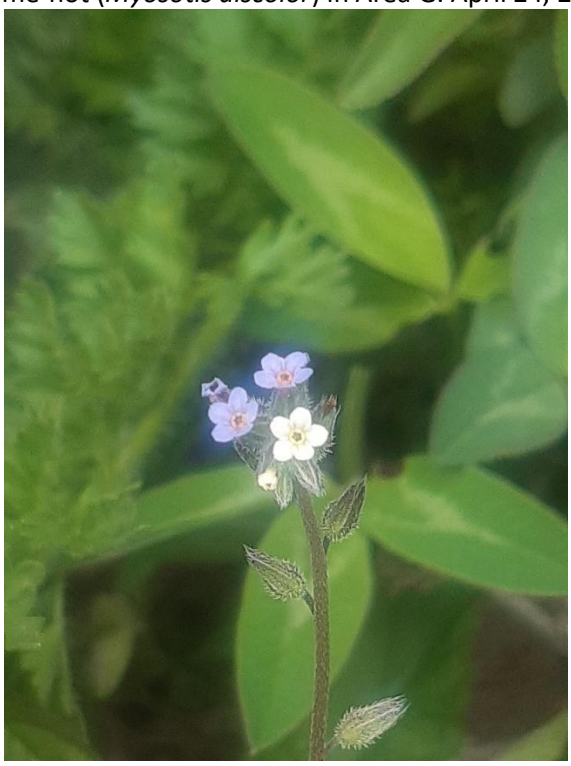
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SPECIES PHOTO DOCUMENTATION

Figures 74 and 75: Shining meadow-rue (*Thalictrum lucidum*) at the Meadow by Dvorčice Pond site. April 24 and June 27, 2025.




Figure 76: Changing forget-me-not (*Myosotis discolor*) in Area G. April 24, 2025.



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Figure 77: European cornel (*Cornus mas*) at Site F1. April 24, 2025.



Figure 78: Southern bladderwort (*Utricularia australis*) in Dvorčice Pond. June 27, 2025.



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Figure 79: Broad-leaved helleborine (*Epipactis heleborine*) in Area F2. June 27, 2025.



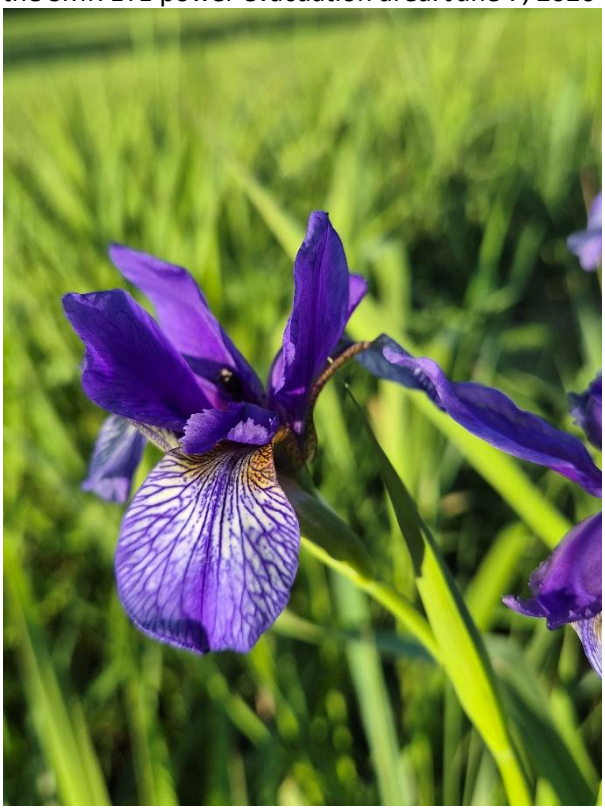
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Figure 80: Bohemian sedge (*Carex bohemica*) on the exposed bottom of Karlovec Pond. June 26, 2025.



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Figures 81 and 82: Siberian iris (*Iris sibirica*) within the SMR ETE power evacuation area. June 7, 2026

Figures 83 and 84: Northern bedstraw (*Galium boreale*) within the SMR ETE power evacuation area. June 7, 2026




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8.3. Vertebrate survey

8.3.1. Introduction and methodology

The objective of the survey was to map vertebrate occurrence for assessment of the project entitled New Nuclear Power Plant at the Temelín site in the SMR ETE site; Areas B1, B2, B3, C, D, E1, E2, F1, F2, G, H, I, and J; the SMR ETE power evacuation corridor; the construction-site power-supply corridor; the Road II/138 widening area; and the ETE service road. Separate attention was paid to the planned bridge location, the connection corridor between Areas I and H. The survey also covered Dvorčice and Karlovec ponds and their immediate surroundings. Attention focused principally on the project site itself and its immediate surroundings.

The site was visited on July 11 and 20 and September 15, 2023; February 2, March 31, April 20, May 2, and July 15 and 20, 2024 (Kostkan, 2024); March 28, April 24, June 25–27, August 17 and September 17–19, 2025; and April 7 and June 6 and 13, 2026 (this survey). The vertebrate survey focused principally on fish, amphibians, reptiles and mammals, including bats. Birds were also examined in a separate ornithological survey. All these groups were monitored visually; amphibians were, of course, also monitored acoustically. Other signs of presence, such as burrows, feeding remains, browsing marks and sloughs, were also sought specifically. The presence of road-killed animals was also investigated. Watercourses and water bodies were inspected visually. The entire affected area and its immediate surroundings were visited during the survey, with the targeted zoological survey focusing principally on structurally and ecologically better-preserved locations. A list of the vertebrate species recorded was compiled during the survey. Species specially protected under Decree No. 395/1992 Coll. are shown in **bold** in the vertebrate list, together with their protection status (Section 3, endangered; Section 2, highly endangered; Section 1, critically endangered).

The **ichthyological survey (fish)** was conducted at the five sites listed in Table 19 using cast nets and a fish trap; fry were sampled using a dip net. The survey findings were supplemented by a review of the Nature Conservation Occurrence Database.

The **batrachological survey (amphibians)** of the project site and adjacent surroundings was conducted principally during the amphibian breeding season. It was divided into several visits so that all expected species and their developmental stages could be recorded. The survey combined several methods (e.g. Vojar, 2007). Vocalizing species were identified acoustically during all visits. At each visit, developmental stages were captured from water bodies using a herpetological dip net. Sampling was performed in littoral vegetation at depths of 0.1–0.5 m. Live umbrella traps were repeatedly placed in the water bodies (Jeřábková & Boukal, 2011). Amphibians were also monitored visually and searches were made for dead animals. The data were supplemented by incidental observations of amphibians away from breeding sites and by a review of available data.

The **herpetological survey (reptiles)** of the project site and adjacent surroundings was always conducted in suitable weather, on sunny and sufficiently warm days, during appropriate parts of the growing season from May to September. It was performed principally by walking surveys, during which potential refuges were systematically searched. Artificial reptile refuges, comprising sheets and boards, were placed throughout the affected area in two phases: in 2024 and in 2025–2026. The data were supplemented by incidental observations, including finds of dead animals, and by a review of available data.

The mammal survey of the project site and immediate surroundings was conducted so as to include all habitat types present. The principal method was a field walking survey, during which potential

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refuges were systematically searched and signs of presence, such as burrows, feeding remains, browsing marks and droppings, were sought. In addition to visual monitoring, acoustic monitoring was used for some species. The presence of road-killed animals on adjacent roads was also investigated. Camera traps were also used to detect the presence of mammals. Visual monitoring was supplemented by ***live trapping of small mammals*** and ***bat-detector surveys***.

Live trapping of small mammals

The occurrence of small terrestrial mammals was investigated by live trapping. A line-trapping system was used, preferentially covering suitable microsites with a high probability of capture and different habitat types, including ruderal habitat, wetland, watercourse bank and forest. Small terrestrial vertebrates, comprising insectivores and rodents, were captured in Chmela-type live traps. The live traps were baited with pâté and peanut butter. The traps were set in lines at intervals of approximately 5 m, taking account of microrelief and vegetation. Depending on terrain conditions, each line comprised approximately 30 traps. The live traps were checked every two hours during the night and deactivated during the day. Lines were installed at nine trapping sites for one night. Trapping was repeated at the same locations and was therefore conducted on two occasions: June 25–27, 2025 and September 17–19, 2025. This represents 540 trap-nights.

Indicative bat survey using bat detectors

The principal survey method was an active search for bats and their colonies and roosts using bat detectors. Detection was performed using a Pettersson D240x bat detector (Pettersson Elektronik AB, Sweden), with a combination of line and point transects. Heterodyne mode was used principally, with time expansion used to make recordings. During detection, the detector was tuned continuously to cover the 20–105 kHz frequency spectrum. Detection along selected transects and at selected points was performed from dusk until midnight CET. The recordings were subsequently analyzed on a computer using BatSound Pro (Pettersson Elektronik AB, Sweden). Detection was performed at nine preselected sites where bats were expected to occur. The survey was conducted on June 26, 2025 (almost clear, light wind, 22–19 °C, 20:00–24:00) and repeated on August 17, 2025 (cloudy, light breeze, 17–14 °C, 19:00–23:00). The survey was supplemented by a review of chiropterological data.

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8.3.2. Vertebrate list with comments on the individual groups

Fish

Table 19: Fish – surveyed sites.

Site number	Location	GPS
1	Dvorčice Pond	49°10'9.342"N, 14°22'29.620"E
2	Karlovec Pond	49°10'9.140"N, 14°22'52.794"E
3	Concrete containment basin 1	49°11'22.259"N, 14°22'48.314"E
4	Concrete containment basin 2	49°11'44.471"N, 14°22'51.558"E
5	Concrete containment basin 3	49°11'31.750"N, 14°22'13.707"E

Table 20: Overview of fish species recorded.

English name	Latin name	Threat status under the Nature and Landscape Protection Act and Red List	Occurrence characteristics	Detailed characteristics and location
Bony fish (*Osteichthyes*)				
European chub	*Squalius cephalus*		common	Concrete containment basin 2
common carp, domesticated form	*Cyprinus carpio f. domestica*		common, stocked	Dvorčice Pond
tench	*Tinca tinca*		stocked	Dvorčice Pond
rudd	*Scardinius erythrophthalmus*		common	Dvorčice Pond, historical record only, 2009
common roach	*Rutilus rutilus*		common	Dvorčice Pond, Karlovec Pond, Concrete Containment Basin 2
northern pike	*Esox lucius*		common	Dvorčice Pond

NCOD = data from the Nature Conservation Agency of the Czech Republic's Nature Conservation Occurrence Database (ndop.nature.cz)

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Fish occurrence in the affected area is confined to water bodies; the streams dry out or have little water. Dvorčice is the only fish-rearing pond. Karlovec Pond has a highly fluctuating water level and is becoming heavily overgrown. Several chub and roach were found in one of the concrete containment basins.

The project's potential effect on fish consists of effects on the site's water and hydrological regime. No specially protected or threatened species were recorded.

Amphibians

Table 21: Amphibians: repeatedly surveyed breeding sites.

Site number	Location	GPS	2024–2026 survey	Data review
1	Dvorčice Pond	49°10'9.342"N, 14°22'29.620"E	smooth newt – June 27 and August 17, 2025 common spadefoot – March 28, 2025 European fire-bellied toad – April 24 and June 27, 2025 European tree frog – June 27, 2025 common toad – March 28, April 24 and June 27, 2025, and June 7, 2026 European green toad – April 24, 2025 agile frog – April 24, 2025 pool frog – June 27, 2025 edible frog – June 27 and August 17, 2025	common spadefoot – 2009 (NCOD) European fire-bellied toad – 2009 (NCOD) European tree frog – 2023 (NCOD) common toad – 2011 (NCOD) pool frog – 2023 (NCOD) marsh frog – 2009 (Rozínek, 2009) edible frog – 2009 (NCOD)
2	Karlovec Pond	49°10'9.140"N, 14°22'52.794"E	European fire-bellied toad – June 27, 2025 common toad – March 28, April 24 and June 27, 2025 agile frog – June 27, 2025 pool frog – August 17, 2025 edible frog – June 27 and August 17, 2025	common spadefoot – 2009 (NCOD) European fire-bellied toad – 2009 (NCOD) common toad – 2009 (NCOD) edible frog – 2023 (NCOD)
3	Concrete Containment Basin N1	49°11'22.259"N, 14°22'48.314"E	smooth newt – August 17, 2025 common toad – March 28, April 24 and June 27, 2025, and April 7, 2026 agile frog – March 28, 2025 and April 7, 2026 pool frog – August 17, 2025 and June 7, 2026 edible frog – June 27 and August 17, 2025	smooth newt – 2009 (NCOD) great crested newt – 2009 (NCOD) common spadefoot – 2009 (NCOD) European fire-bellied toad – 2009 (NCOD) European tree frog – 2009 (NCOD) common toad – 2009 (NCOD) pool frog – 2009 (NCOD)

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Site number	Location	GPS	2024–2026 survey	Data review
				edible frog – 2009 (NCOD)
4	Concrete Containment Basin N2	49°11'44.471"N, 14°22'51.558"E	smooth newt – August 17, 2025 common toad – March 28, April 24 and June 27, 2025 agile frog – April 24, 2025 edible frog – June 27, 2025	alpine newt – 2009 (Rozínek, 2009) smooth newt – 2009 (Rozínek, 2009) common spadefoot – 2009 (Rozínek, 2009) European fire-bellied toad – 2009 (Rozínek, 2009) common toad – 2009 (Rozínek, 2009) European tree frog – 2009 (Rozínek, 2009) pool frog – 2009 (Rozínek, 2009) edible frog – 2009 (Rozínek, 2009)
5	Concrete Containment Basin N3	49°11'31.750"N, 14°22'13.707"E	smooth newt – August 17, 2025 common toad – June 27, 2025 edible frog – August 17, 2025	

Dvorčice Pond is used for fish rearing and has extensive common reed and cattail littoral vegetation and submerged vegetation. The fish stock is not excessive and therefore does not limit amphibians. The water body has a stable impounded water level throughout the year. There is a mixed woody stand on the dam and around the littoral zone, adjoining a wetland meadow to the east. A straightened and regulated stream flows south from the water body; its immediate surroundings form a natural amphibian migration route. This is the most important amphibian breeding site in the affected area. The pond lies outside the directly affected area but could be affected by work in Areas I and H and the SMR ETE site, and by operation of the SMR ETE through changes in runoff conditions.

Karlovec Pond is used for fish rearing and has extensive littoral vegetation consisting predominantly of cattails. In 2025, the water body was almost drained, with a water depth of up to 30 cm, and contained no stocked fish. The littoral vegetation was expanding at the expense of open water. It is an important amphibian breeding site. Conditions were also less than favorable for amphibians because the falling water level had turned the water body into a predation trap. The water body is surrounded by a willow fringe and then mown managed meadows. The principal natural migration route appears to be the unnamed outflow, but it is completely dry for most of the year. The pond lies outside the directly affected area but could be affected by work in Area G and by operation of the SMR ETE through changes in runoff conditions.

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Concrete Containment Basin N1 – a retention basin with a small cattail stand and planted water lilies. The basin is surrounded by naturally regenerated woody vegetation. It has highly transparent water and minimal cover. It lies outside the directly affected area but could be affected by work in Area C. Amphibians occur and breed here sporadically.

Concrete Containment Basin N2 – an oval retention basin with a cattail stand. It has highly transparent water and minimal cover and contains fish. It lies outside the directly affected area but could be affected by work in Area F2. Amphibians occur and breed here sporadically. The basin is surrounded by a reclamation planting of pine and naturally regenerated woody vegetation.

Concrete Containment Basin N3 – a small oval retention basin with common reed along the banks and duckweed covering the surface. Water transparency is reasonably good beneath the vegetation. It lies outside the directly affected area but could be affected by work in Area B2. Amphibians occur and breed here sporadically. The basin is surrounded by ruderal vegetation and naturally regenerated woody vegetation.

Table 22: Amphibian occurrence in the project area based on the 2024 and 2025–2026 survey and data review; species recorded or confirmed during the last four years are shown in **bold**. The presence of a species at a subsite is indicated by the letter **X** or the letter designating the **construction facilities area**.

English and Latin names	Threat status under the Nature and Landscape Protection Act and Red List	Dvorčice Pond	Karlovec	Basin N1	Basin N2	Basin N3	SMR ETE	Construction facilities	Power evacuation corridor	Construction-site power-supply corridor	Widening of Road II/138	ETE service road	Connection corridor (bridge) I–H	Immediate surroundings
smooth newt *Lissotriton vulgaris*	**HE/VU**	**X**		**X**	**X**	**X**		**H**					**X**	X
alpine newt *Ichthyosaura alpestris*	**HE/VU**				2016									2016
great crested newt *Triturus cristatus*	**CE/VU/HD II and IV**	**X**		2009									**X**	2016

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English and Latin names	Threat status under the Nature and Landscape Protection Act and Red List	Dvorčice Pond	Karlovec	Basin N1	Basin N2	Basin N3	SMR ETE	Construction facilities	Power evacuation corridor	Construction-site power-supply corridor	Widening of Road II/138	ETE service road	Connection corridor (bridge) I–H	Immediate surroundings
common spadefoot *Pelobates fuscus*	**HE/NT/HD IV**	**X**	2009	2009	2009			**H**					**X**	**X**
European fire-bellied toad *Bombina bombina*	**HE/VU/HD II and IV**	**X**	**X**	2009	2009			**H, I**	2016				**X**	**X**
common frog *Rana temporaria*	–/VU/HD V							**B3,** J (2009)						**X**
agile frog *Rana dalmatina*	**HE/NT/HD IV**	**X**	**X**	**X**	**X**			**C, F2, H**		**X**			**X**	**X**
pool frog *Pelophylax lessonae*	**HE/VU/HD IV**	**X**	**X**	2009	2009			**H**					**X**	**X**
marsh frog *Pelophylax ridibundus*	**CE/NT/HD V**		2012											2012
edible frog *Pelophylax esculentus*	**HE/VU/HD V**	**X**	**X**	**X**	**X**	**X**		**H**	2009	**X**			**X**	**X**
European tree frog *Hyla arborea*	**HE/NT/HD IV**	**X**		2009	2009			**H**, J (2009)	2009	**X**			**X**	**X**

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English and Latin names	Threat status under the Nature and Landscape Protection Act and Red List	Dvorčice Pond	Karlovec	Basin N1	Basin N2	Basin N3	SMR ETE	Construction facilities	Power evacuation corridor	Construction-site power-supply corridor	Widening of Road II/138	ETE service road	Connection corridor (bridge) I–H	Immediate surroundings
common toad *Bufo bufo*	E/VU	X	X	X	X	X	X	B2, C, F2, H	X				X	X
European green toad *Bufotes viridis*	HE/VU/HD IV	X						H					X	X

The review of amphibian data used the following sources:

NCOD – Nature Conservation Occurrence Database (ndop.nature.cz).

Kostkan, 2024 – Summary of Biological Surveys, Preliminary Biological Assessment and Natura 2000 Screening for Construction and Operation of the SMR ETE.

Rozínek R., 2009 – zoological survey (Biological Assessment of the New Nuclear Power Plant at the Temelín site, Including Power Evacuation to the Kočín Substation, V. Kostkan, 2009).

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Commentary on individual specially protected amphibian species

smooth newt (*Lissotriton vulgaris*)
Highly endangered, specially protected species.
It inhabits ponds without excessive fish stocks, small water bodies and wetter locations in their surroundings. It feeds on small invertebrates and occasionally frog eggs. During the terrestrial phase of its life cycle, it is active predominantly at night. Its breeding is dependent on water; during the aquatic phase, it is active throughout the day. Breeding takes place from April to June. The female lays 200–300 eggs, which she attaches individually to aquatic plants, and the larvae develop in water.
The species is distributed throughout Europe, except the Iberian and Italian peninsulas, and in Asia as far as the Altai Mountains. It was formerly common throughout Czechia.
It was recorded during the survey at Dvorčice Pond and Basins N1, N2 and N3. It breeds in these water bodies. Breeding in Karlovec Pond is also more than likely. It breeds in other water bodies in the surrounding area and is probably still relatively common in the local landscape. It is very difficult to detect the species away from its breeding habitats. The entire affected area outside agrocenoses may be considered its terrestrial habitat. In exceptional cases, it may occur temporarily in fields during wet weather and may also breed in flooded fields in years with extremely high precipitation. The areas around streams and ditches are its natural migration routes. The size of the affected local population cannot be estimated more precisely but may be relatively large and number in the thousands. The species will be affected by the project.

great crested newt (*Triturus cristatus*)
Highly endangered, specially protected species.
It inhabits larger, deeper water bodies of both natural and artificial origin. It lives principally in ponds, quarry and sand-pit pools, and small pools, and less commonly in flooded ditches, irrigation canals, fire-water reservoirs and concrete-lined swimming pools. Newt populations remain in the breeding, or aquatic, phase of their life cycle for approximately four to five months. Adult newts then leave the water and live on land beneath stones and fallen wood, in moss and in underground refuges, among other locations. Large newt species are more closely associated with water than small species, and immature newts can therefore be found both in water and on land. Newts overwinter in underground refuges, including rock fissures, abandoned rodent burrows and cellars, and buried in mud at the bottom of water bodies.
Except in small parts of southern Moravia, the great crested newt was originally distributed almost throughout Czechia, from the lowlands to elevations of 800 m above sea level. The number of its sites has now declined substantially. It remains more abundant below the Ore Mountains, in and around the Doupov Mountains, in the Ostrava area, between Kladno and Rakovník, locally in South Bohemia, in central Moravia, and around Cheb and Plzeň.
It was not confirmed during the survey; previous surveys recorded it at Dvorčice Pond and Basin N1. It breeds in these water bodies. A large population existed nearby in the former brickworks at the western edge of the ETE site and was moved to replacement habitat as part of a rescue transfer in previous years. It breeds in other water bodies in the wider surroundings and is probably still widespread but not abundant in the local landscape. It is very difficult to detect the species away from its breeding habitats. The entire affected area outside agrocenoses may be considered its terrestrial habitat. The areas around streams and ditches are its natural migration routes. The size of the affected local population cannot be estimated more precisely, but it will not be large and may comprise no more than several dozen adults. The species will be affected by the project.

Alpine newt (*Ichthyosaura alpestris*)
Highly endangered, specially protected species.

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It inhabits ponds without excessive fish stocks, small water bodies, woodland pools and wetter locations in their surroundings. It feeds on small invertebrates and occasionally frog eggs. It has a strong affinity for forest habitats. During the terrestrial phase of its life cycle, it is active predominantly at night. Its breeding is dependent on water; during the aquatic phase, it is active throughout the day. Breeding takes place from April to June. The female lays 200–300 eggs, which she attaches individually to aquatic plants, and the larvae develop in water.
The species is distributed throughout Europe, except the Iberian and Italian peninsulas, and in Asia as far as the Altai Mountains. It was formerly common throughout Czechia.
It was not confirmed during the survey; previous surveys recorded it in Basin N2. It occurs rather sporadically and in low numbers in the surrounding landscape. It is very difficult to detect the species away from its breeding habitats. The forest stands in Area F2 and its surroundings may be considered its terrestrial habitat. The size of the affected local population cannot be estimated more precisely, but it will not be large and may comprise no more than several dozen adults. The species will be affected by the project.

Common spadefoot (*Pelobates fuscus*)
Highly endangered, specially protected species.
It inhabits sites with light, sandy soils, often near large watercourses. It also occurs in agricultural landscapes in areas with lighter soils, in wetlands and at steppe sites. Breeding generally takes place in small and medium-sized water bodies 30–100 cm deep with sufficient aquatic vegetation. Depending on local conditions, it appears in water in April or May. Except during the short breeding period, the animals live on land and are active only at night. They spend the day under cover, most frequently buried in the ground at depths of up to 1 m, and overwinter in the same way.
In Czechia, it occurs sporadically, generally at elevations of up to 500 m above sea level.
It was recorded during the survey at Dvorčice Pond; other records are from Karlovec Pond and Basins N1 and N2. It breeds in these water bodies. It breeds in several other water bodies in the surrounding area and is probably relatively common in the local landscape. Because it has a rather cryptic lifestyle, fewer occurrence data are available than its actual distribution would suggest. The entire affected area, including agrocenoses, may be considered its terrestrial habitat. On wet days, it also migrates away from established migration routes. The size of the affected local population cannot be estimated more precisely but may number in the hundreds. The species will be affected by the project.

European fire-bellied toad (*Bombina bombina*)
Highly endangered, specially protected species.
Typical habitats for this species are shallow, densely vegetated standing waters at well-sunlit locations, including pond margins and small pools. It also inhabits temporary water bodies. It is more aquatic than the yellow-bellied toad and spends almost the entire year in water, where mating and egg-laying generally take place in several waves depending on rainfall, from April to August. Breeding is preceded by vocalization. In early autumn, the frogs leave the water and migrate to their winter refuges. They overwinter in rock fissures, abandoned rodent burrows, beneath piles of leaves, in ruins, in cellars and in similar locations.
In Czechia, it is most frequently recorded at elevations of 150–550 m above sea level. The European fire-bellied toad is absent from western Bohemia, the Liberec Region, the central parts of the Bohemian-Moravian Highlands, the Carpathian mountain ranges, and northern Moravia and Silesia except around Ostrava. In the rest of Czechia, it has a more or less continuous distribution at elevations of 150–730 m above sea level.

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It was recorded during the survey at Dvorčice and Karlovec ponds; other records are from Basins N1 and N2. It breeds in these water bodies and, in rainy years, can also breed in larger, more persistent pools in fields and elsewhere in the open countryside. It breeds in almost all water bodies without excessive fish stocks in the surrounding area and is still relatively common in the local landscape. The entire affected area, including agrocenoses, may be considered its terrestrial habitat. On wet days, it also migrates away from established migration routes; at other times, it migrates along watercourses. The size of the affected local population cannot be estimated more precisely but may number in the hundreds or more. The species will be affected by the project.

Agile frog (*Rana dalmatina)*

Highly endangered, specially protected species.

This relatively thermophilic species prefers well-lit deciduous woodlands. It feeds on terrestrial invertebrates; cannibalism and predation on other vertebrates have not been confirmed. It has highly sensitive skin and rapidly leaves a landscape even when pollution is low. The sexes overwinter separately. Males live predominantly in water, where mating takes place in spring, while females live on land nearby. They may be encountered at breeding sites as early as late February and early March, when both sexes are markedly dark in color. After laying eggs, the female leaves the water, while the male remains for several more weeks to mate again. The female lays 500–2,000 eggs in clusters, which she attaches to the bottom or among aquatic plants, producing “pierced clutches.” Egg development takes approximately two to three weeks. Metamorphosis then takes place in June or July. They reach sexual maturity at two to three years of age. They live for 9–11 years. The species has no subspecies.

Czechia forms the northern edge of the agile frog’s range. It inhabits lowlands and uplands at elevations of up to 500–600 m. Its main distribution in Czechia is concentrated in the lowlands of large rivers. These include central Bohemia along the Elbe and Vltava rivers, northern Bohemia around Most and Chomutov, and southern and central Moravia along the Morava and Dyje rivers and around Zlín and Vyškov. In recent decades, it has spread rapidly into foothill areas.

During the survey, it was recorded at Dvorčice and Karlovec ponds and in Basins N1 and N2. It breeds in these water bodies. It was recorded only sporadically during previous surveys before 2020. It breeds in many other water bodies in the surrounding area, frequently including those of lower quality. The entire affected area except agrocenoses may be considered its terrestrial habitat. On wet days, it also migrates away from established migration routes; at other times, it migrates along watercourses. The size of the affected local population cannot be estimated more precisely but may range from tens to hundreds of specimens. The species will be affected by the project.

Pool frog (*Pelophylax lessonae*)

Highly endangered, specially protected species.

It inhabits principally standing waters. It remains mainly at the shoreline, immediately adjacent to the water surface. It is generally active during the day and, in summer, up to 24 hours a day. It overwinters in water from October to March. During mating, males attract females with their characteristic rapid, short croaks. The call is quite distinctive and can be heard at distances of tens to hundreds of meters. Its diet consists of invertebrates.

In Czechia, it generally inhabits uplands and highlands, usually above 400 m above sea level. It is a less common species. The pool frog is more abundant principally in western and southern Bohemia and in the Bohemian-Moravian Highlands.

Individual specimens were recorded during the survey at Dvorčice and Karlovec ponds; previous surveys also produced records from Basins N1 and N2. Breeding has so far been documented only in the two ponds, where it occurs in a mixed population with the edible frog. It has not yet been observed at other sites in the surroundings, but occasional occurrence in mixed populations with the edible frog

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can be expected. Only the immediate surroundings of the water bodies where it was found may be considered its terrestrial habitat. On wet days, it also migrates away from established migration routes; at other times, it migrates along watercourses. The size of the affected local population cannot be estimated more precisely but may range from a few to a few dozen adults. The species will be affected by the project.

Marsh frog (*Pelophylax ridibundus*)

Critically endangered and specially protected species.

Like the other "green" frogs, the marsh frog is closely associated with water. In Czechia, it occurs both in slow-flowing and standing waters and their immediate surroundings. It prefers sites with a warmer microclimate. This is one reason why the marsh frog may be regarded as a lowland species, occurring only exceptionally above 300 m above sea level. It is a heliophilous species and can therefore very frequently be observed basking at the water surface or on the bank. It generally overwinters in water, although overwintering on land also occurs. It appears at the site as early as late March and early April, although mating does not take place until later, generally in May. During mating, males call females very loudly with their characteristic rapid, short croaks. The call is very distinctive and can be heard at distances of tens to hundreds of meters. It feeds predominantly on invertebrates and small vertebrates. As its Czech name suggests, the marsh frog is a very good jumper. It can jump up to 80 cm high and 120 cm long. It has an impressive lifespan of 25–30 years.

In Czechia, it occurs principally in the Elbe River catchment, from Hradec Králové to Hřensko, and in northwestern Bohemia. In Moravia, it occurs from Mohelnice along the Morava River to the confluence of the Morava and Dyje rivers, and in the Znojmo and Brno areas. In northern Moravia, it occurs along the Oder River and in the Ostrava and Karviná areas.

It was not recorded during the survey. It was previously reported from Karlovec Pond. Its primary habitat is the lowest part of the České Budějovice Basin; it is known from several other nearby sites. Fish farmers probably contribute unintentionally to its patchy spread. It is not currently considered present in the area. The species will not be affected by the project.

Edible frog (*Rana* kl. *esculenta*)

Highly endangered, specially protected species.

It inhabits principally standing waters. It remains on the bank immediately adjacent to the water surface. Here, it basks and watches its surroundings. When disturbed, it quickly jumps back into the water. The edible frog occupies a vacant niche between the marsh frog and the pool frog. In Czechia, it generally inhabits lowland areas, at elevations no higher than 700 m above sea level. Today, however, it occupies the same habitats as both parent species. It is generally active during the day and, in summer, up to 24 hours a day. It overwinters in water from October to March. During mating, males call females very loudly with their characteristic rapid, short croaks. The call is very distinctive and can be heard at distances of tens to hundreds of meters. Its diet consists of a wide range of components of the surrounding fauna, principally invertebrates. Vertebrates are almost absent from its diet, except for occasional fish fry and cannibalism.

The edible frog is a fairly common species in Czechia. As already noted, this taxon is not easy to identify, and distribution data for this hybrid are therefore highly fragmentary. The edible frog is more abundant along the boundary between Bohemia and Moravia, in central Bohemia and in southern Moravia.

It was recorded during the survey at Dvorčice and Karlovec ponds and in Basins N1, N2 and N3. Breeding has so far been documented only in the two ponds, where it occurs in a mixed population with the pool frog. It is common around almost all water bodies in the surrounding area and also enters shallow pools and ditches to forage. The surroundings of the water bodies where it was found may

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be considered its terrestrial habitat. On wet days, it also migrates away from established migration routes; at other times, it migrates along watercourses. The size of the affected local population cannot be estimated more precisely but may range from several dozen to several hundred adults. The species will be affected by the project.

European tree frog (*Hyla arborea*)

Highly endangered, specially protected species.

The current upper elevational limit of the European tree frog's distribution in Czechia is 750 m above sea level. It is a typical climbing frog that spends most of its life on vegetation. It prefers open, sunlit sites near small and medium-sized water bodies with adjacent meadow habitats and scattered woody stands. It uses these water bodies as breeding sites. Breeding, preceded by vocalization, takes place from late April to July. It seeks well-sunlit sites with water 10–30 cm deep and a surface covered by floating vegetation, although it also uses sites entirely without vegetation. The presence of riparian vegetation is also important. One female lays approximately 800 eggs in several small clusters, each about the size of a walnut. European tree frogs are among the first Czech frog species capable of colonizing newly created water bodies. Metamorphosis takes place after approximately three months. In early autumn, the frogs leave the water and migrate to their winter refuges. They overwinter in rock fissures, abandoned rodent burrows, beneath piles of leaves, in ruins, in cellars and in similar locations. The European tree frog now occurs throughout Czechia, although its distribution is predominantly patchy. It prefers low to medium elevations of up to approximately 550 m above sea level. The upper limit of its distribution in Czechia is 750 m above sea level. The temperature regime at its sites has a decisive influence on its occurrence.

It was recorded during the survey at Dvorčice Pond; other records are from Basins N1 and N2. It breeds in these water bodies. It breeds in almost all water bodies without excessive fish stocks in the surrounding area and is still relatively common in the local landscape. The entire affected area except agrocenoses may be considered its terrestrial habitat. In exceptional cases, it may occur temporarily in fields during wet weather or migration and may breed in flooded fields in years with extremely high precipitation. On wet days, it also migrates away from established migration routes. The size of the affected local population cannot be estimated more precisely but may number several dozen. The species will be affected by the project.

Common toad (*Bufo bufo*)

Endangered, specially protected species.

The common toad has undemanding habitat requirements. Fields, meadows, forests, gardens and urban green spaces are all potential places of occurrence. Its distribution is not limited by elevation. It can be encountered in the lowlands and in the mountains, where it is generally limited by a lack of suitable breeding sites and by climatic conditions. The common toad is predominantly nocturnal. During the day, it is encountered only during mating or in rainy spring weather. It spends the day in underground refuges, which may also be used for overwintering. Common toads are territorial animals: they occupy the same refuge and mate at the same site. Ants make up more than 50% of the common toad's diet, which also includes beetles, spiders and various hymenopterans and dipterans. It hunts at night. The common toad moves through its territory and catches anything that moves.

It was recorded at several locations during the survey; its occurrence may be regarded as widespread throughout the area. Breeding has been documented at Dvorčice and Karlovec ponds and in Basins N1, N2 and N3. It breeds in almost all other water bodies without excessive fish stocks in the surrounding area and remains common in the local landscape. The entire affected area, including agrocenoses through which it moves regularly, may be considered its terrestrial habitat. On wet days, it also migrates away from established migration routes; stream and ditch valleys are its natural migration

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routes. The size of the affected local population cannot be estimated more precisely but may number in the high thousands. The species will be affected by the project.

European green toad (*Bufo viridis*)

Highly endangered, specially protected species.

The European green toad is highly tolerant of environmental conditions. This is demonstrated by records of the species from desert areas of Africa and the brackish waters of some seas. It is a steppe to forest-steppe species and is therefore encountered in open landscapes. It occurs most frequently in fields, on waste ground and in quarries, but also in gardens and directly within towns and cities. The European green toad is the amphibian most frequently encountered in urban areas. Its distribution is most frequently reported from the lowlands to the uplands, but it has also been recorded abroad at elevations above 4,560 m in the Himalayas. It is nocturnal and occurs during the day only during the mating period. Mating takes place from April to May. During this period, males call loudly using their well-developed vocal sac. Like the common toad, it crosses its territory at night and hunts insects. It uses a method known as fixation, approaching prey in short runs interrupted by longer pauses. During the day, it hides beneath stones, in rodent burrows, or buries itself in suitable ground. Hibernation lasts from October or November to March or April. Like all toads, it captures prey with its projectile tongue. Its diet is dominated by beetles, ants and spiders. Mating errors may occur, and a male European green toad may be observed with another frog species, such as a pool frog or common spadefoot.

It inhabits approximately 50% of Czechia. It is absent from the Karlovy Vary area, including the Doupov Mountains; the Šumava Mountains; and northern Bohemia, including the Lusatian, Jizera and Giant Mountains.

It was recorded during the survey only at Dvorčice Pond. It probably breeds there. In the surrounding area, it is known only from anthropogenic habitats within ETE, where it also breeds in various shallow pools. The entire affected area, including agrocenoses through which it moves regularly, may be considered its terrestrial habitat. It migrates across the landscape without following established migration routes. The size of the affected local population cannot be estimated more precisely, but it will be low and may range from a few to a few dozen specimens. The species will be affected by the project.

Effects of the project on amphibians and their populations

The project's potential effects on amphibians consist of the risk of disturbing or killing individuals during earthworks, permanent or temporary take of terrestrial habitat, increased road mortality during construction, and effects on the hydrological regime of terrestrial and breeding habitats.

Recommendations

1) Preserve the key breeding sites and their immediate surroundings, namely Dvorčice and Karlovec ponds. If property rights permit, implement or finance measures to improve their condition, such as partial removal of sediment, removal of some woody plants and creation of littoral pools. Support the hydrological regime of these water bodies so that they do not dry out during summer.

2) At least once every two years, between September and October, ensure that all fish are regularly removed from Basins N1, N2 and N3, and do not stock them with fish.

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3) After construction is completed, construct retention basins or drainable pools as replacement amphibian habitats within the construction facilities areas.

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Reptiles

Table 23: Artificial reptile refuges in 2024 (Kostkan, 2024).

Site number	Location	GPS
1	C	49°11'22.864"N, 14°22'48.468"E
2	E1	49°10'41.158"N, 14°21'54.859"E
3	F1	49°11'33.769"N, 14°22'52.485"E
4	F2	49°11'41.240"N, 14°22'54.494"E
5	G	49°10'25.705"N, 14°22'57.120"E
6	G	49°10'17.726"N, 14°22'48.777"E
7	H	49°10'10.554"N, 14°22'38.426"E
8	I	49°10'14.292"N, 14°22'27.148"E
9	SMR ETE power evacuation corridor	49°9'54.998"N, 14°21'49.142"E
10	SMR ETE	49°10'12.979"N, 14°22'35.800"E
11	SMR ETE	49°10'14.847"N, 14°22'28.848"E
12	Temelín NPP	49°10'49.440"N, 14°22'7.373"E
13	Temelín NPP	49°10'59.943"N, 14°22'6.446"E
14	Temelín NPP	49°10'39.946"N, 14°21'35.006"E
15	Temelín NPP	49°10'40.754"N, 14°21'47.984"E
16	Surroundings	49°10'51.106"N, 14°22'2.583"E
17	Surroundings	49°10'59.993"N, 14°22'1.116"E

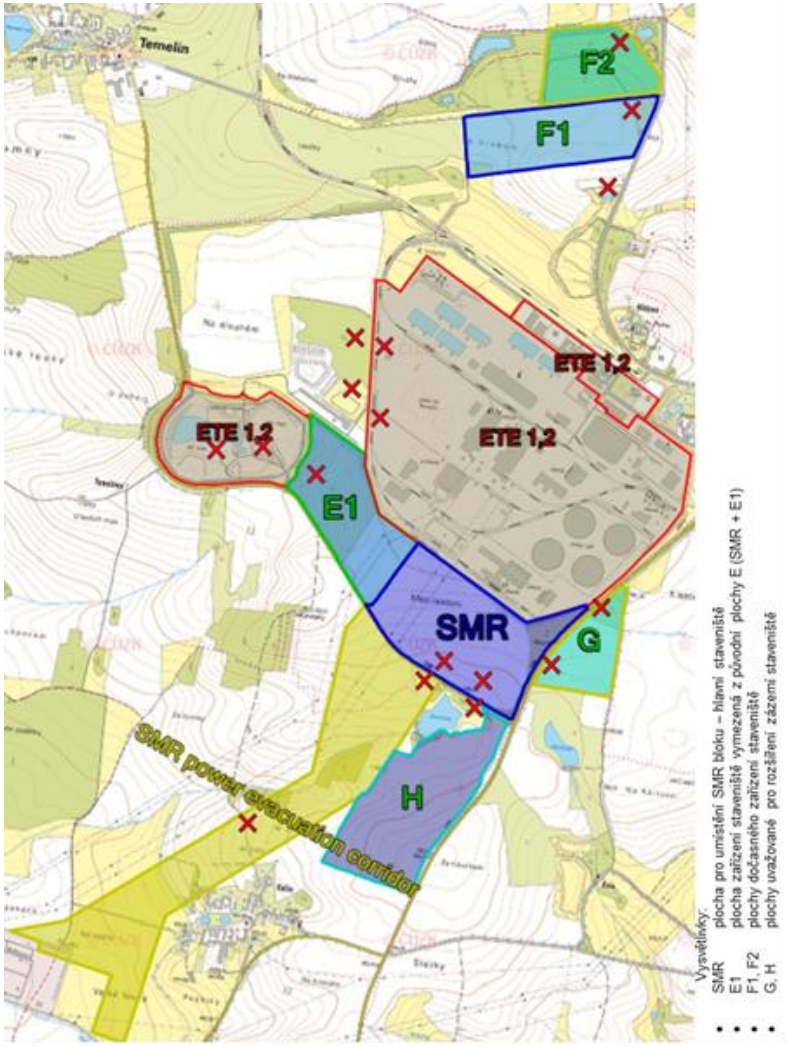


Figure 85: Locations of artificial reptile refuges in 2024 (Kostkan, 2024).

Vysvětlivky:	Key:

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SMR: plocha pro umístění SMR bloku – hlavní stanoviště	SMR: area for placement of the SMR unit, main site
E1: plocha zařízení staveniště vymezená z původní plochy E (SMR + E1)	E1: construction facilities area defined from the original Area E (SMR + E1)
F1, F2: plochy dočasného zařízení staveniště	F1, F2: temporary construction facilities areas
G, H: plochy uvažované pro rozšíření zázemí staveniště	G, H: areas considered for expansion of the construction facilities

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Table 24: Artificial reptile refuges in 2025–2026.

Site number	Location	GPS	Habitat description	2025–2026 survey
1	B2 (nearby)	49°11'30.916"N, 14°22'15.715"E	sunlit woodland edge	sand lizard – August 17, 2025 (in grass nearby) slow worm – June 17, 2025 and June 7, 2026 grass snake – June 26, 2025 (on the water body bank)
2	F2	49°11'40.686"N, 14°22'42.037"E	clearing by a ditch in a young pine forest	viviparous lizard – April 23 and August 17, 2025 slow worm – June 26, 2025 (wood pile nearby)
3	C (nearby)	49°11'22.839"N, 14°22'49.066"E	edge of naturally regenerated vegetation by the bank of a concrete basin,	grass snake – April 23 and June 26, 2025 (on the water body bank; slough) sand lizard – October 4, 2025
4	C	49°11'10.431"N, 14°22'41.428"E	unmown grassy slope	slow worm – August 17 and October 4, 2025 (also a wood pile nearby)
5	B3	49°11'13.734"N, 14°21'48.340"E	ruderal vegetation at the field margin	no record
6	Karlovec Pond	49°10'5.423"N, 14°22'58.713"E	near the dam, on the bank, beneath a willow	grass snake – April 23, June 26 and August 17, 2025 (on the water body bank, in the water and in the dam beneath stones) sand lizard – August 16, 2025 (on the dam) slow worm – June 16, 2025
7	H	49°10'10.106"N, 14°22'39.323"E	edge of a wetland meadow and naturally regenerated vegetation	viviparous lizard – October 4, 2025 (in the meadow) common European adder – August 16, 2025 (slough) grass snake – June 13, 2026 (dead specimen) slow worm – June 7, 2026
8	Dvorčice Pond	49°10'6.526"N, 14°22'28.026"E	sunlit edge of the stand on the dam	grass snake – August 17, 2025 (in the water) and June 7, 2026 sand lizard – August 17, 2025 (on the dam) slow worm – August 17 and October 4, 2025, and June 13, 2026
9	Power evacuation corridor	49°9'54.910"N, 14°21'49.837"E	ruderal stand, material stockpile	slow worm – October 4, 2025
10	E	49°10'46.314"N, 14°21'24.291"E	well-lit edge of forest stand and field	slow worm – August 17, 2025 viviparous lizard – August 17, 2025 (surrounding forest)

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Site number	Location	GPS	Habitat description	2025–2026 survey
11	J	49°10'21.840"N, 14°21'56.377"E	well-lit edge of forest stand and field	slow worm – June 26 and August 17, 2025 (also in surrounding tree stumps) sand lizard – June 26, 2025 (at the woodland edge by the track)
12	SMR ETE	49°10'11.276"N, 14°22'41.721"E	ruderal vegetation by the road embankment	sand lizard – October 4, 2025

Table 25: Reptile occurrence in the project area based on the 2024 and 2025–2026 survey and data review; species recorded or confirmed during the last four years are shown in bold. The presence of a species at a subsite is indicated by the letter **X** or the letter designating the **construction facilities area**. For a record more than four years old, the **year** of the last observation is stated.
RW = widening of Road II/138; SR = ETE service road

English and Latin names	Threat status under the Nature and Landscape Protection Act and Red List	Dvorčice Pond	Karlovec	SMR ETE	Construction facilities	Power evacuation corridor	Construction-site power-supply corridor	Widening of Road II/138	ETE service road	Connection corridor (bridge) I–H	Immediate surroundings
sand lizard ***Lacerta agilis***	**HE/VU/HD IV**	**X**	**X**	**X**	**B2, C, J,** 2009: B1, B3, C, D, F2, G, J, 2024: H, G, F1, F2	**X**, 2009	**X**	**X**	**X**		2023
viviparous lizard ***Zootoca vivipara***	**HE/NT/–**	2009			**F2, H, E, J,** 2009: B3, F2,	2009	**X**	**X**			2009
slow worm ***Anguis fragilis***	**E/NT/–**	**X**, 2024	**X**		**B2, F2, C, E,** 2024: H, F2	**X**	X		X	X	2017
smooth snake	**HE/VU/HD IV**										**X**

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English and Latin names	Threat status under the Nature and Landscape Protection Act and Red List	Dvorčice Pond	Karlovec	SMR ETE	Construction facilities	Power evacuation corridor	Construction-site power-supply corridor	Widening of Road II/138	ETE service road	Connection corridor (bridge) I–H	Immediate surroundings
Coronella austriaca											
grass snake *Natrix natrix*	**E/NT/–**	**X**	**X**		**B2, C,** 2009: C, F2, 2024: H	2009	X			X	2016
common European adder *Vipera berus*	**CE/VU/–**				**H**						

The review of reptile data used the following sources:

NCOD – Nature Conservation Occurrence Database (ndop.nature.cz).

Kostkan, 2024 – Summary of Biological Surveys, Preliminary Biological Assessment and Natura 2000 Screening for Construction and Operation of the SMR ETE.

Rozínek R., 2009 – zoological survey (Biological Assessment of the New Nuclear Power Plant at the Temelín site, Including Power Evacuation to the Kočín Substation, V. Kostkan, 2009).

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Sand lizard (*Lacerta agilis*)
Highly endangered, specially protected species.
The sand lizard principally inhabits drier, sunny locations, where it prefers grassy and low-herb steppe communities with sparse vegetation cover and a deeper soil layer. It avoids stony and rocky locations where it cannot find a sufficiently deep refuge for overwintering. It occurs at woodland edges, in forest clearings, on scrubby slopes and field boundaries, and on riverbanks and pond dams. It has no other special habitat requirements and now lives almost synanthropically on railway embankments, road verges, in quarries and sand pits, and in neglected gardens and orchards. All of Czechia lies within the species' range, and its occurrence may be regarded as widespread. It occurs sporadically throughout almost all of Czechia at elevations of up to approximately 800–900 m.
It is the most abundant reptile in the project area, inhabiting fringes, track margins, scrub, ruderal sites and woodland clearings. It is also encountered at field margins and around structures within the existing ETE site. The entire affected area except agrocenoses may be considered its terrestrial habitat. The size of the affected local population cannot be estimated more precisely but may number in the thousands. It occurs commonly in the surrounding area. The species will be affected by the project.

Viviparous lizard (*Zootoca vivipara*)
Highly endangered, specially protected species.
This is a relatively cold-tolerant species. It inhabits wetter and cooler areas, principally in forest and mountain habitats. In Czechia, it occurs predominantly in the Sudeten mountain ranges, the surrounding uplands and the Vysočina Region, but also in the Haná and Plzeň areas. Its occurrence in Czechia is reported from 400 m above sea level, although it can also be encountered at lower elevations. The species becomes active in early spring and may therefore even be encountered on snow. It overwinters from October to March in underground refuges. Because the species occurs in spring areas, it has been shown to be capable of moving both in water and below the surface.
Within the affected area, it occurs in forests and wetlands and is probably widespread in such habitats. The size of the affected local population cannot be estimated more precisely but may number in the high hundreds. It occurs commonly in the surrounding area. The species will be affected by the project.

Slow worm (*Anguis fragilis*)
Highly endangered, specially protected species.
The slow worm uses various habitat types. The principal ones include the edges of deciduous and coniferous forests, clearings, fields, meadows, waste ground and quarries. It avoids treeless landscapes. It occurs from the lowlands to elevations of up to 1,000 m. The slow worm has a cryptic lifestyle, living beneath stones, in holes in forest litter, beneath leaves or in grass on moister substrates. It is active predominantly at night and at dusk. During the day, it is active only after rain. Individuals basking in the sun are predominantly gravid females.
In Czechia, it occurs in the western part of the country. In Moravia, it occurs together with the eastern slow worm.
Within the affected area, it is probably widespread outside agrocenoses, from wetlands to dry sites and forests. However, it does not appear to be abundant here. The size of the affected local population cannot be estimated more precisely but may number in the high hundreds. It occurs commonly in the surrounding area. The species will be affected by the project.

Grass snake (*Natrix natrix*)
Endangered, specially protected species.
It generally occurs near water, although not invariably. It frequently occurs in various open habitats or near human dwellings and regularly migrates across the landscape. It inhabits various anthropogenic habitats.

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All of Czechia lies within its range, and it has a continuous distribution up to elevations of approximately 1,000 m above sea level.
It is probably widespread throughout the affected area, although it does not remain permanently in agrocenoses. It is frequent around water bodies, where it hunts. The size of the affected local population cannot be estimated more precisely but may range from tens to hundreds of specimens. It occurs commonly in the surrounding area. The species will be affected by the project.

Common European adder (*Vipera berus*)
Critically endangered, specially protected species.
It inhabits sunlit track margins, clearings with tree stumps and piles of stones. Depending on elevation and weather, the common European adder is active from mid-March to late April until late September or early October. Its diet consists principally of rodents and occasionally frogs, lizards or young birds. The common European adder is viviparous.
In Czechia, it occurs predominantly at middle and higher elevations and tolerates low temperatures.
It probably occurs only sporadically within the affected area. Only one slough was found beneath a monitoring board at the edge of a wetland meadow, a typical habitat outside higher elevations. It has not previously been recorded in the surrounding area; the nearest records are approximately 15–20 km away, at Bechyně and Ševětín. The size of the affected local population cannot be estimated more precisely but can comprise no more than a few specimens. The species will be affected by the project.

Smooth snake (*Coronella austriaca*)
Highly endangered, specially protected species.
It has not yet been recorded within the affected area, but it occurs relatively nearby. It has been recorded near Temelín and Litoradlice, 2–3 km from the project. Given the character of the local habitats, its occurrence cannot be excluded.

Effects of the project on reptiles and their populations

The project's potential effects on reptiles consist of the risk of disturbing or killing individuals during earthworks, permanent or temporary take of terrestrial habitat, and increased road mortality during construction.

Recommendations

1) There is a relative shortage of reptile refuges, such as piles of stones and wood, in the area. The construction of several dozen small reptile refuges at suitable locations throughout the affected landscape is recommended.

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Mammals

Table 26: Small-mammal trapping results.

Location	Date	bicolored shrew (*Crocidura leucodon*)	lesser white-toothed shrew (*Crocidura suaveolens*)	Eurasian pygmy shrew (*Sorex minutus*)	common shrew (*Sorex araneus*)	Eurasian water shrew (*Neomys fodiens*)	Miller's water shrew (*Neomys milleri*)	common vole (*Microtus arvalis*)	field vole (*Microtus agrestis*)	bank vole (*Clethrionomys glareolus*)	yellow-necked mouse (*Apodemus flavicollis*)	wood mouse (*Apodemus sylvaticus*)	harvest mouse (*Micromys minutus*)	Site description
L1	June 25, 2025									3	1			GPS: 49°11'41.762"N, 14°22'43.287"E young managed pine forest, edge of ditch with small-reed
	September 17, 2025			3						4	4			
L2	June 25, 2025				1				1	2	3		1	GPS: 49°11'15.674"N, 14°21'56.919"E at the foot of a slope, naturally regenerated stand with common reed
	September 17, 2025				2				3	4	3			
L3	June 25, 2025		1	2						1	2			GPS: 49°11'13.048"N, 14°22'40.062"E edge of naturally regenerated stand with hazel, stacked logs
	September 17, 2025	1		3	1					3	1			
L4	June 25, 2025							3				2		GPS: 49°10'18.057"N, 14°23'3.429"E row of shrubs between fields and meadow, field track
	September 17, 2025		1	1				6				4		
L5	June 25, 2025				3	1						2		GPS: 49°10'5.835"N, 14°22'58.717"E Karlovec, pond dam, riparian stand
	September 17, 2025				5			1				1		
L6	June 26, 2025			1	2	1	1				1			GPS: 49°10'8.715"N, 14°22'25.346"E Dvorčice Pond, pond dam and riparian stand
L6	September 18, 2025				4							3		
L7	June 26, 2025				1			7					1	GPS: 49°10'13.210"N, 14°22'34.693"E

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	September 18, 2025			2				5		2	1	3		field margin, row of naturally regenerated woody plants by the road
L8	June 26, 2025							2	1					GPS: 49°10'25.432"N, 14°21'40.002"E wet meadow, along a ditch with unmown vegetation
	September 18, 2025				1			1				2		
L9	June 26, 2025			1				2		6	5			GPS: 49°10'45.379"N, 14°21'22.776"E field margin, woodland edge vegetation
	September 18, 2025		2					2		12	6	1		

Table 27: Bat-detector survey results.

Location	Date	common pipistrelle *(Pipistrellus pipistrellus)*	brown long-eared bat/grey long-eared bat[1] *(Plecotus auritus/ austriacus)*	Nathusius' s pipistrelle *(Pipistrellus nathusii)*	common noctule *(Nyctalus noctula)*	Daubenton' s bat *(Myotis daubentonii)*	Site description
N1	June 26, 2025					X	GPS: 49°11'30.285"N, 14°22'15.729"E edge of pine woodland, field, foraging site, drinking site
	August 17, 2025		X				
N2	June 26, 2025			X			GPS: 49°11'40.482"N, 14°22'42.302"E pine forest foraging and drinking site
	August 17, 2025						
N3	June 26, 2025		X			X	GPS: 49°11'22.914"N, 14°22'50.336"E naturally regenerated woody vegetation and water body margin foraging and drinking site
	August 17, 2025					X	

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N4	June 26, 2025		X				GPS: 49°11'8.878"N, 14°22'42.766"E older naturally regenerated stands, wet meadow possible daytime bat roosts, foraging site, drinking site
	August 17, 2025	X					
N5	June 26, 2025	X	X	X			GPS: 49°11'16.175"N, 14°22'1.095"E older naturally regenerated stands possible daytime bat roosts, foraging site
	August 17, 2025	X	X				
N6	June 26, 2025	X			X		GPS: 49°10'59.5"N 14°23'03.6"E parking area, structures possible daytime bat roosts, foraging site
	August 17, 2025				X		
N7	June 26, 2025			X		X	GPS: 49°10'12.725"N, 14°22'36.818"E older naturally regenerated stands, row of poplars possible daytime bat roosts, foraging site
	August 17, 2025			X			
N8	June 26, 2025	X	X	X		X	GPS: 49°10'09.3"N 14°22'25.4"E pond, riparian stand possible daytime bat roosts, foraging site, drinking site
	August 17, 2025	X		X			
N9	June 26, 2025				X		GPS: 49°10'34.063"N, 14°21'38.925"E older naturally regenerated stand, meadow possible daytime bat roosts, foraging site
	August 17, 2025	?		?			

[1] Note: The pairs of related bat species listed above cannot be reliably distinguished using a bat detector.

List of species recorded

Table 28: Mammal occurrence in the project area based on the 2024 and 2025–2026 survey and data review; species recorded or confirmed during the last four years are shown in bold. The presence of a species at a subsite is indicated by the letter **X** or the letter designating the **construction facilities area**. For a record more than two years old, the **year** of the last observation is stated.

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English and Latin names	Threat status under the Nature and Landscape Protection Act, Red List and EU legislation	Dvorčice Pond	Karlovec	SMR ETE	Construction facilities	Power evacuation corridor	Construction-site power-supply corridor	Widening of Road II/138	ETE service road	Connection corridor (bridge) I–H	Immediate surroundings	Detection method
bicolored shrew (*Crocidura leucodon*)	**E/LC/–**				**C**, 2024: C							trapping
lesser white-toothed shrew (*Crocidura suaveolens*)					**C, G**		**X**				2023	trapping
field vole (*Microtus agrestis*)		2023			**B3, J**						2023	trapping
common vole (*Microtus arvalis*)			**X**	**X**	**G, J,** 2023: F2	**X,** 2023	**X**	**X**	**X**	**X**	2017	trapping
European water vole (*Arvicola terrestris*)				**X**	**B1, B2, E1, E2, F1, H, I, J**	**X**				**X**		signs of presence, burrows
Eurasian badger (*Meles meles*)											**X**	signs of presence, burrows
western European hedgehog (*Erinaceus europaeus*)					**G,** 2023: B2, C	2023						observation, dead specimen

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European mole (*Talpa europaea*)				**X**	**B1, B2, B3, C, E1, E2, F1, F2, G, I, J, H,** 2024: locally	**X**	**X**				2023	molehills
European pine marten (*Martes martes*)					**C**						2006	presumed occurrence in the area
beech marten (*Martes foina*)					**B3, C, F1, F2, H,** 2024: as Martes sp.	**X**					**X**, 2005	droppings at several locations, dead specimen
stoat (*Mustela erminea*)											2017	presumed occurrence in the area
least weasel (*Mustela nivalis*)				**X**	**F1, E1,** 2024: E2	**X**, 2024					2021	trapping, dead specimen
red fox (*Vulpes vulpes*)		**X**	**X**	**X**	**B1, B2, B3, C, E1, E2, F1, F2, G, I, J, H,** 2024: throughout	**X**	**X**			**X**	2009	droppings, tracks, observation, dead specimen
house mouse (*Mus musculus*)											2024	trapping

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harvest mouse (*Micromys minutus*)		**X,** 2024		**X,** 2024	**B2, H,** 2024: H							trapping
yellow-necked mouse (*Apodemus flavicollis*)		**X**		**X,** 2024:	**B2, F2, C, E2,** 2024: B3, F2, C	**X,** 2024:	**X**				2024	trapping, dead specimen
wood mouse (*Apodemus sylvaticus*)		**X, 2024**	**X**	**X,** 2024	**E2, G, H, J**, 2024: B1, C, E2, H	**X,** 2024:					2024	trapping, dead specimen
grey long-eared bat (*Plecotus austriacus*)	**HE/VU/HD IV**			**X**	**B1, B2, C, H**, 2024 E1						2024	bat-detector survey
common pipistrelle (*Pipistrellus pipistrellus*)	**HE/LC/HD IV**	**X**			**B2, C, H**						**X**	
soprano pipistrelle (*Pipistrellus pygmaeus*)	**HE/LC/HD IV**	2024			2024: H						2024	bat-detector survey
Nathusius's pipistrelle (*Pipistrellus nathusii*)	**HE/LC/HD IV**	**X**		**X**	**B1, B2, C, H,** 2009: B3, F2,							bat-detector survey

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common noctule (*Nyctalus noctula*)	**HE/LC/HD IV**	**X**		**X**	**C, H**, 2024: H						**X**	bat-detector survey
Natterer's bat (*Myotis nattereri*)	**HE/–/HD IV**										2024	bat-detector survey
northern bat (*Eptesicus nilsonii*)	**HE/LC/HD IV**										2024	bat-detector survey
brown long-eared bat (*Plecotus auritus*)	**HE/LC/HD IV**			**X**	**B1, B2, C, H**, 2024 F2						1991	bat-detector survey
serotine bat (*Eptesicus serotinus*)	**HE/LC/HD IV**										2024	bat-detector survey
Daubenton's bat (*Myotis daubentonii*)	**HE/LC/HD IV**	**X**		**X**	**B1, C, H,** 2024: H							bat-detector survey
bank vole (*Clethrionomys glareolus*)		**X**		**X,** 2024	**B1, F2, C, E2, H,** 2024: B1, C, H	2024	**X**					trapping
muskrat (*Ondatra zibethicus*)					2024: locally							occurrence presumed only

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hazel dormouse (*Muscardinus avellanarius*)	**HE/LC/HD IV**				**C**		**X**					hazel-nut feeding remains
brown rat (*Rattus norvegicus*)												presumed occurrence
wild boar (*Sus scrofa*)		**X**	**X**	**X**	**B1, B2, B3, C, E1, E2, F1, F2, G, H, I, J,** 2024: locally	**X**	**X**			**X**	**X**	observations, signs of presence, rooting and nests
Miller's water shrew (*Neomys milleri*)		**X**									2024	trapping
Eurasian water shrew (*Neomys fodiens*)		**X**	**X**								2024	trapping
Eurasian pygmy shrew (*Sorex minutus*)				**X,** 2024	**C, E1, F2, G, H,** 2024: B1, H					**X**		trapping
common shrew		**X**	**X**	**X,** 2024	**B2, C, H, J,** 2024: B1, C, H	2024						trapping

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(*Sorex araneus*)												
European roe deer (*Capreolus capreolus*)		**X**	**X**	**X**	**B1, B2, B3, C, E1, E2, F1, F2, G, H, I, J,** 2024: abundant	**X**	**X**			**X**	**X**	observations, signs of presence, droppings
European polecat (*Mustela putorius*)											**2018**	presumed occurrence
red squirrel (*Sciurus vulgaris*)	**E/DD**	**X**		**X**	**B2, E2, F2, J,** 2024: locally	**X**	**X**				**X**	observations, signs of presence and feeding remains
Eurasian otter (*Lutra lutra*)	**HE/NT**	**X**	**X**		2024: locally	2006					2025	droppings
European hare (*Lepus europaeus*)	–/NT	**X**		**X**	**B1, B2, B3, C, E1, E2, F1, F2, I, J, G, H** 2024: common	**X**	**X**			**X**	**X**	observations, signs of presence, forms, droppings

NCOD = data from the Nature Conservation Agency of the Czech Republic's Nature Conservation Occurrence Database (ndop.nature.cz)

The area is not particularly important in terms of mammals.

The project's potential effects on mammals consist principally of disturbance, as well as earthworks and take of terrestrial and riparian habitats.

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Commentary on specially protected mammal species

Bicolored shrew (*Crocidura leucodon*)
Endangered, specially protected species.
It lives principally at wetter locations, such as the banks of ponds and watercourses, wetlands and waterlogged meadows. It may also occur in forests. It also inhabits synanthropic sites. It prefers middle elevations, generally between 200 and 600 m; the highest record in Czechia is at 870 m above sea level. It occurs from Western Europe to Asia Minor, the Middle East and Transcaucasia. Its distribution is bounded approximately by the 55th parallel in the north. It does not occur in southern France, on the Iberian Peninsula or on islands in the Mediterranean. In Czechia, its range lies principally in northwestern and southern Bohemia, the Bohemian-Moravian Highlands and southern Moravia. It formerly occupied only the southern parts of Czechia, but has spread to other areas in recent decades. Like the lesser white-toothed shrew, it occupies synanthropic habitats, but also enters a wide range of other habitats, including the banks of watercourses and forest stands.
In 2023, it was recorded in Area C at the ecotone between a meadow and woody stand. In 2025, it was confirmed by trapping nearby in a similar habitat. It may be distributed throughout suitable habitats in the surveyed area, but its abundance will probably be relatively low. It cannot be estimated without a targeted survey. The average density reported in suitable habitat is 2–5 individuals per hectare. Across the entire affected area, this therefore means tens to, at most, the low hundreds of individuals. It can also colonize the future SMR ETE site. The project will affect its habitat and construction will cause temporary disturbance.

Grey long-eared bat (*Plecotus austriacus*)
Highly endangered, specially protected species.
The grey long-eared bat prefers open agricultural landscapes at lower elevations and avoids continuously forested areas. Summer colonies of approximately 20 individuals occupy human structures, while in winter the bats seek cellars, adits, caves and tree cavities. Geometrid moths are the species' principal prey. The greatest recorded age is almost 25 years. It is a sedentary species, with a greatest known movement of 62 km. It has a broad distribution from Western Europe to Mongolia and western China, including North Africa. It is distributed throughout Czechia. The principal threats are loss of foraging habitats, human activities, disturbance and destruction of roosts. Species conservation focuses on securing occurrence sites, including hibernacula and summer colonies.
The grey long-eared bat was previously recorded directly within the Units 1 and 2 site and in Area E1. It is very difficult to distinguish from the brown long-eared bat during bat-detector surveys, and the 2025 survey therefore reports the two species together. Both taxa were recorded at the SMR ETE site and in Areas B1, B2, C and H. Both species are presumed to occur throughout the area in low numbers, with no more than a few specimens. They may also use existing or newly constructed buildings for overwintering. The project's effect will consist of disturbance during construction and effects on habitat.

Common pipistrelle (*Pipistrellus pipistrellus*)
Highly endangered, specially protected species.
The common pipistrelle is one of the most widespread bat species in Czechia and Central Europe. It is among the less threatened species and lives principally in the lowlands and at middle elevations. A wide range of environments is suitable for it, including housing estates, parks, gardens, forests and wetlands. At Czech latitudes, the common pipistrelle prefers areas modified by human activity, where it consistently finds sufficient food. Its diet consists almost exclusively of small flying insects, which it catches and eats in flight. Mosquitoes and the smallest moths are its most frequent prey. It carries larger prey to specific locations before consuming it.

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The common pipistrelle was recorded at Dvorčice Pond and in Areas B2, C and H. The species is presumed to occur throughout the area, with no more than several dozen specimens. Summer colonies in particular may use existing or newly constructed buildings as roosts. The project's effect will consist of disturbance during construction and effects on habitat.

Soprano pipistrelle (*Pipistrellus pygmaeus*)
Highly endangered, specially protected species.
The soprano pipistrelle prefers areas with water bodies, typically alluvial forests and other water-rich habitats, where it principally hunts dipterans. It uses roosts similar to those used by the common pipistrelle. Its overall distribution is not fully known, but it appears to be present across most of Europe. In Czechia, it has been recorded at several locations, including the Blatná, Třeboň, Ostrava and Břeclav areas, the Elbe lowlands and Bohemian Paradise. Like other bats, this species faces threats associated with loss of foraging habitat, human activities, disturbance and destruction of roosts. Species conservation focuses on securing its occurrence sites, including hibernacula and summer colonies.
The soprano pipistrelle was previously recorded within the Units 1 and 2 site and at Dvorčice Pond. Its occurrence was not confirmed during the current survey. The project's effect will consist of disturbance during construction and effects on habitat.

Nathusius's pipistrelle (*Pipistrellus nathusii*)
Highly endangered, specially protected species.
Nathusius's pipistrelle prefers landscapes with scattered trees, water bodies and hollow trees that serve as roosts. In Czechia, it is recorded more frequently during migration, when males attract females for mating through vocal activity. It spends winter outside underground spaces and is therefore observed infrequently. Its diet is rich in non-biting midges. It is a migratory species, moving up to 2,000 km. Its range includes Europe, Asia Minor and Transcaucasia, but it is observed less frequently in Czechia. Nevertheless, the number of records is increasing owing to the use of ultrasonic detectors. The principal threats are loss of foraging habitats and human activity, including changes in agriculture, tree felling and disturbance of its environment. Species conservation includes securing occurrence sites, including hibernacula and summer colonies.
Nathusius's pipistrelle was previously recorded in Area H, near the pond, and within the Temelín NPP site. During the current survey, it was also recorded at Dvorčice Pond, within the future SMR ETE site and in Areas B1, B2 and H. The project's effect will consist of disturbance during construction and effects on habitat.

Common noctule (*Nyctalus noctula*)
Highly endangered, specially protected species.
The common noctule characteristically prefers crevice roosts, principally tree cavities, where female colonies gather in summer. It is unusual among bats in that females of this species quite often give birth to two young. It overwinters in rock fissures, hollow trees and prefabricated apartment buildings, where hundreds of individuals may congregate. Its varied diet includes caddisflies, dipterans, moths and beetles, which it hunts above meadows, tree canopies and water. The common noctule is known for its ability to migrate long distances, up to 1,600 km, often towards warmer climates. The species has an extensive range covering most of Europe and parts of Asia, including southwestern Siberia, China and northern Vietnam; it has also been recorded in Africa. It is common in Czechia, principally inhabiting lowlands and areas rich in ponds, such as the South Bohemian basins and southern Moravia. The principal threats arise from loss of foraging habitats, changes in agriculture, wetland drainage, human activities, disturbance and destruction of roosts. Species conservation focuses on securing occurrence sites, hibernacula and summer colonies.

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The common noctule occurred around Area H.
The common noctule was previously observed around Area H. During the current survey, it was recorded at Dvorčice Pond, within the future SMR ETE site and in Area H; it was observed foraging above the paved parking areas in front of Temelín NPP. The species is presumed to occur throughout the area, with no more than several dozen specimens. Summer colonies in particular may use existing or newly constructed buildings as roosts. The project's effect will consist of disturbance during construction and effects on habitat.

Natterer's bat (*Myotis nattereri*)
Highly endangered, specially protected species.
This bat species roosts in crevices. Summer colonies of 5–40 females may be found in various crevices in human structures, including beneath roofs, in roof spaces, beams and walls, and also in tree cavities. A colony may change roosts several times during the season. In winter, individual Natterer's bats occur in underground spaces, although most of the population apparently uses other roosts. An exception is Chýnov Cave, for example, where several dozen individuals overwinter. This species feeds predominantly on dipterans, which it hunts at woodland edges and in parkland, either in flight or by gleaning from vegetation. It is a sedentary species, with a greatest recorded movement of 90 km.
Natterer's bat was previously recorded within the Temelín NPP site. It was not confirmed during the current survey. The project's effect will consist of disturbance during construction and effects on habitat.

Northern bat (*Eptesicus nilsonii*)
Highly endangered, specially protected species.
The northern bat is a relatively cold-adapted species that prefers foothill and mountain areas, although it may also occur in smaller numbers in the lowlands. In summer, it forms colonies of 5–40 individuals in human structures, while in winter it occupies adits and caves. It specializes in hunting dipterans and moths in open spaces, at woodland edges and above water. The greatest recorded age for this species is 20 years. It is known to make both short and long movements of up to 250 km. The range of this Palearctic species extends from Central Europe to Japan, including areas north of the Arctic Circle in Scandinavia. In Czechia, it is common in forested areas at middle and higher elevations but is also expanding into lower elevations. The principal threats are loss of foraging habitats, human activities and destruction of roosts. Species conservation includes securing occurrence sites, including hibernacula and summer colonies.
The northern bat was previously recorded within the Temelín NPP site. It was not confirmed during the current survey. The project's effect will consist of disturbance during construction and effects on habitat.

Brown long-eared bat (*Plecotus auritus*)
Highly endangered, specially protected species.
The brown long-eared bat is a forest species that occurs frequently in foothill and mountain areas of Czechia, where it is considered common. It forms small summer colonies in crevice roosts in buildings, tree cavities and bird boxes, and overwinters in adits and caves. It feeds principally on dipterans and hunts close to its roosts. It is relatively sedentary, with a greatest recorded movement of 88 km. Its range covers the Palearctic, with an irregular distribution in Asia and absence from southern Spain and northern Scandinavia. The principal threats are loss of foraging habitats, changes in agriculture, human activities, disturbance and destruction of roosts. Conservation includes securing occurrence sites, hibernacula and summer colonies.
The brown long-eared bat was previously recorded in Area F2. It is very difficult to distinguish from the brown long-eared bat during bat-detector surveys, and the 2025 survey therefore reports the two species together. Both taxa were recorded at the SMR ETE site and in Areas B1, B2, C and H. Both

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species are presumed to occur throughout the area in low numbers, with no more than a few specimens. They may also use existing or newly constructed buildings for overwintering. The project's effect will consist of disturbance during construction and effects on habitat.

Serotine bat (*Eptesicus serotinus*)
Highly endangered, specially protected species.
The serotine bat is a synanthropic species that frequently finds refuge in human structures, particularly in crevices and roof spaces. Summer colonies generally comprise 10–50 individuals. It seeks crevice roosts, including underground spaces, for overwintering. Its principal prey are beetles, moths and crane flies, which it hunts low above the ground and around lights and trees. It is regarded as sedentary, with a greatest recorded movement of 330 km. It occurs in Europe, North Africa, Central Asia and China, but not in the Nordic countries. In Czechia, it occurs principally at lower elevations and in towns and cities. The principal threats are loss of foraging habitats and destruction of roosts, requiring the protection of occurrence sites and roosts. This species requires protection and safeguarding of hibernacula and summer colonies, including building roof spaces and hollow trees, against disturbance and destruction.
The northern bat was previously recorded within the Temelín NPP site. It was not confirmed during the current survey. The project's effect will consist of disturbance during construction and effects on habitat.

Daubenton's bat (*Myotis daubentonii*)
Highly endangered, specially protected species.
Daubenton's bat, with light brown coloration and dark brown fur on its back, ranges from Western Europe across continental Asia and throughout southern Europe. It is relatively abundant in Czechia. In this bat species, the wing membrane attaches to the leg at the ankle, leaving the entire foot free. As with all bats, the principal threats are loss of foraging habitats, disturbance at occurrence sites and destruction of roosts. These include changes in agricultural management, felling of cavity trees and inappropriate securing of underground spaces. Species conservation includes securing occurrence sites, including hibernacula such as caves and adits, and summer colonies in hollow trees or building roof spaces.
Daubenton's bat was previously observed around Area H. During the current survey, it was recorded at Dvorčice Pond, within the future SMR ETE site and in Areas B1, C and H. The species is presumed to occur throughout the area in low numbers, with no more than a few specimens. The project's effect will consist of disturbance during construction and effects on habitat.

Hazel dormouse (*Muscardinus avellanarius*)
Highly endangered, specially protected species.
It is a typical inhabitant of deciduous and mixed forests that usually escapes attention despite being common. Of the dormice occurring in Czechia, it unquestionably has the broadest ecological tolerance and occupies a wide range of sites and habitats. Except for managed pine forests and young and mature spruce stands without undergrowth, it is reported from various forest types, including young spruce stands. A dense shrub or herbaceous layer demonstrably increases its abundance but is not essential to its presence. Its preferred sites are principally ecotones, such as woodland edges, clearings, sunken forest tracks, scrubby field boundaries and riparian stands, with scattered rowan, hawthorn, hazel and berry-producing plants, principally bramble and raspberry. At high mountain elevations, it also occurs in dwarf mountain pine stands. It is also known from small field woodlands, overgrown waste ground in forested landscapes, gardens, parks and forest parks, including at the edges of larger urban areas. In addition to natural refuges, such as cavities and crevices, underground burrows and its own nests, it shelters in cottages, log cabins, feeding shelters and haylofts, although its affinity for these refuges is markedly lower than that of other Czech dormice. It settles in bird boxes almost regularly, where it may act as a predator and competitor of small birds. The hazel dormouse is the most common dormouse

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species in Czechia. As a widespread species, it inhabits most of Czechia, particularly mountain and foothill areas. Its patchy occurrence or complete absence at middle and particularly lower elevations, in intensively farmed lowlands, is unquestionably a habitat rather than zoogeographical phenomenon, since current knowledge shows that its present distribution closely matches the extent of forest cover in Czechia.
It was recorded only in Area C, based on characteristic feeding marks on hazelnuts. It was not recorded in other areas because there are no hazel shrubs suitable for detecting it there. Specific methods, such as dormouse nest boxes, require a longer survey period. It can also be expected to occur in Areas B1, at the margin, B2, F2, E2, at the margin, and J, at the margin, around Dvorčice Pond and within the power evacuation corridor. It probably occurs throughout the area, but only in larger or connected forests, scrub and naturally regenerated stands. It does not leave woody stands. The size of the affected local population cannot be estimated more precisely but may range from a few to a few dozen specimens throughout the area. The project will affect its habitat and construction will cause temporary disturbance. There will also be a continuing risk of disturbance or accidental mortality during the cutting of woody vegetation in the transmission-line protection zone within the power evacuation corridor.

Red squirrel (*Sciurus vulgaris*)
Endangered, specially protected species.
In Czechia, it occurs throughout the country, including urban areas. It inhabits all forest types, parks, gardens and cemeteries. It is well adapted to life in tree canopies. It is an excellent climber and jumper. The red squirrel is diurnal, with activity concentrated principally in the morning and early evening. It spends winter sleeping in its nest, which is located in a tree canopy or cavity. The red squirrel was formerly hunted but is now protected from hunting throughout the year.
Within the affected area, it occurs in forests and scrub; its occurrence is widespread and permanent. In addition to direct observations, its presence was confirmed from feeding remains of cones and nuts. The affected local population can comprise no more than a few specimens. The effect on the red squirrel consists of effects on habitat and temporary disturbance during construction.

Eurasian otter (*Lutra lutra*)
Highly endangered, specially protected species.
It inhabits a wide range of aquatic environments, from small streams and rivers to ponds and lakes with clean water. It principally hunts fish, crayfish and insects, and also eats rodents, birds and amphibians. It excavates holts on banks, with the entrance located below water. Within a large territory that, including tributaries, may cover 20–50 km of watercourse, it maintains several additional holts. It is active principally at night and is encountered during the day only in winter. It marks its territories with piles of droppings deposited at conspicuous locations.
It has now permanently recolonized almost all of Czechia and occurs only temporarily in the remainder. Otter droppings were found at Dvorčice and Karlovec ponds within the affected area; the species is common in the surrounding landscape. The area forms part of the home range of no more than one or two specimens. All watercourses, even very small streams and channels, may serve as migration routes. During both construction and operation, the project's effect on the otter will consist principally of an increased risk of accidental road mortality due to higher traffic volumes.

Effects of the project on mammals and their populations

The project's potential effects on mammals consist principally of the risk of disturbance during earthworks, permanent or temporary take of terrestrial habitat, and increased road mortality during construction and operation of the SMR ETE. For the hazel dormouse and red squirrel, the cutting of

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vegetation beneath extra-high-voltage lines within the power evacuation corridor will also be a permanent but intermittent disturbance.

Recommendations

1) There is a relative shortage of refuges for small vertebrates, such as piles of stones and wood, in the area. The construction of several dozen small refuges, which will also serve as reptile refuges, at suitable locations throughout the affected landscape is recommended.
2) More large-diameter dead wood should be left to decay within stands.
3) It is recommended that cavity trees in the wider surroundings (within 3 km?) be mapped and protected. SMR ETE.
4) Ponds and water bodies around the project must be maintained in functional condition.

8.3.3. Results and comments

A total of 163 vertebrate species were recorded: 6 fish species, 13 amphibian species, 6 reptile species, 111 bird species and 41 mammal species, including 10 bat species. Although the occurrence of additional species, particularly transient occurrence such as migrating birds, cannot be excluded, the list provides a very good overview of the affected vertebrate fauna. Of the 68 specially protected vertebrate species recorded, 64 were preliminarily assessed as potentially affected. The other species occur in the area only temporarily, during migration or overwintering, or cannot be directly affected by the project's effects.

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Photo documentation for the vertebrate survey

Figure 86: The existing Units 1 and 2 structures provide roosting and nesting opportunities for numerous bird and bat species. August 17, 2025. Photo: V. Melichar

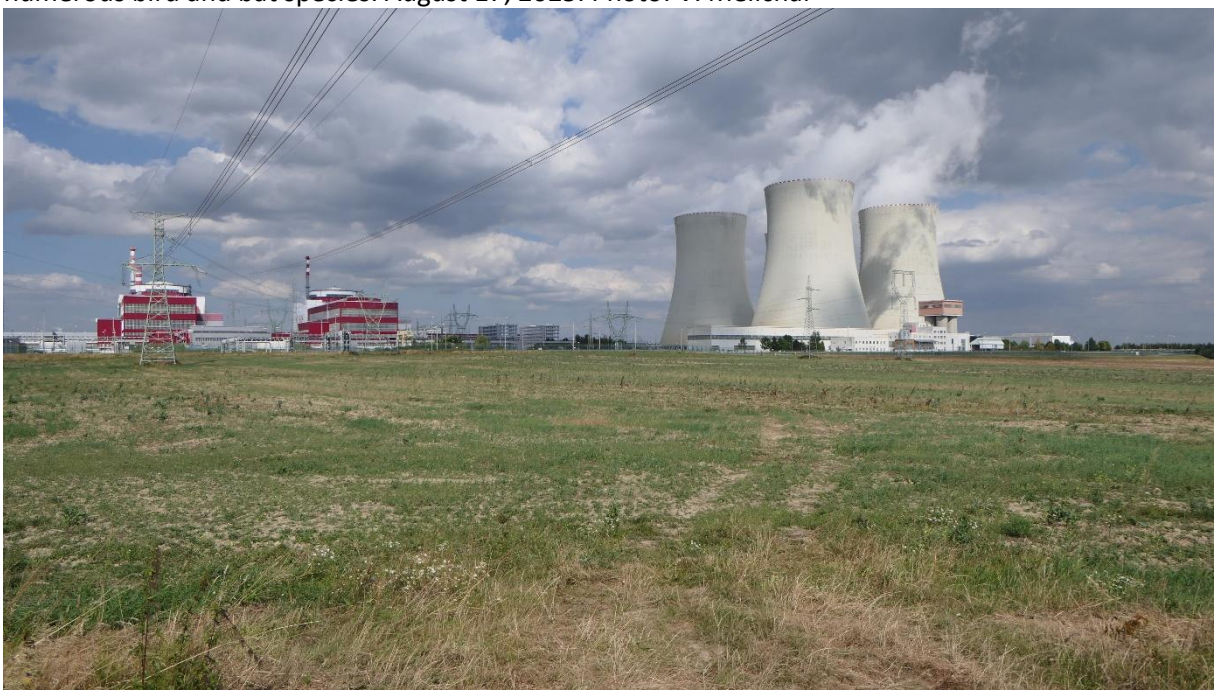


Figure 87: The nearby ponds and their surroundings are among the more important sites for vertebrates; Karlovec Pond is shown here. April 16, 2025. Photo: V. Melichar



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Figure 88: The nearby ponds and their surroundings are among the more important sites for vertebrates; Dvorčice Pond is shown here. April 28, 2025. Photo: V. Melichar

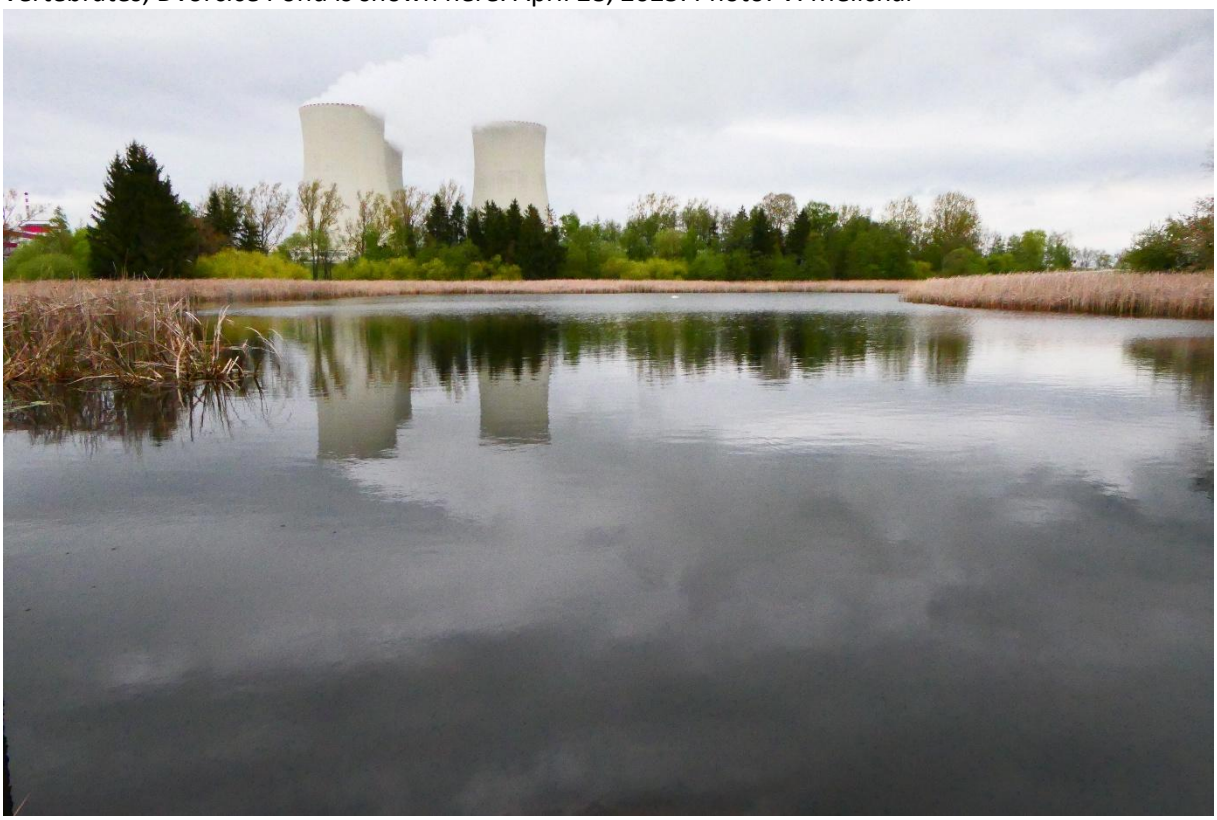


Figure 89: Dvorčice Pond is an important breeding site for waterbirds. August 17, 2025. Photo: V. Melichar



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Figure 90: The concrete retention basins enable amphibians to breed. Basin north-east of Area F2. March 28, 2025. Photo: V. Melichar



Figure 91: Common toad tadpoles (*Bufo bufo*) in the basin at the northern edge of Area C. Owing to their concrete bottom and minimal cover, the basins partly act as predation traps. April 16, 2025. Photo: V. Melichar



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Figure 92: Recently metamorphosed smooth newt (*Lissotriton vulgaris*) on the bank of Dvorčice Pond. September 19, 2025. Photo: V. Melichar



Figure 93: Recently metamorphosed agile frog (*Rana dalmatina*) on the bank of Karlovec Pond. May 27, 2025. Photo: V. Melichar



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Figure 94: There are few natural reptile refuges in the local landscape. These include field clearance cairns. Edge of Site J. April 24, 2025. Photo: V. Melichar



Figures 95 and 96: It was therefore necessary to survey reptiles by providing artificial refuges in the form of plastic sheets. Areas E2 and H. April 16 and September 19, 2025. Photo: V. Melichar





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Figure 97: Artificial refuges may contain not only live reptiles but also their sloughs. Common European adder slough (*Vipera berus*) at the edge of Area H. September 19, 2025. Photo: V. Melichar



Figure 98: Slow worm (*Anguis fragilis*) in an artificial refuge by Dvorčice Pond, June 13, 2026. Photo: V. Melichar



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Figure 99: Reptiles may also be detected from dead animals on roads. Dead male sand lizard (*Lacerta agilis*) on the road between Area H and the SMR ETE site. April 24, 2025. Photo: V. Melichar



Figure 100: The hazel dormouse (*Muscardinus avellanarius*) can be detected quite effectively from characteristic feeding marks on hazelnuts. Beneath hazel shrubs in Area C. April 16, 2025. Photo: V. Melichar



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Figure 101: Wild boar skull (*Sus scrofa*) in Area F2. August 17, 2025. Photo: V. Melichar



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8.4. Ornithological survey

8.4.1. Survey methodology

Source documents

Source of the nomenclature used:

The Czech and scientific names of birds follow the List of Birds of Czechia published on the website of the Czech Society for Ornithology's Faunistic Committee, last updated on October 31, 2024 (https://fkcso.cz/fk/ptacicr.html).

Identification literature used:

L. Svensson, K. Mullarney & D. Zetterström, 2024: Birds of Europe, North Africa and the Middle East. Third edition. Ševčík, 480 pages.

D. Forsman, 2021: Raptors of Europe, North Africa and the Middle East. Ševčík, 544 pages.

Field survey methodology

The objective of the survey was principally to map breeding bird occurrence for assessment of the project entitled New Nuclear Power Plant at the Temelín site at the SMR ETE site; Areas B1, B2, B3, C, D, E1, E2, F1, F2, G, H, I, and J; the SMR ETE power evacuation corridor; the Road II/138 widening area; the construction-site power-supply corridor; and the ETE service road. The ornithological survey also covered Dvorčice and Karlovec ponds and their immediate surroundings. Attention focused principally on the project site itself and its immediate surroundings, although birds recorded in the wider surroundings were also noted. The species list also includes birds that merely flew over or foraged in the area. The site was visited on July 11 and 20 and September 15, 2023; February 2, March 31, April 20, May 2, and July 15 and 20, 2024 (Kostkan, 2024); March 28, April 24, May 11, June 27, August 17 and September 19, 2025; and April 7 and June 7 and 13, 2026 (this survey).

An overview of the species recorded is presented in the table in Section 2, Results, in which species are listed alphabetically by their Czech names. For each species, the table gives its protection category under Decree No. 395/1992 Coll., implementing certain provisions of Act No. 114/1992 Coll., on Nature and Landscape Protection (CE = critically endangered, HE = highly endangered and E = endangered), its threat category under the Red List of threatened vertebrates (CR = Critically Endangered, EN = Endangered, VU = Vulnerable, NT = Near Threatened, LC = Least Concern and NA = Not Applicable; Chobot & Němec, 2017), and whether the species is listed in Annex I to Directive 2009/147/EC on the conservation of wild birds (Birds Directive), BD I.

All bird species recorded visually or acoustically in the area were registered. For each species targeted by the survey, activity such as singing, foraging, feeding young and alarm calls was recorded and used during processing to determine its occurrence category. The "type of occurrence" heading states the breeding category in which the species was recorded, using the standard bird breeding-mapping method: 0 = non-breeding, A = possible breeding, B = probable breeding and C = confirmed breeding. Specifically: A1 = species observed during the breeding season in suitable breeding habitat; A2 = singing male or calls associated with breeding observed; B3 = pair observed in suitable breeding habitat; B4 = permanent territory; B5 = courtship or mating; B6 = birds observed entering a breeding site; B7 =

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agitated behavior or alarm calls by adults, probably near a nest; B8 = brood patch found on a captured bird; B9 = nest building; C10 = distraction display away from the nest or young; C11 = eggshell remains or a used nest found; C12 = recently fledged young; C13 = incubation; C14 = feeding young or removing fecal sacs from the nest; C15 = nest containing eggs found; C15 = nest containing young found (see, for example, Šťastný et al. 2021).

Separate comments are provided for significant specially protected species. The survey data were supplemented by an overview of other bird species recorded in the area of interest after 2000, which are listed in the text beneath Table 1.

The 2023–2024 ornithological survey was prepared for the New Nuclear Power Plant at the Temelín site, Including Power Evacuation to the Kočín Substation project and covered slightly different areas from the 2025 and 2026 surveys for the New Nuclear Power Plant at the Temelín site project. Only species occurring within the areas of interest for the new project or their immediate surroundings were included in the overview of species recorded.

8.4.2. Results

Overview of species recorded

The 2023–2026 surveys recorded 100 bird species at the surveyed site, comprising SMR ETE Areas B1, B2, B3, C, D, E1, E2, F1, F2, G, H, I and J; the SMR ETE power evacuation area; the Road II/138 widening area; the construction-site power-supply corridor; the ETE service road; Dvorčice and Karlovec ponds; and their immediate surroundings. The species are listed in Table 1, which gives the Czech and scientific name, protection category and number of individuals recorded for each species and, for specially protected species, the type of occurrence; see the methodology. A further 13 species were identified through a review of occurrence data.

Table 29: Overview of bird species recorded.

Species		**Protection category under**				
English name	**Scientific name**	**Decree No. 395/1992 Coll.**	**Red List**	**Annex I to the Birds Directive**	**Type of occurrence (area)**	**Number**
Common pheasant	*Phasianus colchicus*		LC			
Common snipe	***Gallinago gallinago***	**HE**	**EN**		**migration (Dvorčice)**	**1**
European stonechat	***Saxicola rubicola***	**E**	**VU**		**A1 (power evacuation)**	**1M**
Eurasian nuthatch	*Sitta europaea*		LC			
Wood warbler	*Phylloscopus sibilatrix*		LC			
Common chiffchaff	*Phylloscopus collybita*		LC			
Willow warbler	*Phylloscopus trochilus*		LC			

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Common grasshopper warbler	*Locustella naevia*		LC			
White stork	***Ciconia ciconia***	**E**	**NT**	**BD I**	**flyover (G, Karlovec)**	**2P**
Northern lapwing	***Vanellus vanellus***		**VU**		**flyover (Karlovec)**	**1–n10**
European robin	*Erithacus rubecula*		LC			
Eurasian siskin	*Spinus spinus*		LC			
Mistle thrush	*Turdus viscivorus*		LC			
Fieldfare	*Turdus pilaris*		LC			
Song thrush	*Turdus philomelos*		LC			
Rook	***Corvus frugilegus***		**VU**		**0 (B1/B2/B3)**	
Feral pigeon	*Columba livia* f. *domestica*		LC			
Common wood pigeon	*Columba palumbus*		LC			
European turtle dove	*Streptopelia turtur*		LC			
Eurasian collared dove	*Streptopelia decaocto*		LC			
Greylag goose	***Anser anser***		**VU**		**C14, migration (Dvorčice, H)**	**47**
Water rail	***Rallus aquaticus***	**HE**	**VU**		**B4 (Dvorčice, Karlovec)**	**3**
Common house martin	***Delichon urbicum***		**NT**		**foraging (SMR ETE, I, power evacuation, Dvorčice, Karlovec)**	**6**
Mallard	*Anas platyrhynchos*		LC			
Common buzzard	*Buteo buteo*		LC			
White wagtail	*Motacilla alba*		LC			
Western yellow wagtail	***Motacilla flava***	**HE**	**VU**		**B (G)**	**1–2P**
Common linnet	*Linaria cannabina*		LC			
Great cormorant	***Phalacrocorax carbo***		**VU**		**0**	
Grey partridge	***Perdix perdix***	**E**	**NT**		**A (SMR ETE, E1, power evacuation)**	**2 families**
Common blackbird	*Turdus merula*		LC			
Eurasian sparrowhawk	***Accipiter nisus***	**HE**	**VU**		**A (SMR ETE, E1)**	**2**
Goldcrest	*Regulus regulus*		LC			

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Common firecrest	*Regulus ignicapillus*		LC			
Northern raven	***Corvus corax***	**E**	**LC**		**B3 (F2, J, power evacuation)**	**1–2P**
Eurasian wryneck	***Jynx torquilla***	**HE**	**VU**		**A (Dvorčice)**	**1**
Common quail	***Coturnix coturnix***	**HE**	**NT**		**B1**	**1M**
Common cuckoo	*Cuculus canorus*		LC		B	
Mute swan	***Cygnus olor***		**VU**		**C12 (Dvorčice)**	**1P, 3 juv.**
Common kingfisher	***Alcedo atthis***	**HE**	**VU**	**BD I**	**A (Dvorčice, Karlovec)**	**1**
Tree pipit	*Anthus trivialis*		LC			
Red kite	***Milvus milvus***	**CE**	**CR**	**BD I**	**A1 (F2, H)**	**1**
Eurasian coot	*Fulica atra*		LC			
Long-tailed tit	*Aegithalos caudatus*		LC			
Common merganser	***Mergus merganser***	**CE**	**CR**		**0**	
Montagu's harrier	***Circus pygargus***	**HE**	**EN**	**BD I**	**foraging (power evacuation)**	**1 juv.**
Western marsh harrier	***Circus aeruginosus***	**E**	**VU**	BD I	**B3, E1 (I, Dvorčice)**	**1P+1**
White-tailed eagle	***Haliaeetus albicilla***	**CE**	**EN**	**BD I**	**flyover/foraging (power evacuation, Dvorčice)**	**1**
Eurasian hobby	***Falco subbuteo***	**HE**	**EN**		**0**	
Eurasian blackcap	*Sylvia atricapilla*		LC			
Common whitethroat	*Curruca communis*		LC			
Lesser whitethroat	*Curruca curruca*		LC			
Garden warbler	*Sylvia borin*		LC			
Common chaffinch	*Fringilla coelebs*		LC			
Dunnock	*Prunella modularis*		LC			
Common pochard	*Aythya ferina*		LC			
Common kestrel	*Falco tinnunculus*		LC			
Little grebe	***Tachybaptus ruficollis***	**E**	**VU**		**A1 (Dvorčice)**	**1**
Black-headed gull	***Chroicocephalus ridibundus***		**VU**		**0**	
Eurasian reed warbler	*Acrocephalus scirpaceus*		LC			
Sedge warbler	*Acrocephalus schoenobaenus*		LC			
Great reed warbler	***Acrocephalus arundinaceus***	**HE**	**VU**		**A2 (B3) (Dvorčice, Karlovec)**	**2–3M**
Black redstart	*Phoenicurus ochruros*		LC			

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Common redstart	*Phoenicurus phoenicurus*		LC			
Common swift	***Apus apus***	**E**	**LC**		**foraging (SMR ETE, I)**	**12**
Icterine warbler	*Hippolais icterina*		LC			
Eurasian skylark	*Alauda arvensis*		LC			
Common nightingale	***Luscinia megarhynchos***	**E**	**LC**		**B (B3, Dvorčice, Karlovec, construction -site power-supply corridor)**	**3**
Common moorhen	***Gallinula chloropus***		**NT**		**C (Dvorčice, Karlovec)**	**2**
Eurasian jay	*Garrulus glandarius*		LC			
Peregrine falcon	***Falco peregrinus***	**CE**	**EN**	**BD I**	**C (SMR ETE, C, I)**	**1P**
European goldfinch	*Carduelis carduelis*		LC			
Eurasian magpie	*Pica pica*		LC			
Middle spotted woodpecker	***Dendrocoptes medius***	**E**	**VU**	**BD I**	**A2 (J)**	**1**
Great spotted woodpecker	*Dendrocopos major*		LC			
Corn bunting	***Emberiza calandra***	**CE**	**VU**		**A2 (power evacuation)**	**1**
Yellowhammer	*Emberiza citrinella*		LC			
Eurasian wren	*Troglodytes troglodytes*		LC			
Marsh tit	*Poecile palustris*		LC			
Great tit	*Parus major*		LC			
Willow tit	*Poecile montanus*		LC			
Eurasian blue tit	*Cyanistes caeruleus*		LC			
European crested tit	*Lophophanes cristatus*		LC			
Coal tit	*Periparus ater*		LC			
Short-toed treecreeper	*Certhia brachydactyla*		LC			
Common starling	*Sturnus vulgaris*		LC			
Red-backed shrike	***Lanius collurio***	**E**	**NT**	**BD I**	**B3, C11 (power evacuation, construction -site power-supply corridor)**	**2–3P**
European honey buzzard	***Pernis apivorus***	**HE**	**EN**	**BD I**	**flyover (power evacuation)**	**1**

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Barn swallow	***Hirundo rustica***	**E**	**NT**		**foraging (power evacuation, Karlovec)**	**10**
Green sandpiper	***Tringa ochropus***	**HE**	**EN**		**migration (C)**	**1**
Great egret	***Ardea alba***	**HE**		**BD I**	**foraging (Dvorčice)**	**1**
Grey heron	***Ardea cinerea***		**NT**		**foraging (F2, Dvorčice)**	**1**
House sparrow	*Passer domesticus*		LC			
Eurasian tree sparrow	*Passer montanus*		LC			
Hooded crow	*Corvus cornix*		LC			
European greenfinch	*Chloris chloris*		LC			
European serin	*Serinus serinus*		LC			
Grey-headed woodpecker	***Picus canus***		**VU**	**BD I**	**A (C, Dvorčice, Karlovec)**	**2**
European green woodpecker	*Picus viridis*		LC			
Eurasian golden oriole	***Oriolus oriolus***	**HE**	**LC**		**A2 (power evacuation)**	**2**

Occurrence-data review

In addition to this survey's observations and the 2023–2024 Kostkan survey, species-occurrence data were processed from records in the AVIF Faunistic Database (Czech Society for Ornithology, 2026) and the Nature Conservation Occurrence Database (Nature Conservation Agency of the Czech Republic, 2026). Only species not recorded during this survey or the 2023–2024 survey are listed. For each species, the legislative protection category (E, HE or CE), national Red List population assessment (CR, EN, VU, LC or NA) and Birds Directive annex (BD I) are stated; see the methodology. The year of the last observation is given in parentheses.

Whinchat *Saxicola rubetra*, E, LC, 1M, Area G (2020); black stork *Ciconia nigra*, HE, VU, BD I, Hůrecký Pond (2025); common grasshopper warbler *Locustella naevia*, LC (2018); hawfinch *Coccothraustes coccothraustes*, LC (2015); greater white-fronted goose *Anser albifrons* (2025); **northern goshawk *Accipiter gentilis*, E, VU, west of Area H (2016)**; **gadwall *Mareca strepera*, E, VU, Karlovec, Units 1 and 2 (2024); little ringed plover *Charadrius dubius*, VU, nest containing eggs found (2020);** tufted duck *Aythya fuligula*, LC (2024); Caspian gull *Larus cachinnans*, NA (2024); marsh warbler *Acrocephalus palustris*, LC (2015); common reed bunting *Emberiza schoeniclus*, LC, Dvorčice Pond (2008); **great grey shrike *Lanius excubitor*, E, VU, non-breeding occurrence south of Area E2 (2021).**

Commentary on potentially affected specially protected species

The following is an overview of specially protected and threatened bird species recorded directly at the project site or in its immediate surroundings that have a breeding or permanent foraging territory here and may therefore be considered potentially affected by the project. Their type of occurrence, abundance and degree of threat are discussed.

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Common snipe *Gallinago gallinago*: one individual was recorded during migration at Dvorčice Pond. For breeding, it seeks permanently waterlogged locations with short grassland, such as pastures, waterlogged pond margins, river floodplains and peatlands. Long-term common snipe population trends in Czechia are markedly negative. The principal threat to this species is apparently the loss of suitable wetland habitats. The breeding population is estimated at 400–600 pairs and the Red List of vertebrates assigns it to the high threat category Endangered (EN). The species is susceptible to collisions with conductors. At least one individual may be affected by the project through collision with power lines.

European stonechat *Saxicola rubicola*: one male was observed in the power evacuation corridor. This is a relatively scarce species in Czechia, with a stable population of 2,500–5,000 breeding pairs. Given its relatively low abundance, the Red List of vertebrates assigns it to the high threat category Vulnerable (VU). It nests on the ground in dense vegetation. At least one pair's breeding habitat may be affected by the project through disturbance and habitat take.

Whinchat *Saxicola rubetra*: one singing male was observed in Area G. It seeks open habitats and nests on the ground in grass tussocks. It is distributed throughout most of Czechia. The Czech breeding population is estimated at 12,000–24,000 pairs and has a stable abundance trend. The Red List of vertebrates assigns it to the lowest category, Least Concern (LC). At least one pair's breeding habitat may be affected by the project through disturbance and habitat take.

White stork *Ciconia ciconia*: Flyovers and one and two individuals were recorded during the 2010 and 2011 breeding seasons near Area G and at Hůrecký Pond east of the project. The nearest currently occupied nests are at Zbudov, approximately 9 km away, Protivín, approximately 10 km away, and Dolní Bukovsko, approximately 14 km away. The closer nests at Dříteň, approximately 2 km away, and Chvalešovice, approximately 3 km away, are not currently occupied. It may visit the area of interest, particularly its wetter parts and the surroundings of ponds, as foraging habitat. In 2024, 1,008 nests in Czechia were occupied by stork pairs; young were probably fledged successfully from 849 of them. The Red List of vertebrates assigns it to the lower threat category Near Threatened (NT). The species is susceptible to collisions with conductors. One or two pairs may be affected by the project through disturbance, habitat take and collisions with conductors.

Black stork *Ciconia nigra*: one individual has been observed annually around the project during the last three years. The black stork breeds in forest stands. It is therefore presumed to use one of the surrounding forests, such as Velký Kamýk or the Vltava valley, for breeding and to forage in the open landscape, including fields, meadows, pastures and especially their wetter parts, and in ponds around the project. The black stork population in Czechia is stable and its trend is favorable. The population was estimated at 400–550 pairs in 2014–2017. The Red List of vertebrates assigns it to the high threat category Vulnerable (VU), principally because of potential nest destruction and disturbance during forestry work. One or two pairs may be affected by the project through disturbance, habitat take and collisions with conductors.

Northern lapwing *Vanellus vanellus*: several observations from Area E1, near Area G and at Karlovec Pond. It may breed at wetter locations in all suitable areas, if weather conditions in the relevant year are favorable. The population was estimated at 6,000–9,000 pairs in 2014–2017. The Red List of vertebrates assigns the northern lapwing to the high threat category Vulnerable (VU). The marked decline throughout Europe is caused by the loss of suitable breeding sites associated with large-scale agriculture, mechanization and chemical use, expanding dispersed development in the open

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countryside and predation. Several breeding pairs and several dozen migrating birds may be affected by the project through disturbance, habitat take and collisions with conductors.

Greylag goose *Anser anser*: several records; probable breeding at Dvorčice Pond, where young were observed. Its breeding habitat comprises larger water bodies with riparian reed beds and overgrown islands. It also nests in willows and sometimes uses the nests of other large bird species, such as raptors. Suitable open grazing areas, including meadows, pastures and cereal fields, must always be nearby. The Czech breeding population is estimated at 1,500–2,000 pairs. The Red List of vertebrates assigns the species to the high threat category Vulnerable (VU). One or two breeding pairs and a further several to several dozen individuals may be affected by the project through disturbance, changes in the hydrological regime and collisions with conductors.

Water rail *Rallus aquaticus*: recorded at both Dvorčice and Karlovec ponds. Possible breeding. For breeding, it seeks shallow waters densely overgrown with vegetation, such as reed beds and other littoral vegetation in ponds and other wetlands, sometimes even very small ones. The Czech breeding population is estimated at 800–1,600 pairs. The Red List of vertebrates assigns it to the high threat category Vulnerable (VU). It is threatened by loss of breeding habitat, collisions with conductors and earth wires, and changes in water level during breeding. At least one or two pairs may be affected by the project through disturbance, changes in the hydrological regime and collisions with conductors.

Northern goshawk *Accipiter gentilis*: recorded in the project surroundings. It breeds in all forest types, generally on tall trees within older forest stands. It hunts in open terrain, including fields, meadows, pastures, clearings and forest clear-cuts, and also occurs in managed landscapes. The Czech breeding population is estimated at 1,800–2,500 pairs. The Red List of vertebrates assigns it to the high threat category Vulnerable (VU). One or two pairs may be affected by the project through disturbance and changes to and take of foraging habitat.

Western yellow wagtail *Motacilla flava*: one individual was recorded foraging in the SMR ETE area in 2020. In 2024, it was also recorded in meadows beyond Karlovec Pond. It is expected to spread from the Units 1 and 2 site, where it finds suitable breeding and foraging habitats consisting of unfertilized meadow vegetation under a specific mowing regime. It seeks wetter level areas, principally the surroundings of ponds and watercourses, marshes and wet meadows, particularly in the lowlands. The Czech breeding population is estimated at 800–1,600 pairs. The Red List of vertebrates assigns it to the high threat category Vulnerable (VU). The species is declining globally and is threatened by changes in the agricultural landscape, particularly intensive agriculture. At least one pair's breeding habitat may be affected by the project through disturbance and habitat take.

Gadwall *Mareca strepera*: a pair was recorded during the breeding season at Hůrecký Pond near the project in 2024; breeding was confirmed at Karlovec Pond in 2008. One or two pairs may breed within the affected area. It seeks ponds with rich riparian vegetation as breeding habitat. It is threatened by loss of suitable habitats and intensive fish farming, which causes food shortages, particularly of animal prey, while rearing young. One or two pairs may be affected by the project through disturbance and changes in the hydrological regime.

Great cormorant *Phalacrocorax carbo*: recorded at Hůrecký Pond. It breeds in colonies on the banks of extensive water bodies or rivers. The Czech breeding population is estimated at 240–330 pairs. The Red List of vertebrates assigns it to the lowest category, Least Concern (LC). The species is unlikely to be affected by the project.

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Grey partridge *Perdix perdix*: several individuals were observed in the power evacuation corridor. Formerly abundant, it is now a declining species of arable habitats. It inhabits open agricultural landscapes, preferably those under low-intensity management. It principally seeks field margins with grassy boundaries sparsely covered by scrub and also lives in ruderal stands. It requires sufficient cover and a year-round food supply of weed seeds and, while leading chicks, insects. The Czech breeding population is estimated at 8,000–16,000 pairs. The Red List of vertebrates assigns it to the lower threat category Near Threatened (NT). The principal threat to the grey partridge is agricultural intensification. Two families may be affected by the project through changes to and take of foraging habitat.

Eurasian sparrowhawk *Accipiter nisus*: observed several times at the SMR ETE/E1 area and around the ponds. It seeks a diverse, structurally varied landscape with scattered large and small forests between fields and meadows. It breeds in forests, small woodlands, groves and parks. It specializes in hunting birds in flight. It occurs throughout Czechia, and its breeding population is estimated at 3,500–4,700 pairs. The Red List of vertebrates assigns it to the high threat category Vulnerable (VU). It is threatened by habitat loss and collisions with human structures, such as glazed surfaces. One or two pairs may be affected by the project through changes to and take of foraging habitat.

Common raven *Corvus corax*: at least two pairs observed in Areas F2 and J and in the power evacuation corridor. It breeds in forests but also inhabits open landscapes. It builds nests at inaccessible locations, in the crowns of tall trees and on cliffs, as well as on high-voltage towers. Its Czech breeding population is estimated at 2,000–4,000 pairs. The Red List of vertebrates assigns it to the lowest category, Least Concern (LC). The breeding habitat of one or two pairs may be affected by the project through disturbance and habitat take.

Eurasian wryneck *Jynx torquilla*: observed at Dvorčice Pond. It breeds in open landscapes with small woodlands and groups of trees, and in open deciduous and coniferous forests, principally at their edges and in clearings. It nests in tree cavities but does not excavate them itself. It specializes in eating ants but also consumes other small invertebrates. It is among the species declining globally. The principal causes of decline include transformation of the modern landscape, loss of scattered vegetation, intensive agriculture and forestry, and pesticide use. Its Czech breeding population is estimated at 2,500–5,000 pairs. The Red List of vertebrates assigns it to the high threat category Vulnerable (VU). At least one pair may be affected by the project through changes to and take of habitat.

Common quail *Coturnix coturnix*: one individual was recorded in Area B1. The common quail inhabits open agricultural landscapes with fields and meadows. It is threatened by modern agricultural technologies, crop selection, pesticide use and direct killing during migration and at wintering grounds. The Czech breeding population of the common quail is estimated at 5,000–10,000 pairs. The Red List of vertebrates assigns it to the lower threat category Near Threatened (NT). At least one or two pairs may be affected by the project through changes to and take of habitat and collisions with conductors.

Little ringed plover *Charadrius dubius*: breeding recorded within the Units 1 and 2 site. It inhabits a wide range of environments, preferring exposed banks of flowing and standing waters. It nests on the banks and exposed bottoms of drained ponds, river and stream deposits, in sand and gravel pits, on spoil heaps, settling basins, waste dumps and similar sites. Its Czech breeding population is estimated at 800–1,600 pairs. The Red List of vertebrates assigns it to the high threat category Vulnerable (VU). The species is unlikely to be affected by the project.

Mute swan *Cygnus olor*: confirmed breeding at Dvorčice Pond. It breeds on shallower ponds with sufficient littoral vegetation in which to build its nest, oxbow lakes, slow-flowing waters, reservoirs and

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village ponds. The Czech breeding population is estimated at 450–600 pairs. The Red List of vertebrates assigns it to the high threat category Vulnerable (VU). One or two pairs may be affected by the project through disturbance, changes in the hydrological regime, take of foraging habitat and collisions with conductors.

Common kingfisher *Alcedo atthis*: recorded at Dvorčice and Karlovec ponds. It inhabits the surroundings of both flowing and standing waters. It excavates nesting burrows in vertical sandy or loamy banks. It sometimes nests several hundred meters from water. Its Czech breeding population is estimated at 700–1,200 pairs. The Red List of vertebrates assigns it to the high threat category Vulnerable (VU). Its population shows short-term fluctuations resulting from severe winters; the long-term decline is caused principally by water pollution and regulation of natural watercourse channels. At least one pair may be affected by the project through changes in the hydrological regime.

Red kite *Milvus milvus*: recorded flying above Areas F2 and H. It is associated with old deciduous forests from the lowlands to the uplands, interspersed with meadows. It feeds on insects and small vertebrates. It nests in tall trees. It is threatened by loss of suitable habitats and direct killing by people. Its population has recently increased; the Czech breeding population is estimated at 220–300 pairs. The Red List of vertebrates assigns it to the highest category, Critically Endangered (CR). Individual specimens using the wider landscape for breeding may be affected by the project through changes to and take of foraging habitat.

Common merganser *Mergus merganser*: recorded as a non-breeding bird at Hůrecký Pond. The common merganser is a regular winter visitor and migrant in Czechia. It formerly bred in Czechia only very rarely and irregularly, but has become a regular breeding species in recent decades and its abundance continues to rise. In Czechia, it breeds principally along large rivers. The Czech breeding population is estimated at 120–180 pairs. The Red List of vertebrates assigns it to the highest category, Critically Endangered (CR). The species is unlikely to be affected by the project.

Montagu's harrier *Circus pygargus*: one juvenile recorded foraging in the power evacuation corridor. It nests on the ground in open agricultural landscapes. The Czech breeding population is estimated at 200–260 pairs. The Red List of vertebrates assigns Montagu's harrier to the high threat category Endangered (EN). This scarce species is threatened by the loss of suitable nesting opportunities, illegal hunting, and destruction of clutches and young during agricultural operations. At least one individual may be affected by the project through take of foraging habitat.

Western marsh harrier *Circus aeruginosus*: repeatedly observed; probable breeding at Dvorčice Pond. The western marsh harrier population in Czechia has a long-term increasing abundance trend, with 1,500–2,300 breeding pairs. The Red List of vertebrates assigns the species to the high threat category Vulnerable (VU), owing to continued illegal shooting and nest destruction by people, flooding of nests, and predation pressure from wild boar, American mink and raccoon. At least one pair may be affected by the project through take of foraging habitat and effects on the hydrological regime.

White-tailed eagle *Haliaeetus albicilla*: recorded flying over the southern part of the project. It lives near water, including large rivers, ponds and lakes. It builds its nest in mature forest stands. The breeding population is estimated at 250–350 pairs and the Red List of vertebrates assigns it to the high threat category Endangered (EN). The species is currently threatened principally by poisoned bait. The species is unlikely to be affected by the project.

Eurasian hobby *Falco subbuteo*: recorded in the wider surroundings. It breeds in open landscapes with small field woodlands and tree rows, at the edges of open forests, particularly pine, deciduous and

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mixed forests with an unobstructed view of open areas. The breeding population is estimated at 250–350 pairs and the Red List of vertebrates assigns it to the high threat category Endangered (EN). One or two pairs may be affected by the project through disturbance and changes to and take of habitat.

Little grebe *Tachybaptus ruficollis*: repeatedly observed; probable breeding at Dvorčice Pond. It breeds on smaller ponds with littoral or floating vegetation. It seeks ponds with highly transparent water, where it finds sufficient food. The Czech breeding population is estimated at 2,000–4,000 pairs. The Red List of vertebrates assigns the species to the high threat category Vulnerable (VU). One or two pairs may be affected by the project through changes in the hydrological regime and collisions with conductors.

Black-headed gull *Chroicocephalus ridibundus*: recorded at several locations within and around the project area. It breeds colonially, principally on ponds with overgrown banks and rich aquatic vegetation. Its colonies may comprise up to several thousand breeding pairs. Islands and low wetland vegetation are ideal breeding locations. It frequently flies to arable land to forage, especially during agricultural operations. The black-headed gull population in Czechia declined substantially during the 1980s. The Czech breeding population is currently estimated at 20,000–40,000, representing a 90% decline over 40 years. The Red List of vertebrates assigns the species to the high threat category Vulnerable (VU). Several to several dozen individuals may be affected by the project through collisions with conductors.

Great reed warbler *Acrocephalus arundinaceus*: two or three males recorded in Area B3. For breeding, it seeks reed beds at lower to middle elevations. The Czech breeding population is estimated at 1,400–2,800 pairs. The Red List of vertebrates assigns the species to the high threat category Vulnerable (VU). At least two or three pairs may be affected by the project through disturbance and changes to and take of habitat.

Common swift *Apus apus*: 12 individuals were observed foraging above the SMR ETE site and Area I. The species' abundance in Czechia is stable and estimated at 60,000–120,000 pairs. The Red List of vertebrates assigns it to the lower threat category Near Threatened (NT). The assessed areas contain no suitable breeding locations for this species, such as taller buildings with crevices and cavities. The species is unlikely to be affected by the project.

Common nightingale *Luscinia megarhynchos*: recorded at Dvorčice Pond and several other locations around the project. It inhabits lowland deciduous forests, including alluvial forests, principally their edges with dense undergrowth, and scrub in diverse open landscapes. Its Czech breeding population is estimated at 8,000–16,000 pairs. The Red List of vertebrates assigns it to the lowest category, Least Concern (LC). At least two or three pairs may be affected by the project through disturbance, changes to and take of habitat, and changes in the hydrological regime.

Common moorhen *Galinulla chloropus*: recorded at ponds around the project. In Czechia, it breeds on the overgrown banks of standing and flowing waters. The Czech breeding population of the common moorhen is estimated at 3,000–6,000 pairs. The Red List of vertebrates assigns it to the lower threat category Near Threatened (NT). Several individuals may be affected by the project through collisions with conductors.

Peregrine falcon *Falco peregrinus*: breeds within the Units 1 and 2 site. It inhabits all types of environment, from mountains to managed lowland landscapes. It nests on cliffs in mountains or river valleys and increasingly on tall human structures. The breeding population is estimated at 70–100 pairs and the Red List of vertebrates assigns it to the high threat category Endangered (EN). The species is

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threatened by disturbance at breeding sites, removal of eggs and young, shooting, and contamination of body tissues by organochlorine pesticides. The species is unlikely to be affected by the project.

Middle spotted woodpecker *Dendrocoptes medius*: one individual recorded in Area J. For breeding, it seeks deciduous and mixed forests and pond dams containing oaks, where it forages particularly during winter. The Czech breeding population is estimated at 3,500–7,000 pairs. The Red List of vertebrates assigns the species to the high threat category Vulnerable (VU). It is threatened by the loss of suitable breeding and foraging habitats. One or two pairs may be affected by the project through disturbance and changes to and take of habitat.

Corn bunting *Emberiza calandra*: one singing male recorded in the power evacuation corridor. It breeds in open landscapes, placing its nest on the ground in vegetation. The Czech breeding population is estimated at 5,000–10,000 pairs. The Czech Red List of vertebrates assigns it to the high threat category Vulnerable (VU). It is threatened by changes in the agricultural landscape, particularly chemical use, which reduces food, and structural changes, which reduce suitable breeding sites. The breeding habitat of one to three pairs may be affected by the project through disturbance and habitat take.

Red-backed shrike *Lanius collurio*: probable breeding by two or three pairs in the power evacuation corridor. It nests in scrub and less frequently in trees or grass. The species is listed in Annex I to the Birds Directive and has a lower threat status, Near Threatened (NT) in the Red List of vertebrates. In Czechia, the red-backed shrike has stable range and population trends. The breeding population is estimated at 31,000–62,000 pairs. The breeding habitat of two or three pairs may be affected by the project through disturbance and habitat take.

Great grey shrike *Lanius excubitor*: one individual recorded outside the breeding season, in October, within the wider project area south of Area E1. The great grey shrike inhabits open agricultural landscapes with small woodlands and other green areas, pastures and meadows, heathlands and peatlands with scattered trees and shrubs, and less frequently woodland edges or clearings. The Czech breeding population is estimated at 900–1,800 pairs, representing a moderate decline compared with the previous mapping period. The Red List of vertebrates assigns it to the high threat category Vulnerable (VU). Its population trend is stable, while its range trend is negative. It is threatened by habitat loss, particularly through intensive agriculture, which also affects food availability. The great grey shrike is partially migratory. Czech birds leave for southern Europe in winter, while birds from the north arrive in Czechia. The breeding and foraging habitat of one pair may be affected by the project through disturbance and habitat take.

European honey buzzard *Pernis apivorus*: one individual recorded flying over the southern part of the power evacuation corridor. The European honey buzzard inhabits mature forest stands interspersed with meadows, fields and pastures, or larger clear-cuts and clearings. It avoids permanently waterlogged locations. The Czech breeding population is estimated at 600–1,200 pairs. The trend is stable, but its abundance fluctuates with climatic conditions and the associated food supply, principally the larvae of ground-nesting wasps. The Red List of vertebrates assigns it to the higher threat category Endangered (EN). At least one pair whose home range overlaps the project may be affected through changes to and take of foraging habitat.

Barn swallow *Hirundo rustica*: six individuals were recorded foraging in the power evacuation corridor and 10 at Karlovec Pond. The Red List of vertebrates assigns the barn swallow to the lower threat category Near Threatened (NT). In Czechia, the species is threatened principally by changes associated

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with livestock farming and changes in agricultural practices. The project area contains no suitable nesting locations for this species, such as accessible open or partly open buildings, particularly stables, barns and passageways through residential or farm buildings. The species is unlikely to be affected by the project.

Green sandpiper *Tringa ochropus*: recorded during migration in Area C. The green sandpiper is a forest wader that nests near forest marshes, peatlands or streams, most frequently in the old nests of thrushes, pigeons or other birds in trees. In Czechia, it breeds sporadically throughout the country, migrates regularly and in considerable numbers, and overwinters in small numbers on exposed bottoms of drained ponds and in field and other wetlands. The Czech breeding population is estimated at 50–80 pairs. The Red List of vertebrates assigns it to the higher threat category Endangered (EN). Several individuals may be affected by the project through collisions with conductors.

Great egret *Ardea alba*: observed foraging in the littoral vegetation of Dvorčice Pond. It does not breed in Czechia but regularly migrates through and overwinters. The species is threatened by loss of suitable habitats and possibly by shooting. Several individuals may be affected by the project through collisions with conductors and changes in the hydrological regime.

Grey heron *Ardea cinerea*: observed foraging in the littoral vegetation of Dvorčice Pond and flying over Area F2. It breeds colonially at ponds and other water bodies surrounded by forests or containing wooded islands and littoral vegetation, in alluvial forests with rivers and marshes, and along smaller rivers with sufficient fish. It also forages in fields. The Red List of vertebrates assigns it to the lower threat category Near Threatened (NT). Several individuals may be affected by the project through collisions with conductors.

Grey-headed woodpecker *Picus canus*: recorded at several locations, including around the ponds. In Czechia, the grey-headed woodpecker breeds in forests of all types and also occurs in gardens and parks. It excavates its own cavity and feeds on animals, principally ants. The Red List of vertebrates assigns it to the high threat category Vulnerable (VU). The Czech breeding population is estimated at 4,000–8,000 pairs. The breeding habitat of two or three pairs may be affected by the project through disturbance and habitat take.

Eurasian golden oriole *Oriolus oriolus*: two individuals recorded within the power evacuation corridor. For breeding, it seeks open deciduous forests, but also frequently nests in mosaic landscapes, small field woodlands, shelterbelts, avenues and trees along pond dams. The Czech breeding population of the Eurasian golden oriole is estimated at 9,000–17,000 pairs. It is threatened by the removal of old trees. Owing to its stable population trend and positive range trend, the Red List of vertebrates assigns the Eurasian golden oriole to the lowest category, Least Concern (LC). The breeding habitat of one or two pairs may be affected by the project through disturbance and habitat take.

8.4.3. Assessment of ornithological importance and conclusion

The species recorded and their abundance at the site reflect the timing of the survey and local conditions. Most of the surveyed areas are managed fields: the SMR ETE site, B1, most of B2, part of B3, E1, E2, F1, G, I, H and most of the power evacuation corridor. The areas contain little tree or shrub vegetation: a small part of the SMR ETE site, a small part of B2, approximately half of B3, all of F2, a small part of the power evacuation corridor and part of the construction-site power-supply corridor. For this reason too, Dvorčice and Karlovec ponds and their surroundings, including riparian stands and meadows, are the most valuable areas ornithologically. Given that the surroundings of Units 1 and 2

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comprise a non-natural, human-modified landscape, the relatively high total number of species recorded is very probably also associated with the increased survey attention devoted to the local bird fauna.

Species recorded within the project area are:

- Species using managed fields and other open habitats for breeding, including Eurasian skylark, common pheasant, grey partridge and common quail, and species foraging in fields, either on the ground, including common kestrel, western marsh harrier, common buzzard and red kite, or in the air, including common swift, common house martin and peregrine falcon. Implementation of the project will reduce these species' current breeding opportunities and foraging habitats.
- Species using the limited tree or shrub vegetation present, including Eurasian blue tit, common chiffchaff, common linnet, European goldfinch, European greenfinch and goldcrests. If felling is performed, these species' breeding and foraging habitats will be reduced or lost.
- Species inhabiting ponds and their surroundings form an important group. These are principally waterbird and reed-bed species, including mute swan, little grebe, reed warblers, common kingfisher, water rail, common snipe, and western marsh harrier. They may be affected by implementation of the project principally through changes in the hydrological regime or collisions with conductors and earth wires, particularly waterfowl, waders, gulls and allies, rails and allies, and herons and allies.

For bird conservation, it is essential that any felling of trees and shrubs be performed outside the breeding season to prevent disturbance or even breeding failure or the killing of birds.

It is also recommended that wet areas, such as the meadow east of Dvorčice Pond or the meadow north of Karlovec Pond, with temporary pools be retained or set aside as potential breeding and foraging habitat for northern lapwing, western yellow wagtail and other species.

To support corn bunting, red-backed shrike and great grey shrike, it is recommended that scattered or linear scrub be planted, principally to replace scrub scheduled for removal during implementation of the project.

To support cavity-nesting species, including tits, common starling and Eurasian wryneck, nest boxes of various sizes may be installed, again principally to replace woody plants felled for implementation of the project.

8.4.4. Information sources used

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Legislation

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Act No. 114/1992 Coll., on Nature and Landscape Protection, as amended.

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8.5. Entomological survey

Entomological survey – Temelín

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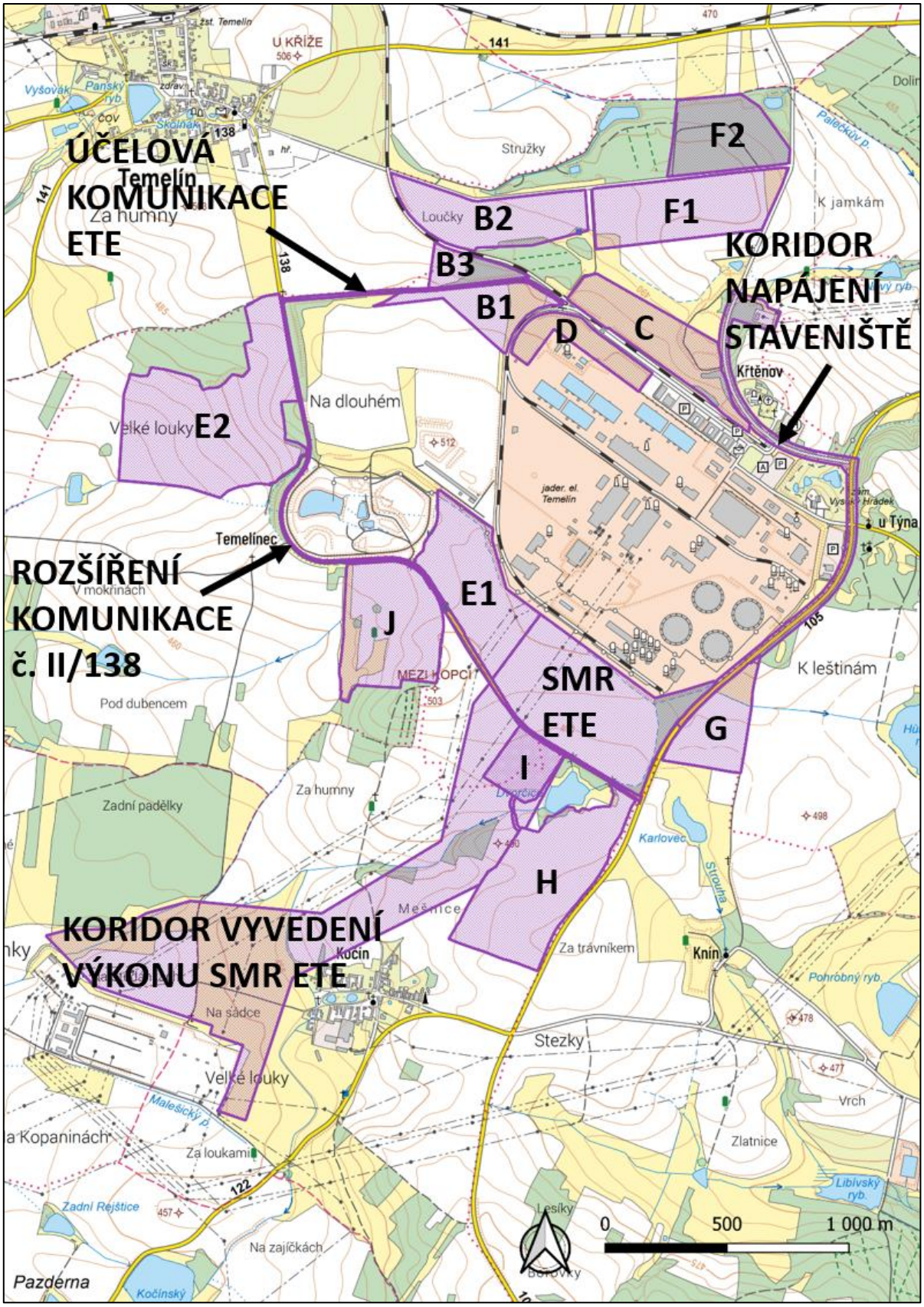
Introduction and methodology

The subject of the entomological survey was the project for construction of a modular reactor near Temelín NPP. As specified in the assignment, the survey area was divided into 15 subareas. Insect-occurrence data were recorded separately for each, and the importance of each area for insects was assessed separately. The survey was conducted on May 16, June 4 and 23, July 17 and August 10, 2025, and on May 5 and June 1, 2026. Data were also extracted from the Nature Conservation Occurrence Database.

The sites were visited in sunny weather. Insects were collected by sweeping vegetation with a sweep net; tree and shrub branches were beaten over a 1 × 1 m beating tray. Conspicuous insects sitting on flowers or in flight were also recorded. The survey included individual searches for adults on vegetation and the ground, beneath stones and bark, and on fungi and similar substrates. Characteristic emergence holes and larval feeding galleries in woody plants were also recorded. Aquatic insects were surveyed using an aquatic net and sieve. Thirty covered pitfall traps were used to improve coverage of epigeic species. A saturated salt solution with vinegar was used as preservative and bait. The survey focused principally on beetles (Coleoptera) and butterflies (Lepidoptera), because these insect groups contain most specially protected species and are also the best-studied invertebrate groups, allowing the biological value of sites to be inferred reliably. Insects from other orders, particularly orthopterans, dragonflies and hymenopterans, were also recorded as supplementary data, with an emphasis on specially protected species and species included in the Red List of invertebrates (Hejda et al. 2017). All Red List categories stated follow Hejda et al. (2017).

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Figure 102: Locations of the SMR ETE, B1, B2, B3, C, D, E1, E2, F1, F2, G, I, J and H areas; the SMR ETE POWER EVACUATION CORRIDOR; the CONSTRUCTION-SITE POWER-SUPPLY CORRIDOR; the ROAD II/138 WIDENING AREA; and the ETE SERVICE ROAD.



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ÚČELOVÁ KOMUNIKACE ETE	**ETE SERVICE ROAD**
KORIDOR NAPÁJENÍ STAVENIŠTĚ	**CONSTRUCTION-SITE POWER-SUPPLY CORRIDOR**
ROZŠÍŘENÍ KOMUNIKACE Č. II/138	**WIDENING OF ROAD II/138**
KORIDOR VYVEDENÍ VÝKONU SMR ETE	**SMR ETE POWER EVACUATION CORRIDOR**

A list of all species recorded is provided in a separate table.

The following abbreviations are used in the text and the attached species table:
§SPS = specially protected species
§E = specially protected species in the endangered category
§HE = specially protected species in the highly endangered category
§CE = specially protected species in the critically endangered category
NT = species included in the Near Threatened category of the Red List of invertebrates
VU = species included in the Vulnerable category of the Red List of invertebrates
CR = species included in the Critically Endangered category of the Red List of invertebrates

The attached species table gives the letter codes of the individual sites according to the map above and the list below; the presence of a species at a site is marked with a cross. Species found in the immediate vicinity of individual areas that could be affected by the project were also assigned to those areas. For significant species, this information is stated in the comments.

Species of conservation importance are shown in bold red type in the table.

List of surveyed sites

SMR ETE SITE

Most of the area is arable land. During the visits, the southern part was disturbed in places and locally waterlogged, with small wetter patches, pools and small water-filled depressions. Goat willows grow at the eastern edge, where small patches contain elements of meadow vegetation, including tansies, thistles, clovers and ragged-robin. There is a young, predominantly coniferous woodland in the northeastern part.

AREA B1

Most of the area is covered by arable land. At the eastern tip, there is a young planting of deciduous woody plants and a species-poor mesic meadow.

AREA B2

Almost all the area is arable land. Only in the southern part does a young deciduous woodland extend into the area; it contains ashes, aspen and other woody plants.

AREA B3

Approximately two thirds of the area is occupied by a wet depression with willows, aspen and birches. Some of the trees are solitary. The western third is arable land.

AREA C

A larger complex of predominantly species-poor mesic meadows, although some patches have more diverse vegetation with oxeye daisies, ragged-robin and other species. Small woodlands and scattered green infrastructure contain aspen, birches, goat willows, Scots pine, honeysuckles, dog roses, hazels and other trees and shrubs.

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AREA D
This comprises mesic meadows with small woodland patches containing birches, goat willows, aspen, dogwood and blackthorn.

AREA E1
This area consists entirely of arable land. Nettles grow at the western edge.

AREA E2
This is an oilseed rape field. Oaks, willows, dog roses, hazels, aspen and birches grow at the margins, while the herbaceous vegetation consists predominantly of nettles.

AREA F1
The site consists predominantly of arable land. A degraded, species-poor mesic meadow is present only at the northeastern and southwestern tips.

AREA F2
Predominantly a younger pine woodland that is more open in places. Birches, aspen and, locally, Scotch broom also grow here.

AREA G
Most of the area is arable land. A degraded, species-poor mesic meadow is present at the northern tip. A wet and relatively species-rich meadow extending from Karlovec Pond adjoins the southern edge of the area.

AREA H
Most of the site is arable land, adjoining a relatively diverse wetter meadow containing sedges, rushes and irises. Extensive cattail beds grow around the adjoining Dvorčice Pond. Woody plants adjoin the wet meadow and the southern side of Dvorčice Pond. Ashes, alders and willows predominate, although several oaks also grow here.

AREA I
This is an arable field adjoining a field track on its eastern side, principally lined by oaks.

AREA J
Approximately three quarters of the area is arable land. The remaining approximately one quarter, in the western part, is meadow, which is more species-rich in places. A small woodland patch containing aspen, ashes, poplars and oaks is present at the meadow margin. Several solitary trees also grow in the area.

POWER EVACUATION AREA
Arable land occupies the largest part of the site, although degraded managed meadows are also present. In the central part, there are two small mixed woodlands containing Scots pine, spruces, ashes, elder and birches. Several oaks grow around the channel flowing from Dvorčice Pond. In the southwestern part, a small woodland patch with several trees adjoins the forest whose edge forms the site boundary. Moisture-loving vegetation adjoining the channel flowing from Dvorčice Pond is also present in the southwestern part.

CONSTRUCTION-SITE POWER-SUPPLY CORRIDOR
Margins of the existing road, partly covered by various woody plants.

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ETE SERVICE ROAD AND ROAD II/138 WIDENING AREAS
Margins of the existing road, containing ditches and arable land, as well as naturally regenerated deciduous woody plants in places.

List of specially protected species and species included in the Red List of invertebrates (Hejda et al. 2017), with comments:

Hymenopterans (Hymenoptera):
bumblebees (*Bombus* sp.) – **§E**
The survey recorded *Bombus lapidarius* (red-tailed bumblebee), *Bombus pascuorum* (common carder bee), *Bombus terrestris* (buff-tailed bumblebee) and *Bombus ruderarius* (red-shanked carder bee). Owing to identification difficulties, some bumblebee individuals were identified only to genus.
These are common and very common bumblebee species with high ecological tolerance in the surveyed area. They occur on flowers throughout the area; ruderal stands containing legumes are particularly important refuges for these species. Their nests are generally underground, but may also be in holes in walls, beneath shed floors, in turfs and similar locations. Other bumblebee or cuckoo bumblebee species of the genus *Bombus* could theoretically occur, through visits to forage, although they were not recorded. Bumblebees occurred in all surveyed areas, with buff-tailed and red-tailed bumblebees being the most frequent. Although no nests were recorded, some are probably present in the area. However, their location changes each year and they are very difficult to find. Overall, the project's effect on this taxon will be very small to negligible. Estimated number: high hundreds to thousands of individuals.

ants (*Formica* sp.) – **§E**
Formica fusca and *Formica rufibarbis* were recorded; some individuals were not identified to species. The ants recorded build their nests in the ground or beneath stones and sometimes above ground as small mounds of soil. Species in this group of ants are not actually threatened in Czechia and may be regarded as common and almost ubiquitous. They were recorded in all surveyed areas. Implementation of the project can be expected to destroy some ground nests. Overall, the project's effect on this taxon will be very small to negligible. Estimated number: tens of thousands of individuals.

Morice's masked bee (*Hylaeus moricei*) – **NT**
A rare and local species about whose precise distribution and biology very little is known. It is probably associated with wetland meadows and the margins of ecologically rich water bodies. It was recorded in the waterlogged meadow by Dvorčice Pond at the edge of Area H. Estimated number: A few to several dozen individuals.

Beetles (Coleoptera):
poplar jewel beetle (*Agrilus ater*) – **VU**
A rarer and local species that escapes attention because of its cryptic lifestyle. Adults are seen only rarely, but characteristic larval feeding galleries can be found more frequently. The species' presence was identified from characteristic feeding galleries on a poplar in the small woodland patch in Area J. This is the first record of the species in southern Bohemia. Estimated number: a few to several dozen individuals.

honeysuckle jewel beetle (*Agrilus cyanescens*) – **NT**
A rarer and local species whose biology is associated with honeysuckles (*Lonicerus* sp.). It was recorded on honeysuckle plantings in Area C. Estimated number: a few to several dozen individuals.

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St John's-wort jewel beetle (*Agrilus hyperici*) – **NT**
A thermophilic but relatively widespread species whose development is associated with St John's-worts (*Hypericum* sp.). Found in Area C. Estimated number: a few to several dozen individuals.

meadow jewel beetle (*Agrilus pratensis*) – **VU**
A local, cryptic species whose development is associated with stressed European aspen (Populus tremula). Found within the SMR ETE site at its eastern edge. Estimated number: a few to several dozen individuals.

musk beetle (*Aromia moschata*) – **NT**
A declining species widely distributed from the lowlands to the mountains. It develops in the wood of live willows. Adults occur on the leaves and trunks of host plants and on flowers. Larval development takes several years, predominantly three years. Adults occur most frequently in July and August. The species was found at the SMR ETE, B3 and construction-site power-supply corridor areas and at the edge of Area H. In view of the species' presence, I recommend that its host trees not be felled. Estimated number: a few to several dozen individuals.

Scheidler's ground beetle (*Carabus scheidleri*) – **§E**
A eurytopic species widely distributed in Moravia and particularly southern Bohemia. Both adults and larvae are predatory and highly mobile. It occurs in a wide range of habitats, including open forests and gardens and in treeless areas, meadows and pastures. It is not actually threatened and occurs throughout almost all the surveyed area and its wider surroundings. The species was found in the SMR ETE, B1, B3, C, D, F2, G, H and J areas; the SMR ETE POWER EVACUATION CORRIDOR; the CONSTRUCTION-SITE POWER-SUPPLY CORRIDOR; and the ETE SERVICE ROAD AND ROAD II/138 WIDENING AREAS. It may also occur at other sites that it can reach because of its mobility. The project will have a negligible effect on the species' population. Individuals may theoretically die as a result of earthworks and construction-vehicle movements, and occupied habitat may be lost. Estimated number: high hundreds of individuals.

Cerapheles beetle (*Cerapheles terminatus*) – **VU**
A rare and local species of waterlogged meadows, pond banks and similar habitats. Adults occur on vegetation, particularly common reed. It was found at the edge of Area H by Dvorčice Pond and in the wet meadow in the southwestern part of the POWER EVACUATION AREA. Estimated number: hundreds of individuals.

weevil (*Ceutorhynchus barbareae*) – **NT**
A weevil living in meadows, ruderal habitats and water margins. It is oligophagous on plants of the cabbage family, principally wintercress (*Barbarea vulgaris*) and marsh yellow-cress (*Rorippa palustris*). It occurs locally in the lowlands of Czechia. The species was found in the waterlogged part of the SMR ETE site. Estimated number: a few individuals.

green tiger beetle (*Cicindela campestris*) – **§E**
A widespread and common species that is not actually threatened and can be found in many different treeless habitats with at least some disturbed or exposed ground, including field tracks. It also occurs occasionally at entirely atypical sites. Adults and larvae prefer sandy soils with sparse, low vegetation, where they reach their greatest abundance. The species was found in Areas C, D, and J but may also occur occasionally in other non-forest areas. The project's effect on the population will be negligible. The negative effect will be theoretical only and limited to at most a few affected individuals through

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possible larval mortality in this otherwise common and actually unthreatened species. Estimated number: tens to hundreds of individuals.

cinnabar flat bark beetle (*Cucujus cinnaberinus*) – **§HE, VU**
Larvae and adults live beneath the bark of dead or dying trees. Formerly rare, it is now abundant, particularly on older poplars and at sites with large quantities of dead trees. It was recorded on a dead poplar in the small woodland patch in Area J. Implementation of the project could theoretically kill individuals and cause a small reduction in the species' habitat. In view of its wide and locally almost continuous distribution, the project's effect on the population will be very small to negligible. Estimated number: a few to several dozen individuals.

willow jewel beetle (*Lamprodila decipiens*) – **VU**
A probably overlooked species widely distributed from the lowlands to the mountains. It develops in the wood of live but weakened willows. Adults occur on the leaves or trunks of host trees. Larval development predominantly takes two years. Adults occur most frequently in July and August. The species was found in Areas B3 and C, but could theoretically occur at other locations containing willows. In view of the species' presence, I recommend avoiding the felling of its host trees, namely willows. Estimated number: a few to several dozen individuals.

lime jewel beetle (*Lamprodila rutilans*) – **NT**
The larvae develop in the sun-exposed bark of live small-leaved limes. It can occasionally cause the death of young lime plantings. It was recorded on a solitary lime in Area J; the precise location is entered in the Nature Conservation Occurrence Database. During implementation, I recommend avoiding the felling of the occupied tree. Estimated number: dozens of individuals.

weevil (*Lixus myagri*) – **VU**
A weevil inhabiting two habitat types, most frequently wetlands and unregulated sections of rivers and streams. It occasionally lives at steppe sites. It is oligophagous on brassicas, most frequently greater yellow-cress (*Rorippa amphibia*), wintercress (*Barbarea vulgaris*) and, at xerothermic sites, perennial bastard cabbage (*Rapistrum perenne*). In Czechia, it is a local and rare species known from eastern and central Bohemia and more frequently from Moravia, particularly northern and southern Moravia; elsewhere it occurs only sporadically. The species was found in the waterlogged part of the SMR ETE site. Estimated number: a few to several dozen individuals.

striped fungus beetle (*Mycetochara maura*) – **NT**
A rarer, local species with nocturnal activity. The larvae develop in cavities in deciduous trees. It was recorded in the deciduous small woodland patch in Area J. At the occurrence site, I recommend minimizing tree felling and not removing any dead wood. Estimated number: dozens of individuals.

white-spotted rose beetle (*Oxythyrea funesta*) – **§E**
A common to very abundant species that occurs throughout Czechia in open areas, sometimes in extremely large numbers. It was rarer in the 1990s but has undergone a major expansion since then. The larvae develop in various decaying organic substrates of plant origin, such as compost and rotten fence posts; the literature also states that larvae may occur in soil. Adults occur on flowers. The species is now almost ubiquitous and is not actually threatened. It was recorded in all areas surveyed. Larvae could theoretically die during earthworks, but the effect on the population will be entirely negligible and insignificant. Estimated number: high hundreds to thousands of individuals.

Pseudeuparius weevil (*Pseudeuparius sepicola*) – **NT**

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A rarer saproxylic species whose larvae develop in dead deciduous wood, often oak. It was found on dead oak branches in the deciduous small woodland patch in Area J. At the occurrence site, I recommend minimizing tree felling and not removing any dead wood. Estimated number: dozens of individuals.

Mantises (Mantodea):

European mantis (*Mantis religiosa*) – **§CE, VU**

A predatory species that has spread considerably during the last 30 years as a result of warming. It now inhabits almost all of Moravia, except the highest mountain elevations, and has also spread throughout eastern and northern Bohemia. Its spread into other parts of Bohemia is continuing, and the species is not actually threatened. In southern Bohemia, it still occurs only sporadically and in smaller numbers. It prefers steppe and dry sites but is also commonly found in meadows, along field tracks and in ruderal stands. The project may affect some individuals or their oothecae through destruction of occurrence sites by construction-vehicle movements; some mortality of individuals is also probable. However, the project will have no significant effect on the mantis population. It was recorded in Area C, but given its mobility, spread and habitats occupied, it may also occur in other areas over time. Estimated number: dozens of individuals.

Butterflies (Lepidoptera):

lesser purple emperor (*Apatura ilia*) – **§E**

It is distributed throughout the country and is absent only from intensively farmed, deforested landscapes and cold mountain areas. It reaches approximately 600 m above sea level, but is already rare there. Adults live in open populations. Males are territorial in the afternoon and wait for females on trees and shrubs. In the morning, they search for food. They frequently feed on bare ground, mud and puddles and are known to be attracted to decaying organic matter, including carrion and excrement. They feed less frequently on flowers of hemp-agrimony (*Eupatorium cannabinum*) and dwarf elder (*Sambucus ebulus*). Old males are observed principally when feeding on flowers; nectar sugars may provide older butterflies with a more readily available source of energy than other foods. Females remain predominantly in tree canopies. It inhabits woodland tracks, clearings and edges in river valleys and around water bodies, generally near stands of soft-wooded tree species. It predominates in lowland alluvial forests. It can also colonize linear vegetation along drainage channels. It has one generation from June to August, with a partial second generation from August to September in recent hot years. Females lay eggs individually on the upper surface of leaves in partial shade within the canopies of smaller trees and prefer stand margins for egg-laying. The caterpillar begins feeding in autumn, lives solitarily and overwinters (description from www.lepidoptera.cz). The lesser purple emperor was recorded in Areas B3, C, F2 and J, and could theoretically occur at all locations containing its host trees. In view of the species' presence, I recommend avoiding extensive felling of its host plants, namely poplars and willows, particularly *Salix caprea and Populus tremula*. However, it should be noted that the species has sufficient suitable habitat in the wider surroundings. Any felling will affect individual caterpillars on host trees. Estimated number: a few to several dozen individuals.

purple emperor (*Apatura iris*) – **§E**

It is distributed throughout the country, although adult population densities may be low. It is not actually threatened at present. It also occurs in the mountains, up to approximately 1,000 m above sea level. It is absent only from intensively farmed, deforested agricultural areas. It inhabits wet forest valleys, edges and woodland tracks along watercourses in larger forests. It frequently occurs around artificial water bodies. Adults seek sites where shaded environments alternate with intensively sunlit patches. **The caterpillars' host plants are w**illows (*Salix* spp.), principally goat willow (*Salix caprea*),

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grey willow, eared willow and crack willow. **It has o**ne generation from June to August. The caterpillars hatch in July and eat leaves from the tip. The first larval instars do not yet have the characteristic "horns" and are dark in color, becoming green only after the second molt. Older instars and the pupa mimic a willow leaf. The larvae live solitarily and overwinter in hibernacula spun from a leaf and attached to twigs near buds (description from www.lepidoptera.cz). The species was found in Areas B3 and C. In view of its presence, I recommend minimizing the felling of willows, particularly goat willows, in the occurrence areas. Estimated number: a few to several dozen individuals.

pearly heath (*Coenonympha arcania*) – **NT**
It inhabits woodland edges, woodland-scrub ecotones, open deciduous forests, sunny clearings and scrubby forest-steppe. It prefers smaller connected glades surrounded by shrubs to open landscapes with solitary shrubs. Its host plants include tor-grass (*Brachypodium pinnatum*), Yorkshire-fog (*Holcus lanatus*) and other species. It was recorded occasionally in Area C. Estimated number: dozens of individuals.

small blue (*Cupido minimus*) – **VU**
It inhabits dry steppe sites, sun-baked slopes, dry sunken lanes, military training grounds, old quarries, railway embankments, ruderal habitats, track margins and old vineyards. Its host plant is kidney vetch (*Anthyllis vulneraria*). It was recorded occasionally in Areas C and D. Estimated number: dozens of individuals.

large copper (*Lycaena dispar*) – **§HE**
Adults occur in two or three generations from April to September. They fly in warm weather, feed on nectar and have a relatively high dispersal capacity. The caterpillars' host plants include docks and common bistort. Development takes up to one year. The population in southern Moravia is relatively eurytopic and is frequently encountered outside its preferred habitats, including in ruderal habitats, within settlements and at field margins. The species is not currently threatened. Its successful spread northwards and westwards from Moravia has been demonstrated. It was recorded in the wet meadow adjoining Area H by Dvorčice Pond. Estimated number: a few to several dozen individuals.

Glanville fritillary (*Melitaea cinxia*) – **VU**
It inhabits various treeless habitats in warm regions, principally forest-steppe, rocky steppe and sandy areas, and also warmer clearings. It is also known from wetter habitats, specifically meadows where wet and dry patches alternate. Its host plants are several plantain species (*Plantago* spp.), including ribwort plantain (*P. lanceolata*), greater plantain (*P. major*) and hoary plantain (*P. media*), and speedwells (*Veronica* spp.), including spiked speedwell (*V. spicata*) and large speedwell (*V. teucrium*). The Glanville fritillary was recorded in Area C and in the wet meadow directly adjoining Area G. Ideally, construction should entirely avoid its occurrence sites and interventions in occupied meadows should be minimized. Estimated number: tens to hundreds of individuals.

Old World swallowtail (*Papilio machaon*) – **§E**
This butterfly is now widespread and abundant and is not actually threatened. It occurs in all treeless habitats and is particularly abundant in agrocenoses, managed meadows, gardens, steppe and forest-steppe, and early-successional weed communities in abandoned fields. It is a partial migrant, and migrating individuals even cross the highest mountain elevations. **The caterpillars' host plants include** many cultivated and wild species of the carrot family (Apiaceae), such as wild carrot (*Daucus carota*), dill (*Anethum graveolens*), wild angelica (*Angelica sylvestris*), burnet-saxifrages (*Pimpinella* spp.) and, rarely in warm areas, burning bush (*Dictamnus albus*). **It has two generations**, or three in warm areas, following one another from April to October. Females lay eggs individually on host plants, most frequently on umbels. The caterpillars are relatively sedentary; young caterpillars mimic bird droppings,

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while older ones have aposematic coloration. When threatened, they evert the osmeterium. They pupate attached to the stems of host plants or elsewhere, and pupae of the final generation overwinter (description from www.lepidoptera.cz). It was recorded in Areas B1, C, D, G, H and J and the SMR ETE POWER EVACUATION AREA. The project may cause mortality of some caterpillars if they are present at the location in the year of implementation. The effect on the population of this widespread and common species will, however, be effectively zero. Estimated number: tens to low hundreds of individuals.

dusky large blue (*Phengaris nausithous*) – **§HE, NT**
The dusky large blue has ecological requirements similar to those of the scarce large blue but can occupy a wider range of habitats. It prefers wet, unfertilized, extensively mown meadows with great burnet, but can also live in wet roadside ditches, waterlogged ruderal habitats and undermined areas. However, it cannot survive in meadows where a second cut is made between early July and early September, during adult flight, egg-laying and early caterpillar development. Adults occur from early July to early August, generally peaking around July 20–25. They feed on nectar from great burnet. The life cycle is similar to that of the scarce large blue. The caterpillars' host plant is great burnet (*Sanguisorba officinalis*). Females lay several eggs in open flower heads of great burnet. The first three caterpillar instars develop in the ovaries. During the fourth instar, the caterpillars drop to the ground, where workers of host ants, *Myrmica scabrinodis* and less frequently *Myrmica ruginodis*, find them and carry them into their nests. If the host ant nest is thriving, the caterpillars are fed by the ants. If the ant colony is weak, the caterpillars feed on ant larvae and pupae. After overwintering, they also pupate in the ant nests. One specimen was recorded in the wet meadow immediately adjacent to Area G; occurrence was also recorded in the wet meadow in the southwestern part of the SMR ETE POWER EVACUATION AREA. All work should avoid the wet meadow adjoining Area G and the wet meadow in the southwestern part of the SMR ETE POWER EVACUATION AREA. Estimated number: a few to several dozen individuals.

Amanda's blue (*Polyommatus amandus*) – **NT**
It inhabits flower-rich pastures and eutrophic foothill meadows, wetter and cooler meadow habitats including peat meadows, woodland meadows, edges and clearings. It also uses reclaimed areas, such as quarry floors and spoil heaps in northern Bohemia. It is a typical species of abandoned meadows in military areas. It also occurs locally at lower elevations (www.lepidoptera.cz). The caterpillars' host plant is tufted vetch (*Vicia cracca*). It was recorded in Areas B1, C and D and immediately adjacent to Area G. Estimated number: dozens of individuals.

Orthopterans (Orthoptera):
field cricket (*Gryllus campestris*) – **NT**
A thermophilic species of sunny slopes, pastures, field boundaries and similar habitats that has recently been spreading. It excavates burrows in the soil, where it also shelters and spends the night. The species was recorded in the SMR ETE, B2, C, D, E1, E2, F1, G, I and J areas; the SMR ETE POWER EVACUATION AREA; and the CONSTRUCTION-SITE POWER-SUPPLY CORRIDOR, including individuals directly in fields. The project's effect on the species' population will be entirely negligible. Individual mortality could theoretically occur during construction work. Estimated number: hundreds of individuals.

Dragonflies and damselflies (Odonata):
northern damselfly (*Coenagrion hastulatum*) – **NT**
This is a tyrphophilous species seeking various peatland habitats or extensively managed forest ponds and pools. It is a spring species that emerges synchronously from mid-April. Adults are then

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encountered until approximately the end of July. Adults fly near water and frequently perch on vegetation. Eggs are laid in tandem into floating plants. Larval development generally takes one year. In Czechia, it occurs principally at middle and higher elevations, in a mosaic distribution throughout the country. It is rarer in the eastern part of Czechia. The species was recorded at the edge of Area H around Dvorčice Pond. Nearby Karlovec Pond is used extensively by the species for breeding. Estimated number: dozens of individuals.

southern emerald damselfly (*Lestes barbarus*) – **NT**
It seeks smaller, shallow, overgrown wetland habitats characterized by large water-level fluctuations and even drying. Adults are encountered for a relatively short period between June and August. They frequently perch on vegetation. With assistance from the male, the female lays eggs into plant stems above the water surface or immediately adjacent to the water body. The eggs overwinter and hatch into larvae in spring; larval development takes two to four months. In Czechia, it occurs sporadically throughout the country except at higher elevations; it is generally found up to approximately 600 m above sea level. It was recorded in Areas C and D, which it visited only occasionally and which contain no suitable breeding habitat. The species was also recorded at the edge of Area H around Dvorčice Pond. Nearby Karlovec Pond is used extensively by the species for breeding. Estimated number: dozens of individuals.

scarce emerald damselfly (*Lestes dryas*) – **NT**
It principally seeks shallow aquatic habitats with well-developed littoral vegetation, on which it frequently perches. With assistance from the male, the female lays eggs into the stems of plants emerging from the water. It overwinters as eggs. The larvae develop relatively quickly and adults generally emerge after two to three months. Adults can therefore be encountered from late May or early June until September. In Czechia, it occurs sporadically throughout almost the entire country. It was recorded in Areas C and D, which it visited only occasionally and which contain no suitable breeding habitat. The species was also recorded at the edge of Area H around Dvorčice Pond. Nearby Karlovec Pond is used extensively by the species for breeding. Estimated number: dozens of individuals.

large white-faced darter (*Leucorrhinia pectoralis*) – **§HE, NT**
It seeks warmer, well-sunlit standing waters sheltered from the wind. It generally colonizes forest ponds, fen pools or extensively managed ponds with richly vegetated littoral zones. It also frequently occurs in peatlands. Compared with other species of the genus *Leucorrhinia*, *L. pectoralis* is relatively the most thermophilic. It is an early spring species, emerging as early as late April and early May. The principal period of adult activity is generally June. Males frequently patrol directly within tall riparian vegetation. Larval development takes two years. It is a relatively uncommon species in Czechia, with a patchy distribution throughout the country. The species was recorded at the edge of Area H around Dvorčice Pond. Nearby Karlovec Pond is used particularly by the species for breeding. Estimated number: dozens of individuals.

Literature records and previous surveys of the area
There are few literature records of insect occurrence in the area, and their locations are only general and imprecise. The Nature Conservation Occurrence Database contains a larger number of records of various insect species, principally from the author of this survey and from the biological assessment under Section 67 for the New Nuclear Power Plant at the Temelín site, Including Power Evacuation to the Kočín Substation project, prepared by RNDr. Vlastimil Kostkan in 2009. The same author also prepared DP 12A – Biological Assessment (Extension of the Validity of the EIA Opinion for the New NPP ETE) in 2024, which also included an entomological survey. The survey results generally overlap within the areas assessed jointly, while the survey conducted this year also provided information on the

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occurrence of additional species not previously identified in the area, including species of conservation importance. Minor differences result from natural changes in population abundance over the years, weather in the relevant year or during surveys, survey dates, entomologists' specializations and similar factors. Bejček (2007) also surveyed the area, with substantial overlap. However, that survey also reported other specially protected species, namely bumblebees, and species included in the Red List of invertebrates that were not confirmed during the current survey or the assessments conducted by Kostkan (2009, 2024). Nevertheless, their occurrence cannot be excluded. These are: *Bombus campestris* (field cuckoo bumblebee) – **§E**; *Bombus confusus* (confusing bumblebee) – **§E, CR**; *Bombus humilis* (brown-banded carder bee) – **§E**; *Bombus lucorum* (white-tailed bumblebee) – **§E**; *Bombus rupestris* (red-tailed cuckoo bumblebee) – **§HE,** *Bombus bohemicus* (gypsy cuckoo bumblebee) – **§E**; *Anoplius alpinobalticus* (spider wasp) – **NT**; and *Sphecodes croaticus* (Croatian blood bee) – **NT**. The presence or absence of these species is not material to the overall assessment of the project's effect on insect fauna.
It should be noted that the documented insect species may in some cases appear at new locations or cease using existing occurrence sites if conditions change. Some insect populations may be at the limit of detectability, and their detection may therefore be fortuitous even during intensive surveys.

Conclusion:
Of the taxa recorded, 19 are specially protected under Decree No. 395/1992 Coll. and 25 species are included in the Red List of invertebrates (Hejda et al. 2017). A total of 461 taxa were recorded. The individual surveyed areas and their importance for insect fauna are discussed in the following section.

Comments on the individual sites:
SMR ETE SITE
In terms of insects, this area is largely of low value because it is arable land. Common specially protected taxa occur, including bumblebees (*Bombus* sp.), ants (*Formica* sp.), Scheidler's ground beetle (*Carabus scheidleri*) and white-spotted rose beetle (*Oxythyrea funesta*). The waterlogged southern edge and the botanically more diverse eastern edge below the road embankment may be regarded as more important entomologically. Red List species recorded were musk beetle (*Aromia moschata*), weevil (*Lixus myagri*), meadow jewel beetle (*Agrilus pratensis*), weevil (*Ceutorhynchus barbareae*) and field cricket (*Gryllus campestris*).

AREA B1
An area of low importance in the eastern part; the western part, consisting only of arable land, is entirely insignificant for insects. Common specially protected taxa recorded were bumblebees (*Bombus* sp.), ants (*Formica* sp.), white-spotted rose beetle (*Oxythyrea funesta*), Scheidler's ground beetle (*Carabus scheidleri*) and Old World swallowtail (*Papilio machaon*). The Red List species recorded was an Amanda's blue (*Polyommatus amandus*), probably a chance visitor.

AREA B2
An area of virtually no importance for insects, containing common specially protected taxa such as bumblebees (*Bombus* sp.), ants (*Formica* sp.) and white-spotted rose beetle (*Oxythyrea funesta*). The Red List species recorded was field cricket (*Gryllus campestris*).

AREA B3
A relatively diverse area with greater insect species richness. Specially protected taxa recorded were bumblebees (*Bombus* sp.), ants (*Formica* sp.), white-spotted rose beetle (*Oxythyrea funesta*), Scheidler's ground beetle (*Carabus scheidleri*), lesser purple emperor (*Apatura ilia*) and purple

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emperor (*Apatura iris*). Red List species recorded were musk beetle (*Aromia moschata*) and willow jewel beetle (*Lamprodila decipiens*).

AREA C

The reclaimed area may be regarded entomologically as a significant habitat of appreciable conservation value. A relatively diverse and species-rich insect community containing numerous significant species was recorded here. Specially protected taxa recorded were bumblebees (*Bombus* sp.), including all recorded species (*B. lapidarius, B. terrestris, B. pascuorum, B. ruderarius*); ants (*Formica* sp., *F. fusca, F. rufibarbis*); white-spotted rose beetle (*Oxythyrea funesta*); Scheidler's ground beetle (*Carabus scheidleri*); green tiger beetle (*Cicindela campestris*); European mantis (*Mantis religiosa*); lesser purple emperor (*Apatura ilia*); purple emperor (*Apatura iris*); and Old World swallowtail (*Papilio machaon*). Red List species recorded were honeysuckle jewel beetle (*Agrilus cyanescens*), willow jewel beetle (*Lamprodila decipiens*), European mantis (*Mantis religiosa*), pearly heath (*Coenonympha arcania*), small blue (*Cupido minimus*), Amanda's blue (*Polyommatus amandus*), Glanville fritillary (*Melitaea cinxia*) and field cricket (*Gryllus campestris*). Two Red List dragonfly species unrelated to the area itself were also recorded: southern emerald damselfly (*Lestes barbarus*) and scarce emerald damselfly (*Lestes dryas*).

AREA D

Although this area substantially overlaps Area C in its species, it is less species-rich than the preceding area and relatively uninteresting. Specially protected taxa recorded were bumblebees (*Bombus* sp.), including all recorded species (*B. lapidarius, B. terrestris, B. pascuorum, B. ruderarius*); ants (*Formica* sp., *F. fusca, F. rufibarbis*); white-spotted rose beetle (*Oxythyrea funesta*); Scheidler's ground beetle (*Carabus scheidleri*); green tiger beetle (*Cicindela campestris*); and Old World swallowtail (*Papilio machaon*). Red List species recorded were small blue (*Cupido minimus*), Amanda's blue (*Polyommatus amandus*) and field cricket (*Gryllus campestris*). Two Red List dragonfly species unrelated to the area itself were also recorded: southern emerald damselfly (*Lestes barbarus*) and scarce emerald damselfly (*Lestes dryas*).

AREA E1

An area of virtually no importance for insects, containing common specially protected taxa such as bumblebees (*Bombus* sp.), ants (*Formica* sp.) and white-spotted rose beetle (*Oxythyrea funesta*). The Red List species recorded was field cricket (*Gryllus campestris*).

AREA E2

An area of virtually no importance for insects, containing common specially protected taxa such as bumblebees (*Bombus* sp.), ants (*Formica* sp.) and white-spotted rose beetle (*Oxythyrea funesta*). The Red List species recorded was field cricket (*Gryllus campestris*).

AREA F1

An area of low value for insects, containing common specially protected taxa such as bumblebees (*Bombus* sp.), including *B. terrestris*, ants (*Formica* sp.) and white-spotted rose beetle (*Oxythyrea funesta*). The Red List species recorded was field cricket (*Gryllus campestris*).

AREA F2

A less significant entomological area containing common and eurytopic species with an affinity for forest environments. Specially protected taxa recorded were bumblebees (*Bombus* sp.), ants (*Formica* sp.), Scheidler's ground beetle (*Carabus scheidleri*) and purple emperor (*Apatura ilia*). No species included in the Red List of invertebrates was recorded.

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AREA G

Area G itself is not interesting entomologically and contains common, predominantly eurytopic invertebrate species. However, a wet and species-rich meadow extending from Karlovec Pond adjoins the southern edge of Area G. This meadow may be regarded as entomologically valuable and important, with a diverse insect community and a larger number of species of conservation importance. Specially protected taxa recorded in Area G were bumblebees (*Bombus* sp.), including *B. terrestris and B. pascuorum*; ants (*Formica* sp.); white-spotted rose beetle (*Oxythyrea funesta*); Scheidler's ground beetle (*Carabus scheidleri*); and Old World swallowtail (*Papilio machaon*). The specially protected dusky large blue (*Phengaris nausithous*), also included in the Red List, was recorded in the wet meadow immediately adjacent to Area G. Glanville fritillary (*Melitaea cinxia*) and Amanda's blue (*Polyommatus mandus*), both Red List species, were also recorded at the same location. Field cricket (*Gryllus campestris*) and Glanville fritillary (*Melitaea cinxia*), both included in the Red List of invertebrates, were recorded directly in Area G. I recommend that the project entirely avoid the wet meadow adjoining Area G and also the southern edge of Area G owing to possible negative effects.

AREA H

The arable field forming almost all the area is of virtually no entomological importance. In contrast, the banks of Dvorčice Pond and particularly the waterlogged meadow east of the pond are entomologically diverse and important. I recommend that construction work entirely avoid the waterlogged meadow and the banks of Dvorčice Pond. Specially protected taxa recorded were bumblebees (*Bombus* sp.), including *B. terretris* and *B. lapidarius*; ants (*Formica* sp.); Scheidler's ground beetle (*Carabus scheidleri*); white-spotted rose beetle (*Oxythyrea funesta*); large copper (*Lycaerna dispar*); Old World swallowtail (*Papilio machaon*); and large white-faced darter (*Leucorrhinia pectoralis*). Red List species recorded were musk beetle (*Aromia moschata*), Cerapheles beetle (*Cerapheles terminatus*), Morice's masked bee (*Hylaeus moricei*), northern damselfly (*Coenagrion hastulatum*), southern emerald damselfly (*Lestes barbarus*), scarce emerald damselfly (*Lestes dryas*) and large white-faced darter (*Leucorrhinia pectoralis*).

AREA I

An area of no importance for insects, containing common specially protected taxa such as bumblebees (*Bombus* sp.), ants (*Formica* sp.) and white-spotted rose beetle (*Oxythyrea funesta*). The Red List species recorded was field cricket (*Gryllus campestris*).

AREA J

This area can be divided into two parts according to habitat. The eastern part is arable land and is of virtually no entomological importance, containing only the most common insect species. The western part, consisting of meadow, a small woodland patch and several solitary trees, may in contrast be regarded as entomologically valuable, with a diverse insect community and a higher proportion of species of conservation importance. It contains both significant species associated with treeless areas and, in particular, significant species associated with woody plants. I therefore recommend excluding construction from this western part and not felling any trees there, including dead trees. Specially protected taxa recorded were bumblebees (*Bombus* sp.), including *B. lapidarius, B. terrestris and B. pascuorum*; ants (*Formica* sp.); white-spotted rose beetle (*Oxythyrea funesta*); Scheidler's ground beetle (*Carabus scheidleri*); green tiger beetle (*Cicindela campestris*); cinnabar flat bark beetle (*Cucujus cinnaberinus*); Old World swallowtail (*Papilio machaon*); and lesser purple emperor (*Apatura ilia*). Red List species recorded were poplar jewel beetle (*Agrilus ater*), cinnabar flat bark beetle (*Cucujus cinnaberinus*), lime jewel beetle (*Lamprodila rutilans*), striped fungus beetle (*Mycetochara maura*), Pseudeuparius weevil (*Pseudeuparius sepicola*) and field cricket (*Gryllus campestris*). For the poplar jewel beetle (*Agrilus ater*), this is the only known occurrence site in southern Bohemia; see the Nature Conservation Occurrence Database.

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SMR ETE POWER EVACUATION CORRIDOR

An entomologically minor area containing common and widespread species, including specially protected species. The meadow with moisture-loving vegetation in the southwestern part may be regarded as more significant within the area. Specially protected species recorded were bumblebees (*Bombus* sp.), including *B. terrestris* and *B. lapidarius*; ants (*Formica* sp.), including *F. rufibarbis*; white-spotted rose beetle (*Oxythyrea funesta*); Scheidler's ground beetle (*Carabus scheidleri*); Old World swallowtail (*Papilio machaon*); and dusky large blue (*Phengaris nausithous*). Red List species recorded were field cricket (*Gryllus campestris*) and, in the southwestern part, Cerapheles beetle *Cerapheles terminatus* and dusky large blue (*Phengaris nausithous*).

CONSTRUCTION-SITE POWER-SUPPLY CORRIDOR

An entomologically minor area containing common and widespread species, including specially protected species. Specially protected species recorded were bumblebees (*Bombus* sp.), including *B. terrestris* and *B. lapidarius*; ants (*Formica* sp.), including *F. rufibarbis*; white-spotted rose beetle (*Oxythyrea funesta*); and Scheidler's ground beetle (*Carabus scheidleri*). The Red List species recorded was musk beetle (*Aromia moschata*).

ROAD II/138 WIDENING AREA AND ETE SERVICE ROAD

An entomologically minor area containing common and widespread species, including specially protected species. Specially protected species recorded were bumblebees (*Bombus* sp.), including *B. terrestris* and *B. lapidarius*; ants (*Formica* sp.), including F. rufibarbis; white-spotted rose beetle (*Oxythyrea funesta*); Scheidler's ground beetle (*Carabus scheidleri*); and Old World swallowtail (*Papilio machaon*). The Red List species recorded was field cricket (*Gryllus campestris*).

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Table 30: List of all species identified
Key: PEC – SMR ETE power evacuation corridor, CSC – construction-site power-supply corridor, RW – widening of Road II/138, SR – ETE service road

Group	Latin name	English name	§SPS	RL	SMR ETE	B1	B2	B3	C	D	E1	E2	F1	F2	G	H	I	J	PEC	CSC	RW +SR
Hymenoptera	*Andrena bicolor*					x			x	x					x			x			
Hymenoptera	*Andrena fucata*					x			x	x					x			x			
Hymenoptera	*Anthidium punctatum*					x			x	x					x			x			
Hymenoptera	*Apis mellifera*	honey bee				x	x	x	x	x	x	x	x	x	x	x	x	x	x		
Hymenoptera	***Bombus lapidarius***	**red-tailed bumblebee**	**§E**		**x**	**x**		**x**	**x**	**x**						**x**		**x**	**x**	**x**	**x**
Hymenoptera	***Bombus pascuorum***	**common carder bee**	**§E**		**x**	**x**			**x**	**x**					**x**			**x**			
Hymenoptera	***Bombus ruderarius***	**red-shanked carder bee**	**§E**			**x**			**x**	**x**											
Hymenoptera	***Bombus sp.***	**bumblebee**	**§E**		**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**
Hymenoptera	***Bombus terrestris***	**buff-tailed bumblebee**	**§E**		**x**	**x**		**x**	**x**	**x**			**x**		**x**	**x**		**x**	**x**	**x**	**x**
Hymenoptera	*Dolichoderus quadripunctatus*	ant			x			x						x					x		
Hymenoptera	***Formica fusca***	**dusky ant**	**§E**			**x**			**x**	**x**											
Hymenoptera	***Formica rufibarbis***	**ant**	**§E**			**x**			**x**	**x**									**x**	**x**	**x**
Hymenoptera	***Formica sp.***	**ant**	**§E**		**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**
Hymenoptera	*Halictus sp.*					x			x	x											
Hymenoptera	***Hylaeus moricei***	**Morice's masked bee**		**NT**												**x**					
Hymenoptera	*Polistes bischoffi*								x	x											

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Hymenoptera	*Polistes nimpha*	European paper wasp							x	x										
Hymenoptera	*Vespa crabro*	European hornet			x				x	x	x			x		x			x	x	
Beetles	*Abax parallelepipedus*	ground beetle			x			x						x				x	x		
Beetles	*Acalyptus carpini*	weevil			x														x	x	
Beetles	*Actenicerus sjaelandicus*	click beetle						x								x					
Beetles	*Acupalpus flavicollis*	ground beetle			x			x							x	x					
Beetles	*Adalia bipunctata*	two-spot ladybird			x			x	x	x								x	x		
Beetles	*Adalia decempunctata*	ladybird				x			x	x			x		x	x	x	x	x	x	x
Beetles	*Adrastus rachifer*	click beetle														x					
Beetles	*Agabus biguttatus*	diving beetle			x											x					
Beetles	*Agabus bipustulatus*	diving beetle			x											x					
Beetles	*Agapanthia villosoviridescens*	longhorn beetle			x			x	x		x			x		x			x		
Beetles	*Agelastica alni*	alder leaf beetle			x			x													
Beetles	*Agonum muelleri*	ground beetle						x								x			x		
Beetles	*Agonum piceum*	ground beetle														x			x		
Beetles	*Agonum sexpunctatum*	ground beetle			x			x										x	x		
Beetles	*Agonum viduum*	ground beetle			x											x					
Beetles	***Agrilus ater***	**poplar jewel beetle**		**VU**														**x**			
Beetles	*Agrilus biguttatus*	jewel beetle						x													
Beetles	***Agrilus cyanescens***	**honeysuckle jewel beetle**		**NT**					**x**												
Beetles	***Agrilus hyperici***	**St John's-wort jewel beetle**		**NT**					**x**												
Beetles	***Agrilus pratensis***	**meadow jewel beetle**		**NT**	**x**																
Beetles	*Agrilus viridis*	jewel beetle						x	x										x	x	
Beetles	*Agriotes lineatus*	click beetle						x	x	x					x	x					
Beetles	*Agriotes obscurus*	click beetle			x			x							x	x					x

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Beetles	*Agriotes pilosellus*	click beetle													x					
Beetles	*Agriotes sputator*	click beetle			x				x	x	x		x		x	x		x	x		x
Beetles	*Agriotes ustulatus*	click beetle				x					x		x		x	x	x	x	x		
Beetles	*Agrypnus murinus*	click beetle			x	x			x	x			x		x	x		x	x		
Beetles	*Alosterna tabacicolor*	longhorn beetle														x			x	x	x
Beetles	*Altica helianthemi*	flea beetle									x				x				x		
Beetles	*Amalus scortillum*	weevil							x												
Beetles	*Amara aenea*	ground beetle			x	x	x		x	x		x	x		x	x		x	x		x
Beetles	*Amara bifrons*	ground beetle						x	x	x								x	x		
Beetles	*Amara familiaris*	ground beetle				x		x	x	x	x				x			x	x		x
Beetles	*Amara tibialis*	ground beetle							x	x											
Beetles	*Ampedus pomorum*	click beetle												x				x	x		
Beetles	*Amphimalon solstitiale*	cockchafer							x	x					x			x	x		
Beetles	*Anacaena globulus*	water scavenger beetle			x														x		
Beetles	*Anaspis flava*					x		x	x	x				x		x		x	x		
Beetles	*Anaspis frontalis*				x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Beetles	*Anastrangalia sanguinolenta*	longhorn beetle												x					x		
Beetles	*Anisodactylus binotatus*	ground beetle							x	x	x				x			x	x		
Beetles	*Anoplotrupes stercorosus*	woodland dor beetle												x				x	x		
Beetles	*Anthaxia nitidula*	jewel beetle			x	x			x	x	x	x	x	x	x	x	x	x	x	x	x
Beetles	*Anthaxia quadripunctata*	jewel beetle												x			x		x		
Beetles	*Anthicus antherinus*	antlike flower beetle						x	x						x	x		x	x		
Beetles	*Anthonomus rubi*	weevil			x	x		x	x	x			x		x	x		x	x		x
Beetles	*Aphthona nonstriata*	flea beetle							x	x									x		x
Beetles	*Apion apricans*	seed weevil			x	x		x	x	x			x		x	x		x	x		x
Beetles	*Apion fulvipes*	seed weevil			x	x		x	x	x	x		x		x	x		x	x		

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Beetles	*Apion trifolii*	seed weevil			x	x		x	x	x			x		x	x		x	x		
Beetles	*Apion urticae*	seed weevil			x	x		x	x	x	x				x	x		x	x	x	x
Beetles	*Apion virens*	seed weevil			x	x		x	x	x		x	x		x	x		x	x		
Beetles	*Apoderus coryli*	leaf-rolling weevil							x										x		
Beetles	*Archarius salicivorus*	weevil						x													
Beetles	***Aromia moschata***	**musk beetle**		**NT**	**x**			**x**								**x**				**x**	
Beetles	*Athous haemorrhoidalis*	click beetle												x					x		
Beetles	*Athous subfuscus*	click beetle												x				x	x		
Beetles	*Athous vittatus*	click beetle						x	x					x				x	x	x	
Beetles	*Aulonothroscus brevicollis*							x						x				x	x		
Beetles	*Axinotarsus marginalis*	soft-winged flower beetle																	x		
Beetles	*Bembidion articulatum*	ground beetle			x										x	x			x		
Beetles	*Bembidion lampros*	ground beetle						x				x			x		x				
Beetles	*Brachycerus urticae*	pollen beetle			x			x	x	x		x			x	x		x	x	x	x
Beetles	*Brassicogethes aeneus*	oilseed rape pollen beetle			x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Beetles	*Byctiscus populi*	leaf-rolling weevil			x			x	x	x					x			x			
Beetles	*Byturus ochraceus*	raspberry beetle				x		x	x	x			x	x		x		x	x	x	x
Beetles	*Calathus fuscipes*	ground beetle			x	x		x	x	x		x	x		x	x		x	x		
Beetles	*Calvia decemguttata*	ladybird						x						x		x		x	x		
Beetles	*Cantharis fulvicollis*	soldier beetle						x							x	x			x		
Beetles	*Cantharis fusca*	soldier beetle				x	x	x	x	x	x		x		x	x		x	x	x	x
Beetles	*Cantharis nigricans*	soldier beetle				x		x	x				x	x				x	x		
Beetles	*Cantharis pellucida*	soldier beetle						x													
Beetles	*Cantharis rufa*	soldier beetle			x			x							x	x			x		
Beetles	*Cantharis rufilabris*	soldier beetle						x							x	x			x		
Beetles	*Cantharis rustica*	soldier beetle			x	x	x	x	x	x	x	x	x		x	x		x	x	x	x

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Beetles	*Carabus convexus*	convex ground beetle															x			
Beetles	*Carabus coriaceus*	leather beetle						x	x					x				x	x		
Beetles	*Carabus granulatus*	granulated ground beetle						x								x			x		
Beetles	*Carabus hortensis*	garden ground beetle							x					x					x		
Beetles	*Carabus nemoralis*	bronze ground beetle						x	x					x				x	x		
Beetles	***Carabus scheidleri***	**Scheidler's ground beetle**	**§E**		**x**	**x**		**x**	**x**	**x**				**x**	**x**	**x**		**x**	**x**	**x**	**x**
Beetles	*Carabus violaceus*	violet ground beetle				x		x	x					x		x		x	x		
Beetles	*Cassida denticollis*	tortoise beetle							x						x						
Beetles	*Cassida nebulosa*	tortoise beetle			x				x	x	x								x		
Beetles	*Cassida rubiginosa*	tortoise beetle			x			x	x	x				x	x	x		x	x		
Beetles	*Cassida vibex*	tortoise beetle							x						x			x	x		
Beetles	*Cassida viridis*	tortoise beetle						x	x							x			x		
Beetles	***Cerapheles terminatus***	**soft-winged flower beetle**		**VU**												**x**			**x**		
Beetles	*Cetonia aurata*	rose chafer			x	x		x	x	x			x			x		x	x	x	
Beetles	***Ceutorhynchus barbareae***	**weevil**		**NT**	**x**																
Beetles	*Ceutorhynchus erysimi*	weevil				x		x	x	x		x	x		x	x	x	x	x		
Beetles	*Ceutorhynchus obstrictus*	weevil			x	x	x	x	x	x	x	x	x	x	x	x	x	x	x		x
Beetles	*Ceutorhynchus pallidactylus*	weevil			x	x			x	x			x	x	x	x	x	x	x		x
Beetles	*Ceutorhynchus typhae*	weevil			x	x			x				x		x	x		x	x		
Beetles	***Cicindela campestris***	**green tiger beetle**	**§E**						**x**	**x**								**x**			
Beetles	*Cicindela hybrida*	tiger beetle												x							
Beetles	*Cidnopus pilosus*	click beetle				x			x	x			x		x	x		x	x		
Beetles	*Cionus hortulanus*	weevil								x											
Beetles	*Clanoptilus viridis*	soft-winged flower beetle														x			x		
Beetles	*Clytra laeviuscula*	four-spotted leaf beetle			x	x		x	x		x		x	x	x	x		x	x	x	x

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Beetles	*Coccidula rufa*								x							x	x			x		
Beetles	*Coccinella quinquepunctata*	ladybird							x											x		
Beetles	*Coccinella septempunctata*	seven-spot ladybird			x	x	x	x	x	x	x	x	x	x		x	x	x	x	x	x	x
Beetles	*Coccinula quatuordecimpustulata*	ladybird				x		x										x				
Beetles	*Corticaria umbilicata*	minute brown scavenger beetle				x		x					x		x	x		x	x			
Beetles	*Corymbia rubra*	longhorn beetle												x					x			
Beetles	*Crepidodera aurata*	flea beetle			x			x	x	x		x		x				x	x			
Beetles	*Crepidodera aurea*	flea beetle			x			x	x	x		x		x				x	x			
Beetles	*Cryptocephalus bilineatus*	case-bearing leaf beetle							x													
Beetles	*Cryptocephalus hypochoeridis*	case-bearing leaf beetle				x			x									x				
Beetles	*Cryptocephalus moraei*	case-bearing leaf beetle				x			x	x			x		x		x	x	x			
Beetles	*Cryptocephalus ocellatus*	case-bearing leaf beetle														x						
Beetles	*Cryptocephalus sericeus*	case-bearing leaf beetle							x	x			x		x			x	x			
Beetles	***Cucujus cinnaberinus***	**cinnabar flat bark beetle**	**§HE**	**VU**														**x**				
Beetles	*Curculio glandium*	weevil										x				x			x			
Beetles	*Cynegestis impunctata*	ladybird							x													
Beetles	*Cyphon laevipennis*	marsh beetle																	x			
Beetles	*Cyphon palustris*	marsh beetle																	x			
Beetles	*Dalopius marginatus*	click beetle						x						x				x	x	x		
Beetles	*Dasytes plumbeus*	soft-winged flower beetle			x	x	x	x	x	x	x		x	x	x	x	x		x	x	x	
Beetles	*Deporaus betulae*	leaf-rolling weevil						x	x									x	x	x		
Beetles	*Diachromus germanus*	ground beetle			x										x	x			x			
Beetles	*Dinothenarus fossor*	rove beetle							x													
Beetles	*Dolichosoma lineare*	soft-winged flower beetle			x	x	x	x	x	x			x		x	x		x	x		x	

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Beetles	*Dyschiriodes globosus*																	x		
Beetles	*Dytiscus marginalis*	great diving beetle													x					
Beetles	*Ellescus bipunctatus*	weevil			x														x	
Beetles	*Epuraea distincta*	pollen beetle						x						x						
Beetles	*Eusomus ovulum*	weevil			x	x	x	x	x	x			x		x	x		x	x		x
Beetles	*Exapion fuscirostre*	seed weevil												x						
Beetles	*Galeruca tanaceti*	leaf beetle				x		x	x	x		x	x		x	x		x	x		x
Beetles	*Gastrophysa viridula*	leaf beetle						x		x				x	x	x		x	x		
Beetles	*Harmonia axyridis*	harlequin ladybird			x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Beetles	*Harpalus affinis*	ground beetle			x	x	x	x	x	x	x	x	x		x	x	x	x	x		x
Beetles	*Harpalus distinguendus*	ground beetle				x	x	x	x	x		x			x			x	x		
Beetles	*Harpalus honestus*								x	x					x				x		
Beetles	*Harpalus latus*	ground beetle							x	x					x				x		
Beetles	*Harpalus rubripes*	ground beetle							x	x									x		
Beetles	*Harpalus rufipes*	ground beetle			x	x	x	x	x	x	x	x	x		x	x	x	x	x		x
Beetles	*Hemicoelus ruficornis*	deathwatch beetle												x				x	x		
Beetles	*Hemicrepidius hirtus*	click beetle						x						x					x		
Beetles	*Hemicrepidius niger*	click beetle						x	x					x		x	x	x	x		
Beetles	*Hippodamia variegata*	ladybird			x			x			x			x	x	x			x	x	
Beetles	*Hispa atra*	black hispine leaf beetle			x	x			x	x			x		x	x		x	x		
Beetles	*Hydrochara flavipes*	water scavenger beetle														x					
Beetles	*Hypera miles*	weevil			x				x												
Beetles	*Hypera nigrirostris*	weevil			x	x		x	x	x			x		x	x		x	x		
Beetles	*Hypera postica*	weevil						x	x	x					x	x		x	x		
Beetles	*Chaetocnema conducta*	flea beetle			x	x	x		x	x	x	x	x	x	x	x		x	x		
Beetles	*Chaetocnema hortensis*	flea beetle			x	x		x	x	x			x		x	x		x	x		

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Beetles	*Chaetocnema chlorophana*	flea beetle			x	x		x	x	x			x	x	x	x		x	x		x
Beetles	*Chaetocnema picipes*	flea beetle			x	x	x		x	x			x		x	x		x	x		
Beetles	*Chlaenius nitidulus*	ground beetle						x								x			x		
Beetles	*Chrysanthia viridissima*	false blister beetle			x	x		x	x	x			x	x	x	x		x	x		
Beetles	*Chrysomela populi*	poplar leaf beetle			x			x	x			x		x				x	x	x	x
Beetles	*Chrysomela saliceti*	leaf beetle						x	x												
Beetles	*Ilybius fuliginosus*	diving beetle														x					
Beetles	*Ips typographus*	European spruce bark beetle																	x		
Beetles	*Isomira murina*	flower beetle																x			
Beetles	*Kateretes pedicularius*							x								x			x		
Beetles	*Labidostomis longimanna*	leaf beetle			x	x		x	x	x	x	x	x	x	x	x	x	x	x	x	x
Beetles	*Lagria hirta*	soft-winged flower beetle			x	x	x	x	x	x	x	x	x	x	x	x		x	x		x
Beetles	***Lamprodila decipiens***	**willow jewel beetle**		**VU**				**x**	**x**												
Beetles	***Lamprodila rutilans***	**lime jewel beetle**		**NT**														**x**			
Beetles	*Larinus sturnus*	weevil				x			x						x						
Beetles	*Larinus turbinatus*	weevil				x			x												
Beetles	*Leiopus nebulosus*	longhorn beetle							x	x				x				x	x		
Beetles	*Limonius minutus*	click beetle													x			x			
Beetles	*Litargus connexus*													x				x			
Beetles	***Lixus myagri***	**weevil**		**VU**	**x**																
Beetles	*Lochmaea caprea*	leaf beetle						x	x	x		x									
Beetles	*Longitarsus luridus*	flea beetle			x	x		x	x	x			x		x	x		x	x		
Beetles	*Longitarsus melanocephalus*	flea beetle			x	x		x	x	x			x		x	x		x	x		x
Beetles	*Loricera pilicornis*	ground beetle						x	x	x				x	x	x			x		
Beetles	*Luperus luperus*	leaf beetle						x	x	x									x	x	
Beetles	*Lygistopterus sanguineus*	net-winged beetle												x					x		

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Beetles	*Malachius bipustulatus*	soft-winged flower beetle			x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Beetles	*Mecinus pyraster*	weevil				x			x						x			x	x		
Beetles	*Melanotus villosus*	click beetle												x				x	x		
Beetles	*Meligethes carinulatus*	pollen beetle														x			x		
Beetles	*Miarus ajugae*	weevil																x			
Beetles	*Molorchus minor*	longhorn beetle												x							
Beetles	*Mononychus punctumalbum*	weevil														x			x		
Beetles	*Mordellistena brevicauda*	tumbling flower beetle														x			x		x
Beetles	*Mordellistena pumila*	tumbling flower beetle														x			x		
Beetles	*Mordellistena secreta*	tumbling flower beetle														x			x		
Beetles	***Mycetochara maura***	**striped fungus beetle**		**NT**														**x**			
Beetles	*Mycetophagus quadripustulatus*													x				x			
Beetles	*Nanophyes marmoratus*	weevil						x								x			x		
Beetles	*Nebria brevicollis*	ground beetle			x		x	x	x	x	x	x	x	x	x	x		x	x		
Beetles	*Necrodes littoralis*	carrion beetle													x						
Beetles	*Nedyus quadrimaculatus*	weevil			x			x	x	x		x		x	x	x	x	x	x	x	x
Beetles	*Neocrepidodera ferruginea*	flea beetle			x	x		x	x	x		x	x	x	x	x	x	x	x		
Beetles	*Nephus quadrimaculatus*	ladybird													x						
Beetles	*Nephus redtenbacheri*	ladybird							x												
Beetles	*Nicrophorus vespillo*	common sexton beetle																	x		
Beetles	*Noterus clavicornis*															x					
Beetles	*Noterus crassicornis*															x					
Beetles	*Nothodes parvulus*	click beetle																	x		
Beetles	*Notiophilus palustris*	ground beetle							x						x				x		
Beetles	*Notoxus monoceros*	antlike flower beetle														x			x		
Beetles	*Oberea linearis*	longhorn beetle							x												

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Beetles	*Oberea oculata*	longhorn beetle						x	x	x											
Beetles	*Obrium brunneum*	longhorn beetle												x					x		
Beetles	*Oedemera femorata*	false blister beetle			x	x	x	x	x	x	x	x	x	x	x	x		x	x	x	x
Beetles	*Oedemera lurida*	false blister beetle			x	x			x	x					x	x		x	x	x	x
Beetles	*Oedemera podagrariae*	false blister beetle				x			x	x	x	x	x		x	x	x	x	x	x	x
Beetles	*Oedemera virescens*	false blister beetle				x		x	x	x	x		x	x	x	x		x	x	x	x
Beetles	*Oenopia conglobata*	ladybird						x													
Beetles	*Oiceoptoma thoracica*	carrion beetle												x					x		
Beetles	*Onthophagus ovatus*	dung beetle																	x		
Beetles	*Oodes helopioides*	ground beetle						x								x			x		
Beetles	*Ophonus rufibarbis*								x										x		
Beetles	*Oulema gallaeciana*	cereal leaf beetle			x	x		x	x	x	x	x	x		x	x		x	x		
Beetles	*Oulema melanopus*	cereal leaf beetle			x	x		x	x	x	x	x	x	x	x	x	x	x	x	x	x
Beetles	*Oxyporus rufus*	rove beetle																x	x		
Beetles	***Oxythyrea funesta***	**white-spotted rose beetle**	**§E**		**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**		**x**	**x**		**x**	**x**	**x**	**x**
Beetles	*Paracorymbia maculicornis*	longhorn beetle								x				x					x		
Beetles	*Phratora viminalis*	leaf beetle							x												
Beetles	*Phyllobius oblongus*	weevil			x			x	x	x						x		x	x		
Beetles	*Phyllobius pomaceus*	weevil						x											x		
Beetles	*Phyllopertha horticola*	garden chafer			x	x		x	x	x		x			x	x	x	x	x		
Beetles	*Phyllotreta armoraciae*	flea beetle														x			x		
Beetles	*Phyllotreta nemorum*	field flea beetle			x	x			x	x				x	x	x		x	x		
Beetles	*Phyllotreta nigripes*	flea beetle			x	x	x	x	x	x	x	x	x		x	x	x	x	x		
Beetles	*Phyllotreta undulata*	flea beetle			x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Beetles	*Phyllotreta vittula*	flea beetle			x	x		x	x	x	x	x	x	x	x	x	x	x	x		
Beetles	*Plagiodera versicolora*	leaf beetle						x													

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Beetles	*Plagionotus arcuatus*	longhorn beetle																x			
Beetles	*Plateumaris consimillis*	reed beetle																x			
Beetles	*Plateumaris sericea*	reed beetle													x			x			
Beetles	*Poecilus cupreus*	ground beetle				x	x		x	x	x	x			x	x	x	x	x		x
Beetles	*Poecilus versicolor*	ground beetle				x			x	x			x		x	x	x	x	x		
Beetles	*Pogonocherus hispidus*	longhorn beetle						x	x					x				x	x	x	x
Beetles	*Polydrusus formosus*	weevil						x	x	x								x	x		
Beetles	*Prosternon tessellatum*	click beetle				x			x	x			x		x	x		x	x		
Beetles	*Protapion assimile*	seed weevil							x												
Beetles	*Psammoecus bipunctatus*	flat bark beetle														x			x		
Beetles	***Pseudeuparius sepicola***	**fungus weevil**		**NT**														**x**			
Beetles	*Pseudovadonia livida*	longhorn beetle			x	x		x	x	x			x		x	x	x	x	x		
Beetles	*Psylliodes chrysocephalus*	flea beetle			x	x	x	x	x	x		x	x	x	x	x	x	x	x	x	x
Beetles	*Psyllobora vigintiduopunctata*	ladybird			x	x	x	x	x	x			x	x	x	x	x	x	x	x	x
Beetles	*Pterostichus melanarius*	ground beetle						x						x				x	x		
Beetles	*Pterostichus niger*	ground beetle												x					x		
Beetles	*Pterostichus nigrita*	ground beetle				x								x				x	x		
Beetles	*Ptinus rufipes*	spider beetle												x				x	x		
Beetles	*Rhagium inquisitor*	longhorn beetle												x					x		
Beetles	*Rhagium mordax*	longhorn beetle												x				x			
Beetles	*Rhagonycha fulva*	soldier beetle			x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Beetles	*Rhagonycha limbata*	soldier beetle						x	x					x	x				x		
Beetles	*Rhinoncus pericarpius*	weevil				x			x	x					x	x		x	x		
Beetles	*Rhinoncus perpendicularis*	weevil						x											x		
Beetles	*Rhinoncus bruchoides*	weevil														x					
Beetles	*Rutpela maculata*	spotted longhorn beetle												x				x	x		

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Beetles	*Saperda populnea*	small poplar borer						x									x		x	
Beetles	*Sciaphilus asperatus*	weevil				x			x				x			x		x	x		
Beetles	*Sitona humeralis*	weevil				x							x		x	x		x	x		
Beetles	*Sitona lineatus*	weevil				x			x	x			x		x	x		x	x		
Beetles	*Sitona macularius*	weevil					x	x													
Beetles	*Sitona striatellus*	weevil							x									x			
Beetles	*Sitona sulcifrons*	weevil			x	x	x	x	x	x		x	x		x	x		x	x		x
Beetles	*Smaragdina salicina*	leaf beetle				x		x	x	x			x		x	x		x	x		
Beetles	*Stenurella bifasciata*	longhorn beetle							x					x				x	x		
Beetles	*Stenurella melanura*	longhorn beetle			x	x			x			x	x	x	x			x	x	x	x
Beetles	*Stenurella nigra*	longhorn beetle			x				x					x				x	x		
Beetles	*Stenus bimaculatus*	rove beetle														x			x		
Beetles	*Stomis pumicatus*															x			x		
Beetles	*Strophosoma melanogrammum*	weevil												x					x		
Beetles	*Tanysphyrus lemnae*	weevil						x								x					
Beetles	*Tapeinotus sellatus*	weevil														x					
Beetles	*Telmatophilus brevicollis*															x			x		
Beetles	*Tetropium castaneum*	longhorn beetle												x					x		
Beetles	*Tetrops praeusta*	longhorn beetle							x												
Beetles	*Thanassimus formicarius*	ant beetle												x					x		
Beetles	*Tomoxia bucephala*	tumbling flower beetle																x			
Beetles	*Trachys minutus*	jewel beetle			x			x	x	x											
Beetles	*Trechus quadristriatus*	ground beetle						x						x					x		
Beetles	*Trichodes apiarius*	bee beetle			x	x			x										x		
Beetles	*Trichosirocalus troglodytes*	weevil			x	x			x				x		x			x	x		x
Beetles	*Trichotichnus laevicollis*	ground beetle							x									x	x		

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Beetles	*Tritoma bipustulata*	pleasing fungus beetle															x				
Beetles	*Trixagus dermestoides*							x						x				x	x		
Beetles	*Tythaspis sedecimpunctata*	ladybird			x	x	x	x	x	x	x		x		x	x		x	x	x	x
Beetles	*Variimorda villosa*	tumbling flower beetle																x			
Beetles	*Zeugophora subspinosa*	leaf beetle			x																
True flies	*Cetema cereris*					x			x	x											
True flies	*Empis livida*					x			x	x											
True flies	*Episyrphus balteatus*					x			x	x									x		
True flies	*Eristalis tenax*					x			x	x									x		
True flies	*Eupeodes corollae*					x			x	x											
True flies	*Haematopota pluvialis*					x			x	x									x		
True flies	*Helophilus trivittatus*					x			x	x											
True flies	*Chrysops relictus*					x			x	x											
True flies	*Lonchoptera lutea*					x			x	x											
True flies	*Melanostoma mellinum*					x			x	x											
True flies	*Musca autumnalis*					x			x	x											
True flies	*Pipizella annulata*					x			x	x											
True flies	*Platycheirus albimanus*					x			x	x											
True flies	*Scaeva pyrastri*					x			x	x											
True flies	*Scathophaga stercoraria*					x			x	x									x		
True flies	*Scoliocentra villosa*															x	x		x		
True flies	*Seioptera vibrans*																		x		
True flies	*Sepsis fulgens*					x			x	x											
True flies	*Sicus ferrugineus*					x			x	x											
True flies	*Sphaerophoria scripta*					x			x	x									x		
True flies	*Syritta pipiens*					x			x	x											

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True flies	*Tachina magnicornis*					x			x	x											
True flies	*Trypetoptera punctulata*					x			x	x											
True flies	*Volucella pellucens*					x			x	x											
True flies	*Xanthogramma pedissequum*					x			x	x											
Mantises	***Mantis religiosa***	**European mantis**	**§CE**	**VU**					**x**												
Butterflies and moths	*Aglais io*	European peacock			x	x	x	x	x	x	x	x		x		x	x	x	x	x	x
Butterflies and moths	*Aglais urticae*	small tortoiseshell			x	x		x	x	x				x		x	x	x	x	x	x
Butterflies and moths	*Anthocharis cardamines*	orange-tip				x	x	x	x	x			x	x	x			x	x	x	x
Butterflies and moths	***Apatura ilia***	**lesser purple emperor**	**§E**					**x**	**x**					**x**				**x**			
Butterflies and moths	***Apatura iris***	**purple emperor**	**§E**					**x**	**x**												
Butterflies and moths	*Aphanthopus hyperanthus*	ringlet			x	x	x	x	x	x	x	x	x	x	x	x		x	x	x	x
Butterflies and moths	*Aporia crataegi*	black-veined white												x							
Butterflies and moths	*Araschnia levana*	map			x	x		x	x	x	x			x		x			x		
Butterflies and moths	*Arctia caja*	garden tiger							x									x			
Butterflies and moths	*Argynnis paphia*	silver-washed fritillary						x	x					x		x		x	x		
Butterflies and moths	*Autographa gamma*	silver Y				x			x	x			x		x	x		x	x		
Butterflies and moths	*Boloria dia*	Magdalenian fritillary				x			x	x					x			x	x		
Butterflies and moths	*Brenthis ino*	lesser marbled fritillary						x	x						x				x		
Butterflies and moths	*Cabera pusaria*					x			x	x											
Butterflies and moths	*Carterocephalus palaemon*	chequered skipper						x													

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Butterflies and moths	*Celastrina argiolus*	holly blue			x	x		x	x	x		x				x		x	x	x	x
Butterflies and moths	***Coenonympha arcania***	**pearly heath**		**NT**					**x**												
Butterflies and moths	*Coenonympha glycerion*	chestnut heath				x				x											
Butterflies and moths	*Coenonympha pamphilus*	small heath			x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Butterflies and moths	*Colias hyale*	pale clouded yellow				x			x							x		x	x		
Butterflies and moths	*Cossus cossus*	goat moth							x	x								x			
Butterflies and moths	***Cupido minimus***	**small blue**		**VU**					**x**	**x**											
Butterflies and moths	*Deilephila elpenor*	elephant hawk-moth							x							x					
Butterflies and moths	*Diacrisia sannio*	clouded buff				x			x	x					x	x			x		
Butterflies and moths	*Ematurga atomaria*					x			x	x									x		
Butterflies and moths	*Emmelina monodactyla*					x			x	x									x		
Butterflies and moths	*Erynnis tages*	dingy skipper				x			x	x					x			x			
Butterflies and moths	*Euclidia glyphica*	burnet companion							x	x			x			x		x	x		
Butterflies and moths	*Gonepteryx rhamni*	brimstone			x	x	x	x	x	x	x	x	x	x	x	x		x	x		
Butterflies and moths	*Chiasmia clathrata*					x			x	x									x		
Butterflies and moths	*Issoria lathonia*	Queen of Spain fritillary						x								x			x		
Butterflies and moths	*Lasiommata megera*	wall brown						x									x		x		
Butterflies and moths	*Leptidea juvernica/sinapis*					x			x	x					x						
Butterflies and moths	***Lycaena dispar***	**large copper**	**§HE**													**x**					

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Butterflies and moths	*Lycaena phlaeas*	small copper			x	x		x	x	x						x				
Butterflies and moths	*Lycaena tityrus*	sooty copper				x		x	x	x			x			x		x			
Butterflies and moths	*Macrothylacia rubi*	fox moth							x	x											
Butterflies and moths	*Maniola jurtina*	meadow brown			x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Butterflies and moths	*Melanargia galathea*	marbled white				x			x	x			x		x	x		x	x		
Butterflies and moths	***Melitaea cinxia***	**Glanville fritillary**		**VU**					**x**						**x**						
Butterflies and moths	*Mythimna impura*					x			x	x											
Butterflies and moths	*Nemophora degeerella*								x										x		
Butterflies and moths	*Nemophora metallica*								x										x		
Butterflies and moths	*Nymphalis antiopa*	Camberwell beauty			x			x	x					x				x			
Butterflies and moths	*Ochlodes sylvanus*	large skipper							x						x			x	x		
Butterflies and moths	*Oligia strigilis*					x			x	x											
Butterflies and moths	***Papilio machaon***	**Old World swallowtail**	**§E**			**x**			**x**	**x**					**x**	**x**		**x**	**x**		**x**
Butterflies and moths	*Pararge aegeria*	speckled wood												x				x	x		
Butterflies and moths	*Patania ruralis*					x			x	x											
Butterflies and moths	***Phengaris nausithous***	**dusky large blue**	**§HE**	**NT**											**x**				**x**		
Butterflies and moths	*Pieris brassicae*	large white			x		x	x			x	x	x		x	x	x		x		
Butterflies and moths	*Pieris napi*	green-veined white				x		x	x	x		x	x	x			x	x	x	x	
Butterflies and moths	*Pieris rapae*	small white			x	x	x	x	x	x	x	x	x		x	x	x	x	x		x

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Butterflies and moths	*Plebejus argus*	silver-studded blue															x			
Butterflies and moths	*Polygonia c-album*	comma			x			x						x			x	x	x		
Butterflies and moths	***Polyommatus amandus***	**Amanda's blue**		**NT**		**x**			**x**	**x**					**x**						
Butterflies and moths	*Polyommatus icarus*	common blue			x	x			x	x			x	x	x	x	x	x	x		x
Butterflies and moths	*Pyrgus malvae*	grizzled skipper							x												
Butterflies and moths	*Rhodostrophia vibicaria*																		x		
Butterflies and moths	*Speyeria aglaja*	dark green fritillary						x													
Butterflies and moths	*Spilosoma lubricipeda*	white ermine							x												
Butterflies and moths	*Tethea ocularis*	figure of eighty							x												
Butterflies and moths	*Thymelicus lineola*	Essex skipper				x		x	x	x					x	x		x	x		
Butterflies and moths	*Thymelicus sylvestris*	small skipper						x					x					x			
Butterflies and moths	*Vanessa atalanta*	red admiral			x	x	x	x			x	x	x	x		x		x	x	x	x
Butterflies and moths	*Vanessa cardui*	painted lady			x	x	x	x	x	x	x	x	x	x		x		x	x	x	x
Butterflies and moths	*Xestia baja*					x			x	x											
Butterflies and moths	*Xestia c-nigrum*					x			x	x											
Butterflies and moths	*Zygaena filipendulae*	six-spot burnet						x	x						x			x			
Butterflies and moths	*Zygaena loti*	slender Scotch burnet				x			x	x											
Butterflies and moths	*Zygaena viciae*	New Forest burnet							x												
Spiders	*Micrommata virescens*	green huntsman spider							x										x		

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True bugs	*Aelia acuminata*	bishop's mitre shieldbug				x	x		x	x			x						x		
True bugs	*Anthocoris nemoralis*					x			x	x									x		
True bugs	*Carpocoris purpureipennis*	purple-edged shieldbug				x		x	x	x					x	x		x	x		
True bugs	*Coreus marginatus*	dock bug				x		x	x	x			x			x		x	x		
True bugs	*Deraeocoris ruber*	red-spotted plant bug				x			x	x								x	x		
True bugs	*Dolycoris baccarum*	sloe bug				x			x	x						x			x		
True bugs	*Eurygaster maura*	maurus tortoise bug				x	x	x	x	x			x			x			x		
True bugs	*Graphosoma lineatum*	striped shield bug				x	x		x	x						x	x		x		
True bugs	*Myrmecoris gracilis*	ant-mimic bug				x			x	x								x			
True bugs	*Nabis rugosus*	common damsel bug				x			x	x						x		x	x		
True bugs	*Oxycarenus lavaterae*	lime seed bug																x			
True bugs	*Palomena prasina*	common green shieldbug				x		x	x	x			x		x	x		x	x		
True bugs	*Pentatoma rufipes*	forest bug				x			x	x									x		
True bugs	*Pyrrhocoris apterus*	common firebug				x			x	x								x	x		
Orthopterans	*Conocephalus dorsalis*	short-winged conehead														x			x		
Orthopterans	*Conocephalus fuscus*	long-winged conehead						x	x						x	x			x		
Orthopterans	*Euthystira brachyptera*	small gold grasshopper			x			x	x						x	x		x	x		
Orthopterans	***Gryllus campestris***	**field cricket**		**NT**	**x**		**x**		**x**	**x**	**x**	**x**	**x**		**x**		**x**	**x**	**x**		**x**
Orthopterans	*Chorthippus albomarginatus*	lesser marsh grasshopper							x						x			x	x		
Orthopterans	*Chorthippus apricarius*	lesser field grasshopper							x						x			x	x		
Orthopterans	*Chorthippus biguttulus*	common field grasshopper			x	x			x	x		x	x		x	x		x	x		
Orthopterans	*Chorthippus dorsatus*	steppe grasshopper						x	x	x			x		x			x	x		

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Orthopterans	*Chrysochraon dispar*	large gold grasshopper				x			x	x					x	x		x	x		
Orthopterans	*Leptophyes albovittata*	striped bush-cricket			x				x	x								x	x		x
Orthopterans	*Nemobius sylvestris*	wood cricket												x					x		
Orthopterans	*Omocestus viridulus*	common green grasshopper				x		x	x	x					x	x			x		
Orthopterans	*Pholidoptera griseoaptera*	dark bush-cricket						x	x	x		x		x				x	x		
Orthopterans	*Pseudochorthippus montanus*	water-meadow grasshopper			x			x	x						x	x		x	x		
Orthopterans	*Pseudochorthippus parallelus*	meadow grasshopper						x	x				x		x	x		x	x		
Orthopterans	*Roeseliana roeselii*	Roesel's bush-cricket				x	x	x	x	x			x		x	x		x	x		
Orthopterans	*Tetrix subulata*	slender groundhopper				x		x	x	x						x		x	x		
Orthopterans	*Tettigonia cantans*	upland green bush-cricket				x		x	x	x	x				x	x	x	x	x		
Orthopterans	*Tettigonia viridissima*	great green bush-cricket			x		x	x	x	x		x	x	x	x	x	x	x	x		
Scorpionflies	*Panorpa germanica*	German scorpionfly				x			x	x					x			x			
Homopterans	*Aphrophora alni*					x			x	x											
Homopterans	*Cercopis sanguinolenta*					x			x	x								x	x		
Homopterans	*Philaenus spumarius*					x			x	x									x		
Earwigs	*Forficula auricularia*	common earwig			x	x		x	x	x			x	x	x			x	x	x	x
Cockroaches	*Ectobius lapponicus*	Lapland wood cockroach												x	x			x	x		
Cockroaches	*Ectobius sylvestris*	dusky cockroach												x				x	x		
Dragonflies and damselflies	*Aeshna cyanea*	southern hawker														x					

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Dragonflies and damselflies	*Aeshna grandis*	brown hawker														x					
Dragonflies and damselflies	*Aeshna mixta*	migrant hawker				x			x	x						x					
Dragonflies and damselflies	*Anax imperator*	emperor dragonfly				x			x	x						x					
Dragonflies and damselflies	*Calopteryx splendens*	banded demoiselle														x					
Dragonflies and damselflies	***Coenagrion hastulatum***	**northern damselfly**		**NT**												**x**					
Dragonflies and damselflies	*Coenagrion puella*	azure damselfly														x			x		
Dragonflies and damselflies	*Enallagma cyathigerum*	common blue damselfly														x					
Dragonflies and damselflies	*Chalcolestes viridis*	willow emerald damselfly				x			x	x						x					
Dragonflies and damselflies	***Lestes barbarus***	**southern emerald damselfly**		**NT**					**x**	**x**						**x**					
Dragonflies and damselflies	***Lestes dryas***	**scarce emerald damselfly**		**NT**					**x**	**x**						**x**					
Dragonflies and damselflies	*Lestes sponsa*	emerald damselfly				x			x	x						x					
Dragonflies and damselflies	*Lestes virens vestalis*	small emerald damselfly				x			x	x						x					

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Dragonflies and damselflies	*Lestes viridis*	willow emerald damselfly														x					
Dragonflies and damselflies	***Leucorrhinia pectoralis***	**large white-faced darter**	**§HE**	**NT**												**x**					
Dragonflies and damselflies	*Libellula depressa*	broad-bodied chaser			x	x			x	x						x					
Dragonflies and damselflies	*Lybellula quadrimaculata*	four-spotted chaser														x					
Dragonflies and damselflies	*Platycnemis pennipes*	white-legged damselfly			x											x			x		
Dragonflies and damselflies	*Pyrrhosoma nymphula*	large red damselfly														x			x		
Dragonflies and damselflies	*Sympecma fusca*	common winter damselfly														x					
Dragonflies and damselflies	*Sympetrum danae*	black darter				x			x	x						x					
Dragonflies and damselflies	*Sympetrum sanguineum*	ruddy darter				x			x	x						x					
Dragonflies and damselflies	*Sympetrum vulgatum*	vagrant darter														x					

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8.6. Malacological survey

Malacological survey of the area designated for construction of the New SMR Power Plant at the Temelín site

Prepared by: Jana Dvořáková
Survey dates: September 18–19, 2025

Methodology

The purpose of the survey was to determine the status of the malacofauna in the area designated for construction of additional units at the Temelín Nuclear Power Plant. Based on knowledge of local conditions and a review of mapping materials, ten sites potentially suitable for mollusk communities were selected. These were predominantly sites expected to have higher moisture levels, along watercourses, at fishpond margins, and in wet meadows. Microhabitats at the sites were surveyed by direct hand collection, examining leaf litter, the soil surface, stumps, trunks, and the moss and herb layers. The species found were recorded and left at their respective sites.

Results

A total of 35 mollusk species were found. An overview of the individual sites, including lists of the species found, follows.

1) Grassy clearing along the channel between pine and oak monocultures
N 49°11.68943', E 14°22.71573'
Vitrina pellucida
Perpolita hammonis
Cochlicopa lubrica
Galba truncatula
Vallonia pulchella
Trochulus hispidus
Arianta arbustorum
Euconulus fulvus

2) Moist reed stand with scattered birch and willow trees
N 49°11.28240', E 14°21.96387'
Helix pomatia
Columella edentula
Perpolita hammonis
Cochlicopa lubrica
Trochulus hispidus
Vitrina pellucida
Arianta arbustorum
Vertigo pygmaea
Arion vulgaris

3) Meadow with a shrubby woodlot
N 49°11.21468', E 14°22.71832'
Vitrina pellucida
Punctum pygmaeum

Cochlicopa lubrica
Perpolita hammonis
Vertigo pygmaea
Vallonia pulchella

4) Wetland at the edge of the meadow
N 49°10.39075', E 14°21.66838'
Cochlicopa lubrica
Monachoides incarnatus
Carychium sp.
Punctum pygmaeum
Galba truncatula
Perpolita hammonis
Oxychilus cellarius

5) Wet meadow and edge of a woodlot with willow and alder (Photo: see Appendix)
N 49°10.16687', E 14°22.62497'
Carychium sp.
Cochlicopa lubrica
Pissidium sp.
Galba truncatula
Zonitoides nitidus
Arianta arbustorum
Succinea putris
Vertigo angustior **[VU]**

6) Riparian vegetation around Dvorčice Pond
N 49°10.12348', E 14°22.43378'
Succinea putris
Oxychilus cellarius
Clausilia pumila
Alinda biplicata
Arion vulgaris
Limax maximus
Zonitoides nitidus
Planorbarius corneus
Lymnaea stagnalis
Pissidium sp.
Radix auricularia

7) Wet riparian vegetation around Karlovec Pond
N 49°10.09952', E 14°22.96937'
Helix pomatia
Cepaea hortensis
Zonitoides nitidus
Fruticicola fruticum
Succinea putris
Planorbarius corneus
Galba truncatula
Pissidium sp.
Lymnea stagnalis

Anisus vortex
Segmentina nitida
Gyraulus crista

8) Grassy woodlot between a field and a small woodland patch immediately adjacent to the power plant
N 49°10.38190', E 14°22.81487'
Helix pomatia
Monachoides incarnatus
Arion vulgaris
Cepaea hortensis
Punctum pygmaeum

9) Open woodland along Dvorčický Stream
N 49°9.93640', E 14°21.83802'
Cepaea hortensis
Fruticicola fruticum
Aegopinella minor
Trochulus hispidus
Arion vulgaris
Vitrina pellucida
Helix pomatia
Arion fuscus
Discus rotundatus
Arianta arbustorum
Monachoides incarnatus

10) Open woodland and reed canary grass stand along Dvorčický Stream
N 49°10.06373', E 14°22.23680'
Helix pomatia
Arianta arbustorum
Cochlicopa lubrica
Monachoides incarnatus
Oxychillus cellarius
Cepaea hortensis
Fruticicola fruticum
Cochlicopa lubrica
Punctum pygmaeum

Assessment

The mollusk species recorded in the area of interest are generally common in Czechia. These were principally species with a broad ecological tolerance that inhabit a wide variety of habitat types (*Cochlicopa lubrica*, *Punctum pygmaeum*, *Perpolita hammonis*); species commonly occurring, among other places, in synanthropic habitats (*Oxychilus cellarius*, *Cepaea hortensis*, *Trochulus hispidus*, *Arion vulgaris*); and similarly undemanding moisture-loving (*Galba truncatula*, *Succinea putris*, *Zonitoides nitidus*) and aquatic species (*Planorbarius corneus*, *Lymnaea stagnalis*, *Radix auricularia*).

A relatively more demanding species associated with better-preserved wetlands and cleaner ponds is *Segmentina nitida*, which was found in Karlovec Pond (Site 7).

The most noteworthy finding was the occurrence of the narrow-mouthed whorl snail *Vertigo angustior* in the wet meadow at **Site 5** (Photo: see Appendix). This species inhabits open, calcareous, well-preserved wetlands and riparian vegetation. It is internationally protected under the IUCN framework, monitored under the Natura 2000 program, and classified as vulnerable [VU] in the Red List of Czechia. In Czechia it occurs sporadically and is not exceptionally rare, but it is threatened by the loss of suitable wetland habitats, which should be protected.

Appendix

Figure 103: Site 5) Wet meadow and edge of a woodlot with willow and alder.



8.7. Hydrobiological survey

New SMR Power Plant at the Temelín site
Hydrobiological survey – macrozoobenthos



Figure 104: Karlovec Pond

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September 2025

8.7.1. Introduction

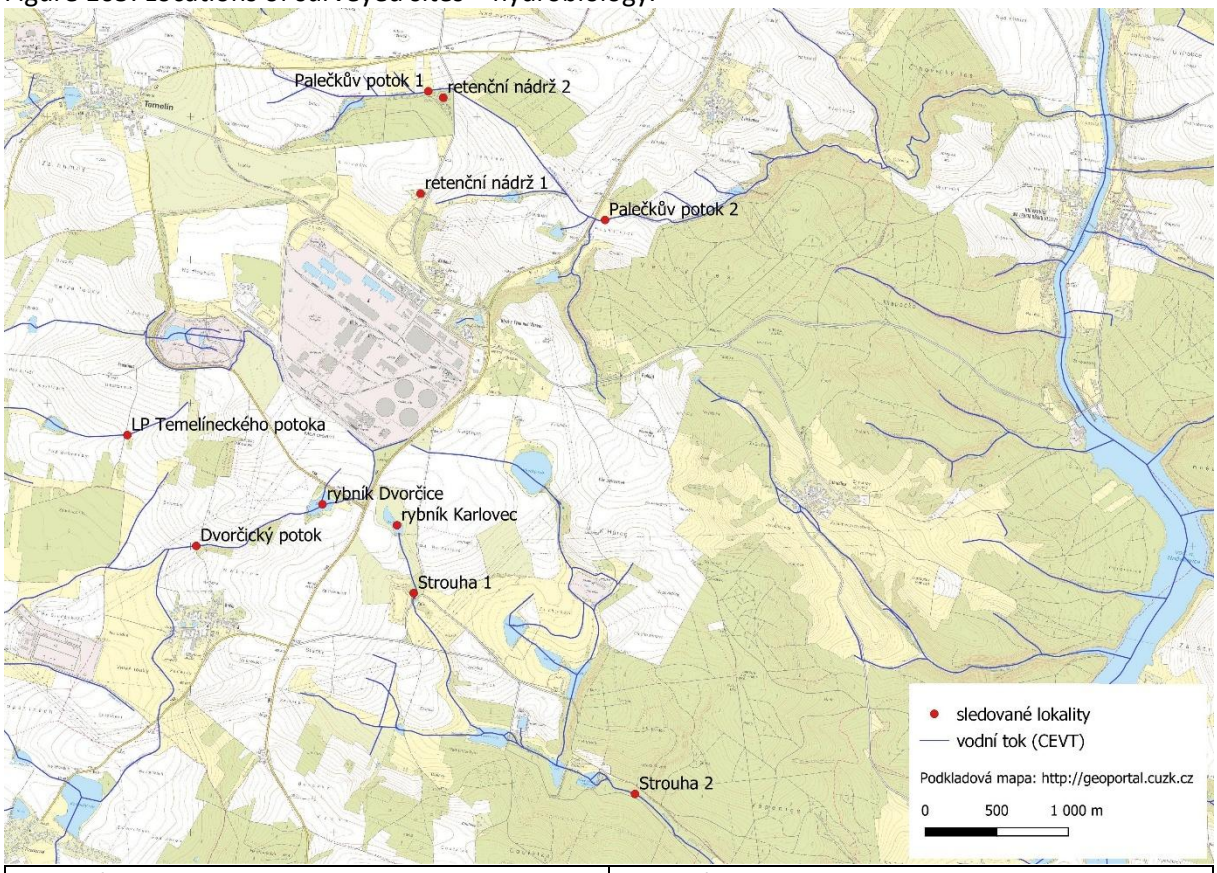
In late spring and summer 2025, a hydrobiological survey focusing on the aquatic-invertebrate community (macrozoobenthos) was conducted at selected sites in the area of interest for the proposed project entitled New SMR Power Plant at the Temelín site (also referred to below as SMR). A total of 10 sites comprising both standing and flowing surface waters were surveyed. The survey aimed to describe the existing status and composition of the macrozoobenthos community in these waters and thereby obtain an up-to-date basis for assessing the potential effects of SMR construction and operation on aquatic invertebrates in the Assessment being prepared pursuant to Section 67 of the Nature and Landscape Protection Act, as amended.

Macrozoobenthos, meaning the community of benthic, bottom-dwelling invertebrates, is routinely used to monitor surface waters and assess the ecological status of water bodies. The macrozoobenthos community is a taxonomically and ecologically highly heterogeneous assemblage of organisms containing numerous sensitive indicators; its composition and structure therefore provide a good reflection of aquatic-ecosystem quality and respond to various stressors and disturbances. The organisms are relatively long-lived and have limited mobility, and macrozoobenthos can therefore capture the long-term status of and changes in aquatic ecosystems. The principal stressors to which macrozoobenthos is sensitive include water pollution, particularly organic pollution, and hydromorphological disturbance.

8.7.2. Surveyed sites

A total of 10 sites were surveyed. Four sites represent standing waters, comprising two ponds and two artificial retention basins, and six sites are situated on flowing waters. The locations of the surveyed sites are shown on the overview map below.

Figure 105: Locations of surveyed sites – hydrobiology.



Palečkův potok 1	Palečkův Stream 1
retenční nádrž 2	retention basin 2
retenční nádrž 1	retention basin 1
Palečkův potok 2	Palečkův Stream 2
LP Temelínckého potoka	left-bank tributary of Temelínecký Stream
rybník Dvorčice	Dvorčice Pond
rybník Karlovec	Karlovec Pond
Dvořický potok	Dvořický Stream
Strouha 1	Strouha 1
Strouha 2	Strouha 2
sledované lokality	surveyed sites
vodní tok (CEVT)	watercourse (CEVT)
Podkladová mapa:	Base map:

The surveyed sites are situated directly in the area that will be affected by project construction and operation, in its immediate vicinity, or on watercourses draining this area. The profile on the lower reach of Strouha Stream is intended for monitoring the section of the watercourse affected by the discharge of stormwater from the Units 1 and 2 site and, in the future, from the SMR site as well. The source of process water and the receiving water for heated wastewater from both Units 1 and 2 and the proposed SMR is the Vltava River. It was not included in the survey because standardized quantitative data could not be obtained within the period in which the survey was conducted and because usable data are available from long-term monitoring performed by the state-owned river-basin enterprises and, where applicable, other entities.

8.7.3. Methodology

Aquatic-invertebrate (macrozoobenthos) samples were collected in late spring on May 27, 2025, and in summer on July 24–25, 2025. In watercourses with sufficient flow, a standard 25 × 25 cm sampling net with a mesh size of 500 µm was used. During sampling, the net opening was pressed vertically against the bottom facing upstream, the substrate in front of the net was disturbed vigorously by foot, and larger stones were washed by hand into the net. In standing waters and watercourses with very low flows and muddy substrate, a metal sieve with a mesh size of approximately 1 mm was used instead. The mesohabitats present, including different substrate types, tree roots and aquatic vegetation, were sampled with the aim of capturing as many of the aquatic-invertebrate taxa present as possible. The captured organisms were identified in the field or transferred to plastic sample containers, preserved in 4% formaldehyde or 80% ethanol, and subsequently identified in the laboratory. Mgr. Jan Špaček, Ph.D., and Mgr. Michal Straka, Ph.D., participated in the identification of the invertebrates.

Sampling was standardized neither by area nor by time, and the resulting data are therefore qualitative only. They allow lists of the taxa found, meaning data on the presence of taxa at the site, to be compiled for each surveyed site. Aquatic-invertebrate abundance was assessed only by estimation during sample collection; information on the dominant and abundant taxa is provided for each site.

During summer sampling on July 24–25, 2025, basic physicochemical parameters, comprising water temperature, pH and conductivity, were measured directly at the sites in situ. Hanna field instruments were used for the measurements. The measurement was performed once only, and the values must therefore be regarded as strictly indicative.

8.7.4. Results

Description of the surveyed sites and their biological communities

Dvorčice Pond (GPS: 49.1693458N, 14.3747550E)

Site description

A small, shallow pond, a large part of which is becoming overgrown with stands of cattails, reeds and other emergent herbs. Open water occurs only in the central and southern part of the pond near the dam, although the pond is partly overgrown with submerged macrophytes even there. No water inflow was identified in the field; the outflow from the pond is Dvorčický Stream, which was also surveyed; see Section 0. A wider belt of riparian vegetation, comprising shrubs, particularly shrubby willows, and trees, adjoins the pond banks; a wet meadow adjoins the pond on the eastern bank. Extensive areas of arable land occur in the wider surroundings of the pond. The substrate is muddy with abundant decomposing organic material, comprising plant residues, and the water is slightly turbid. A large quantity of zooplankton was recorded.

Aquatic-invertebrate samples were collected from the bottom and plants at two locations of differing character: an open cattail stand at the eastern bank of the pond and an area of open water at the southern bank. Selected basic physicochemical water parameters were measured at both locations.

Measured physicochemical parameter values: Water within the cattail stand: water temperature 17.9 °C; pH 7.02; conductivity 1,271 µS/cm. Open water at the dam: water temperature 21.2 °C; pH 7.56; conductivity 689 µS/cm. Given the pond's extensive vegetation overgrowth and the quantity

of decomposing organic material, pronounced diurnal fluctuations in pH and oxygen content can be expected during the growing season.

Aquatic-invertebrate community

The pond supports abundant life; the benthic-invertebrate community is rich in both the number of taxa and the number of individuals. A total of 42 aquatic-invertebrate taxa were recorded; a complete overview is provided in the appendix (Appendix 1). Aquatic beetles dominate the community in the littoral zone, which is densely overgrown with emergent vegetation. Beetle diversity is very high: 12 species were recorded, with the diving-beetle family Dytiscidae and the water-scavenger-beetle family Hydrophilidae particularly well represented. Aquatic molluscs, especially gastropods, also occurred in high abundance and diversity in the littoral zone. The water hoglouse (*Asellus aquaticus*) was very abundant, as were small larvae of the mayflies *Cloeon dipterum* and *Caenis horaria* and flatworms *Polycelis nigra* in summer. Aquatic true bugs dominate the open-water area near the dam. True flies were also abundant, dominated by species that use the water column, comprising mosquitoes and phantom midges. Most recorded species are common standing-water species. Undemanding, ubiquitous species and species associated with densely vegetated standing waters were recorded, as was one gastropod species included in the Red List (Hejda et al. 2017) – the **shiny ramshorn snail (*Segmentina nitida*, VU)**; a larger number of individuals were recorded in the cattail-overgrown littoral zone at the eastern bank of the pond.

Note: during aquatic-invertebrate sampling, the following additional species of conservation importance were recorded at Dvorčice Pond and in its immediate vicinity:

- **Siberian iris (*Iris sibirica*, §HE, VU)** – in the wet meadow east of the pond (49.1694231N, 14.3768686E)
- **European fire-bellied toad (*Bombina bombina*, §HE, HD, EN)** – calls, dozens of individuals
- **slow worm (*Anguis fragilis*, §HE, NT)** – one individual observed visually
- **water rail (*Rallus aquaticus*, §HE, VU)** – calls
- **western marsh harrier (*Circus aeruginosus*, §E, HD, VU)** – repeated observations of one breeding pair
- **little grebe (*Tachybaptus ruficollis*, §E, VU)** – calls
- **barn swallow (*Hirundo rustica*, §E, NT)** – several individuals hunting above the water surface
- **mute swan (*Cygnus olor*, VU)** – pair with young

Karlovec Pond (GPS: 49.1690442N, 14.3815033E)

Site description

A small, shallow pond, a large part of which is becoming overgrown with stands of reed and other emergent herbs; open water occurs only in the southern part of the pond near the dam. The riparian stand is essentially linear, with extensive areas of arable land beyond it. The pond has no inflow. Its outflow is Strouha Stream; during the surveys, the stream channel below the pond was dry. The substrate is muddy, with abundant decomposing organic material, comprising plant residues; there is stone armoring in the dam area, and part of the bottom consists of coarse gravel and stones. The water was slightly turbid during the May survey and almost clear during the July survey. The pond had very high transparency, and a large quantity of zooplankton, comprising Copepoda, Cladocera and Ostracoda, was recorded.

Measured physicochemical parameter values: water temperature 21.2 °C; pH 7.95; conductivity 199 µS/cm – a low value, indicating a low concentration of dissolved substances (ions), meaning clean and weakly mineralized water, which is consistent with the high transparency.

Aquatic-invertebrate community

Zooplankton predominates in the invertebrate fauna, although the benthic-invertebrate community is also relatively rich. A total of 29 aquatic-invertebrate taxa were recorded; a complete overview is provided in the appendix table (Appendix 1). Aquatic true bugs dominate the community, and aquatic beetles were also abundant, particularly the diving-beetle family Dytiscidae. Small larvae of the mayflies *Cloeon dipterum* and *Caenis horaria* also occurred at high abundance, as did true flies, dominated by species that use the water column, comprising mosquitoes and phantom midges. Most recorded species are common standing-water species. Undemanding, ubiquitous species and species associated with densely vegetated standing waters were recorded. No invertebrate species of conservation importance were recorded at Karlovec Pond.

Note: during aquatic-invertebrate sampling, several animal species of conservation importance were recorded at Karlovec Pond and in its immediate vicinity:

- **water rail (*Rallus aquaticus*, §HE, VU)** – calls, at least two individuals
- **Eurasian sparrowhawk (*Accipiter nisus*, HE, VU)** – flyover

Retention basin 1 (GPS: 49.1895011N, 14.3802242E)

Site description

A shallow concrete retention basin, partly filled with water during the survey and strongly sunlit. The gently sloping banks are partly exposed and consist of concrete panels. In the part of the basin accessible in chest waders, substrate is entirely absent and the bottom consists solely of concrete covered by low growths of algae and bacteria; fine sediment is probably present in deeper water. Apart from a stand of water lilies, comprising a pink-flowering garden cultivar, the basin is not becoming overgrown with any aquatic macrophytes; no larger growths of filamentous algae or macroscopic cyanobacteria were observed. The water in the basin was turbid to very turbid and green; only a small quantity of zooplankton was present, and the basin is stocked with fish.

Measured physicochemical parameter values: water temperature 22.7 °C; pH 9.67, a high value that will probably fluctuate considerably over the course of the day depending on phytoplankton photosynthetic activity; conductivity 270 µS/cm.

Aquatic-invertebrate community

The aquatic-invertebrate community is very poor in both the number of taxa and the number of individuals. Only seven taxa were recorded; an overview is provided in the appendix table (Appendix 1). Only true bugs occurred more abundantly, particularly water striders of the genus *Gerris*, which use the water surface. Small larvae of the mayflies *Cloeon dipterum* and *Caenis horaria*, larvae of the damselfly *Ischnura elegans*, and true flies were also recorded at lower abundance. Only entirely common and undemanding aquatic-insect species forming a temporary fauna, with a good ability to disperse through terrestrial environments and colonize new sites, were found. Species of conservation importance are absent.

Retention basin 2 (GPS: 49.1956500N, 14.3810583E)

Site description

A shallow concrete retention basin, partly filled with water during the survey and strongly sunlit. The gently sloping banks are partly exposed and consist of concrete panels. The basin is becoming heavily overgrown with aquatic macrophytes. Approximately one-quarter of its area is covered by emergent herbs, principally broadleaf cattail; the remainder is becoming overgrown with submerged macrophytes, including extensive stands of curly-leaf pondweed and water-crowfoots, and green filamentous algae. Macroscopic cyanobacterial aggregations were also observed. The water in the basin was slightly greenish-brown and turbid, and a larger quantity of zooplankton was recorded.

Measured physicochemical parameter values: water temperature 21.5 °C; pH 7.75; conductivity 194 µS/cm.

Aquatic-invertebrate community

Although this is an artificial basin of the same type as Retention Basin 1, it supports a different aquatic-invertebrate community. Aquatic-vegetation stands help maintain better water quality and provide a suitable environment for numerous species. The basin therefore supports a relatively abundant biological community; 15 taxa were recorded, some at very high abundance. An overview of the taxa found is provided in the appendix table (Appendix 1). Mayfly larvae, especially the family Caenidae, and aquatic true bugs were dominant. Non-biting midge larvae and the larvae of zygopteran dragonflies, meaning damselflies, were also abundant. The species found are common and undemanding standing-water species; species of conservation importance are absent.

Palečkův Stream 1 (GPS: 49.1959903N, 14.3798542E)

Site description

A small, shallow stream with a low flow. The channel is straightened and incised approximately 2 m below ground level, is formed by bowl-section concrete units, and is approximately 90 cm wide. In places, the channel armoring is completely covered by fine sediment and overgrown with herbaceous vegetation; in some sections it is severely damaged, and the watercourse is undergoing spontaneous renaturalization. In these sections, the channel is approximately 0.6–1.5 m wide; the water depth in the thalweg at normal flow is 1–10 cm. The substrate is heterogeneous and, in addition to remnants of concrete blocks, comprises stones and gravel, totaling approximately 60%, and muddy areas, approximately 40%. The part of the watercourse at the transition between the armored and renaturalized sections was surveyed.

Measured physicochemical parameter values: water temperature 17.4 °C; pH 7.53; conductivity 309 µS/cm.

Aquatic-invertebrate community

The benthic-invertebrate community is relatively rich, particularly in terms of the number of individuals. Very undemanding species in particular occur at high abundance, including the water

hoglouse (*Asellus aquaticus*), blackfly larvae, which occur locally in mass abundance on firm substrate, and leeches. Some species more demanding in terms of water quality were also recorded abundantly, including larvae of the caddisfly *Hydropsyche saxonica* and the freshwater amphipod *Gammarus fossarum*. Filter feeders account for a large proportion of the community, including blackflies, caddisflies of the genus *Hydropsyche*, and bivalves of the genus *Pisidium*; the watercourse is apparently supplied with planktonic organisms from standing waters, comprising the retention basins in the catchment. A total of 19 aquatic-invertebrate taxa were recorded; a complete list is provided in the appendix (Appendix 2). All are common flowing-water species. No species of conservation importance were recorded.

Palečkův Stream 2 (GPS: 49.1893503N, 14.3976156E)

Site description

The second surveyed profile on Palečkův Stream is situated farther downstream, below the crossing with Road II/105. Here the watercourse is a small, historically straightened and armored stream that is currently beginning to undergo spontaneous renaturalization. The channel is deeply incised, approximately 2 m below ground level, and the severely damaged armoring of large concrete blocks is visible. The watercourse is beginning to meander gently beyond the bank armoring again and is also forming small bank failures. The channel width is 0.6–1.5 m and the water depth in the thalweg is 5–40 cm. The substrate is heterogeneous; the channel contains a larger quantity of dead wood, and alder roots are another important mesohabitat.

Measured physicochemical parameter values: water temperature 17.1 °C; pH 8.09; conductivity 590 µS/cm, a higher value than at the upstream profile, apparently due to agricultural pollution.

Aquatic-invertebrate community

The benthic-invertebrate community is relatively rich, and its composition indicates relatively good overall environmental quality. A total of 21 taxa were recorded, and most major groups of aquatic invertebrates associated with flowing waters are represented at the site. Among the principal indicator groups, stoneflies are absent, although the proportion of mayflies and caddisflies is high. Several species indicating good water quality were also recorded. Among the mayflies, these include *Electrogena ujhelyi* of the family Heptageniidae, which is associated with clean, fast-flowing waters; *Habrophlebia fusca*; and *Ephemera danica*, whose burrowing larvae inhabit well-oxygenated fine-grained sediment. The caddisflies include *Hydropsyche saxonica* and *Plectrocnemia conspersa*. The freshwater amphipod *Gammarus fossarum* was also recorded at very high abundance. All taxa found are common in flowing waters; a complete list is provided in the appendix (Appendix 2). No species of conservation importance were recorded.

Left-bank tributary of Temelínecký Stream (GPS: 49.1720214N, 14.3557833E)

Site description

A very small watercourse with a low flow. It flows through extensive areas of arable land in a narrow belt of moisture-loving and ruderal herbaceous vegetation, including wood club-rush, common nettle, cleavers, brooklime and yellow iris. The channel is straightened and incised approximately 1 m below ground level. It is probably armored, but the armoring is covered by sediment deposits and overgrown

with vegetation. The channel is only 15–20 cm wide and 2–3 cm deep. The substrate is predominantly muddy, with sand accounting for approximately 10%.

Measured physicochemical parameter values: water temperature 16.8 °C; pH 8.03; conductivity 456 µS/cm.

Aquatic-invertebrate community

The stream supports a surprisingly rich biological community given its very low flow and homogeneous channel morphology. Seventeen benthic-invertebrate taxa were recorded. Mayflies are dominant in the community, particularly the relatively water-quality-sensitive *Habrophlebia fusca* and also *Baetis vernus*. Case-bearing caddisflies of the family Limnephilidae and several mollusc species, including the non-native acute bladder snail (*Physella acuta*), were also recorded in larger populations. The true-fly fauna is also rich; larvae of the blackfly *Simulium vernum* were recorded at high abundance. All taxa found are common in flowing waters; a complete list is provided in the appendix (Appendix 2). No species of conservation importance were recorded.

Dvorčický Stream (GPS: 49.1655361N, 14.3631058E)

Site description

The surveyed site is situated downstream of Dvorčice Pond. The stream is very small here and has a low flow. It flows through extensive areas of arable land in a narrow belt of herbaceous and shrubby vegetation, including felled and resprouting willows, black elder, bramble, nettle and cleavers. The channel is straightened and incised approximately 1 m below ground level. It is probably armored, but the armoring is covered by sediment deposits and overgrown with vegetation. The channel is only 20–80 cm wide and 2–3 cm deep. The substrate is predominantly muddy, with stones, apparently originating from the bank armoring, and gravel accounting for approximately 10%.

Measured physicochemical parameter values: water temperature 16.5 °C; pH 7.9; conductivity 417 µS/cm.

Aquatic-invertebrate community

The aquatic-invertebrate community is poor overall, with only 12 taxa recorded. Aquatic beetles nevertheless show greater diversity, with five taxa found, and Dvorčický Stream is the only surveyed stream in the area of interest in which stoneflies were confirmed, specifically the species *Nemurella picteti.* The macrozoobenthos is also relatively poor in terms of abundance; only mayfly larvae occurred at high abundance in the stream. All taxa found are common in flowing waters; a complete list is provided in the appendix (Appendix 2). No species of conservation importance were recorded.

Note: during aquatic-invertebrate sampling, the following additional plant and animal species of conservation importance were recorded at Dvorčický Stream:

- **grey partridge (*Perdix perdix*, §E, NT)** – several individuals observed visually on arrival at the site
- **knotweed (*Reynoutria* sp., non-native, invasive)** – a knotweed stand on a soil stockpile directly beside the stream, representing the initial stage of an invasion

Strouha 1 (GPS: 49.1645681N, 14.3847567E)

Site description

The site is delineated on Strouha Stream downstream of Karlovec Pond. The channel is indistinct in this section. Its condition and that of the vegetation show that the watercourse dries out for long periods during the year, or rather that the channel contains water only occasionally after heavy rainfall. The watercourse remained completely dry throughout the monitoring period, and aquatic-invertebrate samples could not be collected.

Strouha 2 (GPS: 49.1645681N, 14.3847567E)

Site description

The site is delineated on Strouha Stream downstream of Mlýnský Pond and Nový Pond near Býšov. Upstream of these ponds, stormwater drained from the Units 1 and 2 site is discharged into the stream via the Býšov retention basin; no suitable location for aquatic-invertebrate sampling was found closer to this discharge point. In this section, Strouha has the character of a well-preserved woodland stream. The channel is gently incised below ground level by 1–2 m but is natural. The watercourse meanders gently and locally branches or forms eroded banks. The channel is between 0.5 m and 2 m or more wide, with an average width of approximately 1 m. The water depth in the thalweg is approximately 10 cm. The substrate is heterogeneous. Stones and coarse gravel predominate in faster-flowing sections, while large sand-and-mud deposits form in slower-flowing sections. The channel contains abundant dead wood. The stream is shaded and flows through mixed woodland. Alders and willows predominate immediately beside the stream, with a rich herbaceous understory comprising grasses, nettles, raspberry and cleavers.

Measured physicochemical parameter values: water temperature 19.2 °C; pH 7.98; conductivity 295 µS/cm.

Aquatic-invertebrate community

The macrozoobenthos community is rich; a total of 34 aquatic-invertebrate taxa were recorded, and a complete list is provided in the appendix (Appendix 2). Rheophilic species predominate in the community. The dominant components are the freshwater amphipod *Gammarus fossarum* and mayfly larvae. Representatives of the family Baetidae are very abundant, as are the burrowing larvae of *Ephemera danica* and larvae of *Electrogena ujhelyi* of the family Heptageniidae, meaning species associated with clean flowing waters. Among the caddisflies, species with case-less larvae were particularly abundant, including the genera *Hydropsyche* and *Rhyacophila* and the species *Plectrocnemia conspersa*. Rheophilic, clean-water species also predominate among the case-bearing caddisflies, including *Halesus digitatus* and the genus *Sericostoma*. Among the molluscs, bivalves were recorded, including several species of pea clams of the genus *Pisidium*. Most recorded taxa are common aquatic invertebrates, although a large proportion can be regarded as indicators of clean flowing waters or of good ecological quality. One species included in the Red List of Invertebrates (Hejda et al. 2017) was recorded: the aquatic beetle ***Hydraena belgica*** **(NT)** of the family Hydraenidae. The species was identified in the laboratory, and one individual was present in the sample.

Interconnection corridor (49.1684528N, 14.3719460E)

In the section downstream of Dvorčice Pond, Dvorčický Stream is a small watercourse with a low flow that passes through extensive areas of arable land in a belt of herbaceous and shrubby vegetation. As part of the hydrobiological survey, the watercourse was not surveyed directly at the proposed

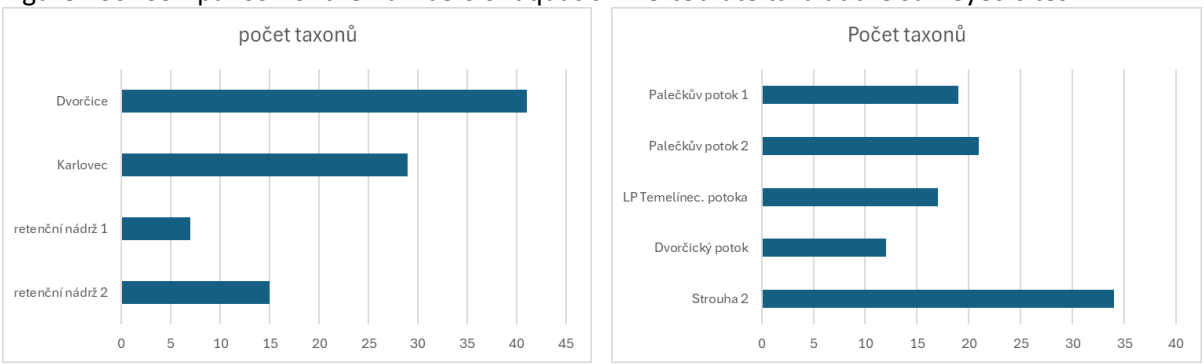
bridging location but farther downstream. A species-poor and low-abundance aquatic-invertebrate community without species of conservation importance was recorded. Temporary bridging of the watercourse during construction will not significantly affect the watercourse or its associated biota. Water contamination and turbidity will probably result from intervention in the channel during installation of the crossing and subsequently during its removal after construction, but these effects will be short-term and local only. Repeated crossings of the watercourse by construction machinery without temporary bridging would be inappropriate.

If earthworks are performed near the watercourse, I recommend a thorough survey of the area and, where necessary, removal of non-native plant species before work begins and also during construction. Invasive knotweed (*Reynoutria* sp.) was recorded near the watercourse. During soil transfers, its spread to new sites must be prevented.

8.7.5. Summary and comparison of sites

A total of 66 aquatic-invertebrate taxa were recorded in standing waters and 68 taxa in flowing waters; see Appendices 1 and 2 to this report. The numbers of taxa found at the individual sites varied considerably, ranging from seven to 41 taxa in the surveyed standing waters and from 12 to 34 taxa in the flowing waters.

Figure 106: Comparison of the numbers of aquatic-invertebrate taxa at the surveyed sites.



Počet taxonů	Number of taxa
retenční nádrž 1	retention basin 1
retenční nádrž 2	retention basin 2
Palečkův potok 1	Palečkův Stream 1
Palečkův potok 2	Palečkův Stream 2
LP Temelínec. potoka	left-bank tributary of Temelínecký Stream
Dvorčický potok	Dvorčický Stream
Storuha 2	Strouha 2

The differences recorded in aquatic-invertebrate diversity among the individual sites are apparently due principally to differences in the quality and diversity of the habitats present. The principal factors are water-body morphology and aquatic-vegetation overgrowth in standing waters and watercourse hydromorphology in flowing waters. Community composition is, of course, also influenced by water quality at the individual sites. However, no extreme values of the monitored parameters or phenomena associated with extreme loading of the aquatic environment by nutrients, organic matter or other contaminants, such as water odor, heavy cyanobacterial blooms or the presence of larger quantities of

anaerobic sediment, were observed at any site. Unsatisfactory water quality may be a limiting factor for the biological community in Retention Basin 1, where severe water turbidity, apparently caused by algal overgrowth, and high pH were observed in summer. Even there, however, the principal reason for the low number of species recorded is probably the unsuitable morphology of the concrete basin.

8.7.6. Aquatic-invertebrate species of conservation importance

Two species included in the Red List of Invertebrates (Hejda et al. 2017).

Shiny ramshorn snail (*Segmentina nitida*, VU)

Characteristics: A less common species of small pulmonate gastropod that usually occurs in densely vegetated pools and at the margins of better-preserved ponds. It can also be found in periodically drying habitats. It prefers the floodplains of larger rivers and more extensive pond areas at low and middle elevations. It feeds on growths on leaves and aquatic plants and on living and dead plant matter. For conservation of the species, it is desirable to preserve existing sites and protect suitable habitats in areas where it occurs. The most important requirement, however, is extensive management of ponds, which should contain larger shallow and densely vegetated areas.

Occurrence in the area of interest: The species was found in Dvorčice Pond. A larger number of individuals was recorded in the cattail littoral zone in the eastern part of the pond; it is abundant at the site.

***Hydraena belgica* (NT)**

Characteristics: A beetle of the family Hydraenidae. A European species distributed from France to the northern Balkans and Romania and extending northward to the Netherlands and southern Poland. In Czechia it is found infrequently and locally, from lowlands to uplands, usually in gravel on the bottoms of moderately fast-flowing and relatively warm streams and small rivers in the hyporhithral zone.

Occurrence at the site: The species was found on the lower reach of Strouha downstream of Nový Pond near Býšov, at the surveyed Strouha 2 site. Only one individual was captured during the survey; the species probably occurs at low abundance in this section of the watercourse.

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Table 31 (Appendix 1): List of aquatic-invertebrate taxa recorded at the individual sites – STANDING WATERS.

higher taxonomic group	**scientific name**	**English name**	**note**	**Dvorčice**	**Karlovec**	**retention basin 1**	**retention basin 2**
Platyhelminthes	*Polycelis nigra*			+			
Oligochaeta	*Stylaria lacustris*	proboscis naidid			+		
	Lumbriculus variegatus	blackworm		+			
Hirudinea	*Erpobdella octoculata*	octo-eyed leech			+		
	Hemiclepsis marginata	pied leech		+			
Mollusca, Gastropoda	*Acroloxus lacustris*	lake limpet		+			
	Anisus leucostoma	white-lipped ramshorn snail		+			
	Gyraulus albus	white ramshorn snail		+			
	Lymnea stagnalis	great pond snail			+		
	Physella acuta	acute bladder snail	non-native	+			
	Planorbarius corneus	great ramshorn snail		+	+		
	Radix peregra	wandering snail			+		
	Segmentina nitida	shiny ramshorn snail	RL (VU)	+			
	Stagnicola sp.	pond snail		+			
Mollusca, Bivalvia	*Pisidium obtusale*	obtuse pea mussel		+			
Crustacea	*Asellus aquaticus*	water hoglouse		+	+		
	Proasellus coxalis		non-native		+		
Arachnida	*Limnesia* sp.			+			
Odonata, Zygoptera	*Coenagrion puella*	azure damselfly		+			
	Ischnura elegans	blue-tailed damselfly		+		+	+
	Platycnemis pennipes	white-legged damselfly					+
Odonata, Anisoptera	*Sympecma fusca*	common winter damselfly			+		
	Sympetrum sanguineum	ruddy darter		+	+		
Ephemeroptera	*Cloeon dipterum*	pond olive mayfly		+	+	+	+
	Caenis horaria			+	+	+	+
	Caenis luctuosa						+
Heteroptera	*Corixa* sp.	water boatman		+			
	Hesperocorixa linnaei				+		
	Hydrometra stagnorum	water measurer		+			
	Gerris sp.	water strider			+	+	+
	Ilyocoris cimicoides	saucer bug		+	+		+
	Micronecta scholtzi	pygmy water boatman			+	+	+
	Nepa cinerea	water scorpion		+			
	Notonecta maculata						+
	Notonecta sp.	backswimmer			+		

higher taxonomic group	scientific name	English name	note	Dvorčice	Karlovec	retention basin 1	retention basin 2
	Plea minutissima	pygmy backswimmer			+		
	Sigara falleni	water boatman		+			
Megaloptera	*Sialis lutaria*	common alderfly		+			
Trichoptera	*Oecetis lacustris*			+			
Diptera, Culicidae	*Anopheles* sp.	Anopheles mosquito			+	+	+
	Culex sp.	mosquito		+			
Diptera, Chaoboridae	*Chaoborus obscuripes*				+		
	Chaoborus sp.	phantom midge		+	+		
Diptera, Stratiomyidae	*Oplodonta viridula*			+			
Diptera, Chironomidae	*Glyptotendipes pallens*					+	+
	Polypedilum nubeculosum						+
	Procladius sp.				+		+
Coleoptera, Dytiscidae	*Agabus bipustulatus*			+			
	Agabus sp.						+
	Graptodytes pictus				+		
	Hydroporus angustatus			+			
	Hydroporus pallustris			+	+		
	Hydroporinae subfam.			+			
	Hygrotus inaequalis				+		
	Hyphydrus ovatus	rosy diving beetle			+		
	Ilybius sp.	mud-diving beetle			+		
	Laccophilus minutus			+	+		+
Coleoptera, Hydrophilidae	*Anacena lutescens*			+			
	Helochares obscurus			+			
	Enochrus testaceus			+			
	Enochrus ochropterus			+			
Coleoptera, Helophoridae	*Helophorus aquaticus*			+			
	Helophorus minutus			+			
Coleoptera, Haliplidae	*Haliplus lineatocollis*			+			
	Haliplus ruficollis	red-necked crawling water beetle			+		
Coleoptera, Noteridae	*Noterus clavicornis*			+	+		
number of taxa				**41**	**29**	**7**	**15**

Table 32 (Appendix 2): List of aquatic-invertebrate taxa recorded at the individual sites – FLOWING WATERS.

higher taxonomic group	scientific name	English name	note	Palečkův Stream 1	Palečkův Stream 2	left-bank tributary of	Dvorčický Stream	Strouha 2
"Oligochaeta"	*Aulodrilus japonicus*				+	+		
	Naididae fam.	naidids		+				
	Nais alpina				+			
	Tubificidae fam.	tubificid worms				+	+	+
Hirudinea	*Erpobdella octoculata*	octo-eyed leech		+				
	Erpobdella vilnensis			+		+		
Mollusca, Gastropoda	*Galba truncatula*	small mud leech				+		
	Physella acuta	acute bladder snail	non-native			+		
	Planorbis planorbis	common ramshorn snail				+		
	Radix labiata			+				
Mollusca, Bivalvia	*Pisidium casertanum*	common pea mussel		+	+	+		+
	Pisidium personatum							+
	Pisidium subtruncatum							+
	Pisidium sp.	pea mussel					+	
	Sphaerium corneum	European fingernail clam						+
Crustacea	*Asellus aquaticus*	water hoglouse		+			+	+
	Gammarus fossarum	freshwater amphipod		+	+			+
Ephemeroptera	*Baetis muticus*			+				+
	Baetis rhodani				+		+	+
	Baetis vernus			+	+	+		+
	Electrogena ujhelyi				+			+
	Ephemera danica				+	+		+
	Habrophlebia fusca				+	+	+	
	Paraleptophlebia submarginata				+			
	Serratella ignita							+
Plecoptera	*Nemurella picteti*						+	
Odonata, Zygoptera	*Calopteryx virgo*	beautiful demoiselle						+
Odonata, Anisoptera	*Libellulidae* fam. juv.					+		
Heteroptera	*Nepa cinerea*	water scorpion		+				
Megaloptera	*Sialis fuliginosa*	dusky alderfly		+				
Trichoptera	*Anabolia furcata*							+
	Athripsodes bilineatus				+			
	Halesus digitatus							+
	Hydropsyche saxonica			+	+			+
	Hydropsyche sp. juv.			+				+

higher taxonomic group	scientific name	English name	note	Palečkův Stream 1	Palečkův Stream 2	left-bank tributary of	Dvorčický Stream	Strouha 2
	Limnephilus sp. juv.				+	+		
	Limnephilidae fam.				+			+
	Plectrocnemia conspersa				+			+
	Rhyacophila obliterata							+
	Rhyacophila sp. juv.							+
	Sericostoma sp.							+
Diptera, Chironomidae	*Apsectrotanypus trifascipennis*			+	+			
	Brillia bifida				+			
	Diamesa insignipes							+
	Paratendipes albimanus			+				
	Procladius sp.							+
	Tvetenia calvescens			+				
Diptera, other	*Ceratopogonidae* fam.					+		
	Dicranota sp.			+	+			+
	Dixa nebulosa					+		+
	Eloeophila sp.					+		+
	Ptychoptera contaminata	banded phantom crane fly			+			
	Simulium angustipes			+				
	Simulium sp.				+			
	Simulium vernum					+		
	Tipula sp. juv.	crane fly					+	
Coleoptera	*Agabus* sp.	diving beetle					+	
	Agabus malanarius						+	
	Anacaena globulus						+	+
	Elmis maugetii							+
	Elmis sp.				+			
	Elodes minutus					+	+	
	Hydraena belgica		RL (NT)					+
	Hydraena excisa							+
	Hydroporus sp.						+	
	Limnius perrisi							+
	Limnius volckmari							+
	Platambus maculatus			+				
number of taxa				**19**	**21**	**17**	**12**	**34**

Photographic documentation of the hydrobiological survey

Figure 107: Dvorčice Pond, sampling location at the eastern bank, site of the shiny ramshorn snail (*Segmentina nitida*, VU). Photographed on May 27, 2025.



Figure 108: Dvorčice Pond, wet meadow east of the pond with Siberian irises (*Iris sibirica*). Photographed on May 27, 2025.



Figure 109: Dvorčice Pond, view from the eastern bank of the extensive littoral zone overgrown with emergent vegetation, principally cattails. Photographed on July 24, 2025.



Figure 110: Dvorčice Pond, view of the open-water area from the south. Photographed on July 24, 2025.



Figure 111: Karlovec Pond, view from the dam of the pond becoming overgrown with reeds and cattails. Photographed on May 27, 2025.



Figure 112: Karlovec Pond, showing very good water transparency and the stony bottom in the part of the pond near the dam. Photographed on May 27, 2025.



Figure 113: Retention Basin 1, bare concrete banks and water-lily stand. Photographed on May 27, 2025.



Figure 114: Retention Basin 2, outlet structure, bare concrete banks, and stands of emergent and submerged macrophytes, including a conspicuous stand of curly-leaf pondweed covering almost the entire basin area. Photographed on May 27, 2025.



Figure 115: Palečkův Stream 1, straightened, incised channel armored with concrete blocks overgrown with herbaceous vegetation. Photographed on July 25, 2025.



Figure 116: Palečkův Stream 1, section with damaged armoring. Photographed on July 25, 2025.



Figure 117: Palečkův Stream 2, incised channel with damaged bank armoring, with concrete panels currently lying in the center of the channel. Photographed on May 27, 2025.



Figure 118: Unnamed left-bank tributary of Temelínecký Stream. Channel overgrown with vegetation. Photographed on May 27, 2025.



Figure 119: Dvorčický Stream. Photographed on May 27, 2025.



Figure 120: Strouha 1 site, dry watercourse channel downstream of Karlovec Pond. Photographed on May 27, 2025.



Figure 130: Strouha 2 site, watercourse downstream of Nový Pond near Býšov, in the section affected by the discharge of stormwater from the ETE site. Photographed on July 25, 2025.



Figure 131: Strouha 2 site, watercourse downstream of Nový Pond near Býšov, in the section affected by the discharge of stormwater from the ETE site. Photographed on July 25, 2025.



9. Copy of the authorization decision

Ministerstvo životního prostředí

Odbor adaptace
na změnu klimatu
Vršovická 65
100 10 Praha 10

Praha dne: 1. dubna 2026
Č. j.: MZP/2026/610/903
Sp. zn.: ZN/MZP/2026/610/12
Vyřizuje: Ing. Eva Warausová
Tel.: 267 122 908
E-mail: eva.warausova2@mzp.gov.cz

Vladimír Melichar, Mgr.
Křižíkova 1373/9,
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R O Z H O D N U T Í

Ministerstvo životního prostředí, odbor adaptace na změnu klimatu, jako správní orgán příslušný dle ustanovení § 45j odst. 1 zákona č. 114/1992 Sb., o ochraně přírody a krajiny, ve znění pozdějších předpisů (dále jen „zákon"), po provedeném správním řízení vyhovuje žádosti o prodloužení autorizace udělené rozhodnutím MŽP č.j. 27531/ENV/16, 1901/610/16 ze dne 9. 6. 2016 a prodloužena rozhodnutím MŽP č.j. MZP/2021/610/1272 ze dne 12. 5. 2021 do 9. 6. 2026., kterou podal dne 9. 1. 2026 (čj. MZP/2026/610/84)

Vladimír Melichar, Mgr.

narozený dne: 8. 5. 1974 v Karlových Varech

trvale bytem: Křižíkova 1373/9, 360 01 Karlovy Vary

(dále jen „žadatel")

a prodlužuje mu autorizaci

k hodnocení vlivů závažných zásahů na zájmy chráněné podle části druhé, třetí a páté zákona ve smyslu § 67 tohoto zákona.

Autorizace se v souladu s § 45j odst. 1 zákona prodlužuje s účinností **od 9. 6. 2026** na dobu 5 let, tedy **do 8. 6. 2031**. Autorizaci je možné opakovaně prodloužit o dalších 5 let na základě nové žádosti podané alespoň 6 měsíců před skončením platnosti stávající autorizace. Udělená autorizace je nepřenosná na jinou osobu.

O d ů v o d n ě n í

Žádost žadatele o prodloužení autorizace, evidovaná pod čj. MZP/2025/610/2803, byla Ministerstvu životního prostředí, odboru adaptace na změnu klimatu (dále jen „ministerstvo") doručena dne 9. 1. 2026. Ministerstvo v souladu s ustanovením § 45j odst. 4 zákona ve lhůtě 60 dnů ověřilo splnění podmínek pro udělení autorizace podle § 45j odst. 1 zákona a konstatuje, že žadatel splnil podmínku bezúhonnosti potvrzenou výpisem z rejstříku trestů č.j MZP/2026/610/88 ze dne 13. 1. 2026, který si obstaralo ministerstvo na základě dodaných údajů, a podmínku vysokoškolského vzdělání odpovídajícího zaměření podle § 45j odstavce 2 zákona, tj. „vysokoškolského vzdělání v magisterském nebo doktorském studijním programu se zaměřením na ekologii

Elektronický podpis
Ing. Linda Stuchlíková
Ministerstvo životního prostředí
02.04.2026 11:30

Ministerstvo životního prostředí
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Ministry of the Environment

Department of Climate Change Adaptation
Vršovická 65
100 10 Prague 10

Prague, dated: April 1, 2026
Ref. No.: MZP/2026/610/903
File No.: ZN/MZP/2026/610/12
Contact person: Ing. Eva Warausová
Tel.: 267 122 908
E-mail: eva.warausova2@mzp.gov.cz

Vladimír Melichar, Mgr.
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DECISION

The Ministry of the Environment, Department of Climate Change Adaptation, as the administrative authority competent pursuant to Section 45j(1) of Act No. 114/1992 Coll., on Nature and Landscape Protection, as amended (the "Act"), having conducted the administrative proceedings, grants the application for extension of the authorization granted by Ministry of the Environment Decision Ref. No. 27531/ENV/16, 1901/610/16 dated June 9, 2016, and extended by Ministry of the Environment Decision Ref. No. MZP/2021/610/1272 dated May 12, 2021, until June 9, 2026, which was filed on January 9, 2026 (Ref. No. MZP/2026/610/84)

Vladimír Melichar, Mgr.
date of birth: May 8, 1974, in Karlovy Vary
permanent residence: Křižíkova 1373/9, 360 01 Karlovy Vary
(the "applicant")

and extends his authorization

to assess the effects of significant interventions on interests protected under Parts Two, Three and Five of the Act pursuant to Section 67 thereof.

In accordance with Section 45j(1) of the Act, the authorization is extended with effect from **June 9, 2026** for five years, meaning until **June 8, 2031**. The authorization may be extended repeatedly for additional five-year periods on the basis of a new application filed at least six months before the current authorization expires. The authorization granted is not transferable to another person.

Justification

The applicant's application for extension of the authorization, registered under Ref. No. MZP/2025/610/2803, was delivered to the Ministry of the Environment, Department of Climate Change Adaptation (the "Ministry"), on January 9, 2026. In accordance with Section 45j(4) of the Act, the Ministry verified compliance with the conditions for granting authorization under Section 45j(1) of the Act within 60 days and states that the applicant satisfied the good-character requirement, as confirmed by the extract from the Criminal Register under Ref. No. MZP/2026/610/88 dated January 13, 2026, which the Ministry obtained on the basis of the information supplied, and the requirement of university education in a relevant field under Section 45j(2) of the Act, meaning "university education in a master's or doctoral degree program focusing on environmental

Ministerstvo životního prostředí

Odbor adaptace na změnu klimatu
Vršovická 65
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prostředí, botaniku, fytocenologii, zoologii, hydrobiologii nebo biogeografii a ve vztahu k hodnocení podle § 67 rovněž krajinářství a péči o krajinu", které žadatel doložil ověřenou kopií diplomu již v roce 2016 jako podklad pro vydání rozhodnutí o udělení autorizace č.j. 7531/ENV/16, 1901/610/16 ze dne 9. 6. 2016.

Splnění podmínky vykonání zkoušky odborné způsobilosti podle § 45j odstavce 1 zákona pro účely prodloužení autorizace ministerstvo posuzovalo v kontextu ustanovení § 45j odst. 4 věty druhé zákona. Ministerstvo dospělo k závěru, že v rozhodném období, tj. v době od vydání pravomocného rozhodnutí o prodloužení autorizace a podáním žádosti o prodloužení autorizace, došlo zejména přijetím zákona č. 284/2021 Sb., kterým se mění některé zákony v souvislosti s přijetím stavebního zákona, zákona č. 364/2021 Sb., kterým se mění některé zákony v souvislosti s implementací předpisů Evropské unie v oblasti invazních nepůvodních druhů a zákona č. 148/2023 Sb. o jednotném environmentálním stanovisku, ke změně právní úpravy ochrany přírody a krajiny a tím ke změně podmínek rozhodných pro posouzení odborné způsobilosti žadatele k provádění hodnocení podle § 67 zákona. Ministerstvo v souladu s ustanovením § 45j odst. 4 zákona dne 14. 1. 2026 žadateli nařídilo přezkoušení odborné způsobilosti (č.j. MZP/2026/610/97). Přezkoušení žadatel absolvoval dne 1. 4. 2026 s výsledkem „vyhověl", což dokládá protokol o přezkoušení č.j. MZP/2026/610/894.
Vzhledem k tomu, že podaná žádost o prodloužení autorizace obsahuje všechny náležitosti a byly splněny všechny podmínky podle § 45j odst. 1 a 4 zákona pro prodloužení autorizace k provádění hodnocení podle § 67 zákona, rozhodlo ministerstvo tak, jak je uvedeno ve výroku tohoto rozhodnutí.

Poučení o opravném prostředku

Proti tomuto rozhodnutí lze podle § 152 zákona č. 500/2004 Sb., správní řád, ve znění pozdějších předpisů podat rozklad podáním na Ministerstvo životního prostředí, Vršovická 65, 100 00 Praha 10, a to ve lhůtě 15 dnů ode dne doručení tohoto rozhodnutí.

Ing. Linda Stuchlíková
ředitelka odboru adaptace na změnu klimatu
elektronicky podepsáno

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ecology, botany, phytosociology, zoology, hydrobiology or biogeography and, in relation to assessments under Section 67, also landscape architecture and landscape stewardship," which the applicant documented with a certified copy of his diploma in 2016 as a basis for issuing Decision Ref. No. 7531/EIW/16, 1901/610/16 dated June 9, 2016, granting the authorization.

For the purposes of extending the authorization, the Ministry assessed compliance with the requirement to pass the professional-competence examination under Section 45j(1) of the Act in the context of the second sentence of Section 45j(4) of the Act. The Ministry concluded that, during the relevant period, meaning between the issuance of the final decision extending the authorization and the filing of the application to extend the authorization, the legal framework for nature and landscape protection, and consequently the conditions relevant to assessing the applicant's professional competence to perform assessments under Section 67 of the Act, had changed, principally through the adoption of Act No. 284/2021 Coll., amending certain acts in connection with the adoption of the Building Act; Act No. 364/2021 Coll., amending certain acts in connection with implementation of European Union legislation concerning invasive alien species; and Act No. 148/2023 Coll., on the Unified Environmental Opinion. In accordance with Section 45j(4) of the Act, on January 14, 2026, the Ministry ordered the applicant to retake the professional-competence examination (Ref. No. MZP/2026/610/97). The applicant took the repeat examination on April 1, 2026, with the result "passed," as documented by the repeat-examination report under Ref. No. MZP/2026/610/894.
Because the application to extend the authorization contains all required particulars and all conditions under Section 45j(1) and (4) of the Act for extending the authorization to perform assessments under Section 67 of the Act have been satisfied, the Ministry has decided as stated in the operative part of this Decision.

Notice of appeal rights

Pursuant to Section 152 of Act No. 500/2004 Coll., the Code of Administrative Procedure, as amended, an administrative appeal against this Decision may be filed with the Ministry of the Environment, Vršovická 65, 100 00 Prague 10, within 15 days of service of this Decision.

Ing. Linda Stuchlíková
Director, Department of Climate Change Adaptation
electronically signed