AGENTURA OCHRANY PŘÍRODY A KRAJINY ČESKÉ REPUBLIKY

Lesnická a dřevařská fakulta Mendelova univerzita v Brně

# NATURE AND LANDSCAPE MANAGEMENT STANDARDS

| TSES AND LANDSCAPE-FORMING ELEMENTS | CREATING THE TERRITORIAL SYSTEM OF ECOLOGICAL STABILITY (PLANS AND PROJECTS) | SPPK C01 002:2024 |
|---|---|---|
| SERIES C | | |

Vytváření ÚSES (plány a projekty)

Schaffung eines territorialen Systeme der ökologischen Stabilität (Pläne und Projekte)

This standard is intended as a definition of the scope of services of a TSES project designer and contents and structure of TSES plans and project documentation.

**References and legal regulations:**

- Metodika vymezování územního systému ekologické stability, Bínová, L., Culek, M., Glos, J. a kol., Ministerstvo životního prostředí 2017
- Metodická pomůcka pro vyjasnění kompetencí v problematice územních systémů ekologické stability. Věstník Ministerstva životního prostředí 8/2012
- Metodické postupy projektování lokálního ÚSES, Petr Maděra, Eliška Zimová, Ústav lesnické botaniky, dendrologie a typologie MZLU v Brně, a Löw a spol., Brno, 2005
- Act no. 114/1992 Coll. on Nature and Landscape Protection, as amended.
- Act no. 183/2006 Coll. on Spatial Planning and Building Rules (Building Act), as amended (until 1 July 2024)
- Act no. 360/1992 Coll. on Exercise of the Profession of Authorised Architects and on Exercise of the Profession of Authorised Engineers and Technicians Active in Construction, as amended (Authorisation Act)
- Act no. 283/2021 Coll., Building Act (since 1 July 2024)
- Act no. 139/2002 Coll. on Land Adjustment and Land Authorities and on amending Act no. 229/1991 Coll. on Adjustment of Proprietary Titles to Land and Other Agricultural Assets
- Act no. 289/1995 Coll. on Forests and on amendment of certain acts (Forest Act)
- Decree no. 395/1992 Coll., implementing certain provisions of Czech National Council Act no. 114/1992 Coll. on Nature and Landscape Protection

- Decree no. 500/2006 Coll. on Territorial analytical documents, spatial planning documentation and methods of record-keeping on spatial planning activities, as amended (with Annexes 19-23 specifying a uniform standard for spatial planning documentation – until 1 July 2024)
- Decree no. 13/2014 Coll. on Procedures for performing land adjustment and prerequisites for proposals for land adjustment, as amended

**Standard development:**

Developed by the Mendel University in Brno, Faculty of Forestry and Wood Technology, for the Nature Conservation Agency of the Czech Republic.

**External examiner:**

Faculty of Horticulture, Mendel University in Brno

Faculty of Environmental Sciences, Czech University of Life Sciences

**Authorial collective:**

Ing. Michal Kovář, Ing. Martin Sucharda, Doc. Ing. Petr Kupec, RNDr. Milan Svoboda, Mgr. Martin Fejfar. Ing. Markéta Kavková, Ing. Pavlína Truhlárská

Documentation for the standard development is available in the NCA CR library.

Standard approved by:

Dr. rer. nat. František Pelc

Director, NCA CR Prague

## ANNEXES:

Annex 1: Overview of input data and background information

Annex 2: Table of TSES components and their characteristics with proposal and justification

Annex 3: Table of interactive elements

Annex 4: Recommended attribute table

Annex 5: Recommended map symbols

Annex 6: List of Nature and Landscape Management Standards developed

# 1. Introductory section

## 1.1 Standard purpose and contents

The standard "Creating the territorial system of ecological stability (plans and projects)" with identification SPPK C01 002:2023 (hereinafter, the "Standard") defines:

a) Scope of services provided by authorized project designers of territorial systems of ecological stability (hereinafter, TSES) and authorized architects in landscape architecture, who are, pursuant to Section 2, Para. 3, and Section 6, Para. 3 of Decree no. 395/1992 Coll. and Section 6 of Act no. 360/1992 Coll., persons professionally qualified to develop TSES plans and projects;

b) Contents and structure of TSES plans and project documentation and their level of detail.

The Standard derives from methodological documents specified as References, particularly the Methodology for Delineating the Territorial System of Ecological Stability (hereinafter, the "Methodology").

The Standard requirements are developed for all the TSES hierarchic levels, namely site TSES plans; for supra-site TSES plans, which contains only parts of national TSES and sub-national TSES, it will be applied according to requirements for specific planning documentation or contracting authority requirements.

Another purpose of the Standard is to provide an initial background for:

a) Awarding of public contracts for creating TSES plans and projects;

b) Concluding contractual relationships between contracting authorities (public administration entities) and contractors;

c) Inspection of completeness of documentation submitted to contracting authorities or other entities.[1]

## 1.2 TSES plan and its context

A TSES plan is professional documentation in the area of nature and landscape protection and, pursuant to Section 2, Para. 3 of Decree no. 395/1992 Coll., it is an input for System of

[1] e.g., subsidy providers

Ecological Stability projects pursuant to Section 4, performance of land adjustment, development of spatial planning documentation, forest management plans and water management and other landscape protection and restoration documents. The contents of a System of Ecological Stability plan are generally laid down by Section 2 of Decree no. 395/1992 Coll.

TSES plans are developed by authorized project designers with authorization for the Czech Chamber of Architects A 3.1.

TSES plans play a key and indispensable role in assuring spatial conditions, the binding definition using spatial planning tools is a necessary prerequisite for step-by-step establishing and stabilization of TSES in the landscape. With a special emphasis on this importance, the Standard describes the structure of a TSES plan and specifies the contents and form of its components. It is grounded in the methodological resources mentioned above.

In accordance with the legal regulations on nature and landscape protection and spatial planning, the TSES is defined in a binding fashion in spatial planning documentation (hereinafter, ÚPD) as follows:

a) The spatial development plan (hereinafter, ÚRP) for the entire territory of the Czech Republic defines the national TSES level;
b) spatial development principles (hereinafter, ZÚR) at the level of sub-national administrative units defines the sub-national TSES level and specifies the delineation of the components at the national level based on the ÚRP;
c) in land-use plans (hereinafter, ÚP) at the level of municipalities defines the site TSES level and specifies the delineation of the components of the national and sub-national TSES based on the ZÚR.

Detailed specifications of the TSES are made in common facility plans (hereinafter, PSZ), which are a part of comprehensive land adjustment documentation.

The Standard takes into account the uniform standard for spatial planning documentation.[2],[3]

## 1.3 TSES project and its context

The scope of project designer services and requisites of TSES project documentation pursuant to Section 4 of the Decree are not defined by any generally binding legal regulations in the environmental sector. The project documentation standard adequately reflects the special legal regulation[4], which defines requirements for building documentation and ČKA task and documentation standards for building construction and landscape architecture structures.

## 1.4 Standard and extra project designer services

The TSES Plan Standard describes project designer services, dividing them into standard and extra services. Services refer to all activities necessary for developing a TSES Plan. The contractor has to include in the Plan all the standard services; the contracting authority may choose among the extra services.

[2] Currently pursuant to Annexes 19-23 to Decree no. 500/2006 Coll. on Territorial analytical documents, spatial planning documentation and methods of record-keeping on spatial land-use/territorial planning activities, as amended

[3] Currently pursuant to Decree no. 501/2006 Coll. on General requirement for land use, as amended

[4] Currently Decree no. 499/2006 Coll. on Building documentation, as amended

# 2. TSES Plan Standard

## 2.1 Scope of project designer services

| Service phase | Standard services | Extra services |
|---|---|---|
| **Order preparation** | - gathering input information provided by the contracting authority<br>- providing other necessary input information (see Annex 1 for an overview of recommended data and input information)<br>- basic field introduction to the study territory | |
| **Analysis**<br>The objective of the analytical part is to evaluate, based on the gathered input information and data about the study territory, the accordance of the binding TSES delineation with the methodological principles of TSES delineation and identify its major shortcomings, existing and potential TSES conflicts with other plans, limitations and need for changes in the binding TSES delineation. | | |
| **Analysis of territory natural conditions and current nature and landscape status** | - biogeographic differentiation of the territory;<br>- summary of information on current nature and landscape status based on provided data and own field findings;<br>- evaluation of valuable natural habitats, assessment of TSES potential to secure or improve their status and ensure landscape connectivity;[5] | - detailed field surveys to complement the information;<br>- identification and evaluation of key species with a focus on specially protected and Red List species (species that the TSES implementation may affect positively or negatively, e.g., improved population connectivity; hereinafter "selected endangered species"). |
| **Analysis of binding TSES delineation and other input information** | - analysis of binding TSES delineation in ÚRP, relevant ZÚR and ÚP and in PSZ;<br>- analysis of TSES delineation in spatial planning documents (ÚAP and land use studies) | - analysis of TSES delineation in other professional documents (previous master plans and TSES plans), if any exist. |

[5] Current layer of NCA CR habitat mapping and other available input information

| Service phase | Standard services | Extra services |
|---|---|---|
| | and land use plans under negotiation;<br>- identification of methodological shortcomings in TSES delineation;<br>- identification of major conflicts of components with stabilized area, plans to change land use and major limitations as per ÚPD that rule out TSES existence or disrupt TSES connectivity;<br>- identification of natural barriers and restrictions to permeability of territory in terms of migration and natural habitat connectivity;<br>- outline indication of the scope of necessary changes in binding TSES delineation in ÚPD; | |
| **Proposal**<br>The objective of the proposal is to apply basic methodological principles of TSES delineation and specific approaches to national, sub-national and local TSES delineation to specify the concept for designing the respective hierarchical TSES levels and delineate, with adequate accuracy or detail, the TSES components. The analytical and proposal parts require an adequate time (at least one growing season) to verify the current landscape status and presence of natural habitats. | | |
| **TSES design proposal** | - proposal for delineation, changes in delineation or specification of components of all hierarchical TSES levels,[6] including justification;<br>- recommendation of adjustments to ensure | - photo documentation containing pictures with content description, date, location and author specification. |

[6] Supra-site TSES Plans include delineation of national and sub-national TSES; Site TSES Plans include delineation of all the hierarchical TSES levels on a scale (level of detail) corresponding to the purpose of the TSES Plans.

| Service phase | Standard services | Extra services |
|---|---|---|
| | connectivity of components outside the study territory boundaries;<br>- outline identification of potential target natural habitats;<br>- outline of measures for TSES components;<br>- outline identification of potential risks and threats;<br>- assurance of connectivity of natural habitats and populations of the selected wildlife species | |
| **Proposal consultation** | - participation in consultations of TSES design proposals with the State Nature and Landscape Conservancy authorities and spatial planning authorities applicable to delineation of hierarchical TSES levels in the concerned territory;<br>- provision of expert explanation and answers to questions as part of proposal consultation;<br>- plan to settle comments and suggestions and evaluation of proposal consultation results; | - cooperation with the expert reviewer selected by the contracting authority;<br>- plan to settle comments, prompts and suggestions from the examination of the draft TSES Plan. |
| **Documentation completion and handover** | - modifications to the TSES proposal based on consultation and examination results, related modifications to recommended connections outside the study territory boundaries, and recommendations for changes and updates to ÚPD; | |

| Service phase | Standard services | Extra services |
|---|---|---|
| | - finalization of TSES Plan outcomes (text, tables, drawings and spatial data);<br>- finalization and handover of documentation in print and electronic form. | |

## 2.2 TSES Plan documentation

A TSES Plan is a comprehensive documentation divided into an analytical part and a proposal part. In terms of structure in resulting outcomes, the documentation contains text, table, map and data sections.

## Text section[7]

### I. Introductory section

1. Documentation identification
    - Order name,
    - Contracting authority,
    - Contractor,
    - Information on subsidies, etc.
2. Area extent of study territory
    - Administrative region(s),
    - Municipality with extended powers administrative area(s) (ORP),
    - Municipality administrative area(s),
    - (Broader) study area.

### II. Analytical section

1. Analysis of current binding TSES delineation and other input information
    - TSES according to ÚPD,
    - TSES according to PSZ,
    - TSES according to other relevant documents (e.g., previous plans, master plans or landscape planning studies), if any exist.

[7] The formal arrangement of the text section, division into chapters, formulation of information in text paragraphs or tables, illustration of information using charts, pictures or diagrams in the text is up to the TSES Plan contracting authority or project designer.

2. Biogeographic differentiation of the territory
    - Listing of represented bioregions, incl. information on representative national biocentres or the need to add representative NRBC in the study area;
    - Overview of represented biochore types, incl. information on representative sub-national biocentres or the need to add representative RBC in the study area,
    - Overview of represented STG, including information on representative local biocentres or the need to add representative LBC in the study area.
3. Current nature and landscape status, natural values in relation to TSES design
    - Characteristics of the present landscape status (climate, soil science, hydrogeology, geomorphology, biogeography, land use, preservation of natural structures and need to support biodiversity),
    - Overview and land-use/territorial identification of represented natural habitats based on habitat mapping data,
    - Overview and land-use/territorial identification of represented prominent natural assets,
    - Large-scale Specially Protected Areas, their zones and buffer zones and rest zones of National Parks;
    - Small-scale Specially Protected territories Areas and their buffer zones;
    - Natura 2000 – Sites of Community Importance, Special Protection Areas;
    - Sites of presence of specially protected and selected endangered wild plant and animal species of national importance based on the Species Occurrence Database (hereinafter, NDOP);
    - Registered Significant Landscape Elements (RSLE);
    - natural and close-to-natural habitats (as per Habitats Catalogue[8]);
    - classification of forests with a primary focus on protective forests and special purpose forests (selected subcategories);
    - Other available information about the territory (delineation of sites with other selected species based on NDOP and other surveys in the area as per Nature Conservation Information System).

[8] According to Habitats Catalogue of the Czech Republic - Chytrý M., Kučera T., Kočí M., Grulich V. & Lustyk P. (eds) (2010): Katalog biotopů České republiky. Ed. 2. Nature Conservation Agency of the Czech Republic, Prague.

4. Connectivity of natural habitats and barriers to migration permeability
    - Broader context, including selected large mammal habitats;
    - Natural barriers;
    - Artificial barriers, incl. proposed measures.
5. Conclusion from analytical section
    - Summary overview of identified shortcomings in TSES delineation, conflicts and barriers,
    - Methodological shortcomings in TSES delineation;
    - Conflicts of TSES components with stabilized areas and plans to change land use and restrictions on land use that rule out the existence of TSES or significantly disrupt TSES connectivity;
    - Shortcomings in respecting current nature and landscape status, particularly presence of natural and close-to-natural habitats,[9] incl. non-forest ones (as per habitat mapping) and habitats of selected endangered and specially protected species;
    - Outline overview of requirements for ÚPD modifications based on the identified shortcomings and conflicts.

**III. Proposal section**

1. Design concept description
    - Description of concept justification, summary information on proposal (overall concept description, concept of TSES branches, identification of branches and components, etc.), outline concept justification,
    - Outline description and justification of changes in components at the national, sub-national and local levels (incl. outline definition of target natural habitats reflecting current landscape status, existing natural habitats and habitats of selected specially protected and selected endangered species, outline measures for components and identification of potential risks and threats);

[9] According to Habitats Catalogue of the Czech Republic - Chytrý M., Kučera T., Kočí M., Grulich V. & Lustyk P. (eds) (2010): Katalog biotopů České republiky. Ed. 2. Nature Conservation Agency of the Czech Republic, Prague.

    - Summary description and outline justification of proposal for delineation of interactive elements;
    - Proposal of measures to ensure connectivity of TSES components outside the study territory boundaries;
- Proposal of solutions respective current presence of natural and close-to-natural habitats (as per habitat mapping);
- Proposal of solutions improving connectivity of natural habitats or habitats of selected endangered and specially protected species.

2. Proposal of changes in ÚPD in force, including justification
    - Overview of TSES changes made and their justification.

**IV. TSES Plan consultation results**

1. Information on development procedure (recapitulation);
2. Overview information on consultations with applicable State Nature protection Conservancy and spatial planning authorities;
3. Overview of comments, prompts and suggestions from consultations and information on their settlement.

**V. Overview of input information used**

## Table section

Mandatory table annexes are developed only for the proposal section

- Tables describing TSES components at national, sub-national and local levels (see Annex 2) and interactive elements (see Annex 3).

Beyond the mandatory table annexes, tables can be added to the text or as separate annexes in the analytical section up to the author's or contracting authority's deliberation.

## Map (drawing) section

The text section is the basis for cartographic outcomes with a base map background and specific phenomena. Depending on further use, the map section is divided into supra-site and site TSES. The contracting authority specifies which part is to be developed.

Supra-site TSES Plans include delineation of national and sub-national TSES; Site TSES Plans include delineation of all the hierarchical TSES levels.

**Supra-site TSES Plan**

1. Analytical section drawing (1 : 50,000)
    - Currently binding delineation of national and sub-national biocentres and biocorridors, or other relevant input documents as the case may be;
    - Biogeographic differentiation of the territory (bioregions and biochores);
    - Plans of national and supra-site importance and significant limits on land use as per ÚRP and ZÚR (motorways, expressways, 1st and 2nd class roads, railways, power lines, gas pipelines, business development areas, railway transport, etc.);
    - Identified shortcomings in TSES delineation, conflicts and barriers.
2. Proposal section drawing (1 : 50,000)
    - Delineation of national and sub-national biocentres and biocorridors / outline delineation of national and sub-national biocentres and biocorridors / delineation of biocorridor support zones.[10]

**Site TSES Plan**

1. Analytical section drawing (1 : 10,000)
    - Currently binding delineation of national, sub-national and local biocentres and biocorridors, or other relevant input documents as the case may be;
    - Biogeographic differentiation of the territory (bioregions, biochores and STG);
    - Areas of natural habitats as per habitat mapping;
    - Major plans to change land use and significant limits on land use as per ÚPD;
    - Identified shortcomings in TSES delineation, conflicts and barriers.
2. Proposal section drawing (1 : 10,000)
    - Delineation of biocentres and biocorridors of all hierarchical levels;
    - Delineation of biocorridor support zones
    - Delineation of interactive elements.

## Data section

Contents of all phenomena to be processed using vector data in the ESRI shapefile format in the S-JTSK Krovak East North coordinate system (EPSG: 5514) with a specific attribute

[10] Chosen as per contracting authority's requirement

structure containing simplified information about the phenomena (*.dbf table as part of respective shapefile). The attribute table structure is defined in Annex 4. The recommended map symbols and their fills in terms of habitat type are specified in Annex 5. A TSES delineation proposal shall produce a polygonal, typologically pure layer with metadata added (project designer, date, etc.).

## Documentation submission form

### I. Print documentation[11]

- Text section, bound,
- Table section, bound,
- Map (drawing) section.

### II. Documentation in electronic form

TSES Plan documentation on a digital medium (e.g., USB flash disk, CD, DVD – to be specified by contracting authority), containing:

- text section in *.docx and *.pdf formats,
- table section in *.xlsx and *.pdf formats,
- drawings in *.pdf format or in raster image format (*.jpg, *.png). File size, resolution and compression are chosen with respect to legibility of all the phenomena shown,
- vector data in *.shp format, including additional data (e.g., *.dbf, *.shx, *.prj, etc.).

[11] Print document formats to be specified by contracting authority in tender documentation.

# 3. TSES project standard

The TSES project documentation is divided into sections; see chapter 3.1. The input information for project development is approved spatial planning documentation or a TSES plan.

TSES projects are developed by authorized project designers with authorization from the Czech Chamber of Architects A3/A3.1.

This standard involves performance of activities including those not required under the Building Act and recognized as extra services. The choice of extra services is up to the TSES project contracting authority, or requirements of subsidy schemes. Extra services are identified and specified in footnotes.

## 3.1 TSES Project documentation

(hereinafter, "documentation") contains:

**A. ACCOMPANYING REPORT**
**B. OVERALL TECHNICAL REPORT**
**C. DRAWING SECTION**
**D. DOCUMENTARY SECTION**
**E. BILL OF QUANTITIES AND BALANCES FOR EACH BUILDING STRUCTURE**
**F. COST CALCULATION**
**G. OTHER ANNEXES (*EXTRA*) (E.G., PHOTO DOCUMENTATION, BIOLOGICAL SURVEY, ETC.)**

The documentation contains different sections and the scope and contents of each section is adjusted to the type and importance of the project and conditions in the territory. It is advisable to develop the documentation contents according to the ČKA task and documentation standards for building construction and landscape architecture structures, as well as SPPK standards, which are of a recommending nature; see Annex 6.

### A. ACCOMPANYING REPORT

#### A.1 Identification

- project information: title, location (administrative region, ORP, municipality, cadastral area, plot numbers), subject matter of documentation, project documentation type;

- contracting authority information: business or company name, first name, surname, address, ID/VAT ID, responsible person;
- documentation author information: business or company name, first name, surname, address, ID/VAT ID, responsible person, authorized project designer, authorization number.

**A.2 Justification and goals, needs for measure implementation**

**A.3 List of input information**

**A.4 Factual and temporal context with surroundings and related investment (*extra*)**[12]

**B. OVERALL TECHNICAL REPORT**

**B.1 Territory description**

- Territory characteristics

- natural conditions (climate, biogeographical, geological, geomorphological, soil and hydrogeological conditions, other surveys as necessary);
- current landscape status and uses (description of boundaries of the delineated territory, territorial protection under other legal regulations, etc.);
- list and conclusions of surveys and analyses made, e.g., biological survey, geological survey, hydrogeological survey, historical construction survey, etc. (if done);
- requirements for rehabilitation, demolition, ecological restoration, cutting of woody plants (if relevant);
- requirements for maximum temporary and permanent occupation of agricultural land fund or land intended to perform forest functions.

**B.2 Project description**

- information on project accordance with spatial planning documentation, land adjustments and TSES plan or other TSES documentation;
- list of plots as per Cadastre on which the project will be located and executed.

**B.3 Proposed design description**

- project division into building structures;
- proposed measures: scope of activities and detailed description of proposed adjustments by building structure and overview of technologies used;

[12] Chosen as per contracting authority's requirement

- evaluation and settlement of requirements of binding position statements of the concerned authorities and conflicts of interests (utilities and protective zones of technical and transport infrastructure, watercourses, etc.);
- timetable of activities (basic implementation plan assumptions – project implementation time schedule, division into phases);
- project environmental impacts;
- occupational safety;
- identification of target natural habitats taking into account current landscape status, current natural habitats and habitats of selected specially protected and selected endangered wildlife species, evaluation of the need for natural habitat connectivity, and supportive list of representative categories such as geobiocenes and patterns in gradients among them. The above criteria will be applied in assessment of requirements for spatial parameters of components and for natural habitat connectivity.
- The proposed design description shall use SPPK standards which can be used for specific activities when establishing appropriate management for maintenance of the delineated TSES components; see Annex 6.

**B.4 Project implementation requirements**

- During implementation, take into account current landscape status, existing natural habitats and habitats of selected specially protected and selected endangered wildlife species on the project site and adjacent land, and provision of their connectivity. Based on that, define the target status of the TSES component implemented;
- territory preparation (geodetic works, landscaping, soil preparation, removal of invasive species, demolition works, etc.);
- for woody plant establishment, specify the technique (planting plan, incl. anchoring, protection against game browsing and grazing, protection against weed, mulching, watering, follow-up management, etc.);
- measures to support natural habitats and selected species in the territory;
- measures to provide connectivity of natural habitats and habitats of selected specially protected and selected endangered wildlife species (e.g., establishment of grass/herbal vegetation);
- measures to support the water regime (building pools, wetlands, small water reservoirs, polders, restoration of watercourses);
- protective measures against erosion;

- use of ecological restoration (e.g., spontaneous or managed succession);
- protection of existing woody plants and their stands, grass/herbal communities, wetlands and water bodies.

**B.5 Follow-up (developmental) management**

- scope of activities and techniques used, timetable of activities (duration of follow-up management must derive from the actual measures and the need to ensure success of the measure).

**B.6 Long-term management to achieve and maintain target status**

- scope of activities and timetable for long-term management in the territory.

**C. DRAWING SECTION**

**C.1 Layout drawing for broader context (typically 1:10,000 - 1:50,000)**

- project location within the territory (administrative region, ORP, municipality; scale according to project extent).

**C.2 Cadastral layout drawing (scale to match cadastral map used)**

**C.3 Coordination layout drawing (scale according to project extent and for clarity)**

- current TSES delineation divided into building structures;
- territorial limits: existing Specially Protected Areas, Natura 2000 sites, sites with endangered and specially protected species, transport and technical infrastructures, including protective zones.

**C.4 Design drawing by building structures (typically 1:100 - 1:2,000)**

- boundaries of the study area, plot boundaries and numbers, habitat map (containing delineation of existing natural habitats and habitats of selected endangered species, habitat restoration and connectivity plan), woody plant planting and growing plan with dimensions, identification of existing woody plants s, individuals or areas to be cut down, proposed areas for mowing, proposed areas for construction of water bodies and wetlands, delineation of watercourse sections for restoration, identification of areas for natural succession and other measures suitable for support to endangered species, fencing including gates or stiles (plane views, longitudinal and transverse cross-sections, details), material transport, disposal sites, temporary land occupation, etc.

**C.5 Graphic and balance expression of deviations in TSES project design from TSES Plan after consultation (scale to match project extent and for clarity)**

- graphic overview of changes in project design from TSES Plan after consultation;
- justification of deviations that arose when consulting the project after delineation in TSES Plan and application of requirements.

**C.6 Drawings of technical structures**

- revitalized watercourses, dams, fish ladders (plane views, longitudinal and transverse cross-sections, details);
- protective measures against erosion, ditches, swales, landscaping, etc.

**C.7 Other graphical annexes (extra)**

- planting diagram, basic views: component integration in landscape, visualization, photo documentation, etc.[13]

**D. DOCUMENTARY SECTION**

The documentary section contains documents proving the meeting of requirements of other legal regulations issued by the respective authorities or entities, and documentation developed by authorized entities under other legal regulations. They are:

- binding position opinions, opinions, decisions and position opinions of concerned authorities;
- position opinions of owners of public transport and technological infrastructures;
- other position opinions, opinions, assessments and results of consultations held during the documentation development.

**E. BILL OF QUANTITIES AND BALANCES FOR EACH BUILDING STRUCTURE**

- bill of quantities with individual items in a column structure (serial number, operation item number as per price list applied, item name, unit of measurement, quantity of units);
- ancillary budgetary costs (costs related to project implementation that cannot be related to individual activities or that arise from other conditions);
- follow-up/development management by building structure for the individual years (item number, item name, quantity).

[13] Chosen as per contracting authority's requirement

## F. COST CALCULATION

- bill of quantities for each building structure with individual items in a column structure (serial number, operation item number as per price list applied, item name, unit of measurement, quantity of units, price per unit excl. VAT, total price excl. VAT);
- ancillary budgetary costs (price excl. VAT, price incl. VAT);
- follow-up/development management by building structure for individual years (item number, item name, quantity, price excl. VAT, price incl. VAT);
- total expenditures including follow-up/development management (price excl. VAT, price incl. VAT).

# 4. ANNEXES

## Annex 1 Overview of input data and background information

This annex specifies the input data and information layers with the initial providers. The availability of any specific data depends on agreement between the contracting authority and the contractor.

- ÚRP (Czech Republic, Ministry of Regional Development)
- ZÚR (administrative regions)
- ÚP (municipalities)
- KoPÚ – PSZ (State Land Office)
- Biogeographical division (NCA CR)
- Large-scale Specially Protected Areas, their zones and buffer zones and quiet zones of National Parks (NCA CR)
- Small-scale Specially Protected Areas and their buffer zones (NCA CR)
- Monumental trees and information on their buffer zones (NCA CR)
- UNESCO Man and Biosphere Reserves, UNESCO Geoparks, National Geoparks (NCA CR)
- Sites with specially protected wild plant and animal species of national importance (NCA CR)
- Habitats of selected specially protected large mammal species (NCA CR)
- Migration barrier database (NCA CR)
- Natura 2000 (NCA CR)
- Consolidated ecosystem layer (NCA CR)
- Contractually protected areas (NCA CR)
- Habitat mapping (NCA CR)
- Forest naturalness degrees (NCA CR)
- Registered SLE (ORP, NCA CR)
- Other available information about the territory from ÚAP of provided phenomenon 119 (delineation of sites with categories of organisms based on NDOP and other field surveys)
- Forestry maps – contour, typology and stand (ÚHÚL)
- Cadastral map (State Administration of Land Surveying and Cadastre, SALSC)
- Orthophotos (SALSC)
- ZABAGED – Fundamental Base of Geographic Data of the Czech Republic (SALSC)
- Basic map of the Czech Republic (SALSC)
- Specially Protected Area management plans, NP management rules, Summaries of recommended measures for SCI and SPA
- TSES – conceptual delineation of national biocentres (NCA CR)
- Spatial technical data for national and sub-national TSES (NCA CR on request)

## Annex 2 Table of TSES components and their characteristics with proposal and justification

| Description item name | Description item explanation | Description item form and content (register number in brackets) |
|---|---|---|
| **Component identification (component code)** | Unique code as part of the territory in question identifying the component. Also serves as an unambiguous linking item. | Component identification comprises component type in a format such as RBC 6. |
| **Component name** | Names are usually only shown for biocentres. They are based on names from reference documentation or place, i.e. site or area names. The name should be unique as part of the territory in question. | For example, (Na vršku, U mlýna, Padělky) etc. |
| **Component type** | Item for distinguishing the component type and its biogeographic importance. | - **NRBC** national biocentre<br>- **NRBK** national biocorridor<br>- **RBCNRBK** sub-national biocentre inserted in national biocorridor<br>- **RBC** sub-national biocentre<br>- **RBK** sub-national biocorridor<br>- **LBCNRBK** local biocentre inserted in national biocorridor<br>- **LBCRBK** local biocentre inserted in sub-national biocorridor<br>- **LBC** local biocentre<br>- **LBK** local biocorridor |
| **Biocentre surface area** | Total biocentre surface area in the territory. | Shown in hectares (ha) |
| **Biocorridor length** | Total biocorridor length in the territory.[14] | Shown in metres (m) |
| **Biogeographic characteristics** | Bioregion and biochora type. | For example, (1.53), (4VD), (2BD3) |

[14] For components extending beyond the territory in question, specify the parameter of the component within the territory in question with the parameter for the whole segment.

| | | |
|---|---|---|
| | Geobiocene type category (only for Site TSES Plans). | |
| **Component habitat type** | Item for distinguishing TSES components in terms of their belonging to habitat types. | hydrophilic (**H**), mesophilic (**M**) and combined (**K**) |
| **Component functionality** | Specification of component functionality. A component is marked as "functioning" if its current status of natural habitats presented is sufficient for its full functioning in the system. Conversely, a component is marked as "non-functioning" if it requires measures across a significant extent of its delineation. In all other cases, components are marked as "partially functioning". | Functioning (**F**), partially functioning (**C**), non-functioning (**N**) |
| **Current status description** | Status description focused on the landscape and ecological values and risks or threats, if any. | Usually described verbally, and can be replaced with defined standardized expressions, such as arable land, extensive meadows, riparian vegetation, etc. |
| **Represented habitats** | Habitats obtained from the national habitat mapping layer or by direct delineation based on a field survey using the habitat mapping methodology. Prevalent natural habitats are highlighted and percentage shares of the habitats are specified. | For biotope codes, see the Habitats Catalogue (e.g., L7.2).[15] |
| **Extent of change** | Description of the extent of change in the component compared to the reference documentation. | adopted (**P**), detailed (**D**), newly delineated (**N**) |
| **Justification of component delineation** | Justification of delineation in terms of biogeography and current territory status in terms of the need to restore connectivity among natural habitats and habitats of important plant and animal species, and justification of change compared to original delineation, if any. | Usually described verbally, can be outlined. |
| **Target status** | Definition of target natural habitats is based on assessment of current status, reflection of the corresponding TSES branch and evaluation of other relationships in the territory. For each component, it is based on an analysis of present habitats and their needs (incl. their connectivity) with a view to STG. The basic principle for defining the target natural habitats and designing management of each component is protection of existing natural habitats and connectivity among | Usually described verbally, can be outlined. |

[15] According to Habitats Catalogue of the Czech Republic - Chytrý M., Kučera T., Kočí M., Grulich V. & Lustyk P. (eds) (2010): Katalog biotopů České republiky. Ed. 2. Nature Conservation Agency of the Czech Republic, Prague.

| | | |
|---|---|---|
| | them. Where no valuable natural habitats are located, the target natural habitat type (e.g., meadow, forest, steppe, aquatic, wetland ecosystems and ecosystems of vegetation degrees 8 and 9; see Habitats Catalogue) is proposed based on natural habitats present in the surroundings and using STG as necessary. | |
| **Presence of specially protected species and selected endangered species** | Listing of identified specially protected and selected endangered wild plant and animal species in each component (NDOP). | |
| **Management proposal** | Definition of management principles to achieve and maintain the target status. | Usually described verbally, can be outlined. |

## Annex 3 Table of interactive elements

| Description item name | Description item explanation | Description item form and content (register number in brackets) |
|---|---|---|
| **Identification of interactive elements** | Unique code as part of the territory in question identifying the component. Also serves as an unambiguous linking item. | Component identification comprises component type in a format such as IP 16. |
| **Current status description** | Status description focused on the landscape and ecological values and risks or threats, if any. | Usually described verbally, and can be replaced with defined standardized expressions, such as arable land, extensive meadows, riparian vegetation, etc. |
| **Justification of IP delineation** | Justification of delineation. | Usually described verbally, can be outlined. |
| **Target status** | Definition of target natural habitats is based on assessment of current status, reflection of the corresponding TSES branch and evaluation of other relationships in the territory. For each component, it is based on an analysis of present habitats and their needs (incl. their connectivity) with a view to STG. The basic principle for defining the target natural habitats and designing management of each component is protection of existing valuable natural habitats and connectivity among them. Where no valuable natural habitats are located, the target habitat type (e.g., meadow, forest, steppe, aquatic, wetland ecosystems and ecosystems of vegetation degrees 8 and 9) is proposed based on natural habitats present in the surroundings and using STG as necessary. | Usually described verbally, can be outlined. |
| **Management proposal** | Definition of management principles to achieve and maintain target status. | Usually described verbally, can be outlined. |

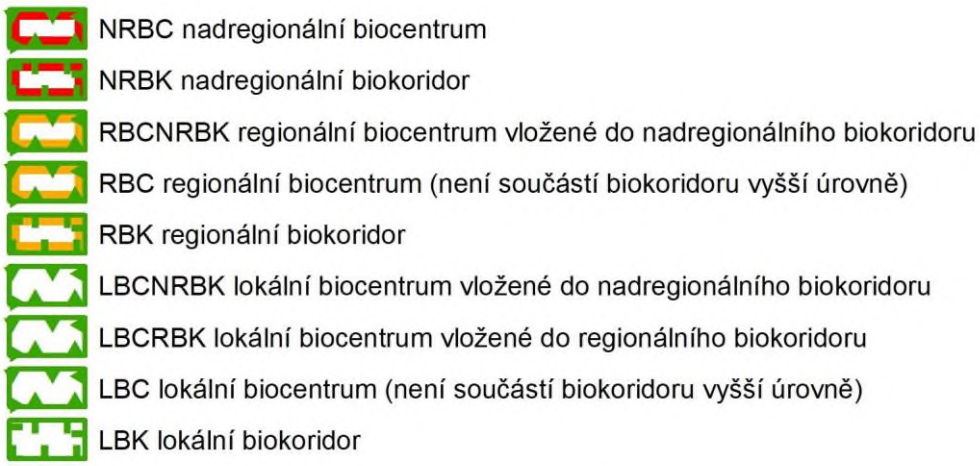
## Annex 4 Recommended attribute table

| Attribute | Data type | Length | Attribute description | Attribute values (or examples of values) | Meaning of attribute value |
|---|---|---|---|---|---|
| **OZN_SC** | Text | 12 | Unique identification (code) of TSES component as part of the territory in question (typically ORP or PLA/NP). Used as linking item. Comprises specification of component type and serial number as part of the territory. | e.g. LBC21, NRBK85/18 | |
| **NAZEV_SC** | Text | 120 | Names are usually only shown for biocentres. They are based on names from reference documentation or place, i.e., site or area names. The name should be unique as part of the territory in question. | e.g., Padělky, U Lázku, Vraní hora | |
| **OZN_PUV** | Text | 10 | Identification or code according to reference documentation. Shown if the component is adopted or detailed and differs from the value of OZN_ZC. | RBC 354 | |
| **TYPE** | Text | 4 | Item for distinguishing the component type and its biogeographic importance. | NRBC, NRBK, RBK, LBK | **NRBC** national biocentre, **NRBK** national biocorridor**, RBCNRBK** sub-national biocentre inserted in national biocorridor, **RBC** sub-national biocentre, **RBK** sub-national biocorridor, **LBCNRBK** local biocentre inserted in national biocorridor, **LBCRBK** local biocentre inserted in sub-national biocorridor, **LBC** local biocentre, **LBK** local biocorridor |

| | | | | | |
|---|---|---|---|---|---|
| **STAN_TYP** | Text | 1 | Item for distinguishing TSES components in terms of their belonging to habitat | in national biocorridors: **N, MH, MB, TD, H, B,** in other components **MF**, **HF**, **SM** | **N** alluvial, **MH** mesophilic grove, **MB** mesophilic beechwood, **TD** thermophilic oakwood, **H** montane, **B** pinewood, **MF** mesophilic, **HF** hydrophilic, **SM** mixed |

## Annex 5 Recommended map symbols

**Označení skladebné části ÚSES**




**Výplň skladebných částí z hlediska stanovištního typu**


| Component identification of TSES | | |
|---|---|---|
| | **NRBC** | National biocentre, |
| | **NRBK** | National biocorridor |
| | **RBCNRBK** | Sub-national biocentre inserted in national biocorridor |
| | **RBC** | Sub-national biocentre (not part of higher-level biocorridor) |
| | **RBK** | Sub-national biocorridor |
| | **LBCNRBK** | local biocentre inserted in national biocorridor |
| | **LBCRBK** | local biocentre inserted in sub-national biocorridor |
| | **LBC** | local biocentre (not part of higher-level biocorridor) |
| | **LBK** | local biocorridor |

| Fills in terms of habitat type are specified | |
|---|---|
|  | Mesophilic |
|  | Hydrophilic |
|  | Combined |

## Annex 6 List of relevant Nature and Landscape Management Standards developed

Series A Management of non-forest trees

02 001 Planting of trees

02 002 Pruning of trees

02 003 Planting and pruning of shrubs and climbing plants

02 005 Tree felling

02 008 Planting and management of woody plant growths

Series B Wetland management and establishment

02 001 Creation and restoration of pools

02 002 Renaturisation of the water regime of mires and springs

02 003 Restoration of watercourses and their floodplains

02 004 River management including bank vegetation

02 005 Nature-based and friendly fishpond management

02 006 Fishpasses

02 007 Construction and reconstruction of water reservoirs by using nature friendly approach

Series C Management of TSES components and landscape-forming elements

01 001 Assessment of TSES functionality

01 002 Creating the territorial system of ecological stability (plans and projects)

02 001 Implementation of TSES biocentres and biocorridors

02 002 Development of landscape-forming and interactive elements

02 003 Planting of fruit trees in the agricultural landscape

SPPK C01 01 002 Creating the territorial system of ecological stability (plans and projects)

02 004 Management of TSES components, incl. landscape-forming and interactive elements

02 005 Management of functional plantings of fruit woody plants

02 006 Establishment and management of fruit tree gene pool areas

02 007 Grasslands

Series D, Management of selected terrestrial habitats

02 001 Restoration of grasslands using regional seed mixtures

02 002 Restoration of long-term uncultivated grassland communities (including removal of tree and shrub species)

02 003 Grazing

02 004 Mowing of grasslands

02 005 Measures to improve the structure of forest stands

02 004 Disturbance management in non-forest areas

02 007 Management of selected alien plant species

Zemědělská 1665/1

CZ-613 00 Brno



Kaplanova 1931/1

CZ-148 00 Praha 11

SPPK C01 002

aopk.gov.cz/platne-standardy

2024