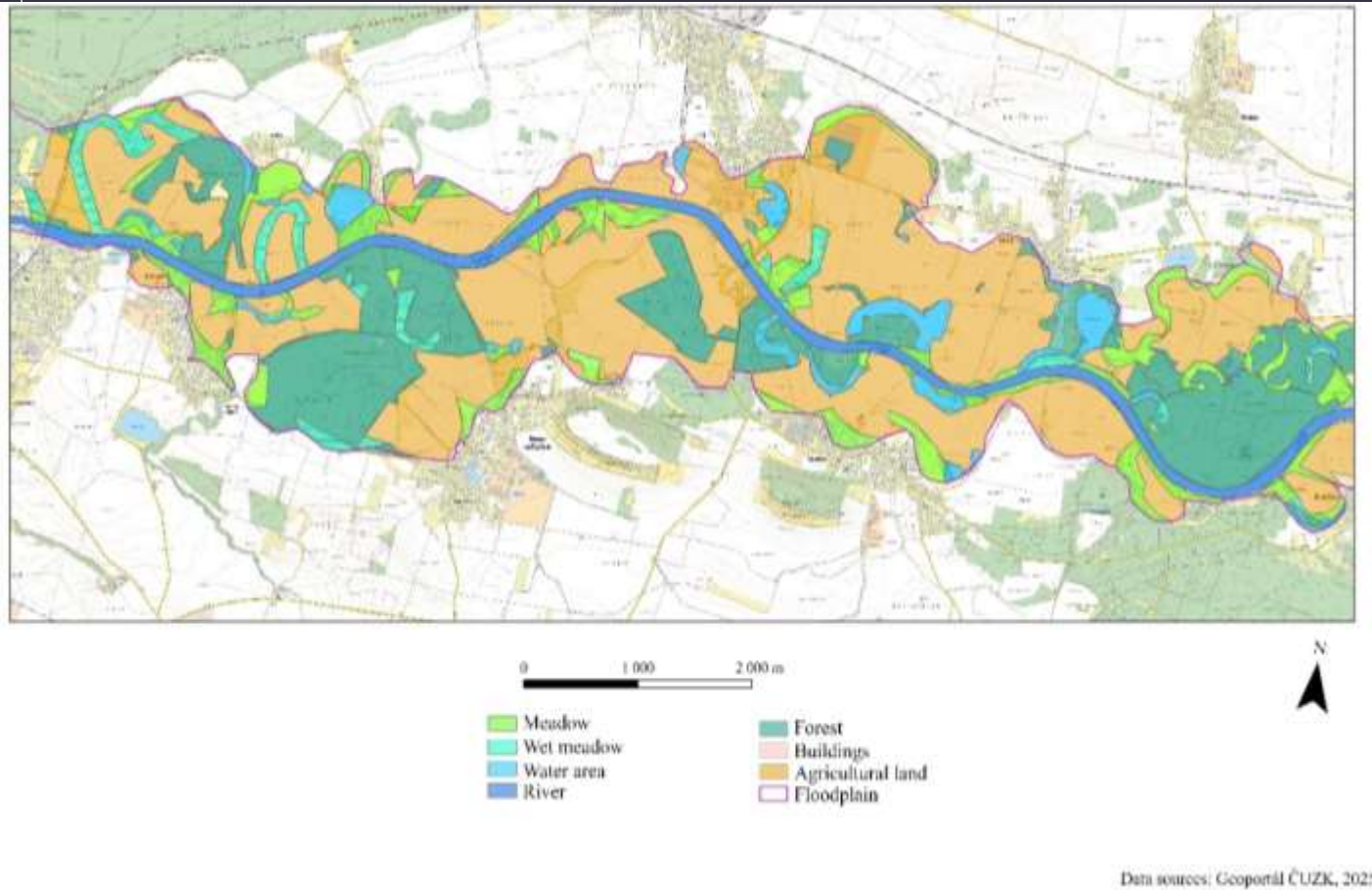


# OLD MAPS AND TERRITORIAL PLANNING. POSSIBILITIES AND LIMITATIONS OF THEIR USE, USING THE EXAMPLE OF THE TOWN OF LYSÁ NAD LABEM (CENTRAL BOHEMIA)

Mgr. et Mgr. Eliška Coubalová

PhD student, Czech History, Katedra historie Filozofická fakulta Univerzity Jana Evangelisty  
Purkyně, Pasteurova 13, 400 96 Ústí nad Labem, [coubalovae@gmail.com](mailto:coubalovae@gmail.com).

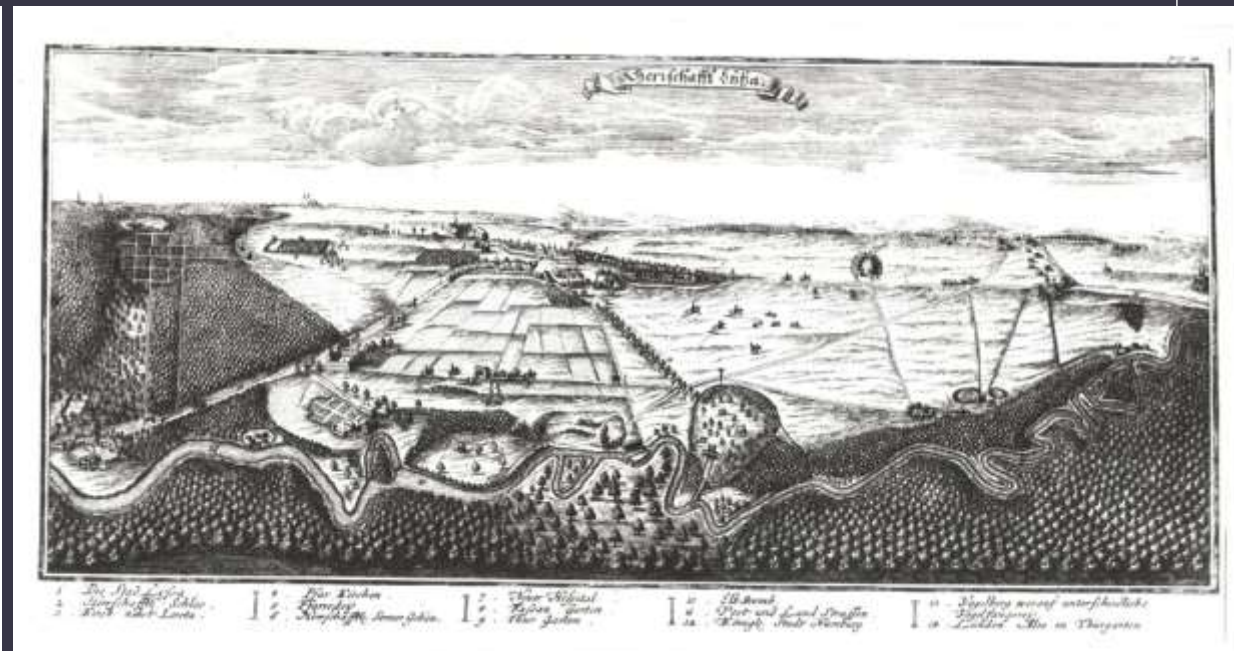
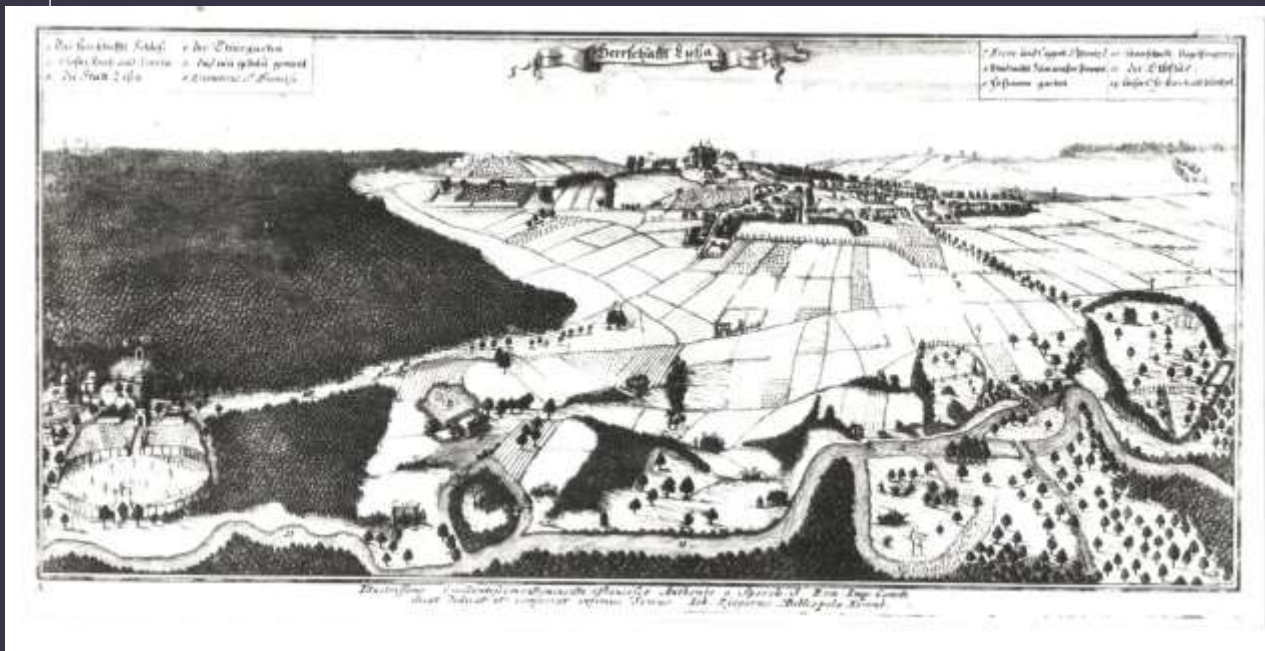
# Introduction



- Studied area: Elbe floodplain extending from the town of Čelákovice to the Mydlovarský luh nature reserve, 35 km east of Prague
- A Soil map, Geological map, Map Of Biotope Formation Groups - floodplain boundary identical, except for some details
- there are areas potentially threatened by waves of n-year waters
- the aim of the work: to use the example of the cadastre of the town of Lysá nad Labem to determine what form these potentially risky areas had in the High Modern Age,
- how the spatial plan views them, and to what extent information from old maps was reflected or taken into account when creating it
- cartographic and iconographic sources; GIS

# 1. Transformation of the river landscape around Lysá nad Labem from the 18th to the first third of the 20th century

- topographic - panoramic copperplate engraving from 1712 and 1717 and 1720

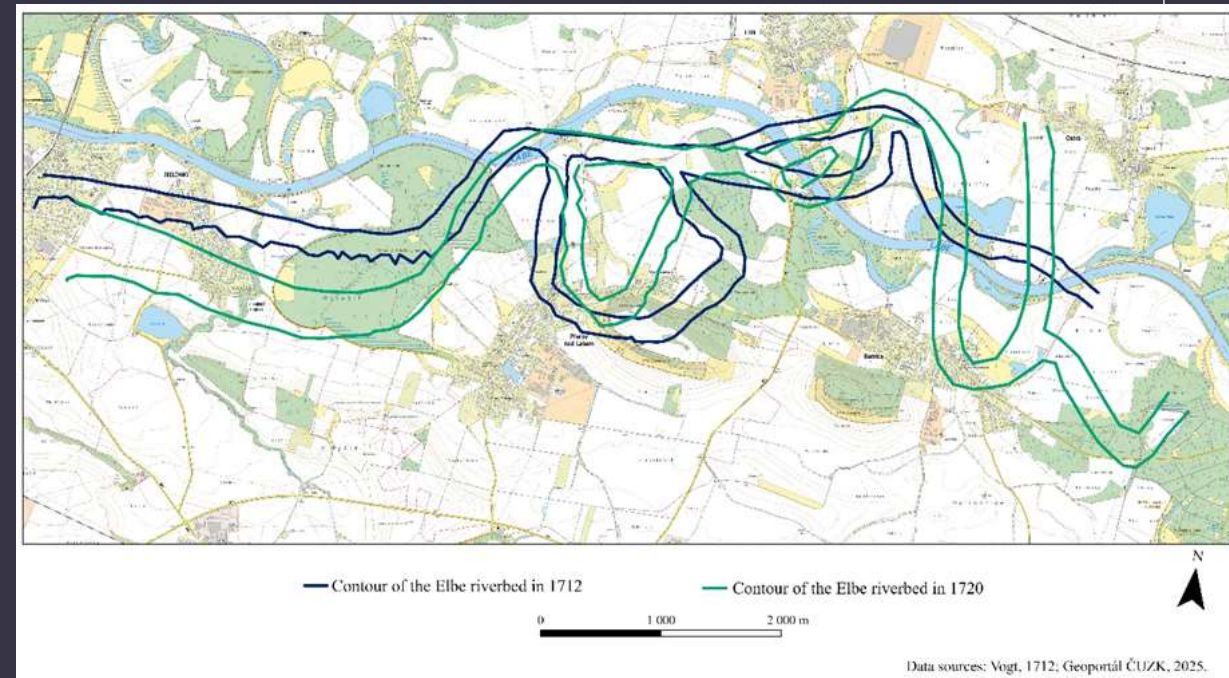
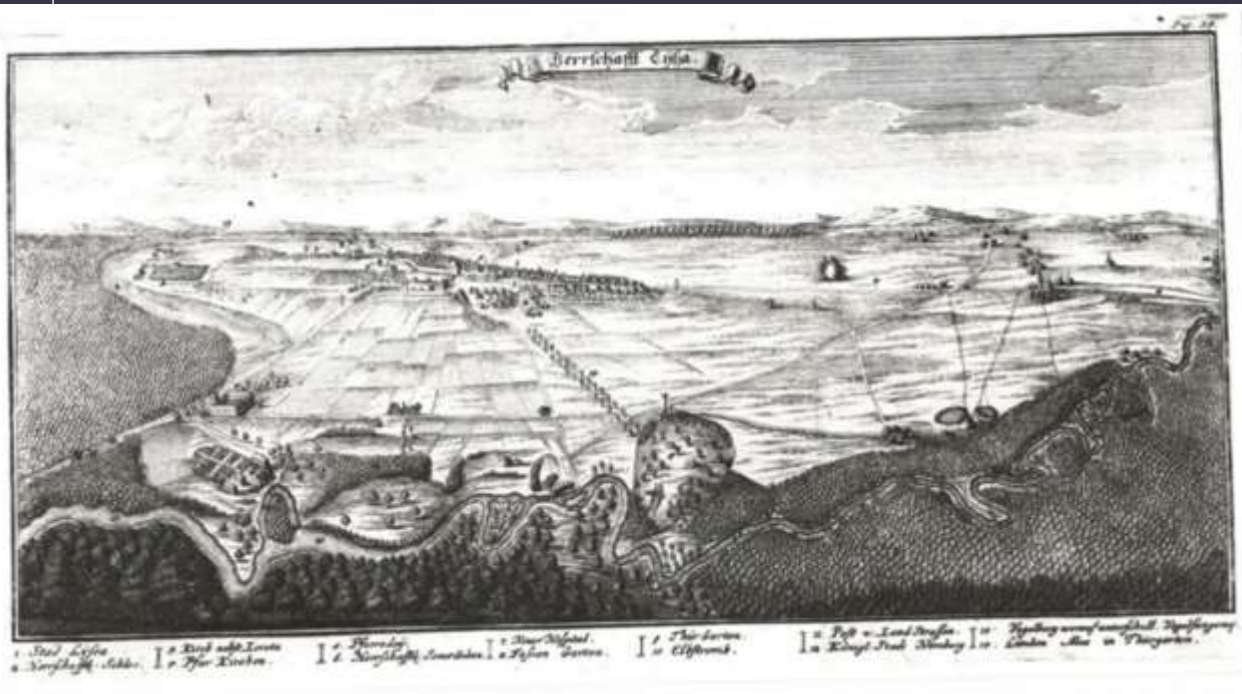


- an approximate idea of the landscape - depict the territory from multiple sides and lack a trigonometric network, they cannot be processed precisely in a GIS environment.



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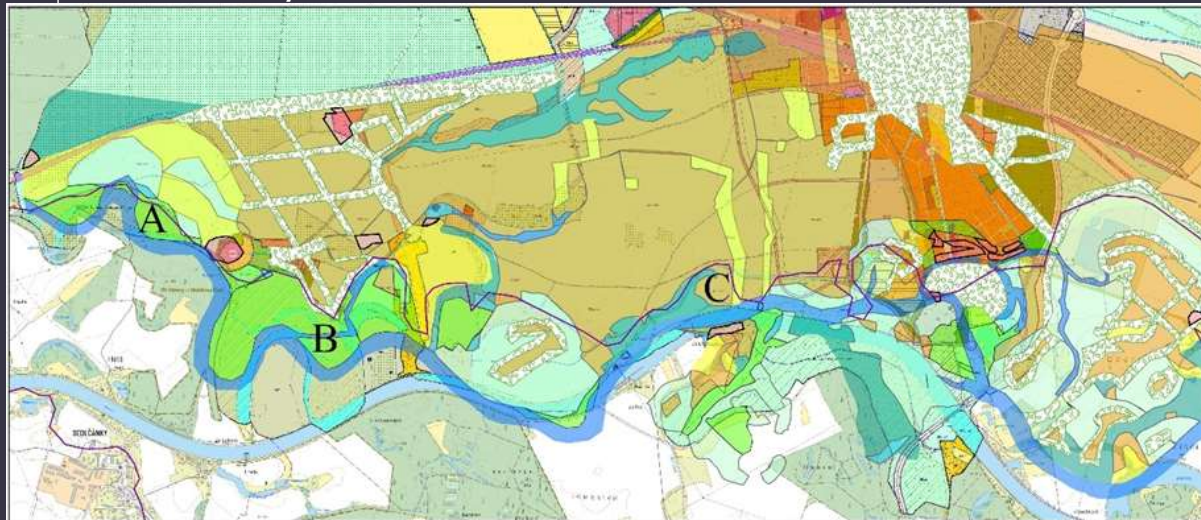
Data sources: Vogt, 1712; Geoportal ČÚZK, 2025.

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# 1. Transformation of the river landscape around Lysá nad Labem from the 18th to the first third of the 20th century

- Landuse in the Elbe floodplain on the map of the Lysá estate from 1752 (SOkA Lysá nad Labem)



A Studied localities

0 500 1 000 m



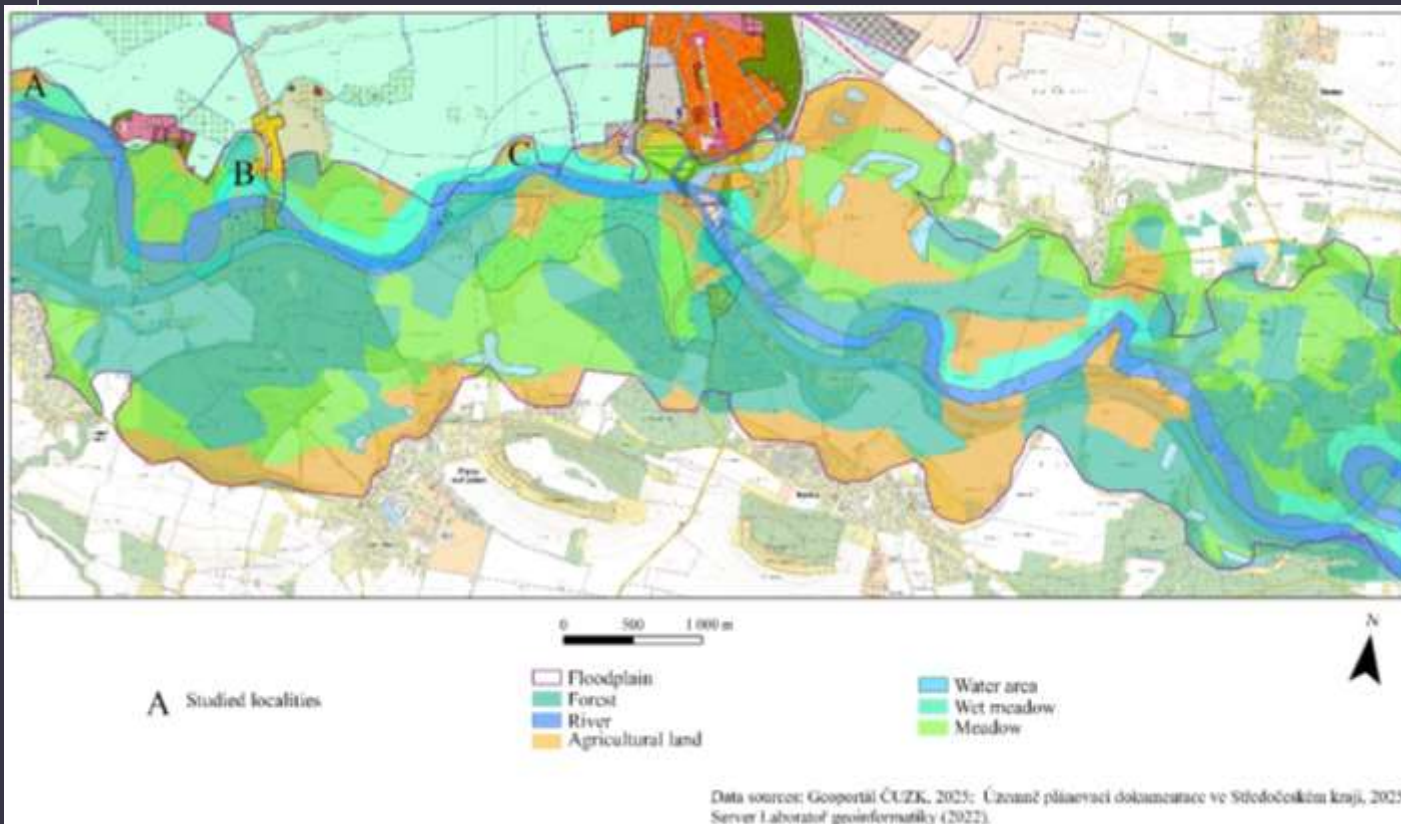
Data sources: Geoportál ČUZK, 2025; Územně plánovací dokumentace ve Středočeském kraji, 2025 (Státní okresní archiv Nymburk se sídlem v Lysé nad Labem).



- Landuse – natural areas (forests, meadows, pastures), agricultural areas (serf lands – ten times larger than the manor lands.
- the Řehačka meander closed, a large arcuate meander in the southern part of Litol disappeared, formation of an alluvial island near Litol, the emergence of two new river branches north and south of the meander.

# 1. Transformation of the river landscape around Lysá nad Labem from the 18th to the first third of the 20th century

- Landscape around the Elbe River on maps of the 1<sup>st</sup> Military Survey (ČUZK, 2025)

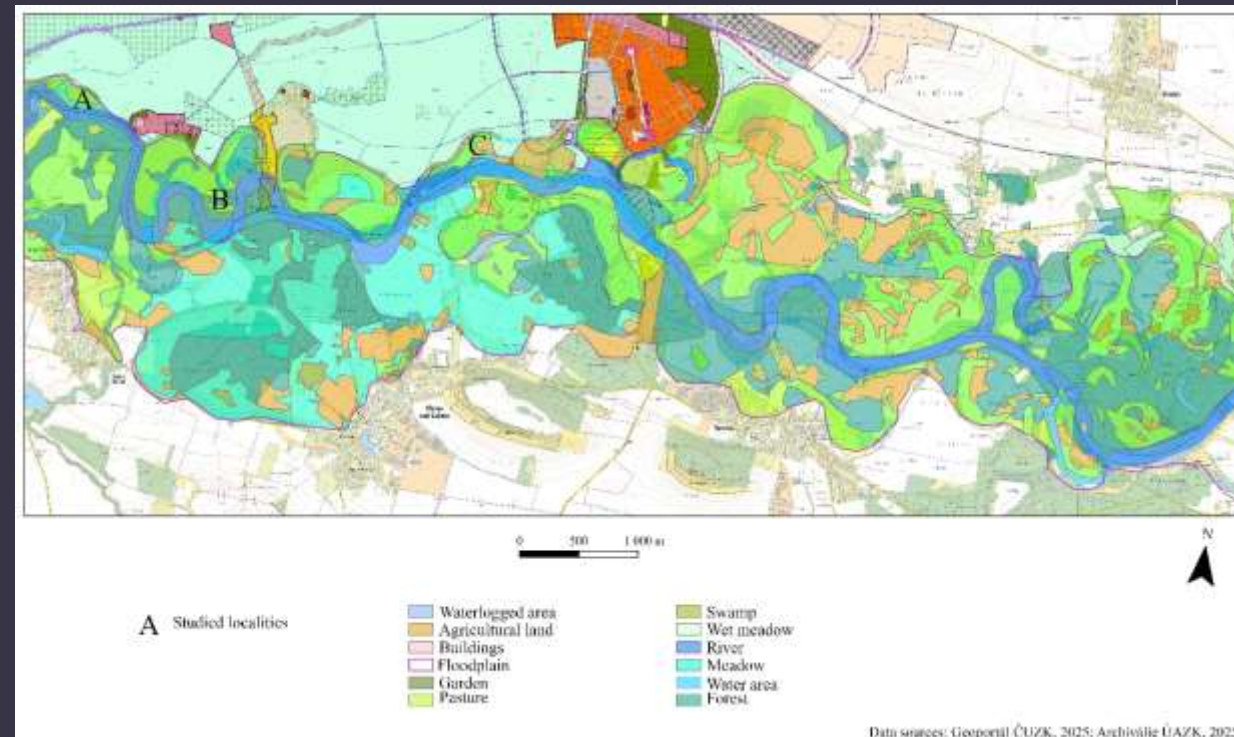
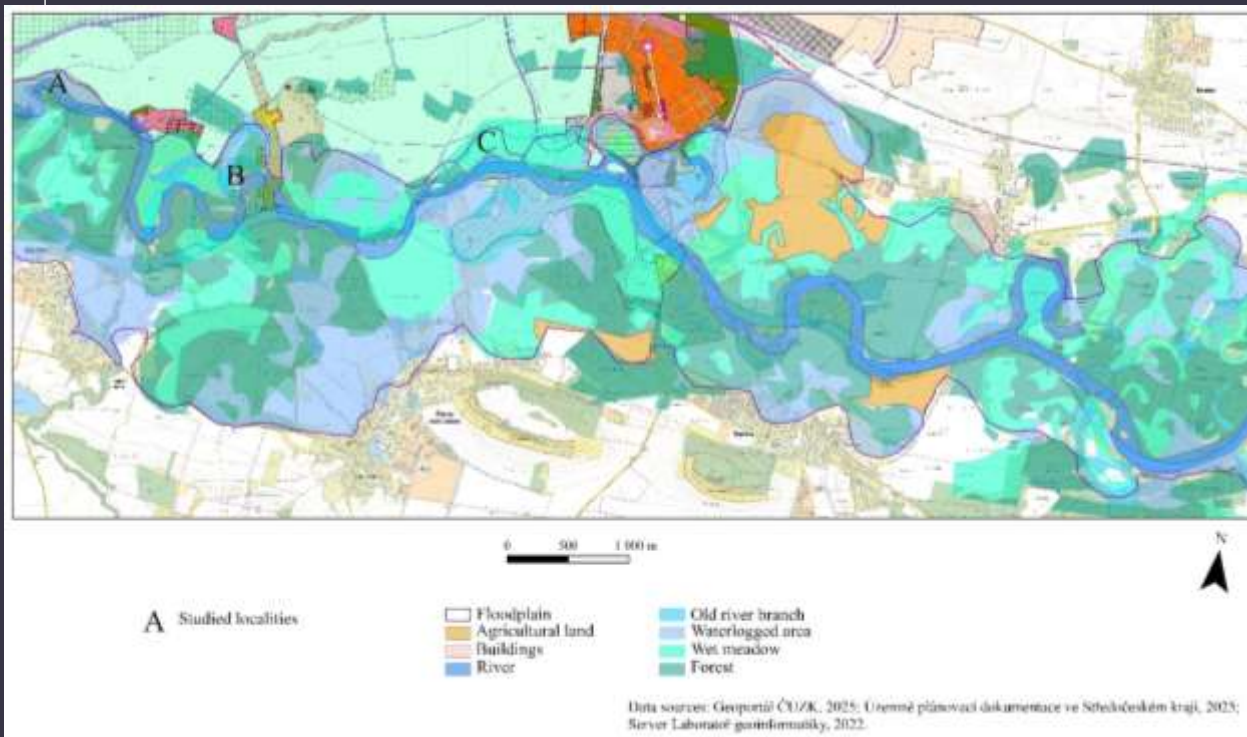


- riverbed - similarities and differences, lower accuracy than of the 10-year-older estate map
- Řehačka meander – visible a slight retreat, near Litol the former southern semicircular meander (disappeared within roughly 30 years.)
- Mršník -the eastern branch vanished; remained only the western branch and an alluvial island south of Litol
- Mydlovar - appear several bends and abandoned meanders



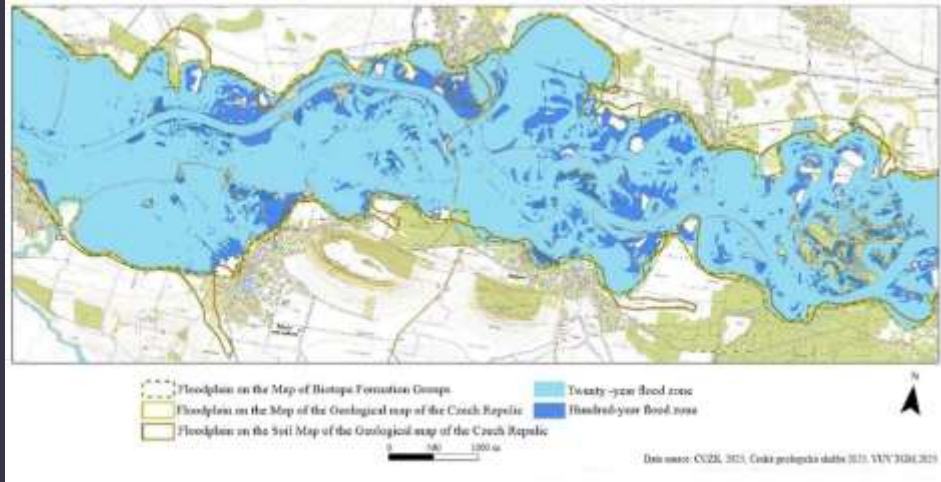
# 1. Transformation of the river landscape around Lysá nad Labem from the 18th to the first third of the 20th century

- Landscape around the Elbe River on maps of the 2<sup>nd</sup> Military Survey and the Stable Cadastre

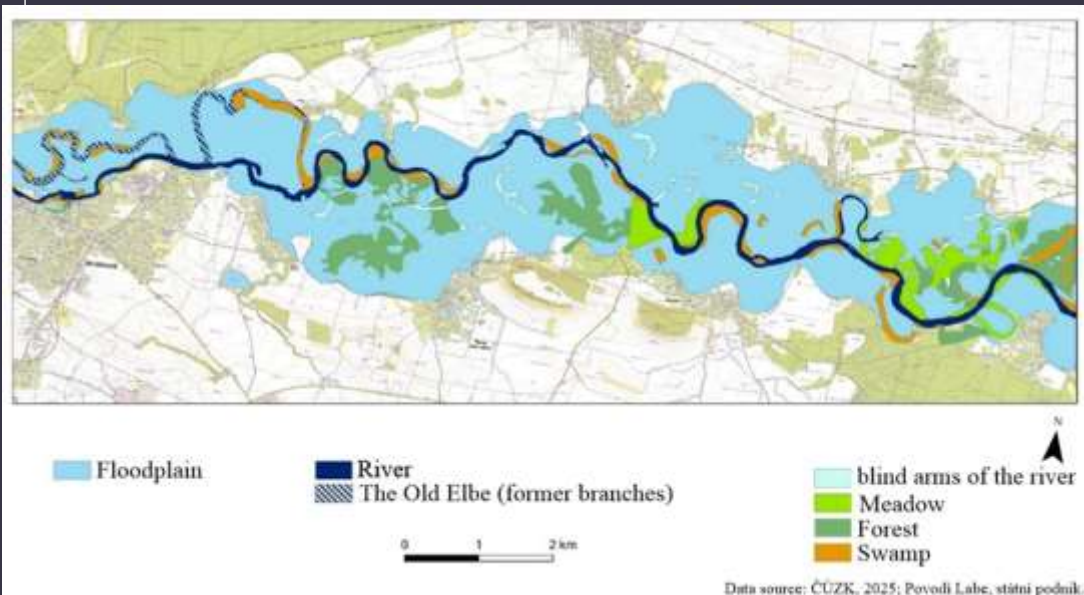


- Similar age, landuse, river; differentiated some landuse categories (taxes)

## 2. Flooding in the floodplain through the eyes of old maps and current models



- The investigated section of the Elbe River floodplain on the Flood Maps (Povodí Labe, státní podnik)



- the Elbe floodplain area - in its shape and size corresponds to the extent of the flood of a 100-year flood; floodplain also largely fills the floodplain of a 100-year flood, to a slightly lesser extent the floodplain of a 20-year flood, floodplain of the model of the largest natural flood
- during floods - water can spill into places where the river flowed in the past, or rather floods former parts of its course
- that during the 19th century the river straightened and meanders gradually disappeared, especially in the Byšičky , Mydlovarský luh and Ostrá areas. Flood maps -confirm that floods most often spill into places where the river flowed in the past.

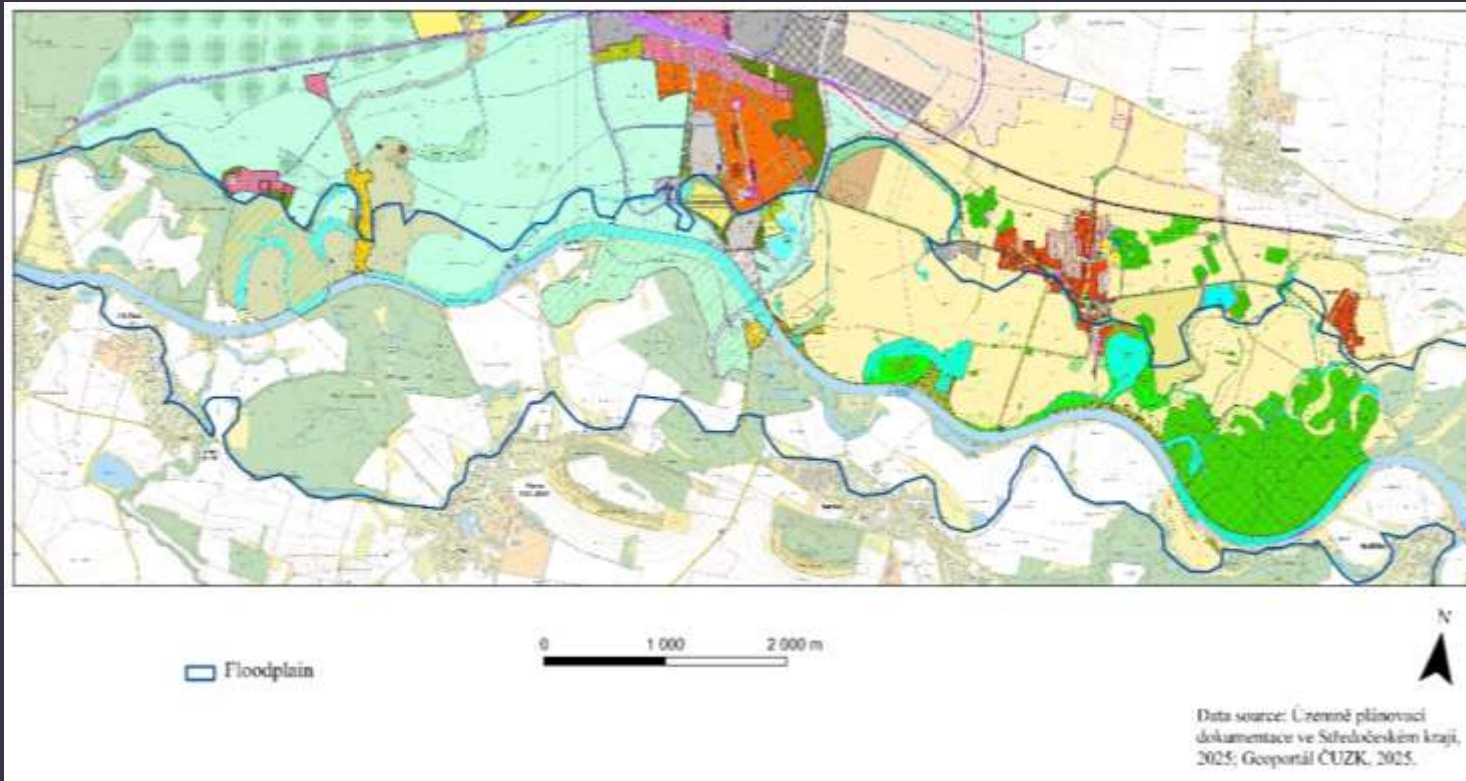


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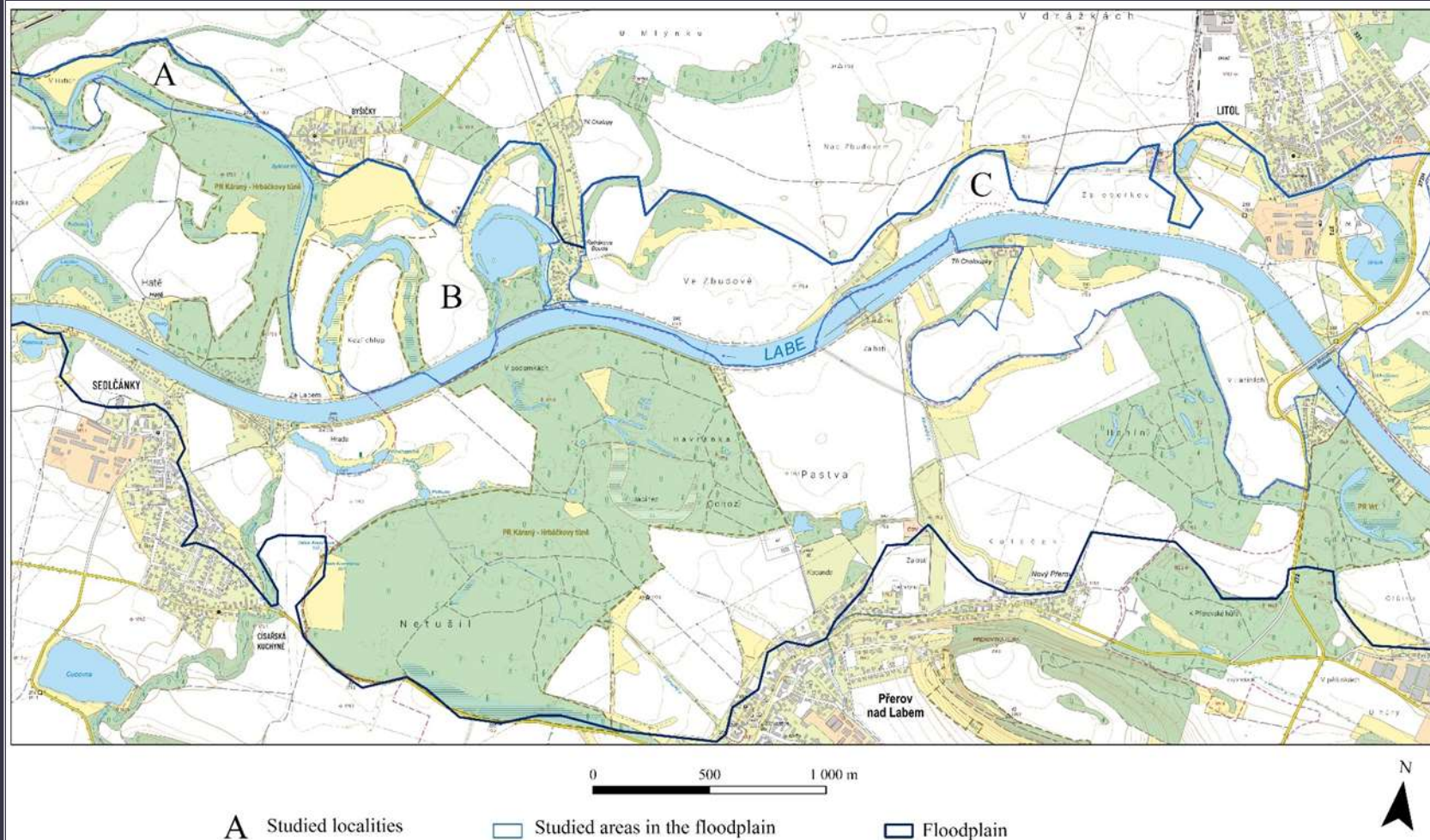
### 3. The Elbe floodplain on old maps and the zoning plan of Lysá nad Labem?



- W - "Elbe near Čelákovice and Přerov,, (Byšičky, Karlov, Litol)
- M - "Elbe floodplain near Semice and Ostrá,, (is again tied to the former meanders of the Elbe)
- areas located north of the riverbed and are intended, among other things, for water management
- The former Elbe meanders (Kozí Chlup, Řehačka or Mršník) -water areas
- Ostrá – agricultural areas, S –water areas, E - Mydlovarský luh nature reserve



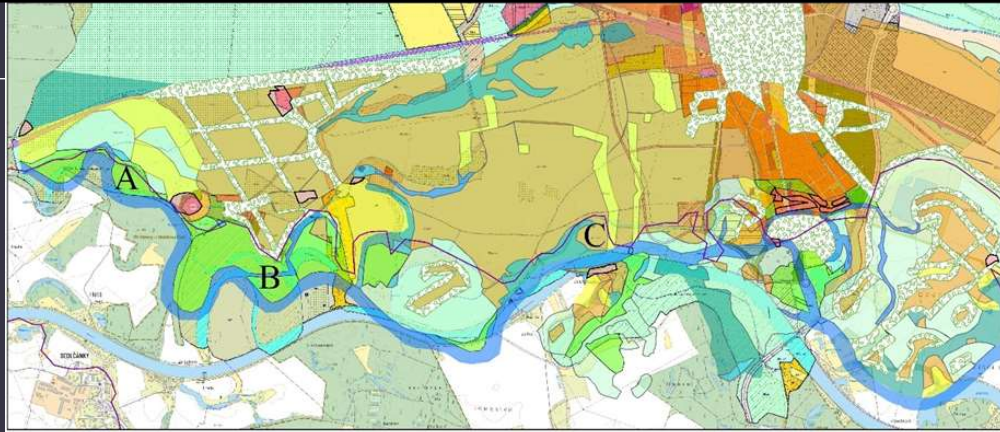
### 3. The Elbe floodplain on old maps and the zoning plan of Lysá nad Labem?



- parts of the Lysá land registry and the Elbe floodplain
- they contain former meanders, i.e. areas potentially at risk of flooding

Source: Geoportál ČÚZK, 2025.



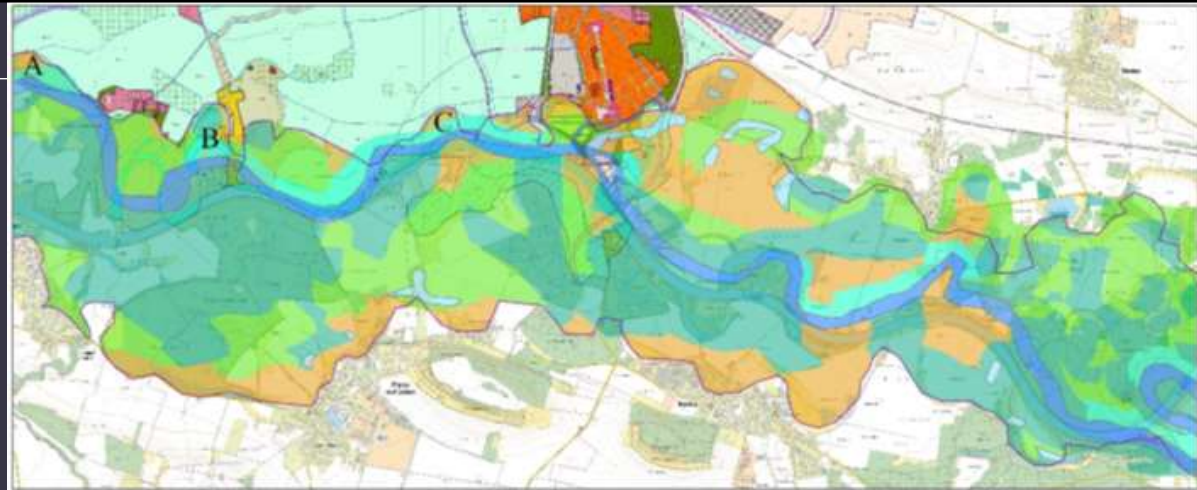


A Studied localities

0 500 1 000 m

- River
- Floodplain
- Buildings
- Woody plant
- Forest
- Meadow
- Manorial field
- Pasture
- Serf field
- Water area

Data sources: Geoportál ČÚZK, 2025; Územně plánovací dokumentace ve Středočeském kraji, 2025; Státní okresní archiv Nymburk se sídlem v Lysé nad Labem).

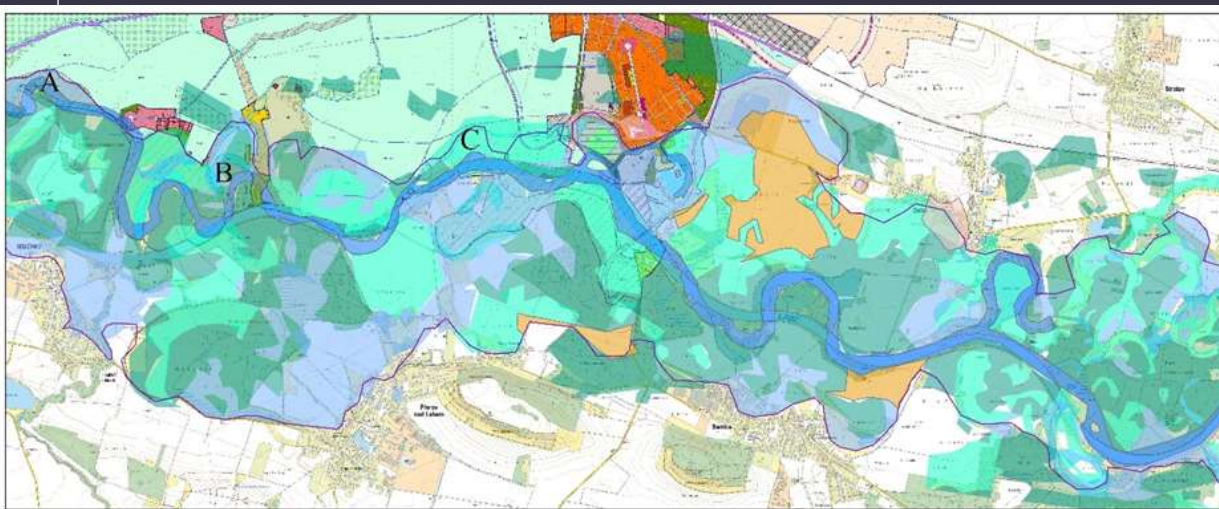


A Studied localities

0 500 1 000 m

- Floodplain
- Forest
- River
- Agricultural land
- Water area
- Wet meadow
- Meadow

Data sources: Geoportál ČÚZK, 2025; Územně plánovací dokumentace ve Středočeském kraji, 2025; Server Laboratoř geoinformatiky (2022).

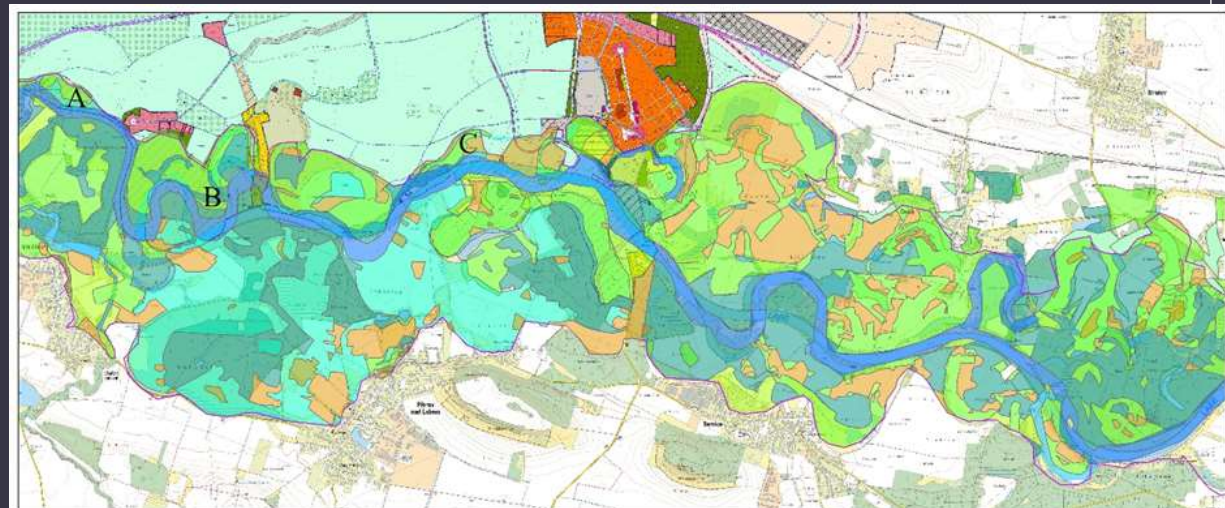


A Studied localities

0 500 1 000 m

- Floodplain
- Agricultural land
- Buildings
- River
- Old river branch
- Waterlogged area
- Wet meadow
- Forest

Data sources: Geoportál ČÚZK, 2025; Územně plánovací dokumentace ve Středočeském kraji, 2025; Server Laboratoř geoinformatiky, 2022.



A Studied localities

0 500 1 000 m

- Waterlogged area
- Agricultural land
- Buildings
- Floodplain
- Garden
- Pasture
- Swamp
- Wet meadow
- River
- Meadow
- Water area
- Forest

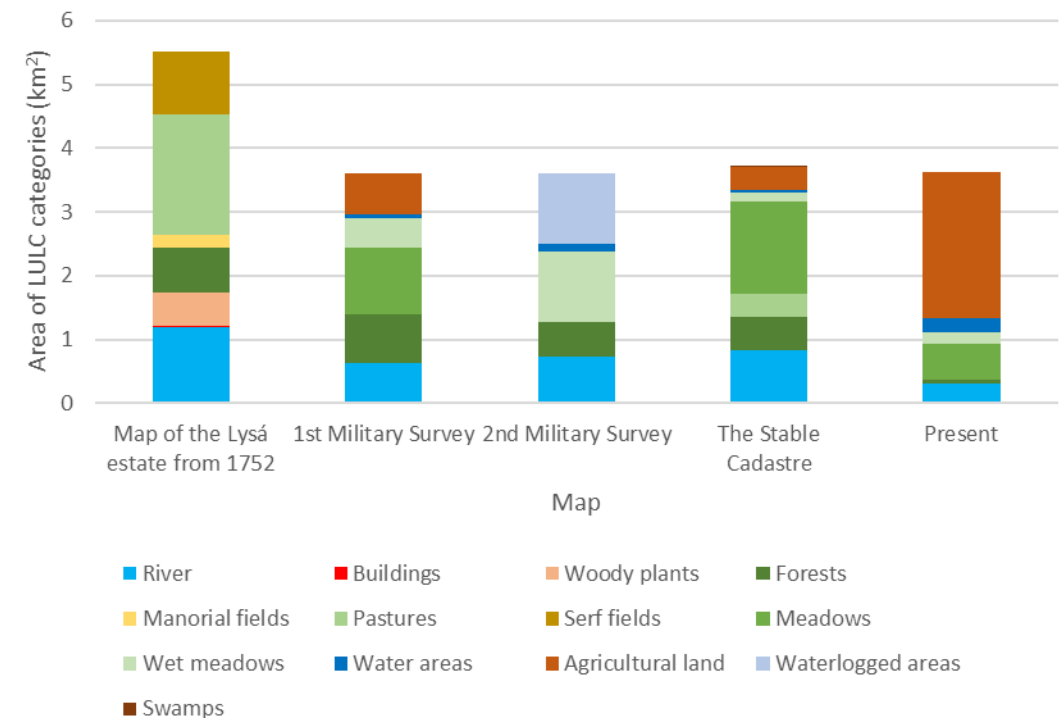
Data sources: Geoportál ČÚZK, 2025; Archiválie ÚAZK, 2025.



### 3. The Elbe floodplain on old maps and the zoning plan of Lysá nad Labem?

Localities	Map of the Lysá estate from 1752	Maps of the 1st Military Survey	Maps of the 2nd Military Survey	Maps of the Stable Cadastre's number prints	Flood maps	Current status (according to the Office of the Inspectorate)
A) Homolka, Byšická tůň	mosaic of meadows and water bodies; semicircular manor fields (old riverbed) near Byšičky ; agricultural areas between forest belts	west of Byšičky : 1/3 wet meadows, 1/3 forests, 1/3 agricultural land	west of Byšičky : waterlogged areas and wet meadows	western edge near Byšičky : forests	from Byšičky to Mršník – floodplain; forests and blind branches; importance for defining the floodplain.	undeveloped area, area with natural potential; possibility of water management and agricultural use
B) Kozí Chlup, Řehačka	mosaic of meadows and water bodies	larger part of meadow, smaller part of wet meadow; the Elbe River flows through	south and east: forests, west: wet meadows; the meandering Elbe, the shapes of some meadow areas evoke the appearance of former Elbe riverbeds	mosaic of forests, meadows, fields	visible blind shoulders, swamps, forests.	mosaic of natural and water areas
C) Tři Chalupy to Mršník	Tři Chalupy: agricultural areas between forest belts; Litol – Mršník: mosaic of meadows, watercourses and trees	Tři Chalupy: wet meadows, forests, agricultural areas, Mršník: agricultural use, wet meadows, forests	undeveloped natural landscape, wet meadows, forests, river flow	natural character, but more detailed economic use	floodplain; emphasis on the course of the riverbed and blind branches.	Tři Chalupy: undeveloped natural area; Mršník: natural and recreational area, fishing, sports use

The change index



# Conclusions

- – until the 1930s the floodplain was natural (forests, meadows, wetlands, meanders), fundamental change - straightening and navigability of the Elbe, 1950s - massive loss of natural areas and growth of agricultural landscape => although an intervention in the form of the landscape, but a big plus for local agriculture
- the studied localities (Byšičky, Tři Chalupy, Mršník) copy this trend
- – old maps have the potential to be useful for spatial planning, but also limitations: scale, geodetic errors, absence of a coordinate network, various mapping methodologies
  - the 2nd Military Survey and Stable Cadastre - most reliable historical sources
  - the 1st Military Survey and 18th-century engraving and maps – partly useful (distorted)
- old maps are not its main basis (primary basis - cadastral map)– and sometimes the historical landscape gives way to development plans
- the spatial plan partially respects development trends