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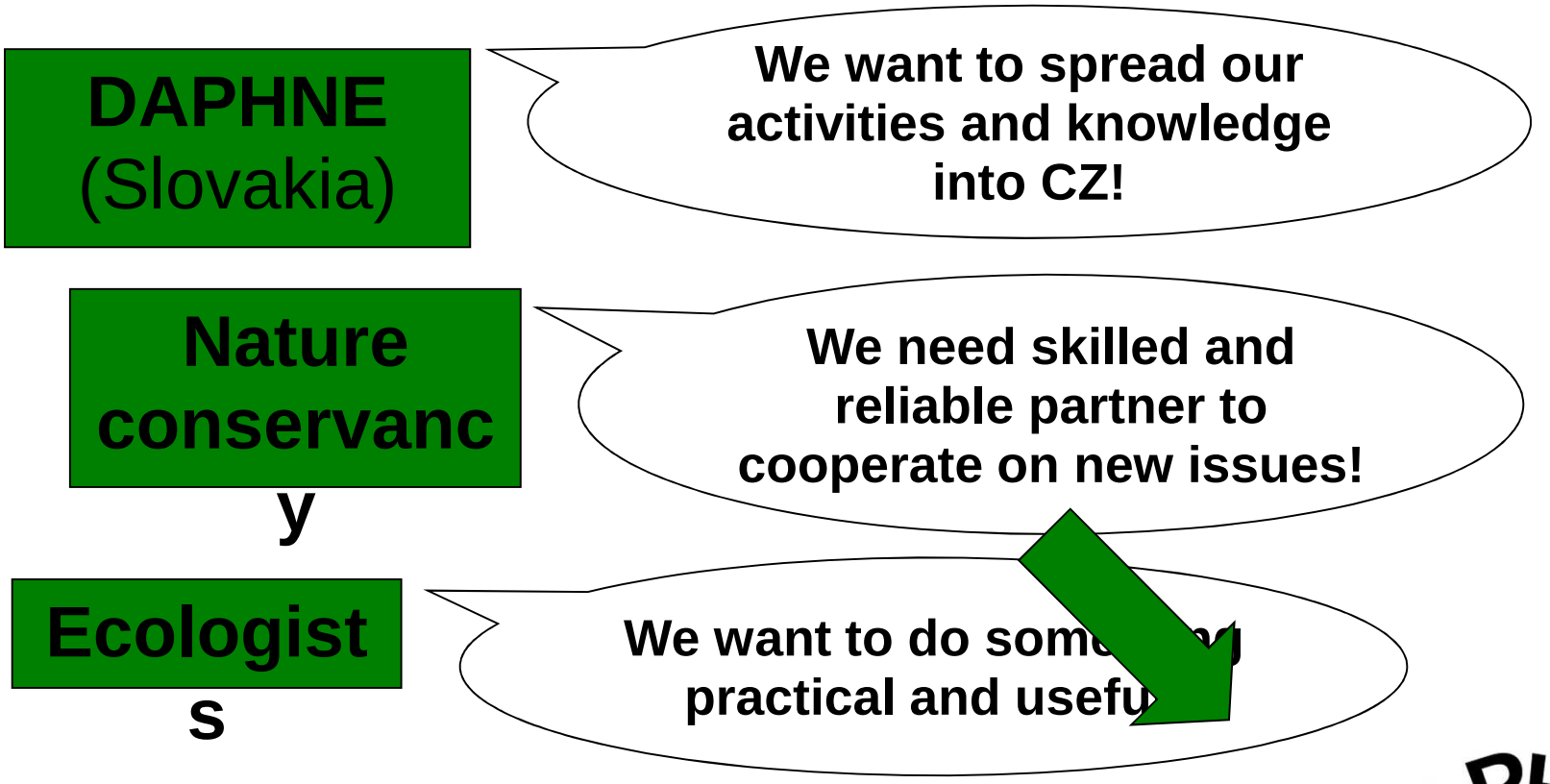
Possible applications of remote sensing in agri-environmental practice

Martin Střelec, DAPHNE CZ – Institute of Applied Ecology
HYDAP kick-off meeting, Brno, 15.11.2012

DAPHNE CZ – Institute of Applied Ecology



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DAPHNE Institut aplikované ekologie

Our topics

- Environmentally friendly farming
- Natura 2000
- Freshwater protection
- Applied biodiversity research

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Farm environment advisory

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Problems addressed - example

- Field experiment – mowing x fertilizing regimes
- Rotating hedge management
- Wetland restoration
- Species composition enrichment on grasslands
- Wetland (wet spots) management
- Education for public and employees

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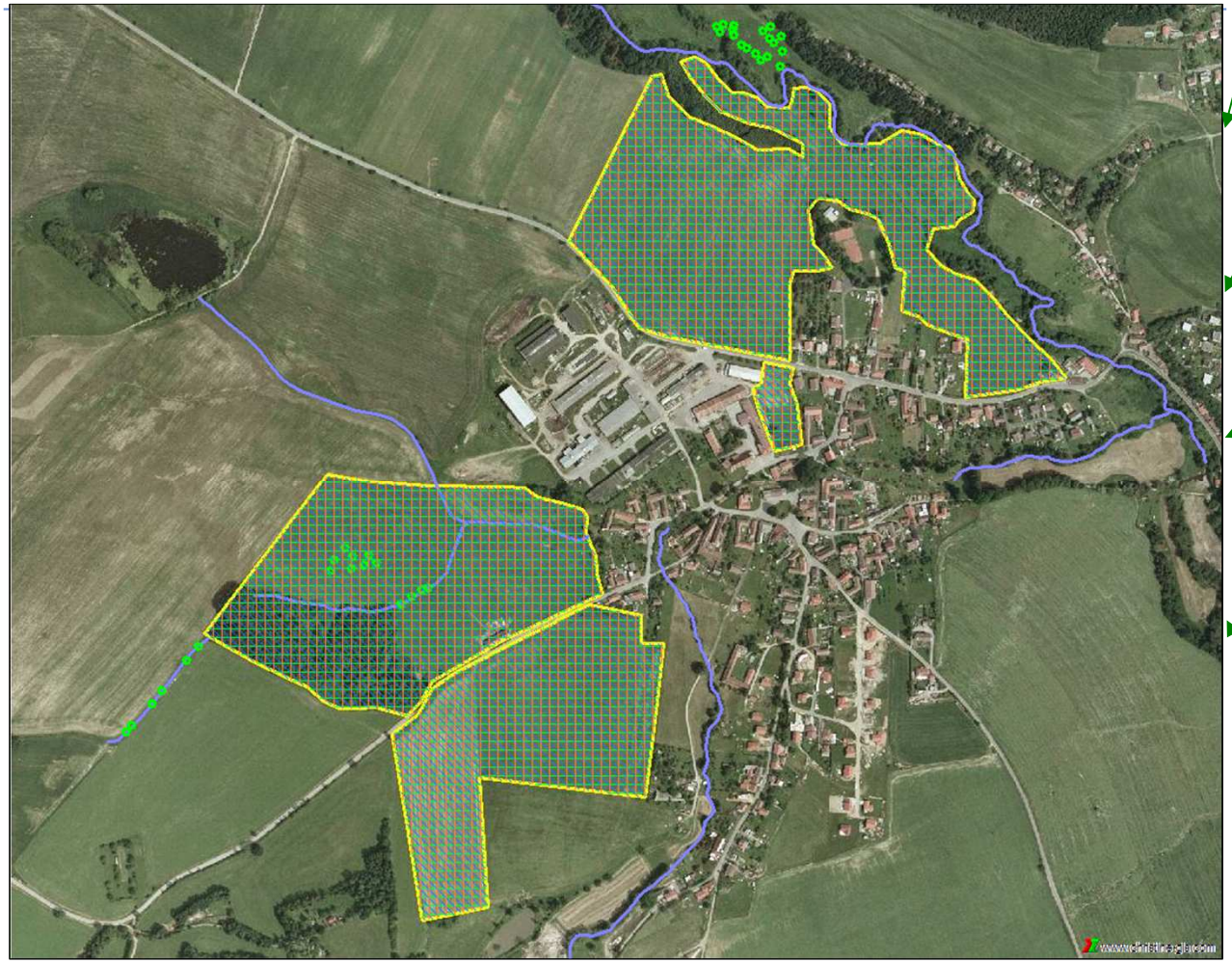
Farm environment plan – a complex approach



plants

animals

land-use & management

trees
streams
...

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Policy making

- Proposing new agri-environmental schemes
- Developing farm environment planning methodology as a tool for assigning agri-environmental subsidies
- Influencing environmental aspects in Common Agricultural Policy

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Proposing water-regime enhancement in Křemže

Návrhy opatření pro snížení eroze a odtoku v katastrálním území Chlum

Pracovní návrh pro potřeby ZD Podkleťan

vypracoval: DAPHNE ČR – Institut aplikované ekologie
Husova 45, České Budějovice
Mgr. Martin Střelec, Mgr. Petra Konvalinková

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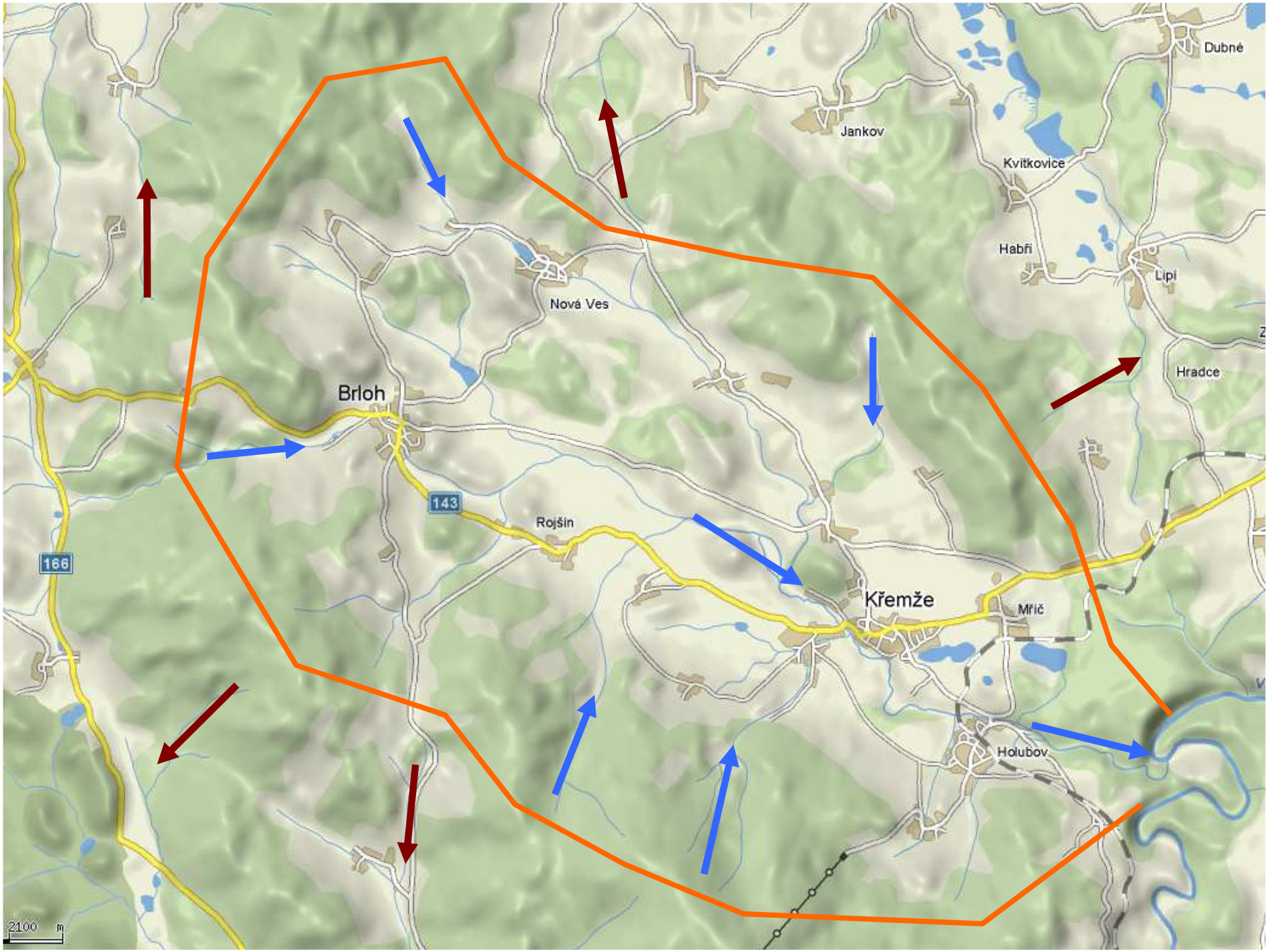
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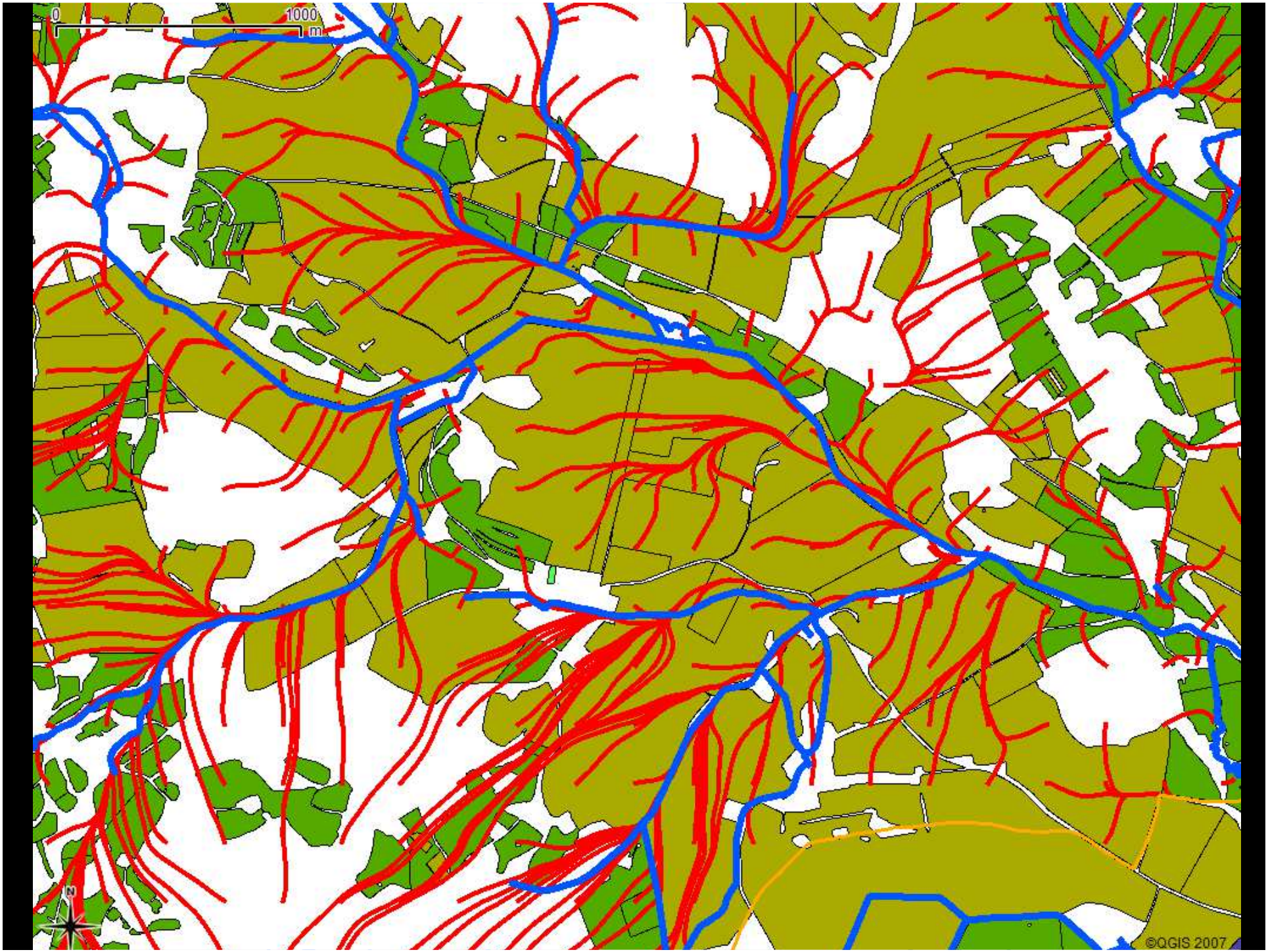
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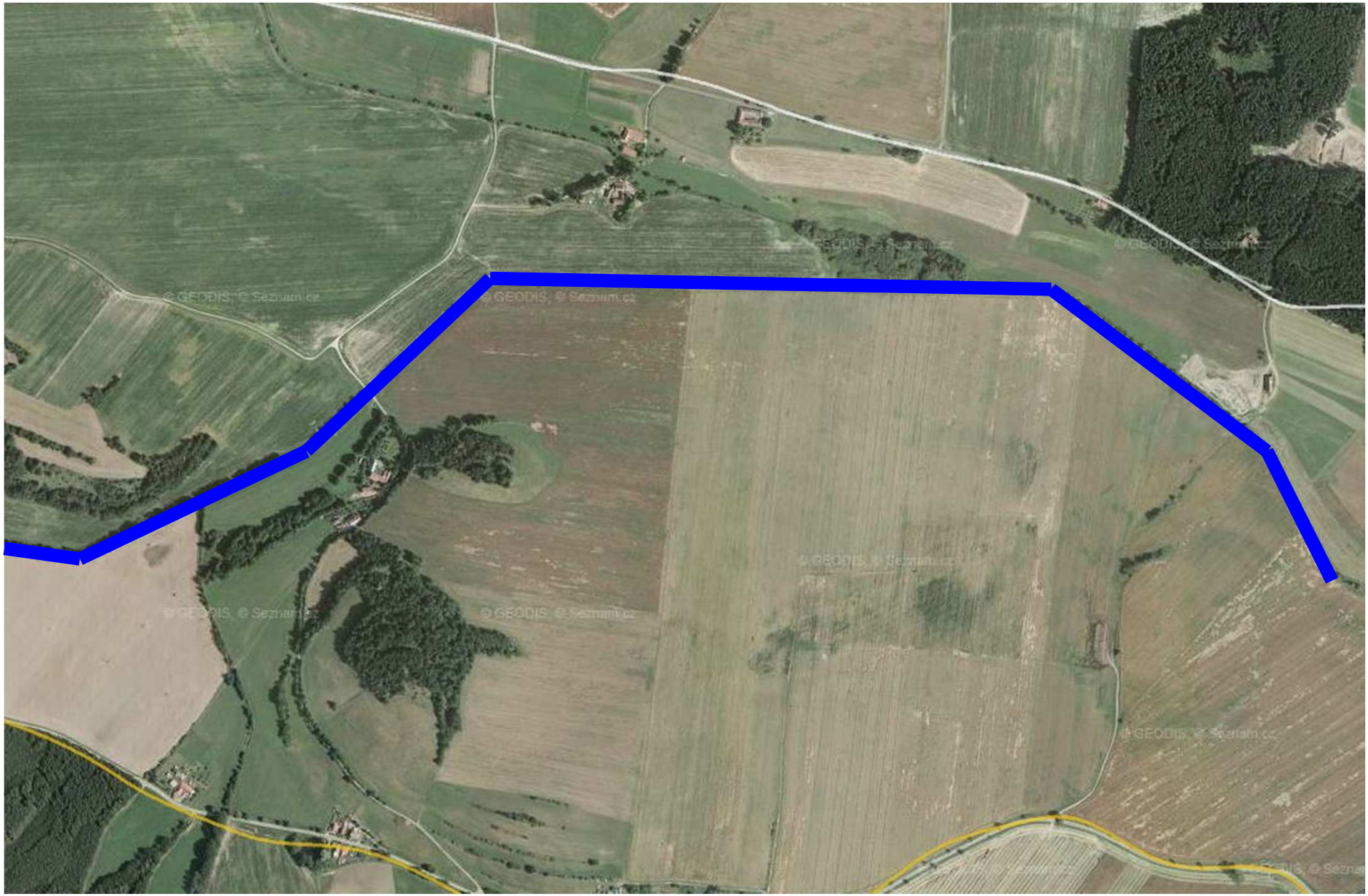
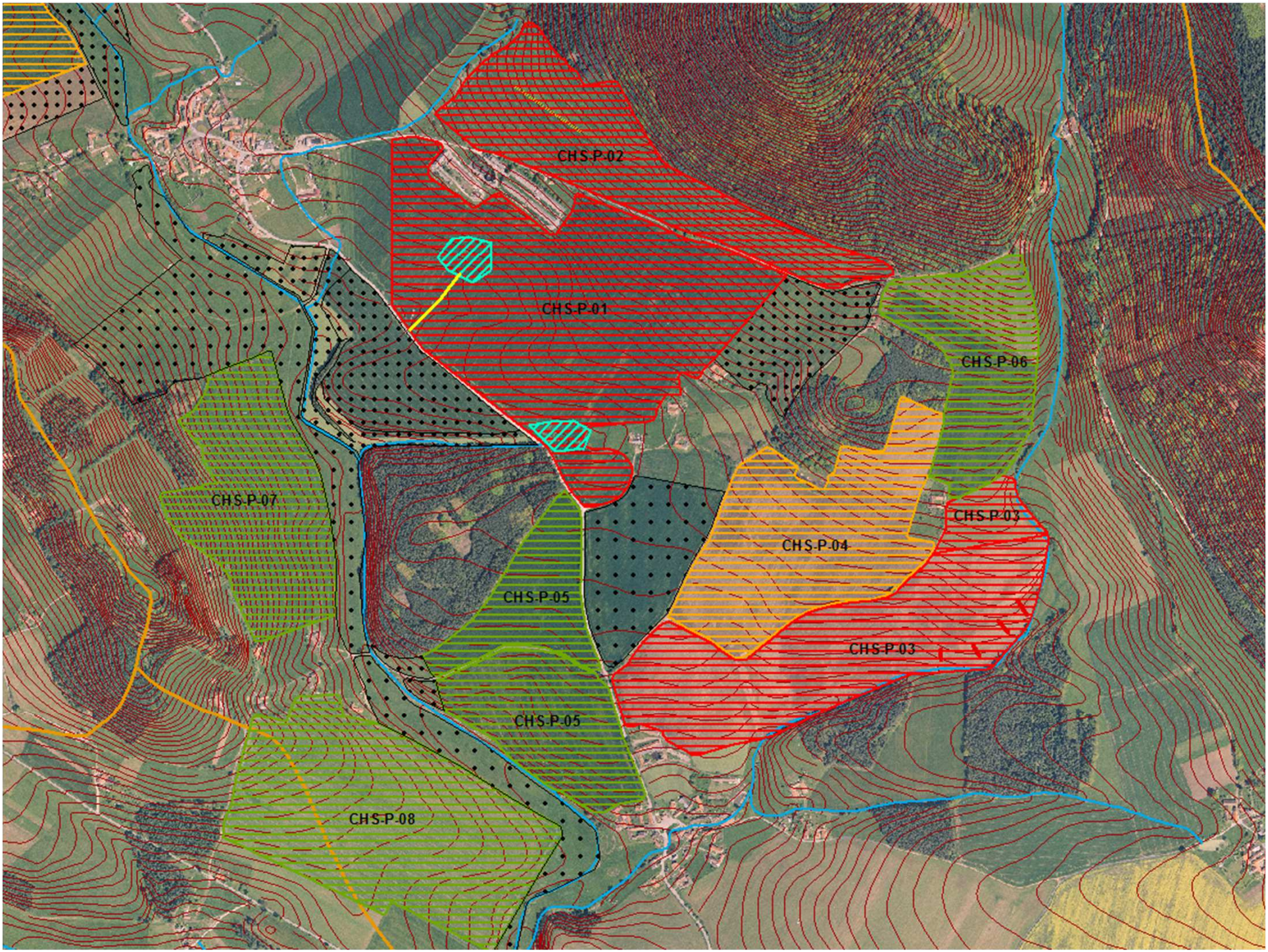

© GEODIS, © Seznam.cz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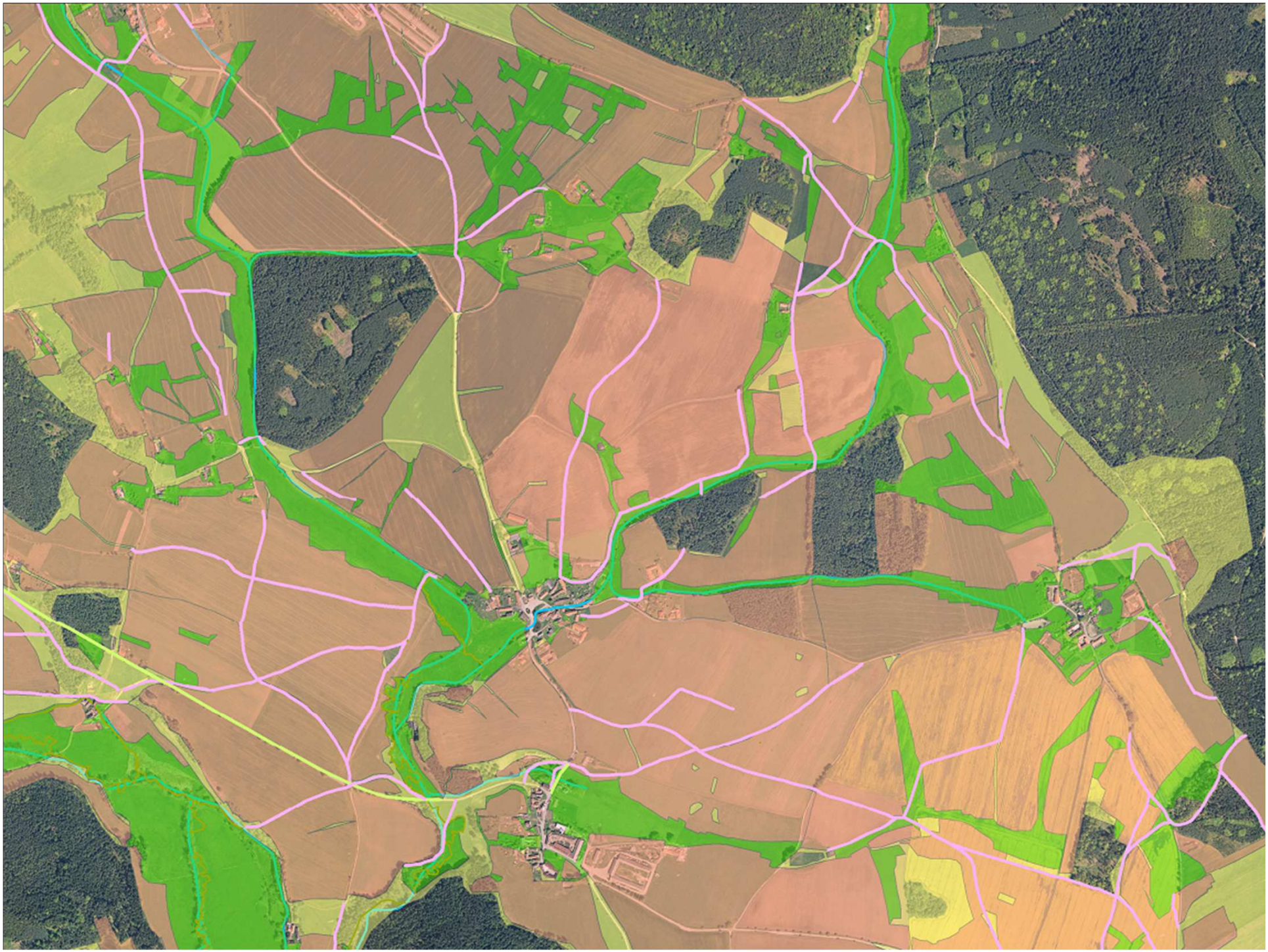

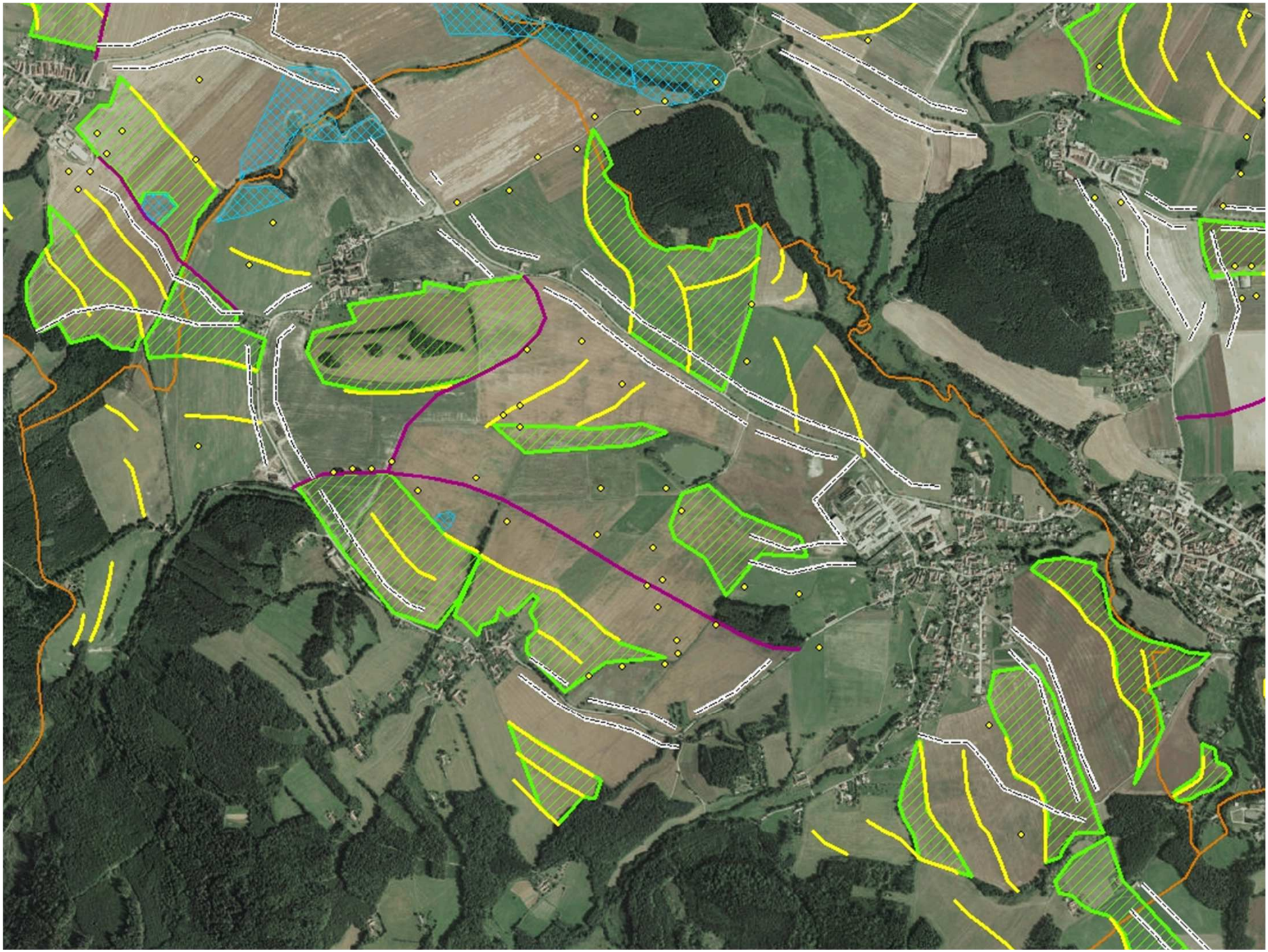

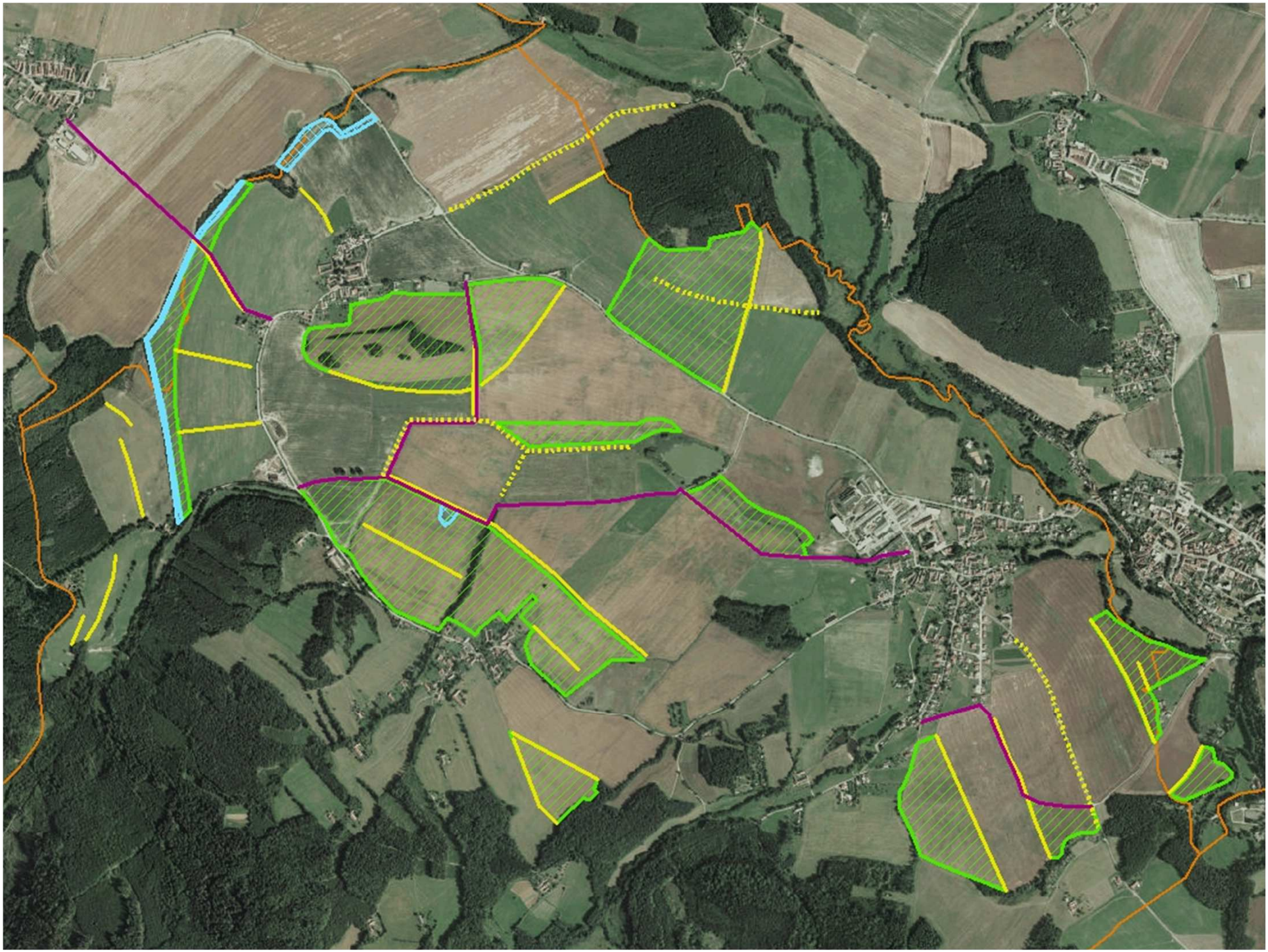

Using RS for farm-env advisory & planning

- Supporting data for field surveys, e.g.
  - Water regime
  - Wetland management
  - Forage quality

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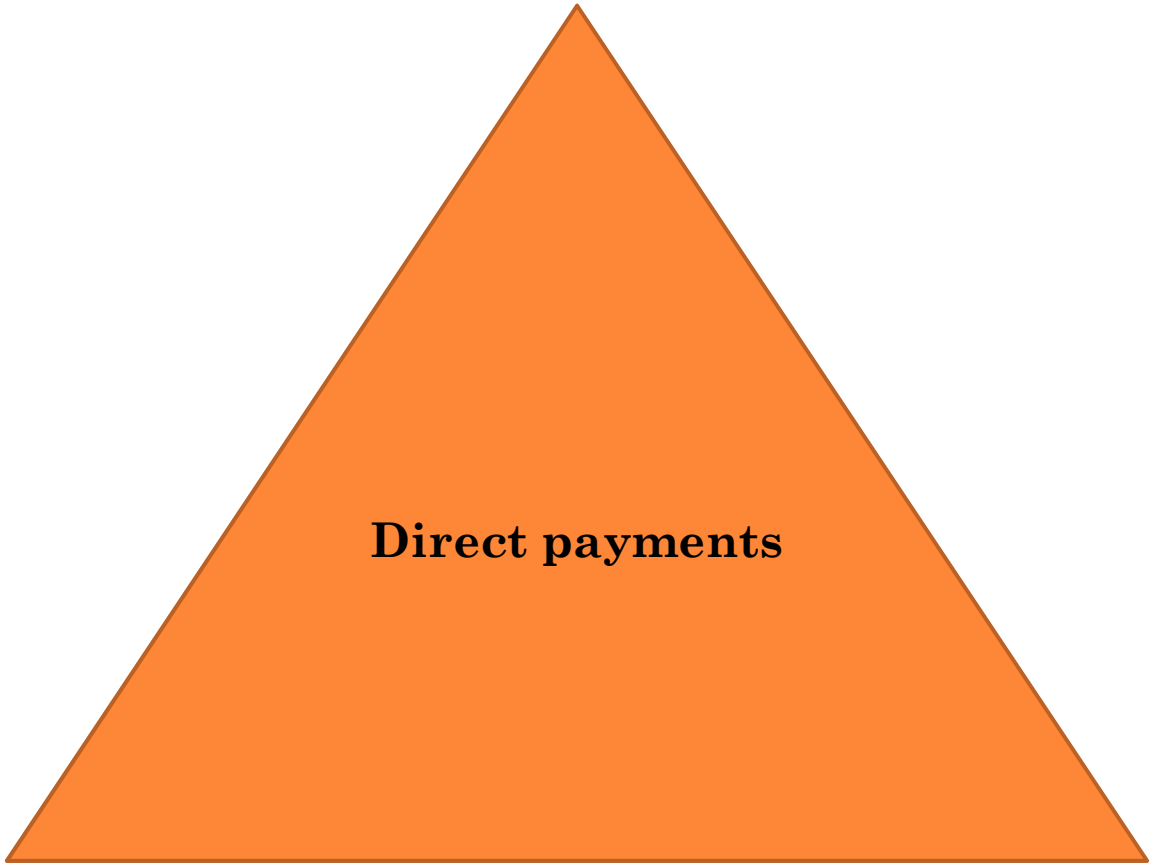
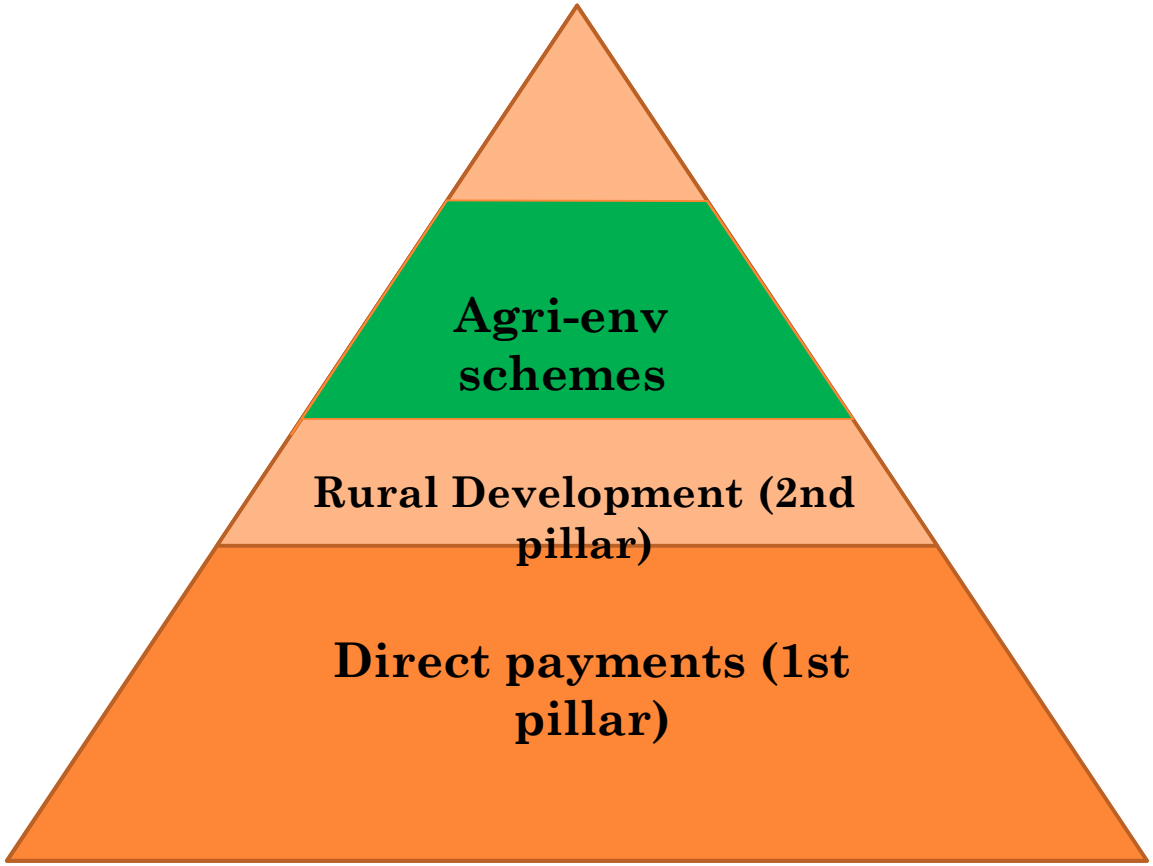
Environmental aspects of CAP

- Original CAP



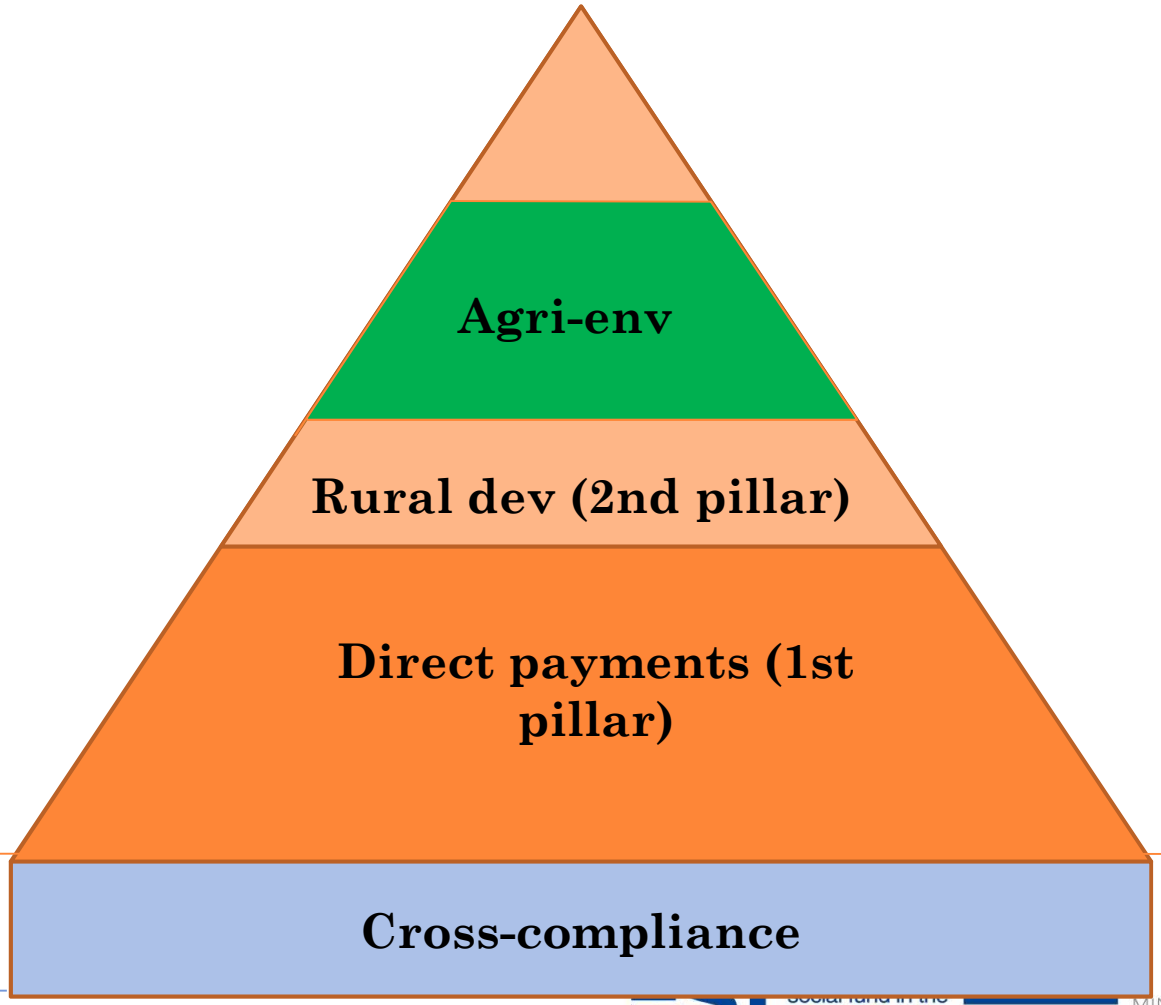
Environmental aspects of CAP

- Since ca. 2000



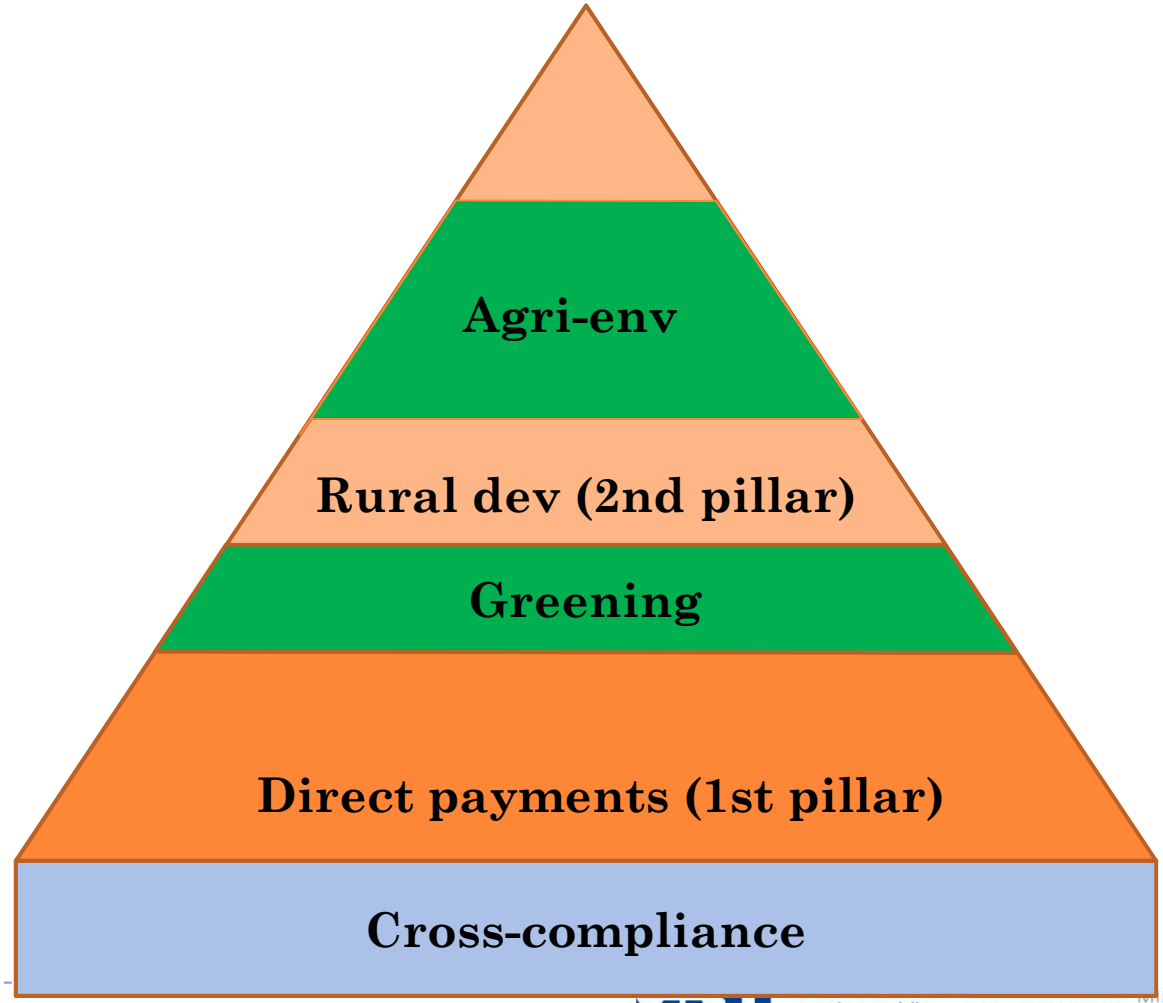
Environmental aspects of CAP

- Since 2007



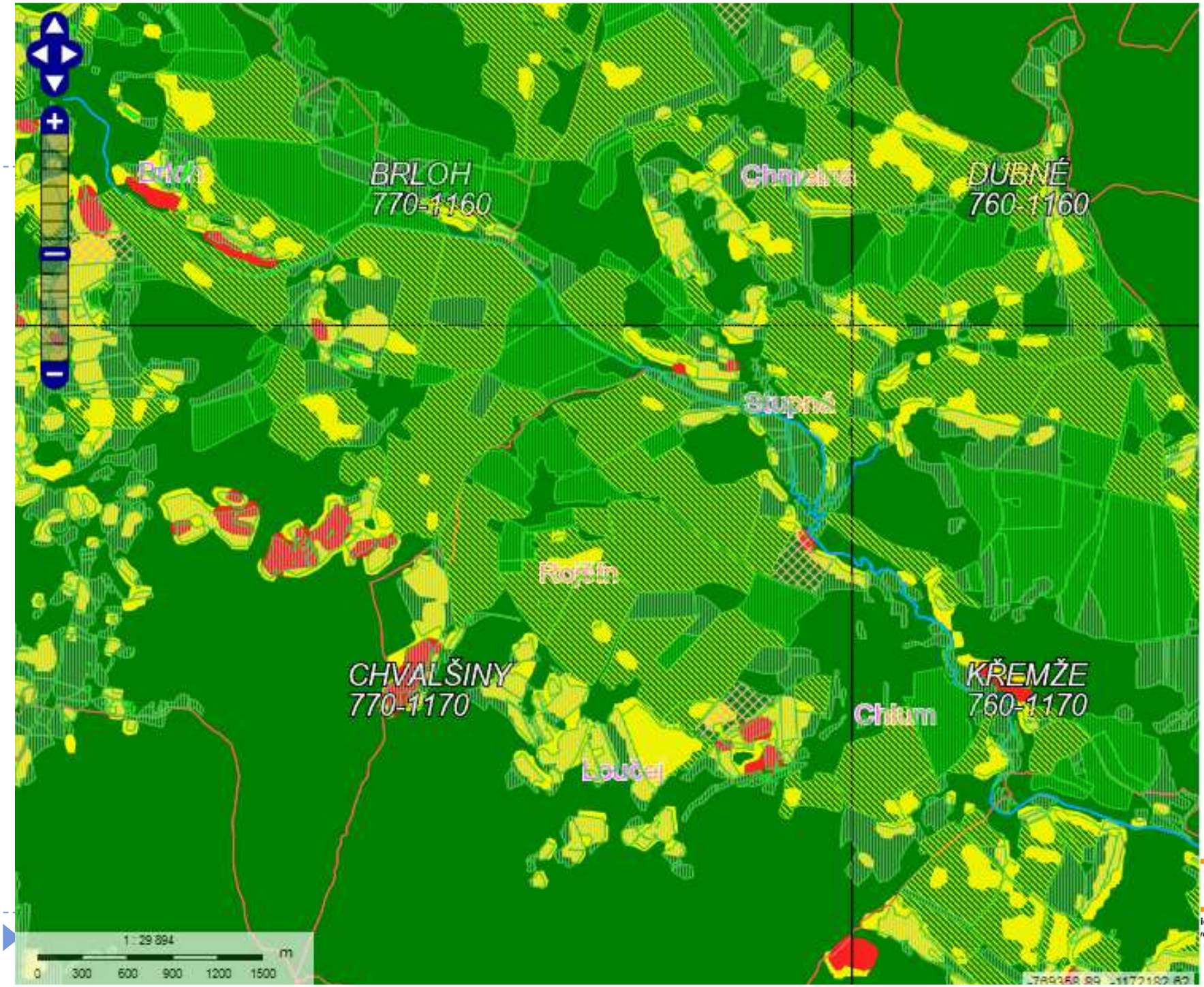
Environmental aspects of CAP

- Since 2014



Levels of involvement in policy

- Data support for scheme design
- Monitoring of performance
- Evaluation of outcomes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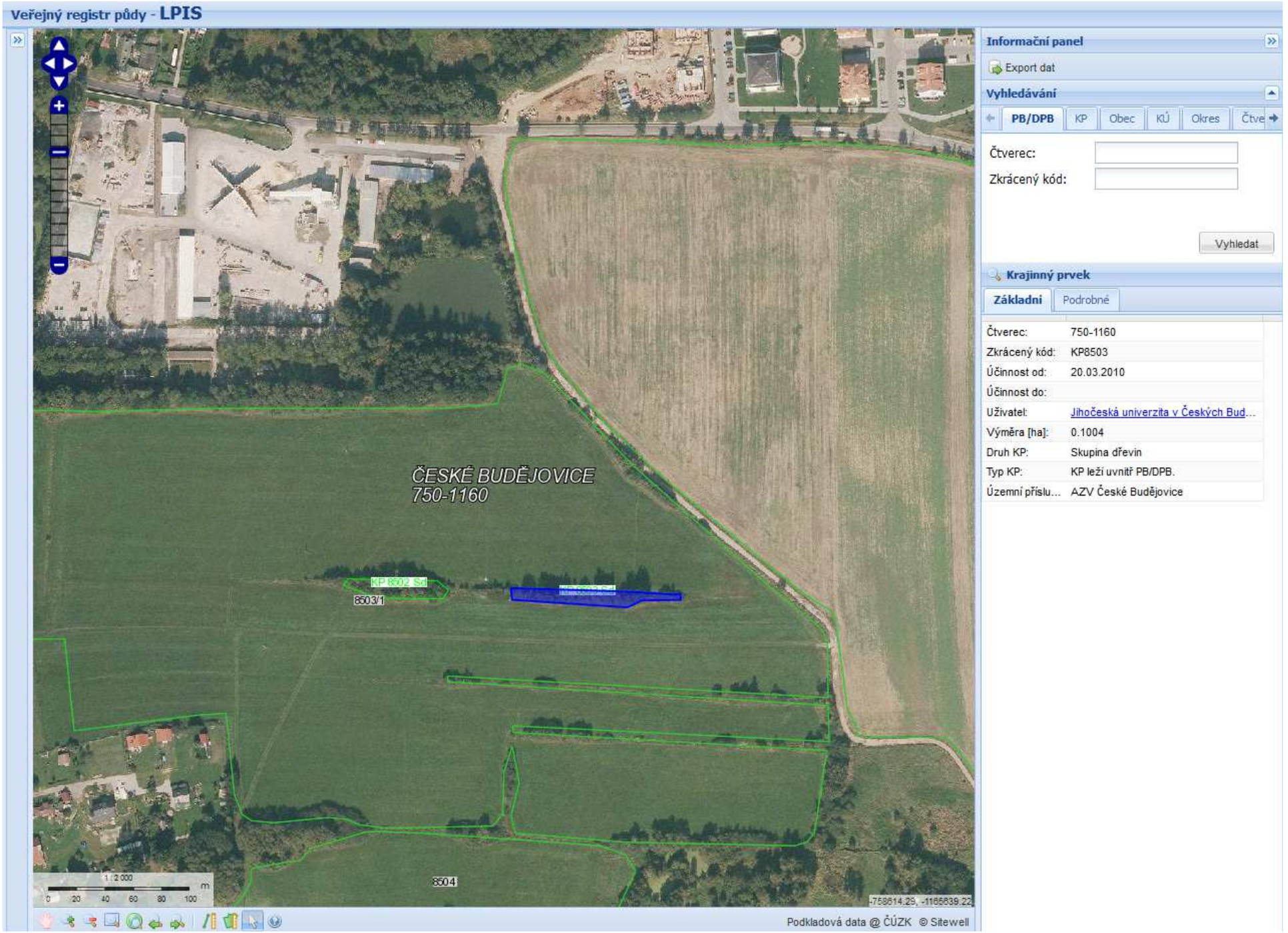
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Podkladová data @ ČÚZK © Sitewell
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Vyhledat
Krajinný prvek
Základní
Podrobné
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Zkrácený kód: KP8503
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Účinnost do:
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Výměra [ha]: 0.1004
Druh KP: Skupina dřevin
Typ KP: KP leží uvnitř PB/DPB.
Územní přísl... AZV České Budějovice

Cross-compliance – landscape elements

- Single trees
- Groups of trees
- Tree lines
- Terraces
- Valley lines with grass (on arable land)
- Wetlands???

Pillar 1 greening

- 30% of direct payments for each farm eligible under 3 conditions
  - Crop diversity
  - Permanent grassland maintenance
  - Ecological Focus Areas

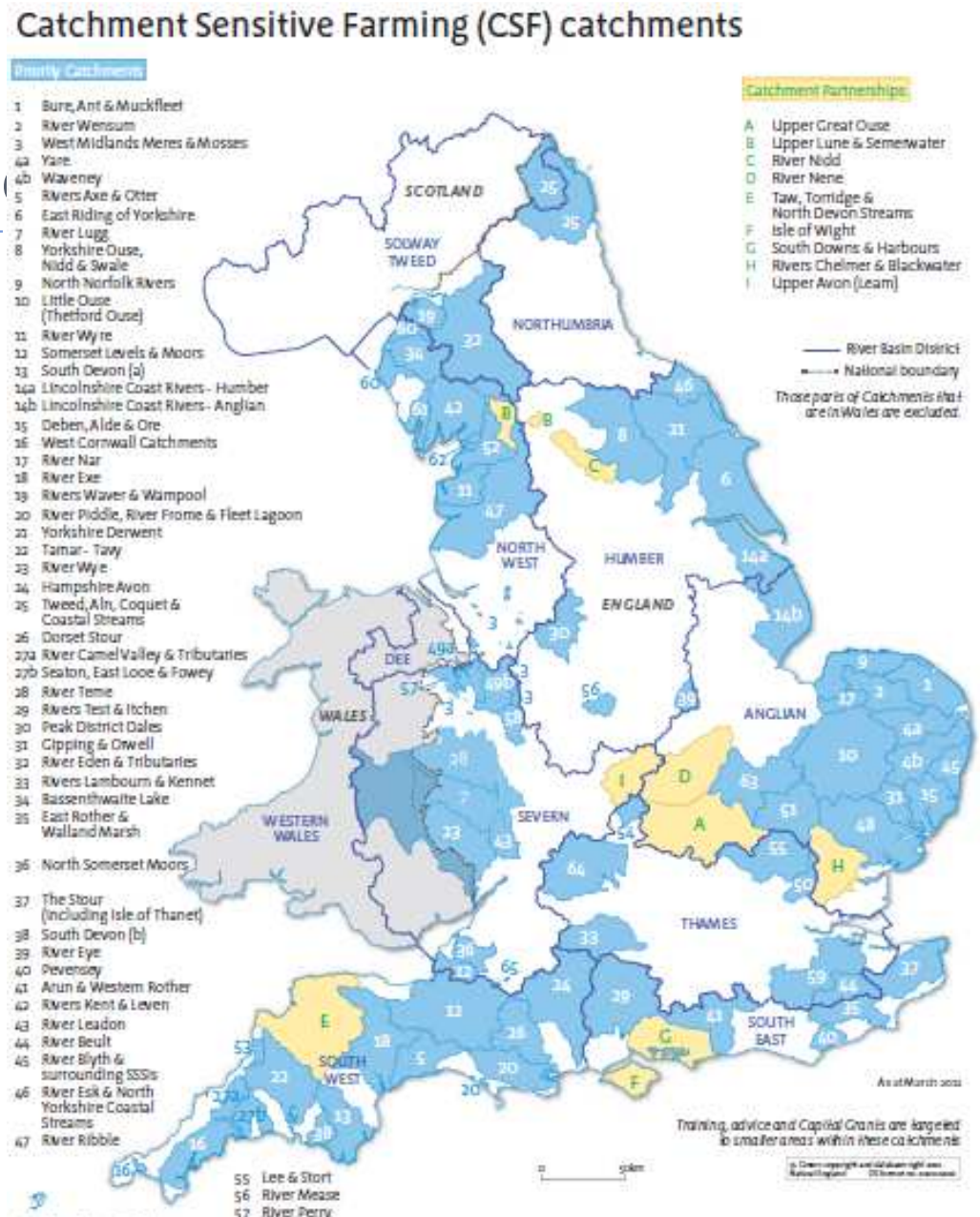
Condition 1 – crop diversity

- Minimum 3 crops per farm
- One crop maximum 70% of farmed area
- Each crop minimum 5% of farmed area
- NO ROTATION necessary

Condition 3 – Ecological Focus Areas

- 7% of farmed area (except permanent grassland) must be maintained as Ecological Focus Area, e.g.
  - Hedges
  - Trees
  - Wetlands
  - Landscape elements
  - …

Catchm



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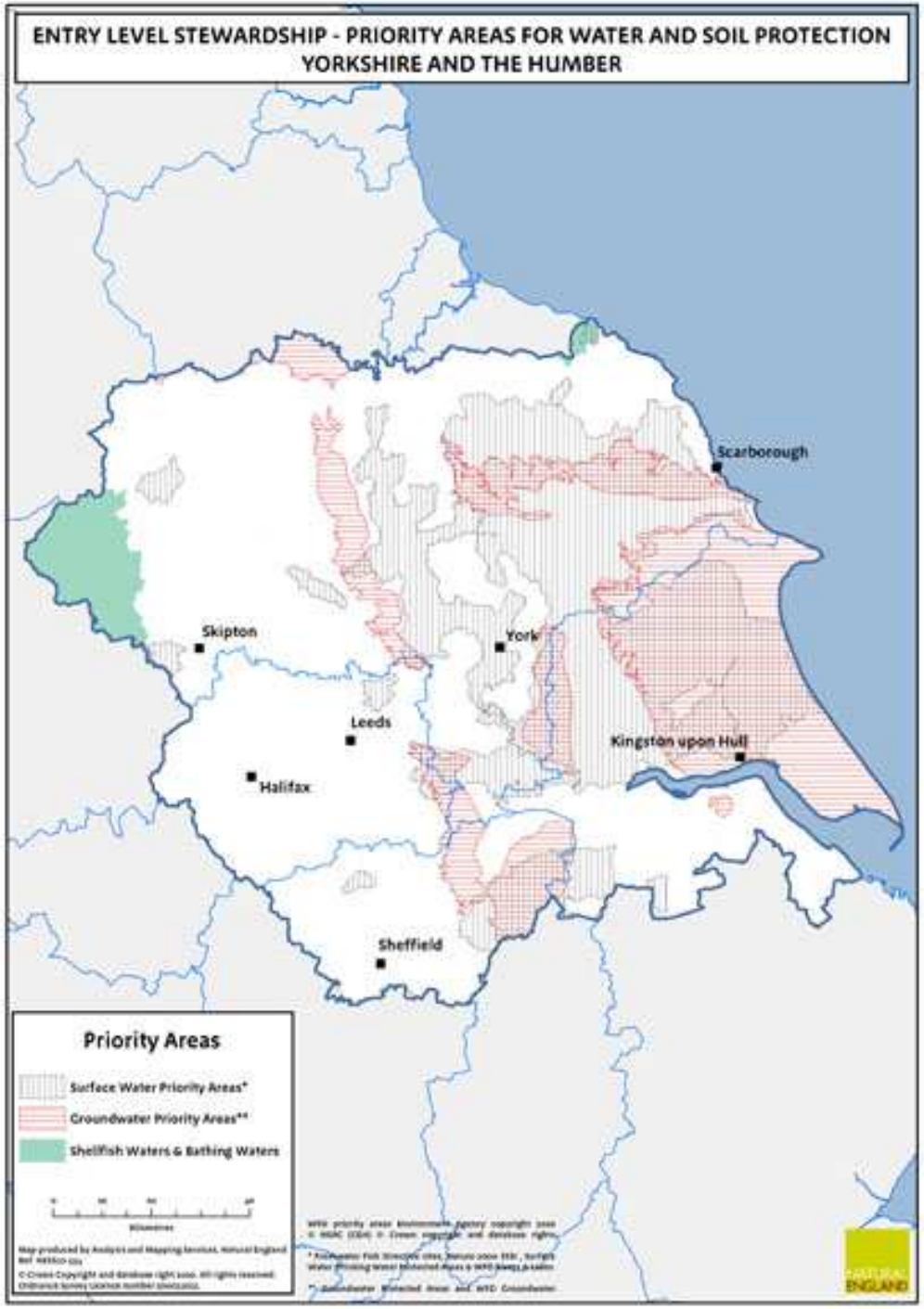
… c … panies



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ITS IN EDUCATION DEVELOPMENT

BUT – what must not be forgotten

- Right balance – cost&effort invested to scientific analysis vs. practical implementation
- Recurrence of the process
- Time continuity of analysis & implementation
- Simplification of the results, drawing clear borders

Thank you!

- Martin Střelec
- martin.strelec@daphne.cz

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