THE AIZM FLOOD MODEL

–

ACCURACY AND PERSPECTIVE IN THE GEOMORPHOLOGICAL RESEARCH

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AIZM model…

1. WHAT IS IT?

2. HOW DOES IT WORK?

3. ON THE ACCURACY…

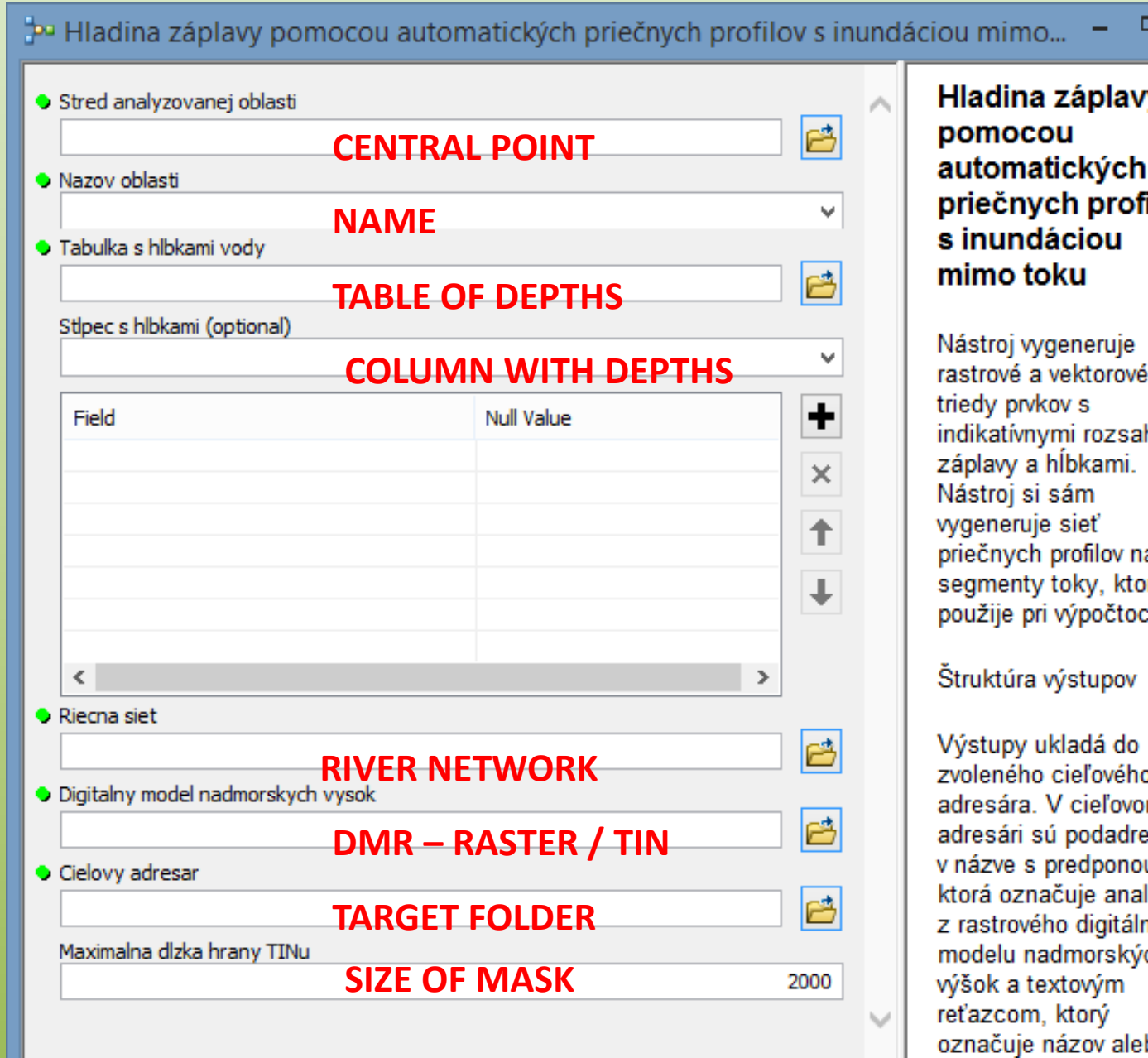
4. PERSPECTIVE OF USING…

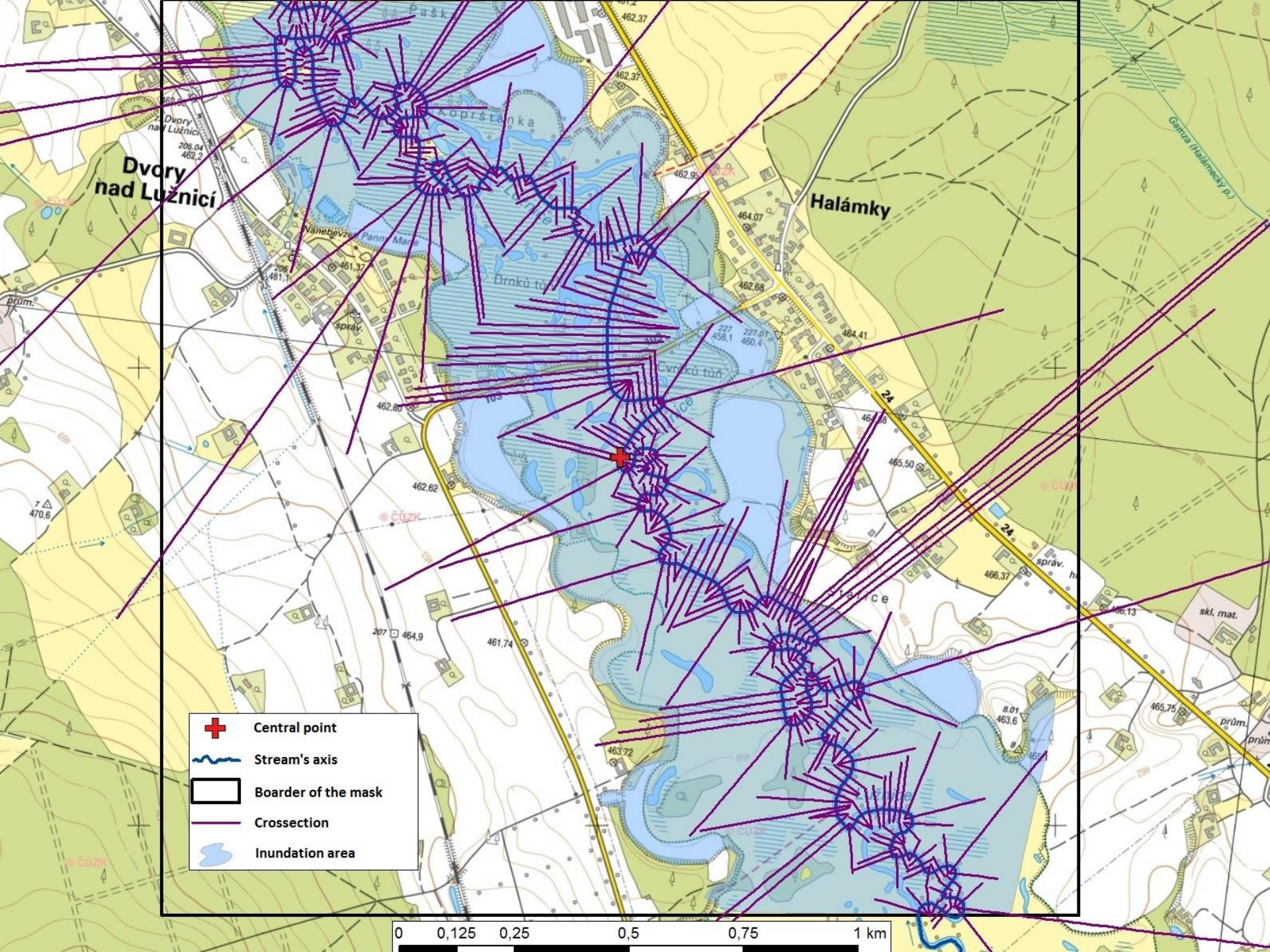
WHAT IS IT?

- A SIMPLE TOOLSET BASED ON **CHAINING OF ArcGIS TOOLS** (MODEL BUILDER)
- APROXIMATION OF FLOOD **WATER LEVELS** (IN AREAS WHERE HYDRAULIC OUTPUTS MAY BE UNAVAILABLE)
- „A VIEWER“ RATHER THAN „A MODEL“
- NO INTENTION OF SUBSTITUTING THE HYDRAULIC MODELS

HOW DOES IT WORK?

INPUT DATA:




Dvory nad Lužnicí
Halámky
Central point
Stream's axis
Boarder of the mask
Crossection
Inundation area
0
0,125
0,25
0,5
0,75
1 km

ON THE ACCURACY…

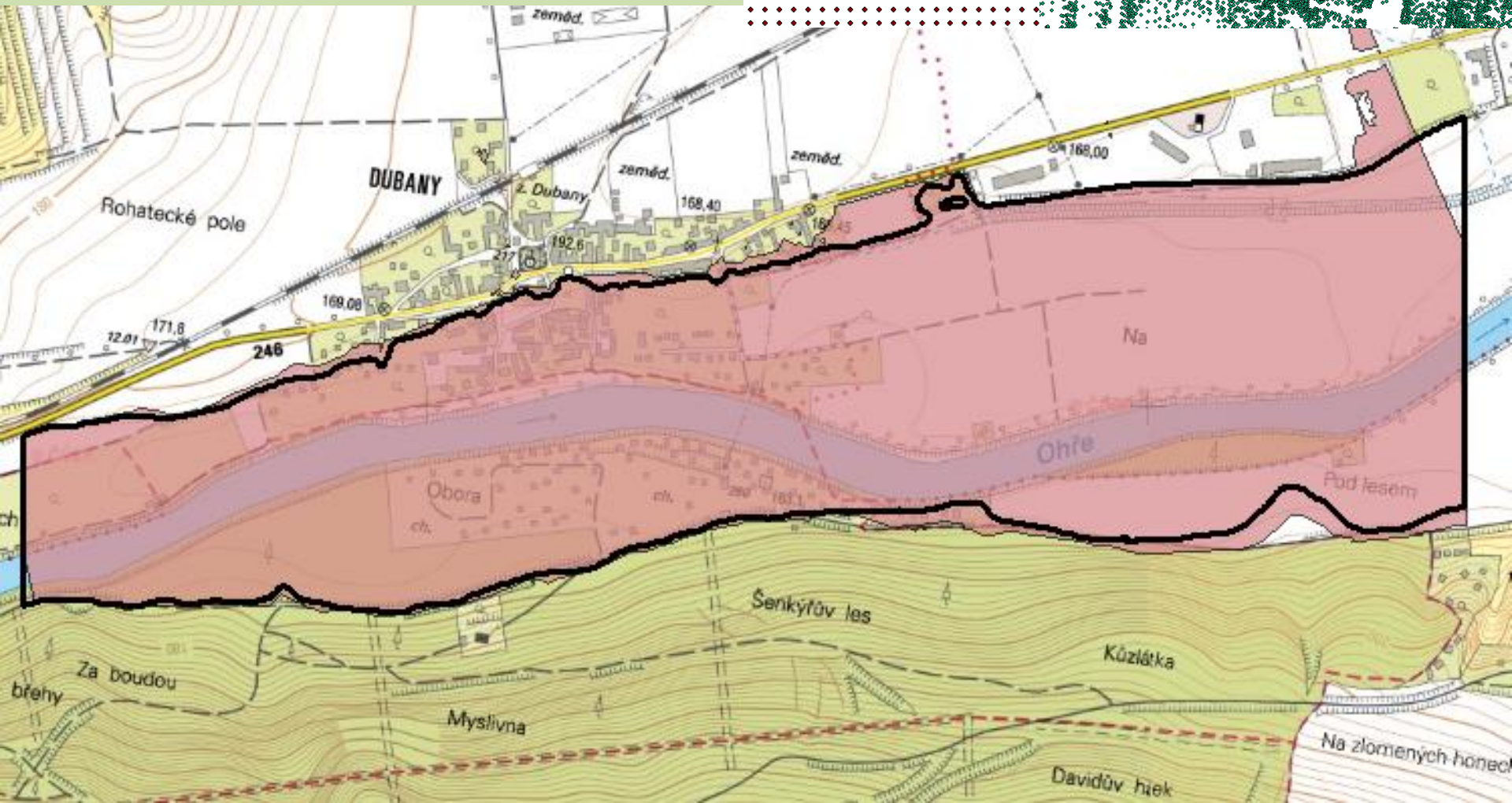
ARE WE ALLOWED TO BE SURE ABOUT THE RELEVANCE OF THE MODEL OUTPUTS?

↓

COMPARISON WITH THE OUTPUTS OF THE HYDRAULIC MODELS… IS NEEDED

Directive 2007/60/ES on the assessment and management of flood risks

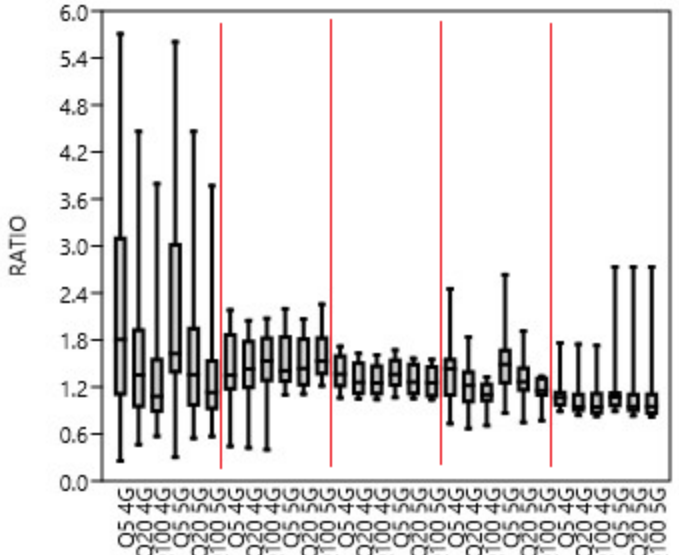
Q_5, Q_{20}, Q_{100}
DMR 4G, DMR 5G

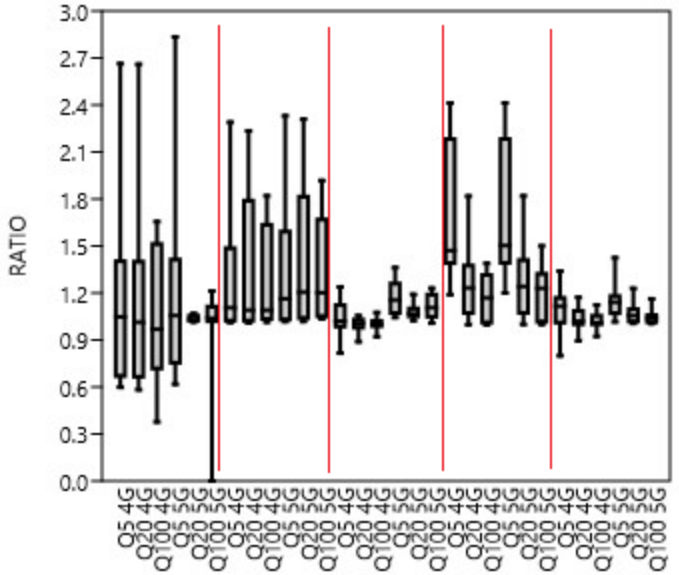


- **30 RIVER SECTIONS**

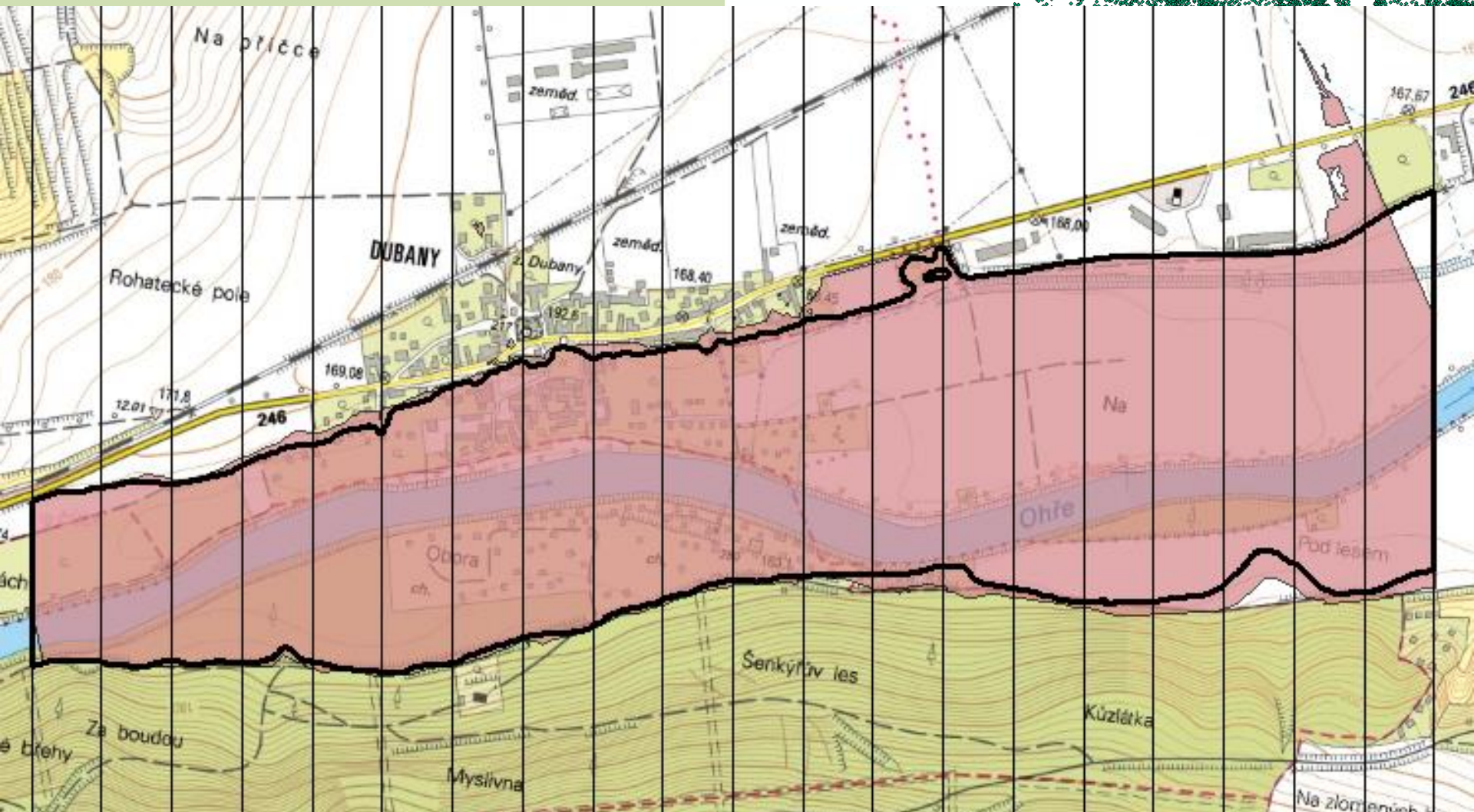
- RIVER SECTIONS SORTED OUT INTO **6 CATEGORIES**
  1. Straight channel
  2. Small meanders
  3. Large meanders
  4. Confluence =
  5. Confluence ≠
  6. Bifurcation

- INUNDATION CUT INTO 20 SEGMENTS – **RATIOS…**





Q_5, Q_{20}, Q_{100}
DMR 4G, DMR 5G



PERSPECTIVE OF USING ?

- A RELEVANT EXTENT OF FLOOD IS REQUIRED IN A SHORT TIME
- DENDROGEOMORPHOLOGY
- (FLASH) FLOOD MODELLING IN SMALL CATCHMENTS

FURTHER IMPROVEMENT IS NEEDED…

THANK YOU FOR YOUR ATTENTION

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