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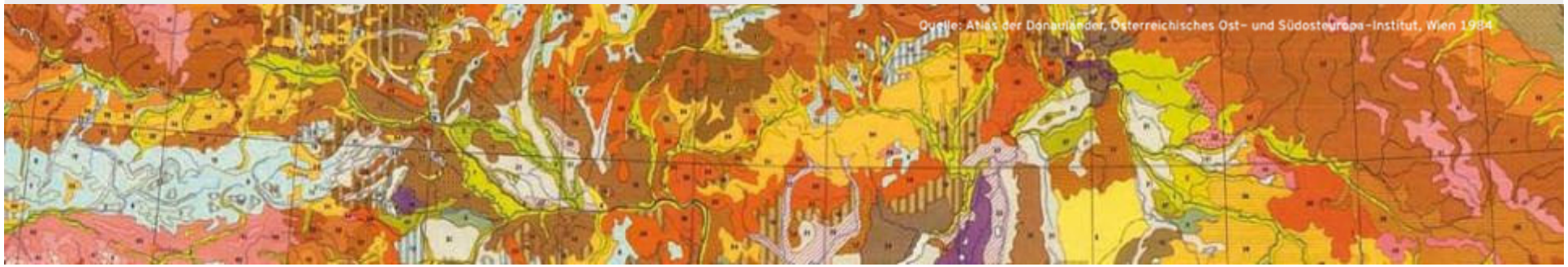
Flood protection in Slovakia



- Law. 364/2004 Coll. Water law
- Law. 7/2010 Coll. on flood protection
- Directive of the European Parliament and of the Council 2007/60/EC on the assessment and management of flood risks

- Decree no. 384/2004 Coll. laying down details of a flood plans, their approval and updating
- Decree no. 385/2004 Z. z., laying down details on the implementation of flood forecasting services and flood reporting and warning service
- Decree no. 386/2004 Z. z., laying down details on the submission of informative reports during floods and summary reports on the course and consequences of floods and taken procedures

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Procedures for flood protection are particularly

a) flood plans
b) flood inspections,
c) Forecast Service and early flood warning service,
d) patrol service,
e) flood security activities,
f) flood rescue works

Procedures for flood protection are carried out preventively during an threat of flood, during the flood and after the flood.

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The flood plans defines three degrees of flood activity:

I. degree of alertness,

II. degree of flood emergency,

III. degree of flood danger.

In Slovakia are steep mountainous streams of the rivers and the slow lowland sections of rivers.

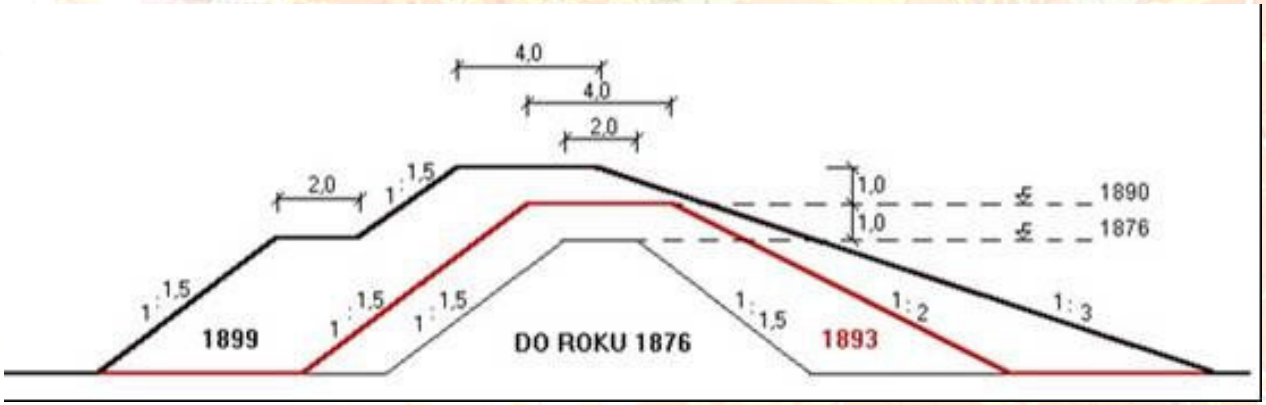
Type flow also affects the kind of effective flood protection. On mountain streams are generally built dry polders, which in terms of their volume transform maximum flood flow to a safe level.

On the lowland rivers is the flood protection ensured by protective dikes.

Hydrological, geological, morphological and urban conditions caused in the past repeatedly the enormous floods, which flooded large parts of the inland delta of the current territory of Slovakia and Hungary.

Therefore, the construction of protective dikes has more than 730 years of history.

The oldest documents proves the existence of levees in the current Gabčíkovo already in the 1274



Bratislava flood protection

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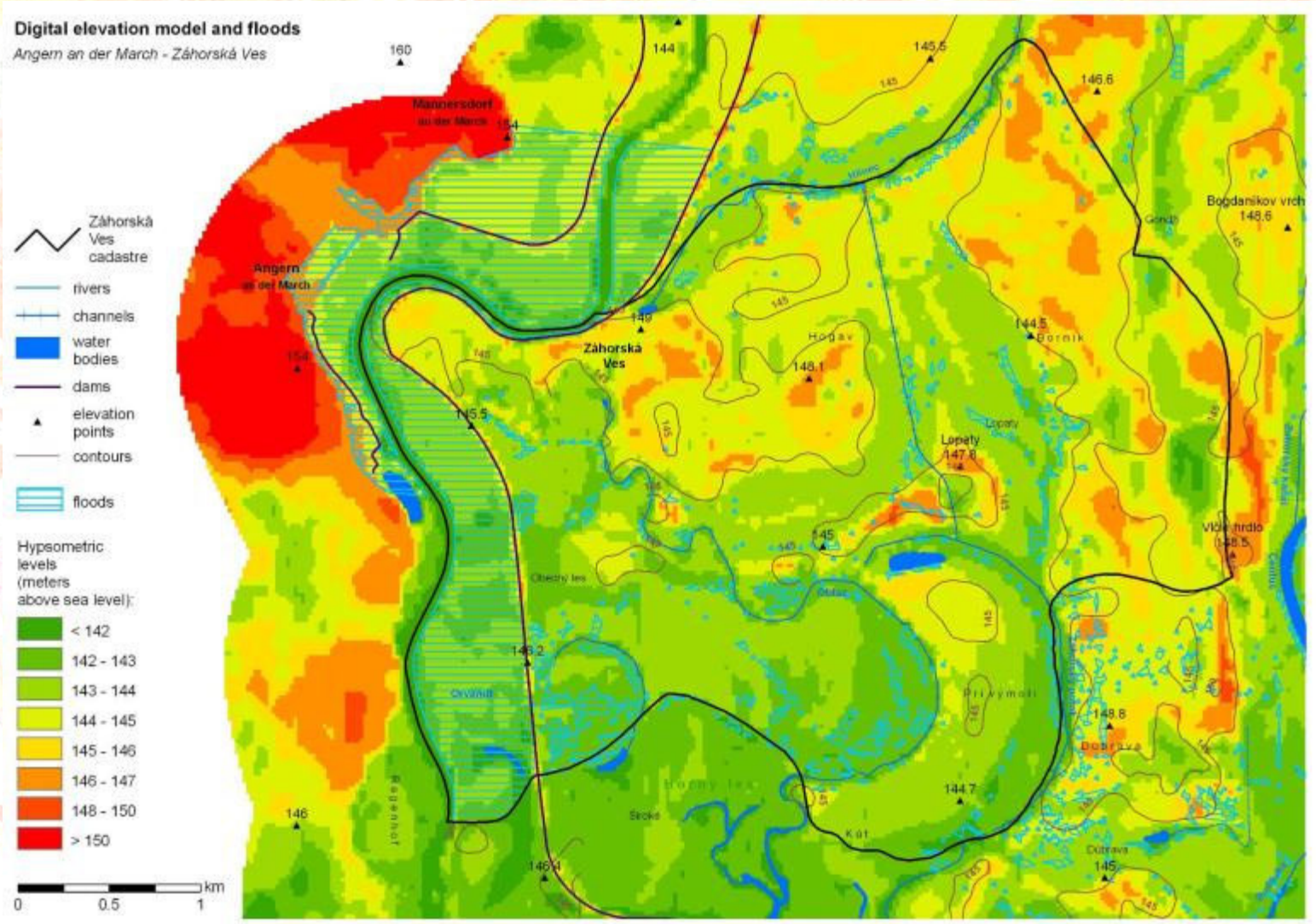

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River March between dikes / without dikes

Q_{30}

Q_{30}

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River March between dikes / without dikes

Q_{100}

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comparison of flooded area after the dam breach

Q_{30} / Q_{100}

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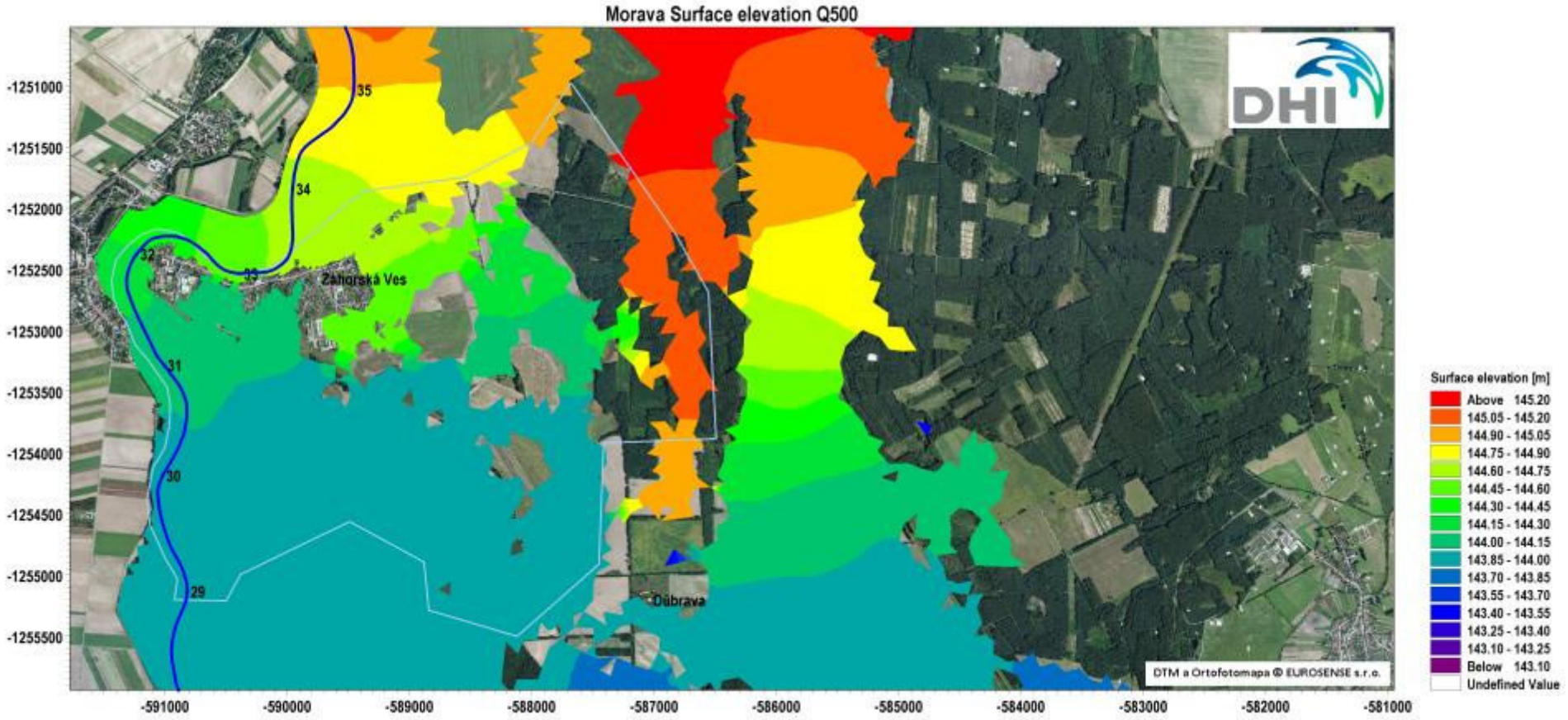

River March surface elevation /Q_{500}

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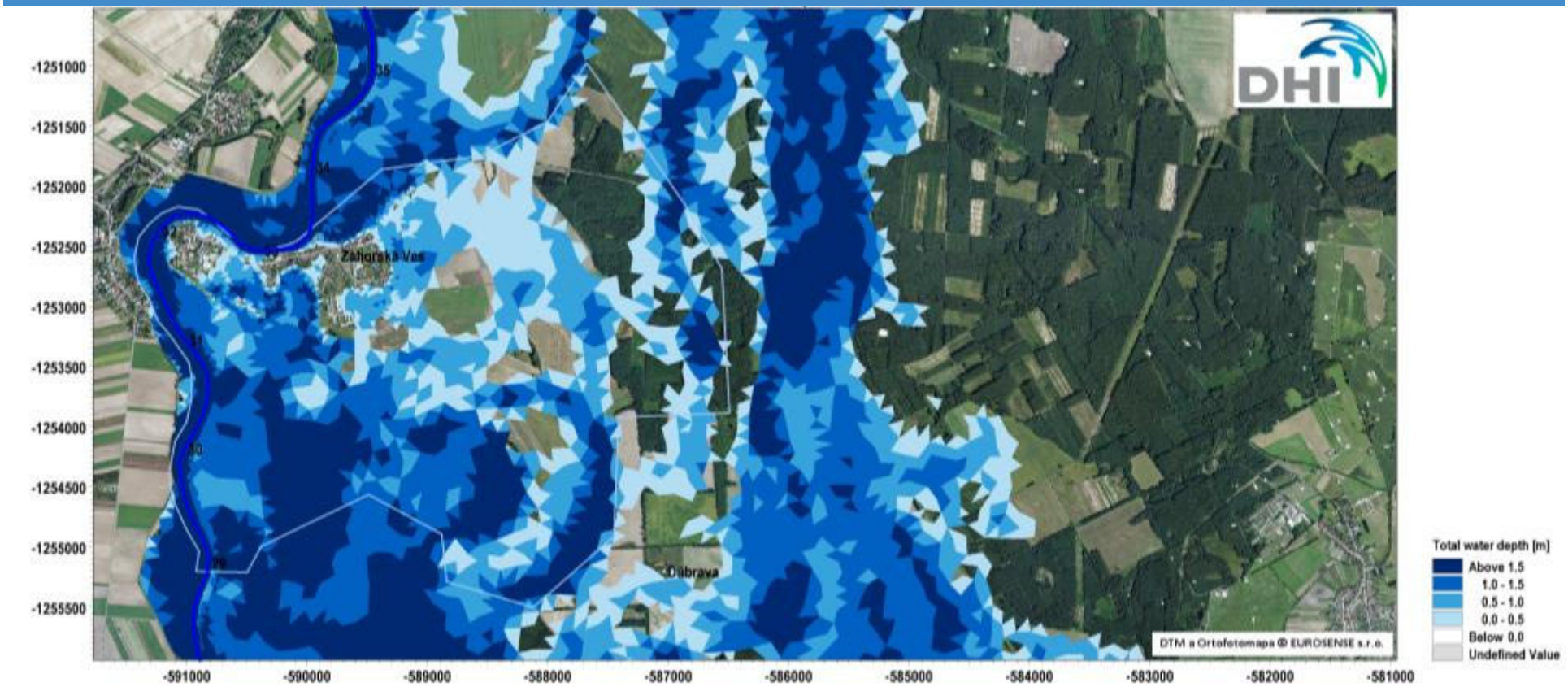

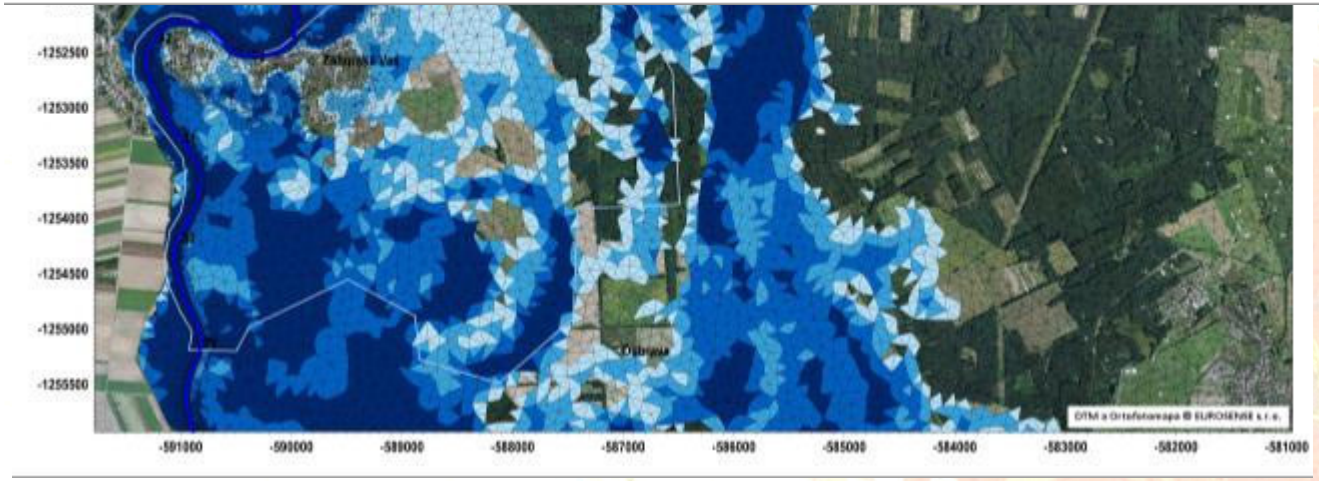

Total water depth /Q_{500}

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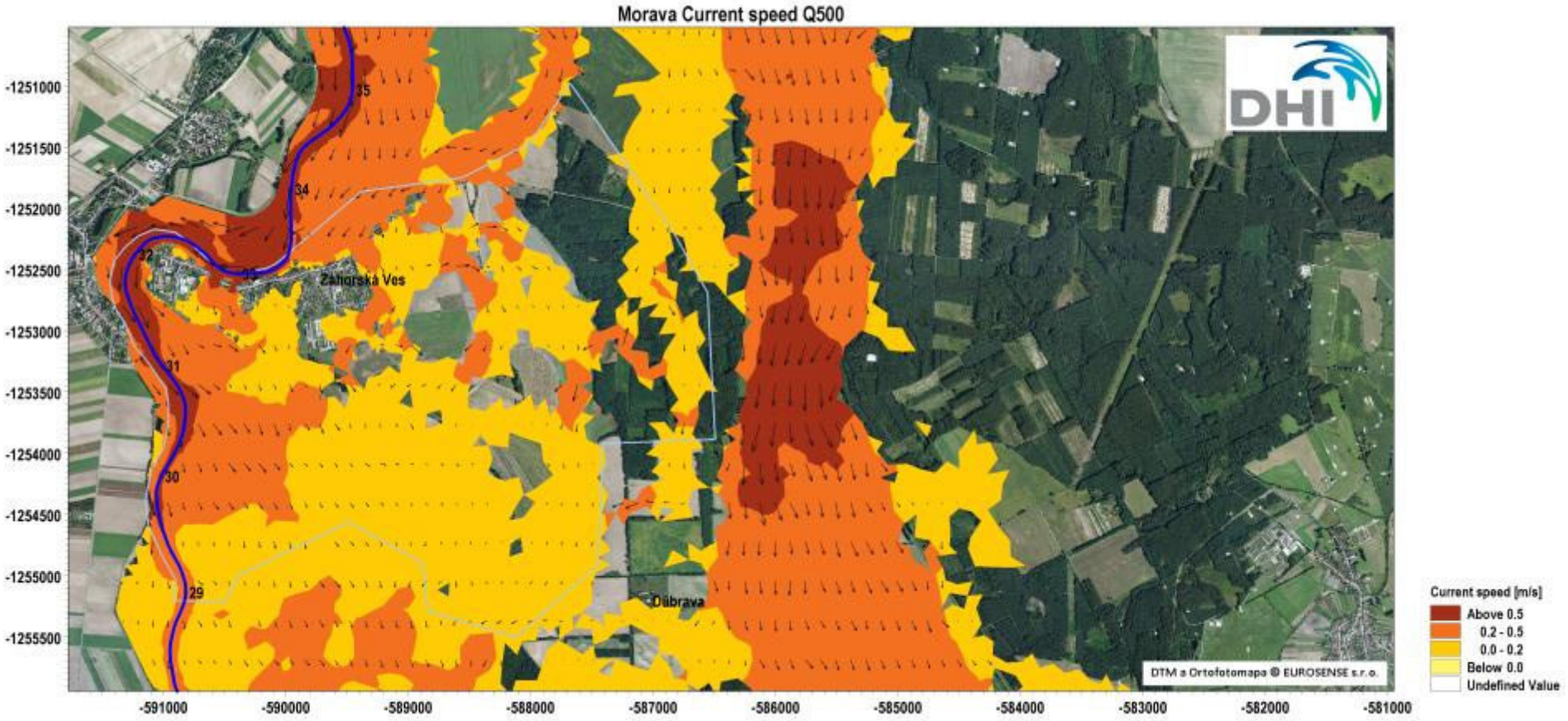

Current water speed /Q_{500}

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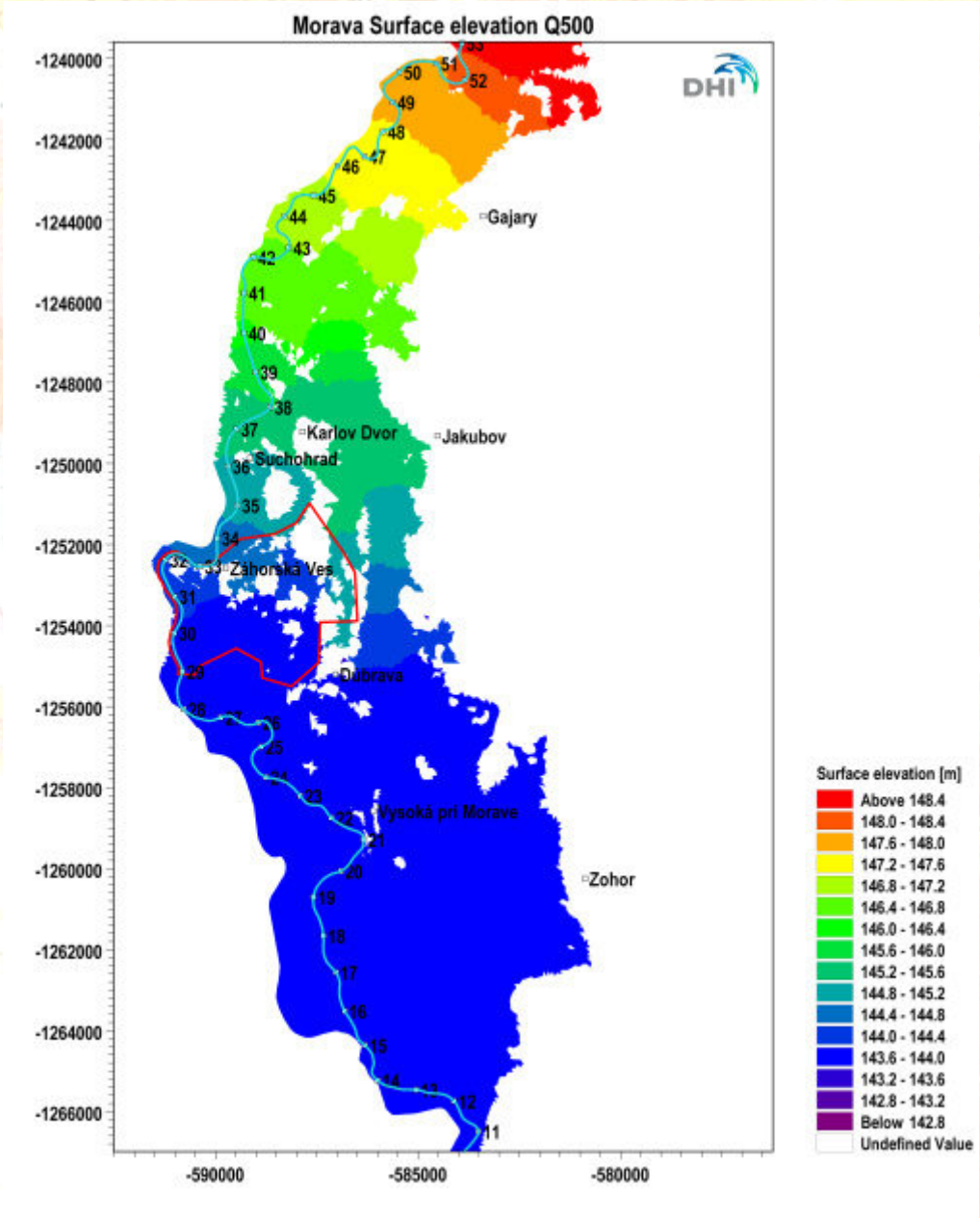

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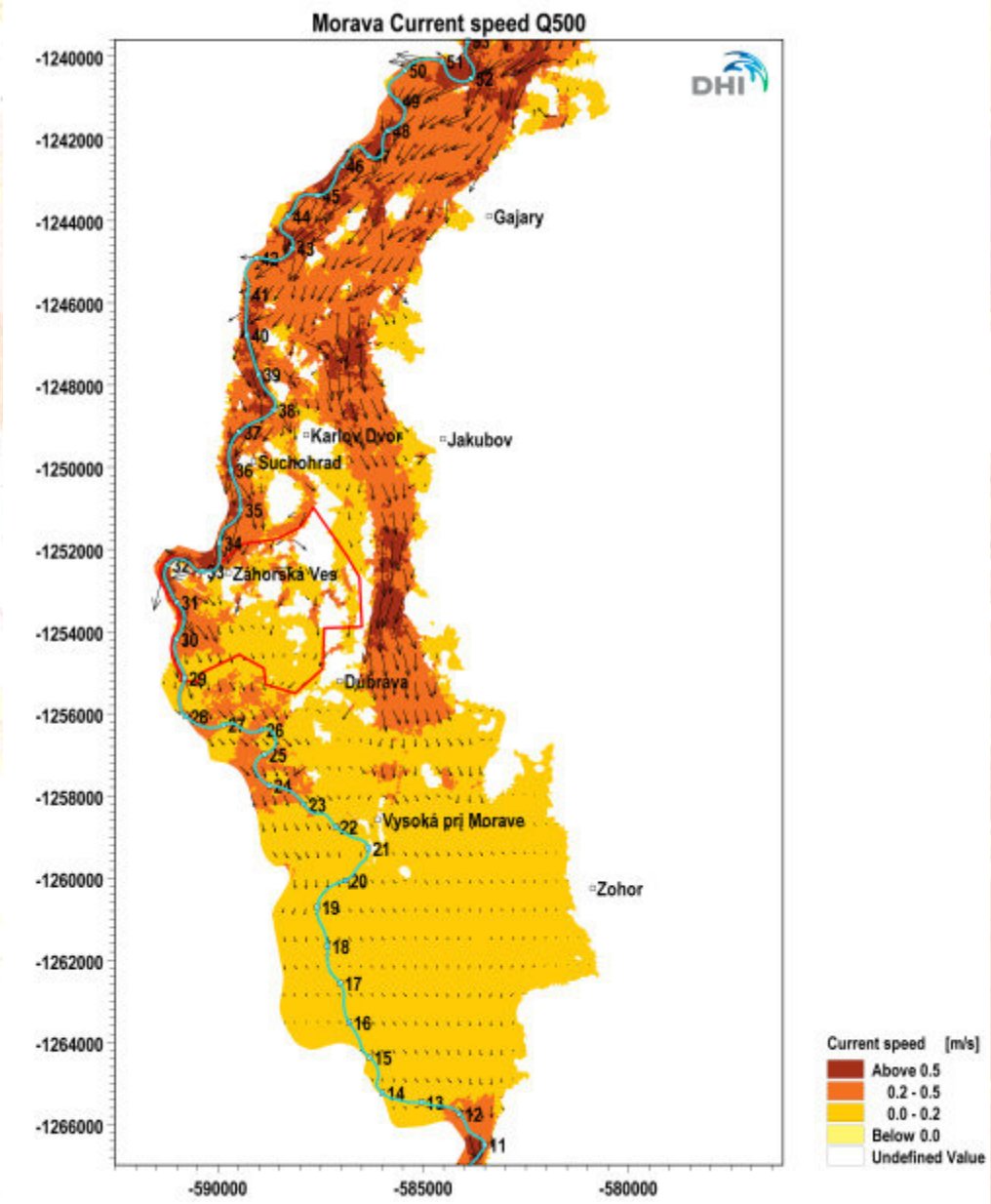

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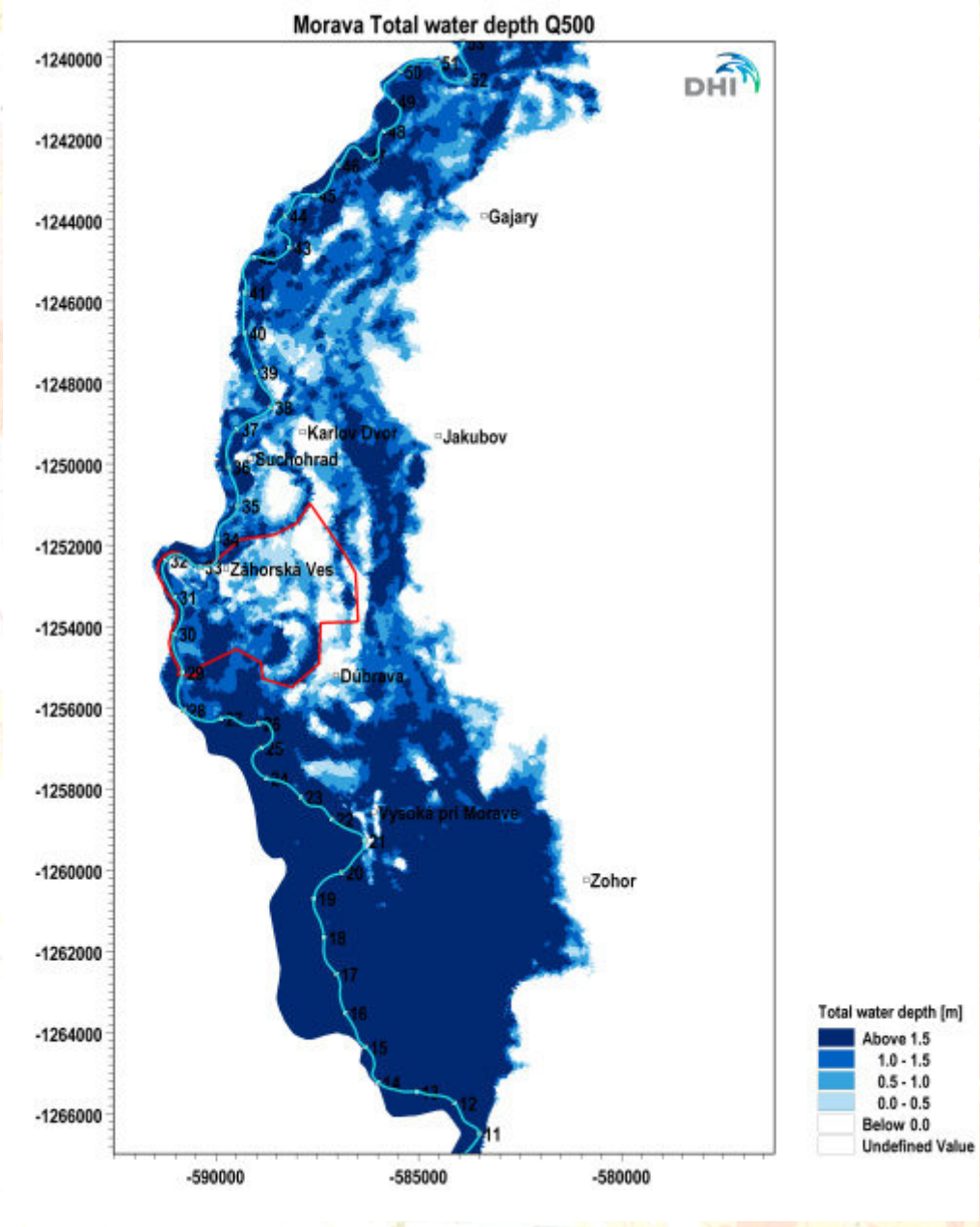

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River Hron

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Part of shuttering elements of the collapsed structure just above the water surface, the rest of the structure was washed away with flood flows

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Protective dikes of river Ondava

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Breakage of protective dikes of river Ondava

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- Ondava

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Reconstruction of Ondava dikes

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Thank yDu fDr yDur attentiDn

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