

## Environmental Management

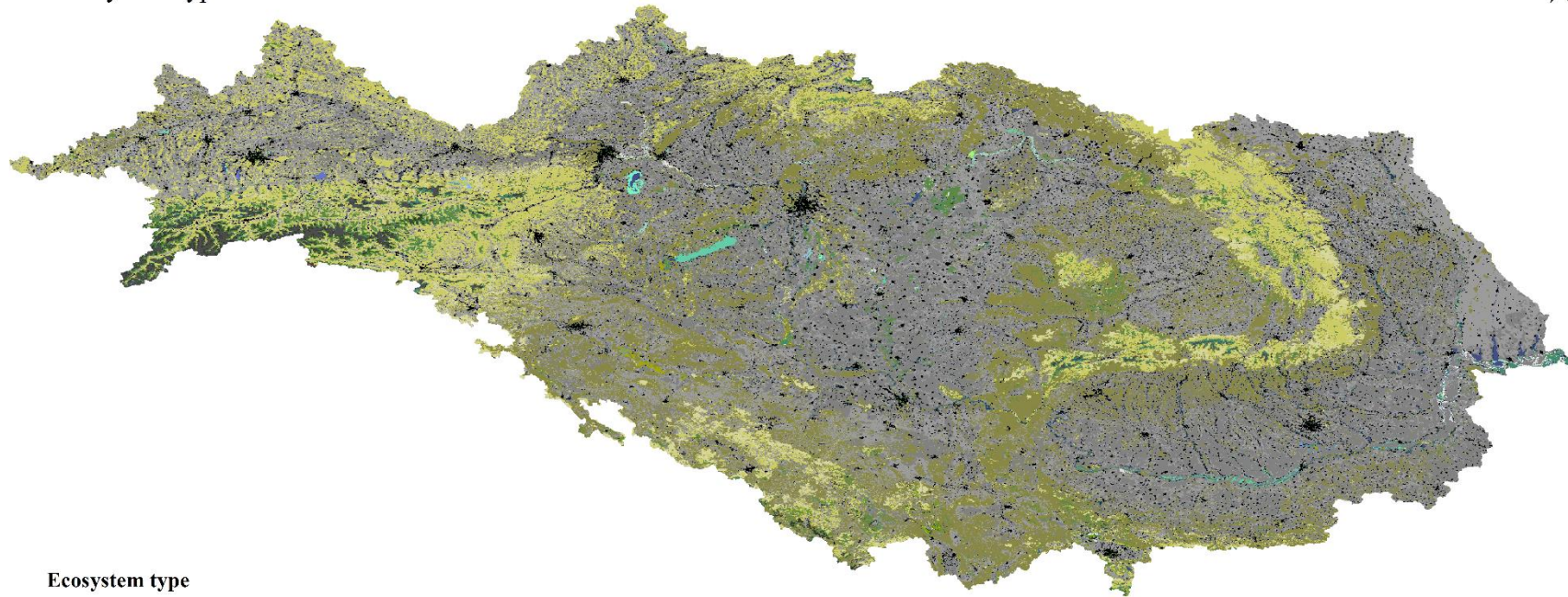
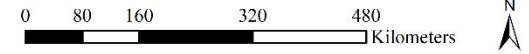
### **Ecological sustainability assessment of water distribution for the maintenance of ecosystems, their services and biodiversity**

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**Online Resource 4:** Additional maps and figures

# Ecosystem types in the Danube river basin

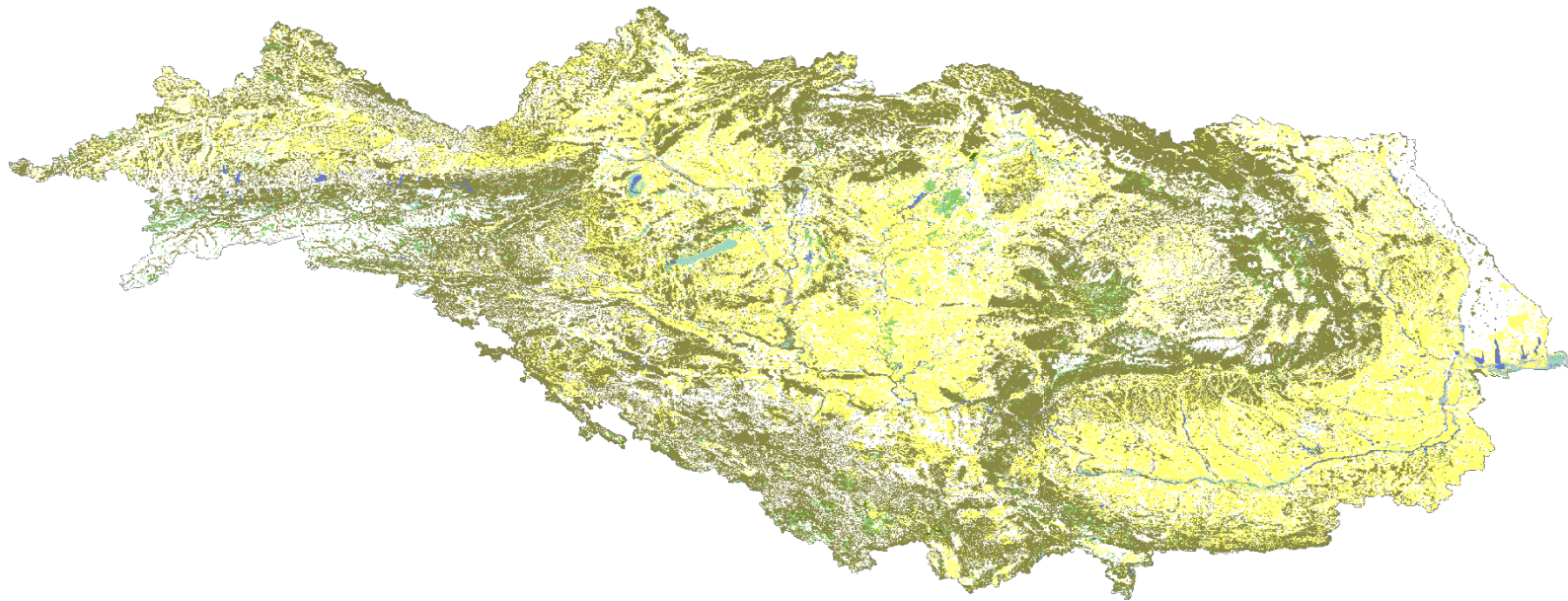
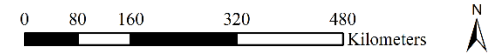


## Ecosystem type

Inland surface waters	Permanent freshwater marshes, pools, marshes and swamps on inorganic soils	Alpine grasslands	Unvegetated or sparsely vegetated habitats
Lakes	Permanent or seasonal wetlands, incl. Pan, Brackish/Saline/alkaline marshes or pools	Shrub Cover, closed-open, evergreen or deciduous	Karst and other subterranean hydrological systems, inland
Permanent freshwater lakes	Seasonal/Intermittent freshwater marshes/pools on inorganic soils, incl. Sloughs, potholes, seasonally flooded meadows, sedge marshes	Regularly/seasonally flooded woodlands and tree-dominated wetlands	Crop land
Seasonal/Intermittent freshwater lakes	Alpine wetlands, incl. Alpine meadows, temporary waters from snow melt	Wetland, regularly flooded, saline water with tree cover	Extensive Grassland
Seasonal/Intermittent saline, brackish or alkaline lakes and flats	Wetland, non-forested bogs, fens and mires, incl. Shrub cover	Deciduous woodland, closed or open	Intensive grassland
Rivers	Wetland, regularly flooded with shrub or herbaceous vegetation on organic or inorganic soils	Needle-leaved/coniferous, evergreen or deciduous woodland	Human-made wetlands incl. agricultural landscapes
Permanent Rivers, streams or creeks, incl. inland delatas	Wet grasslands and hydrophilous tall-forb stand, degenerated or drained wetlands	Mixed broadleaved and coniferous woodland	Artificial water bodies, reservoirs, treatment areas, channels, inc. combined with natural
Freshwater springs, oases	Natural Grass	Mosaic: Tree cover / Other natural vegetation	Marine or Coastal mixed landscapes
Seasonal/Intermittent Rivers, streams or creek		Built up	
Wetlands (mires, bogs and fens)		Alpine mixed	

Figure 1: Ecosystem types in the Danube river basin according to the EWD typology.

## Ecosystem groups in the Danube river basin



### Ecosystem groups

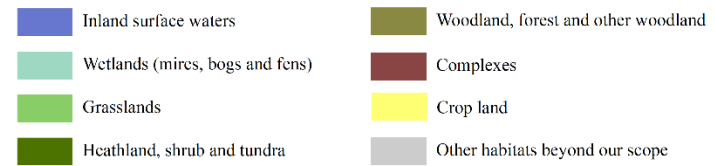
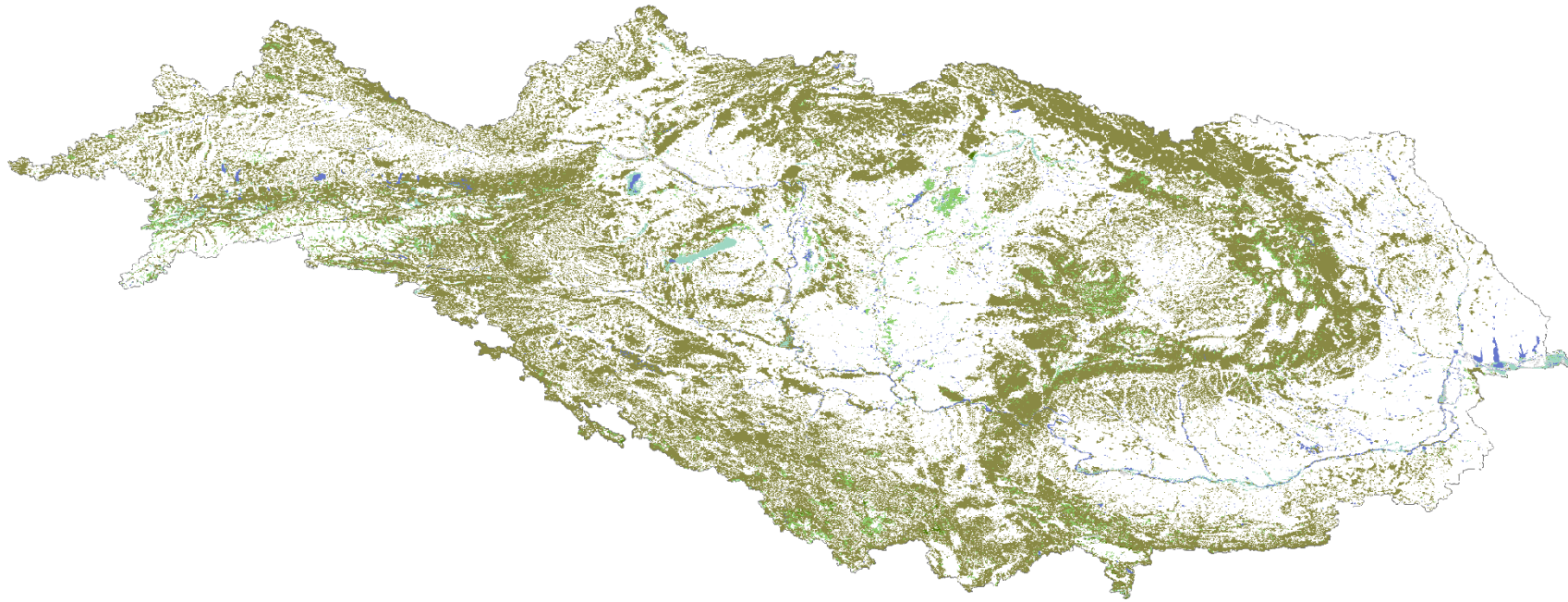


Figure 2: Ecosystem groups in the Danube river basin according to the EWD typology

Non-agriculturally used ecosystems in the Danube river basin  
(NABES)

0 80 160 320 480 Kilometers



**Ecosystem groups**








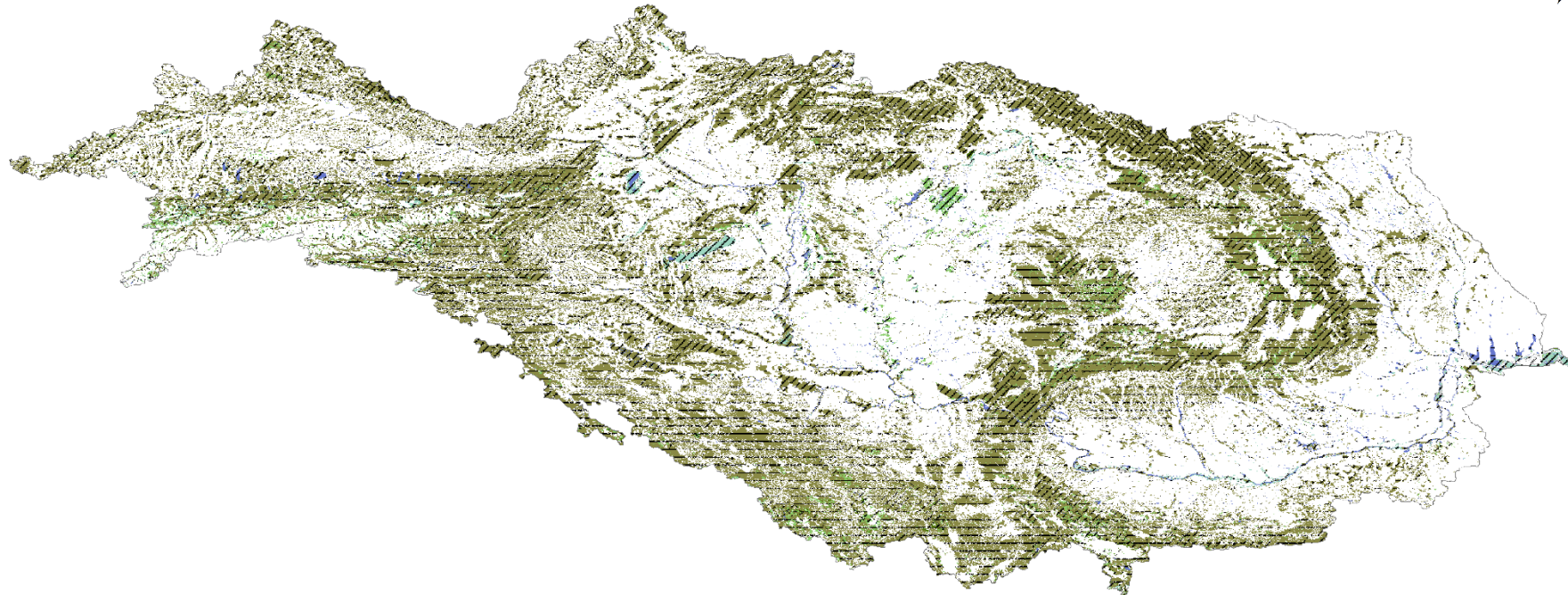
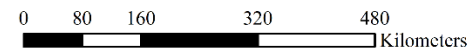
-  Inland surface waters
-  Wetlands (mires, bogs and fens)
-  Grasslands
-  Heathland, shrub and tundra
-  Woodland, forest and other woodland
-  Complexes
-  Other habitats beyond our scope

Figure 3: Non-agriculturally used ecosystem groups in the Danube river basin according to the EWD typology

# Ecosystem groups and risk for GDEs from groundwater pumping in the Danube river basin



### Ecosystem groups

- Inland surface waters
- Wetlands (mires, bogs and fens)
- Grasslands
- Heathland, shrub and tundra
- Woodland, forest and other woodland
- Complexes
- Other habitats beyond our scope

### Potential risk to GDEs

- No identified risk
- Low
- Moderate
- High
- Very high

Figure 4: Ecosystem groups in the Danube river basin according to the EWD typology with potential risk for GDEs when groundwater pumping is in place.

Potential risk for GDEs in the Danube river basin from groundwater pumping

0 80 160 320 480 Kilometers

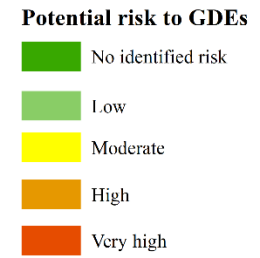
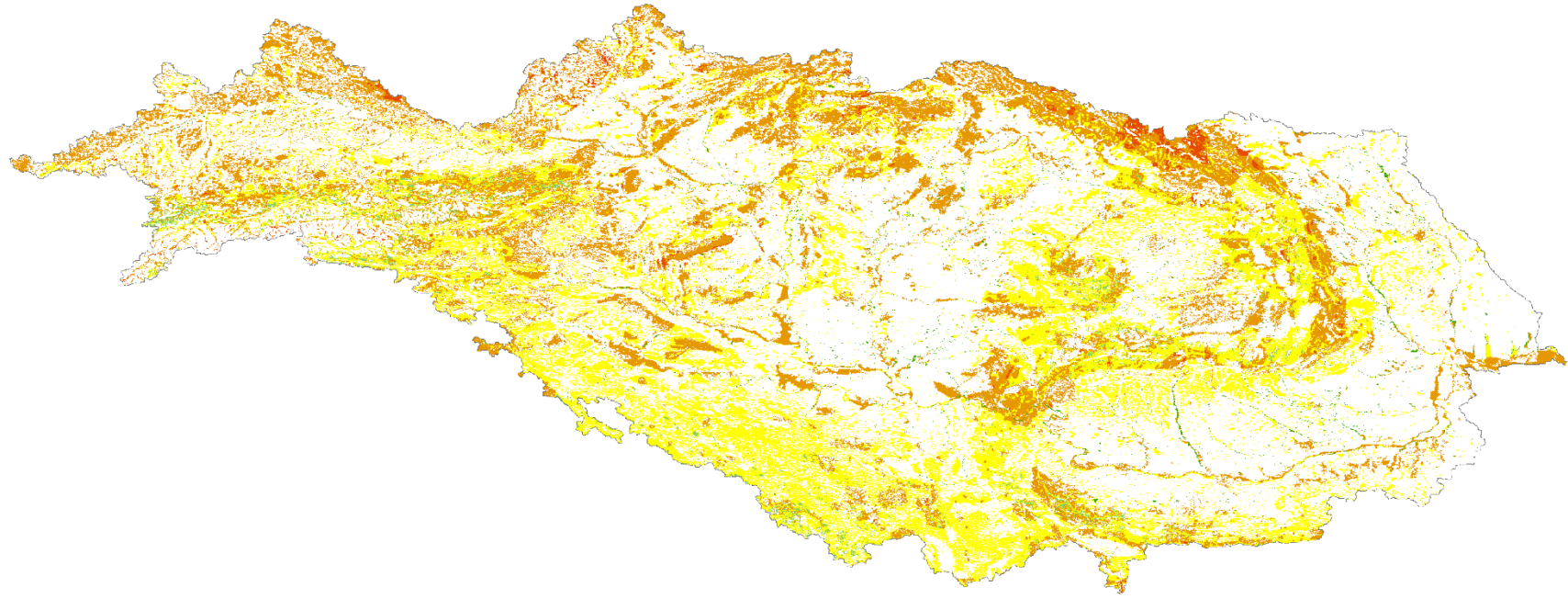


Figure 5: Potential risk for GDEs in the Danube river basin to be impacted when groundwater pumping takes place.