

Hungarian Experiences in the Implementation of WFD

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***Stockholm, August 20-21
Meeting of River Basin District Authorities***

**Danube basin
800.000+ km²**

**82 millions of
inhabitants**

**14 (+5)
countries**



EU WFD

**All sorts of
water bodies**

**Environmental
goals**

**River basin
planning**

Implementation of the EU Water Framework Directive

EU objectives: sustainable use of water

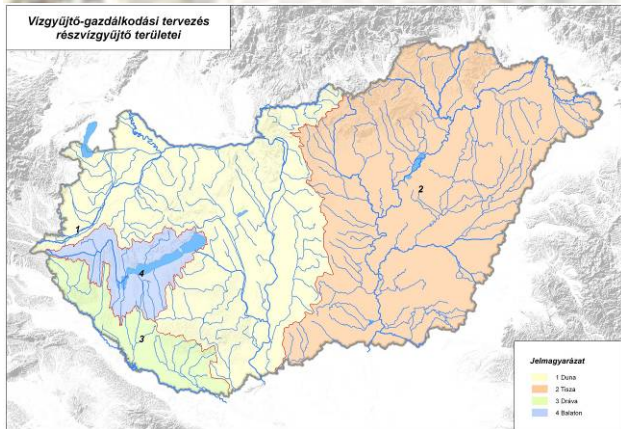
ICPDR aims:
coordinating the common
objectives of the Danube basin

National aims:

Considering the special needs and circumstances of flood control
Introduction of the open planning process in water management

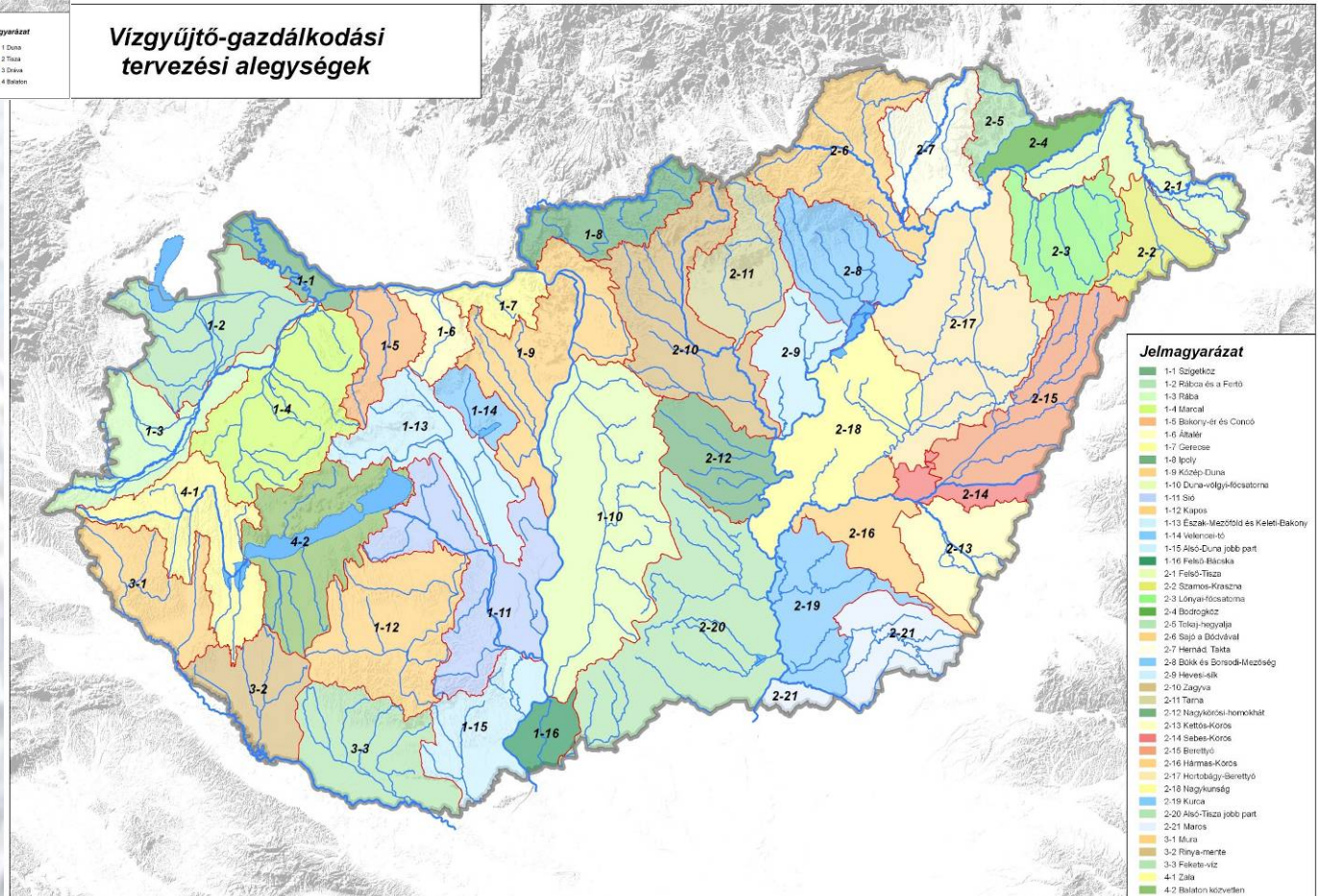


Sub-basins in Hungary



4 sub-basins
(Danube, Tisza, Dráva,
Lake Balaton)

Vízgyűjtő-gazdálkodási
tervezési alegységek



42 planning
units for the
detailed
planning
activity

Participants in the planning

Competent authorities:

KvVM, VKKI (Ministry and Central Directorate)

The plans prepared by:

Local directorates in consortium with ÖKO Zrt Consulting Co.

Participating institutions:

Green Authorities, National Park Directorates

Ministerial / international partners:

**Other ministries and their national or regional institutions
Neighbouring countries**

Other interested partners:

Municipalities, self governments, water boards, professional technical and civil organisations, producers, population

The plans are endorsed by:

Water Councils, KvVM

Participants in the implementation:

Local Directorates, Consultants by tenders, construction and maintenance companies

1st National Report sent to the EC June 2004



Positioning the country in DRBD,

Nominating the competent authority,

**Preparing relevant international
coordination arrangements.**



Ministry of
**Environment and
Water**

icpdr iksd

International
Commission
for the Protection
of the Danube River

Internationale
Kommission
zum Schutz
der Donau

Art. 3

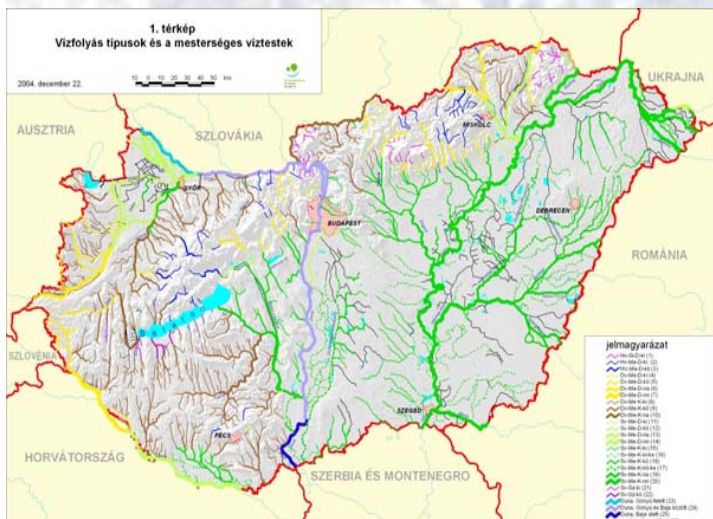
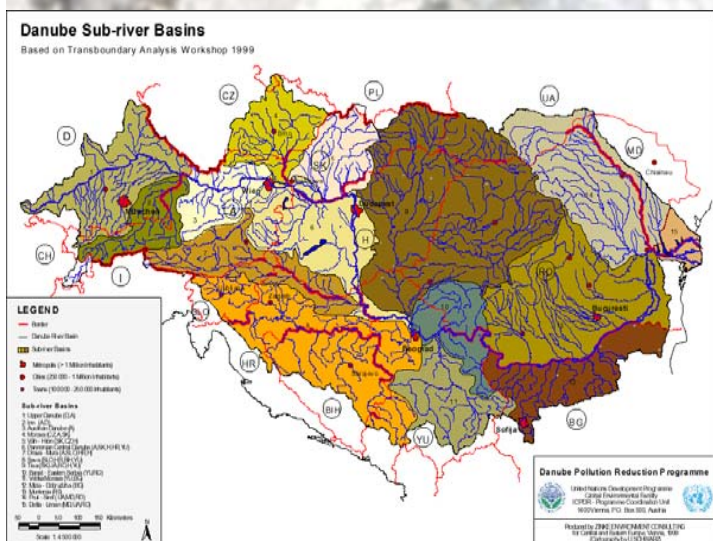


2nd Report sent to the EC March 2005

Part A „Roof Report”

- characterization of the RB,
 - pressures and impacts,
 - economic analyses of water uses
- list of protected areas

Part B „National Report”



River water bodies

745 natural
141 artificial

25 types according to

- Sub-ecoregion (mountain, hill, plain)
- Hydrogeochemical character (siliceous, calcareous, organic)
- River-bed material (coarse, medium, fine)
- Catchment size

River water bodies

1. térkép
Vízfolyás típusok és a mesterséges víztestek

2004. december 22.

10 0 10 20 30 40 50 km

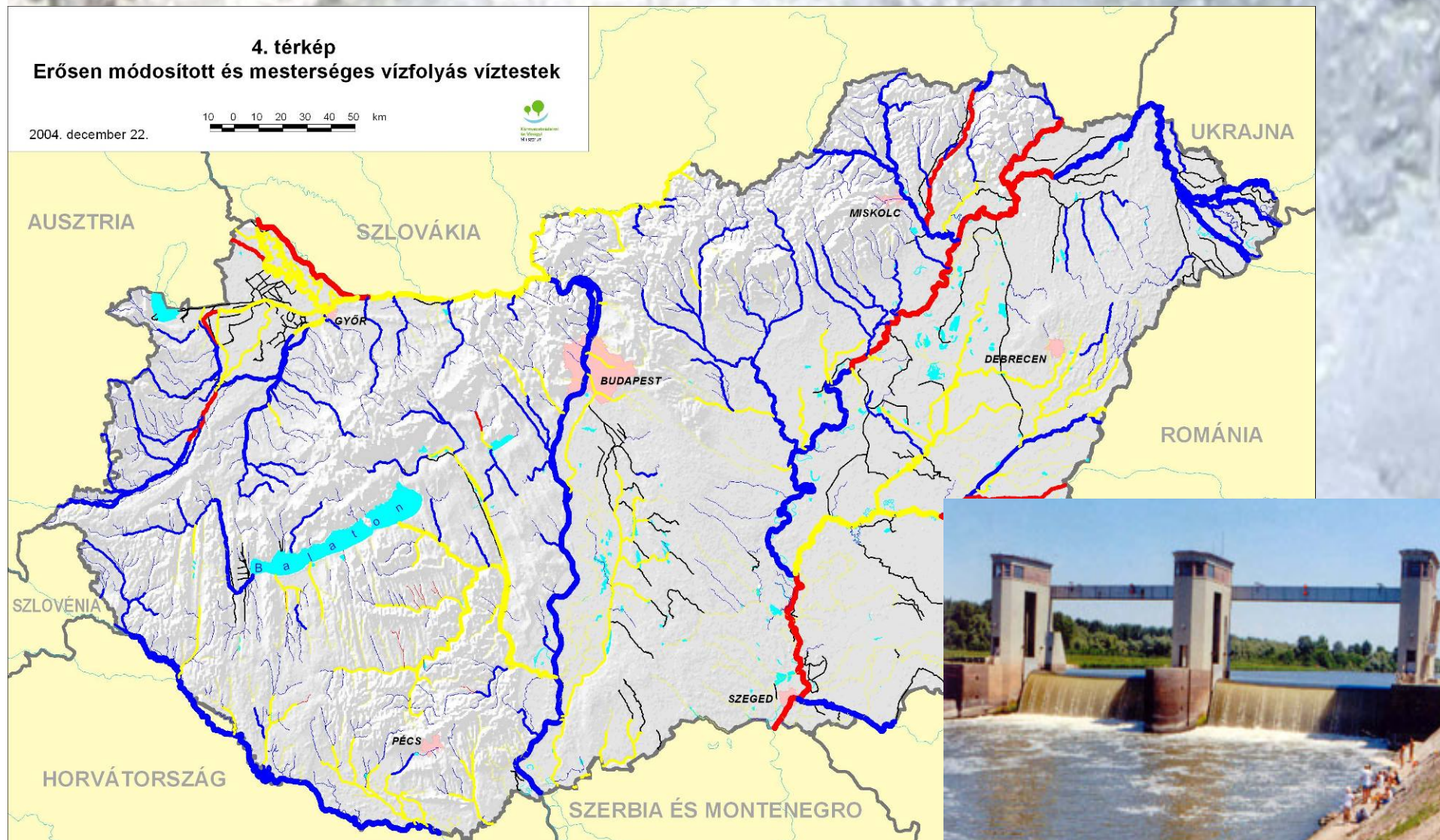


25 types

jelmagyarázat

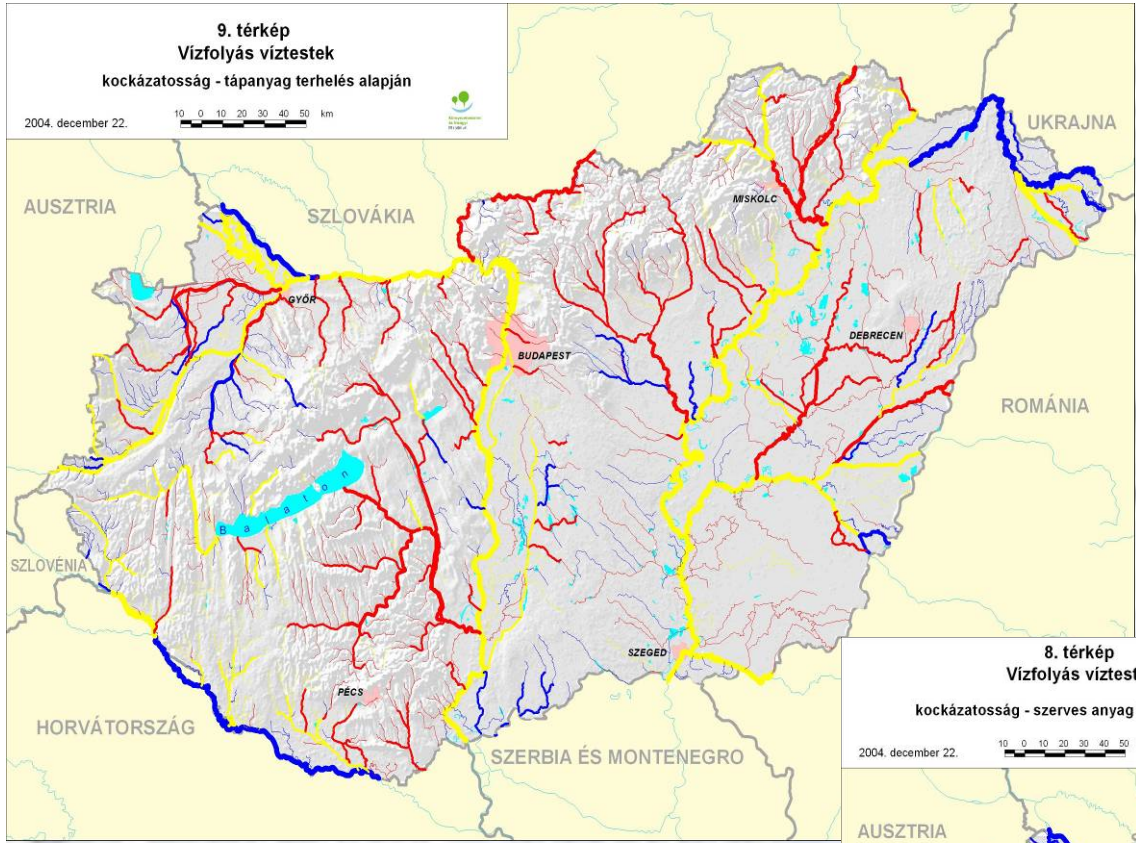
- Hv-Si-D-ki (1)
- Hv-Me-D-ki (2)
- HV-Me-D-kö (3)
- Dv-Me-D-ki (4)
- Dv-Me-D-kö (5)
- Dv-Me-D-na (6)
- Dv-Me-D-nn (7)
- Dv-Me-K-ki (8)
- Dv-Me-K-kö (9)
- Dv-Me-K-na (10)
- Sv-Me-D-ki (11)
- Sv-Me-D-kö (12)
- Sv-Me-D-na (13)
- Sv-Me-D-nn (14)
- Sv-Me-K-ki (15)
- Sv-Me-K-ki-ke (16)
- Sv-Me-K-kö (18)
- Sv-Me-K-kö-ke (17)
- Sv-Me-K-na (19)
- Sv-Me-K-nn (20)
- Sv-Sz-ki (21)
- Sv-Sz-kö (22)
- Duna, Gönyű felett (23)
- Duna, Gönyű és Baja között (24)
- Duna, Baja alatt (25)
- mesterséges víztest (26)
- Állóvizek

Heavily modified (red) & artificial (black) river water bodies



9. térkép
Vízfyás víztestek
kockázatoság - tápanyag terhelés alapján

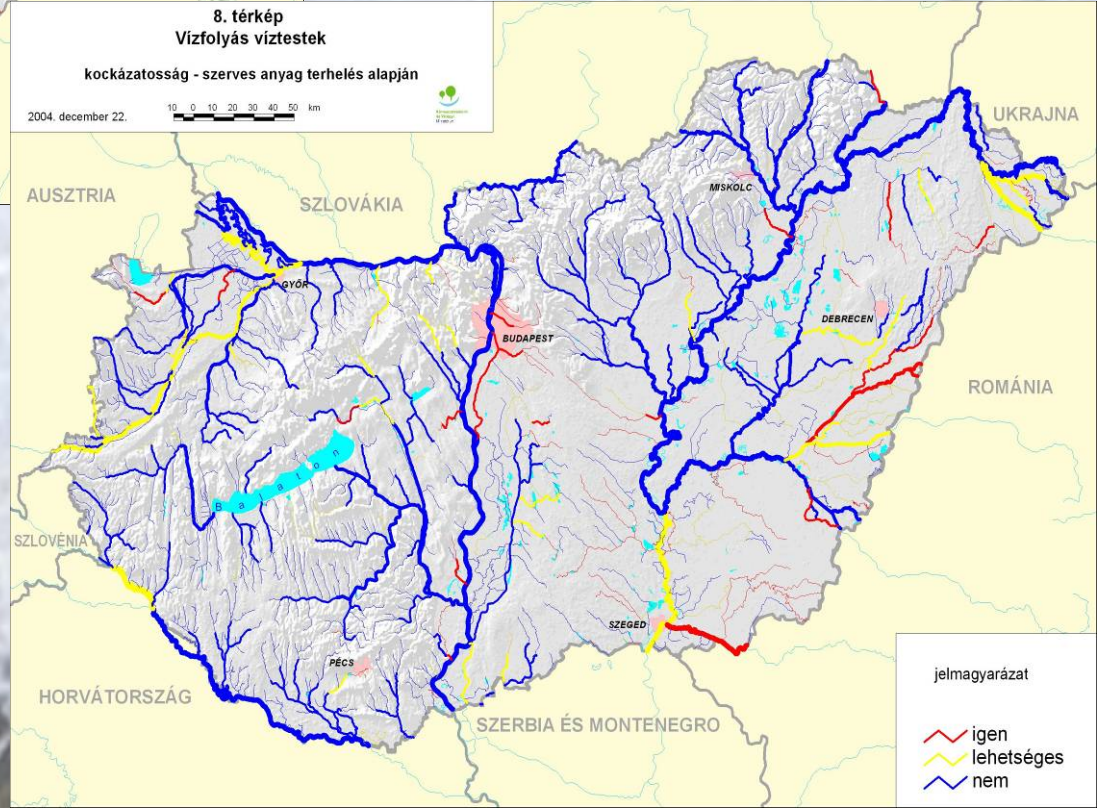
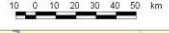
2004. december 22.



Rivers in risks due to Nutrients

8. térkép
Vízfyás víztestek
kockázatoság - szerves anyag terhelés alapján

2004. december 22.



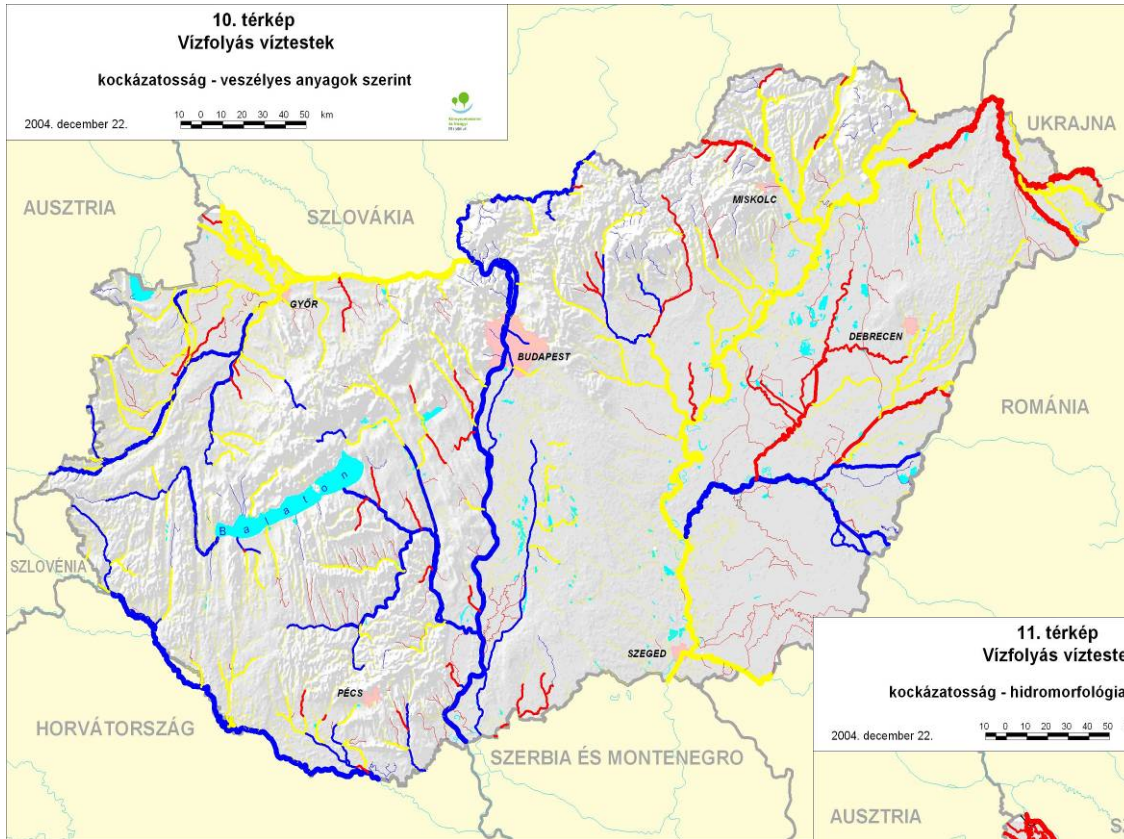
Organic pollutants

10. térkép
Vízfolyás víztestek

kockázatosság - veszélyes anyagok szerint

2004. december 22.

10 0 10 20 30 40 50 km



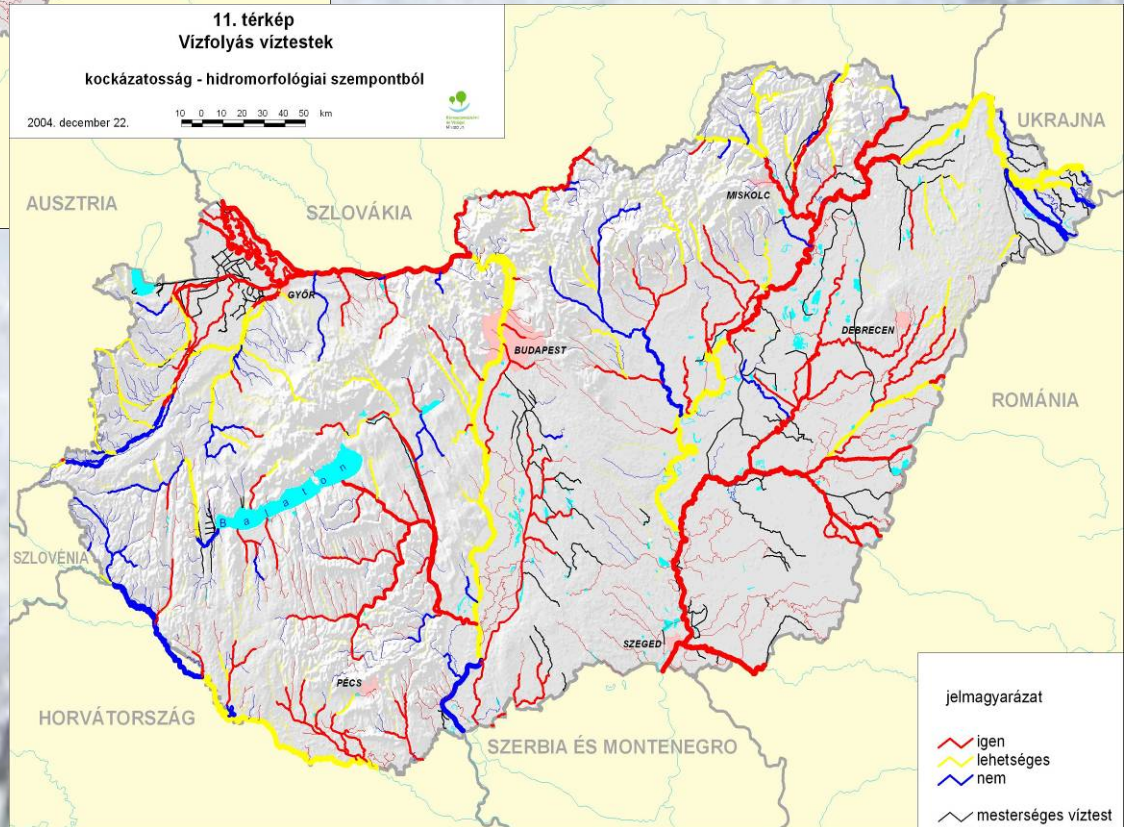
Rivers in risks due to Hazardous substances

11. térkép
Vízfolyás víztestek

kockázatosság - hidromorfológiai szempontból

2004. december 22.

10 0 10 20 30 40 50 km



jelmagyarázat

igén
lehetséges
nem

mesterséges víztest

HYMO alterations



Lake water bodies

> 50 hectares

80 natural

132 artificial

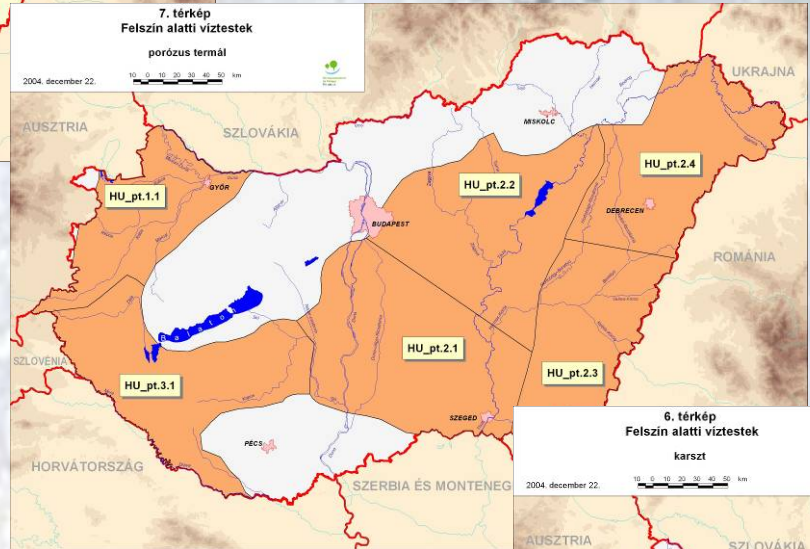
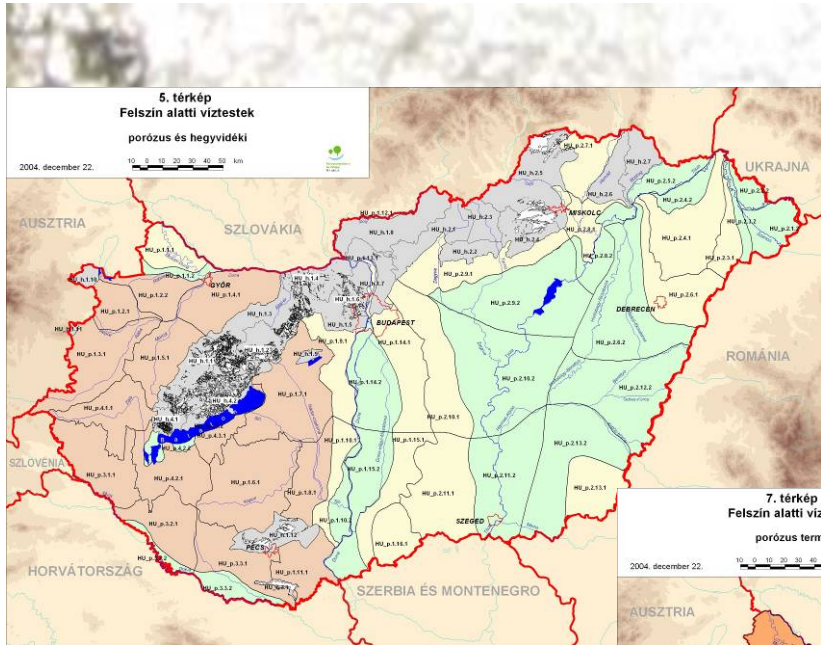
10 types according to

- size

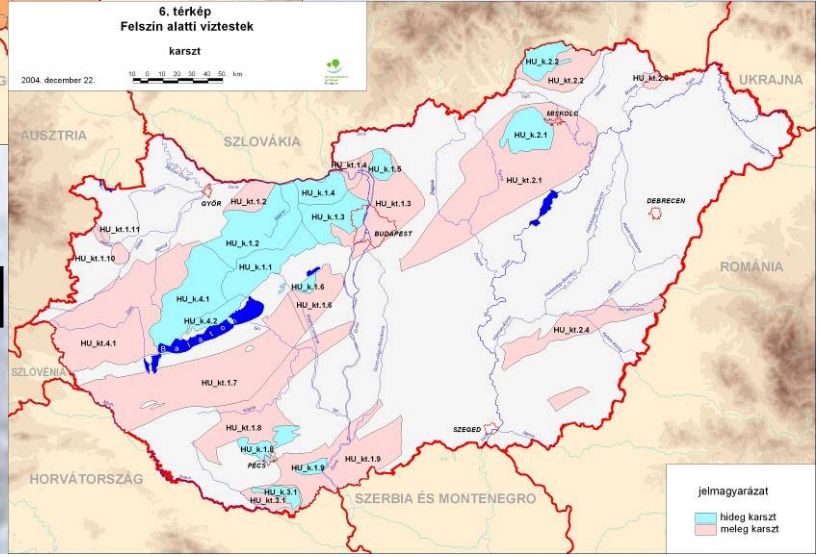
- depth

- hydrogeochemical character (calcareous, alkaline, organic)

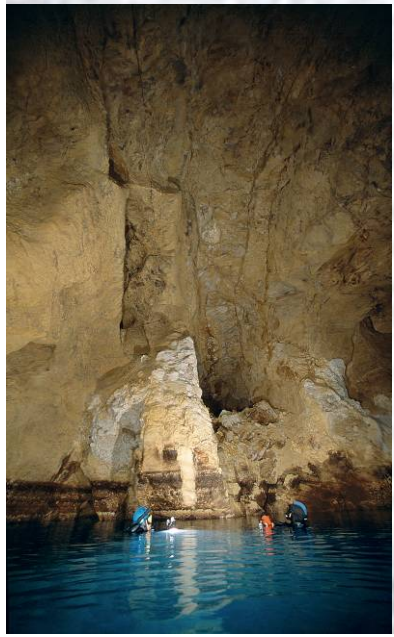
185 groundwater bodies
porous, cold



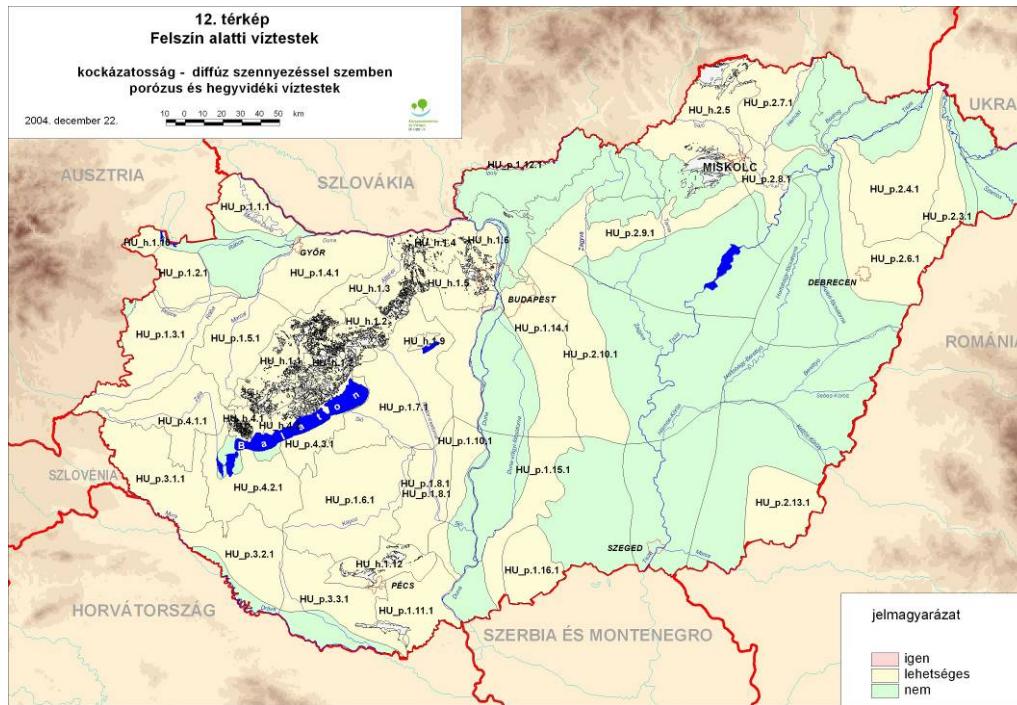
porous,
thermal



karstic, cold
and thermal



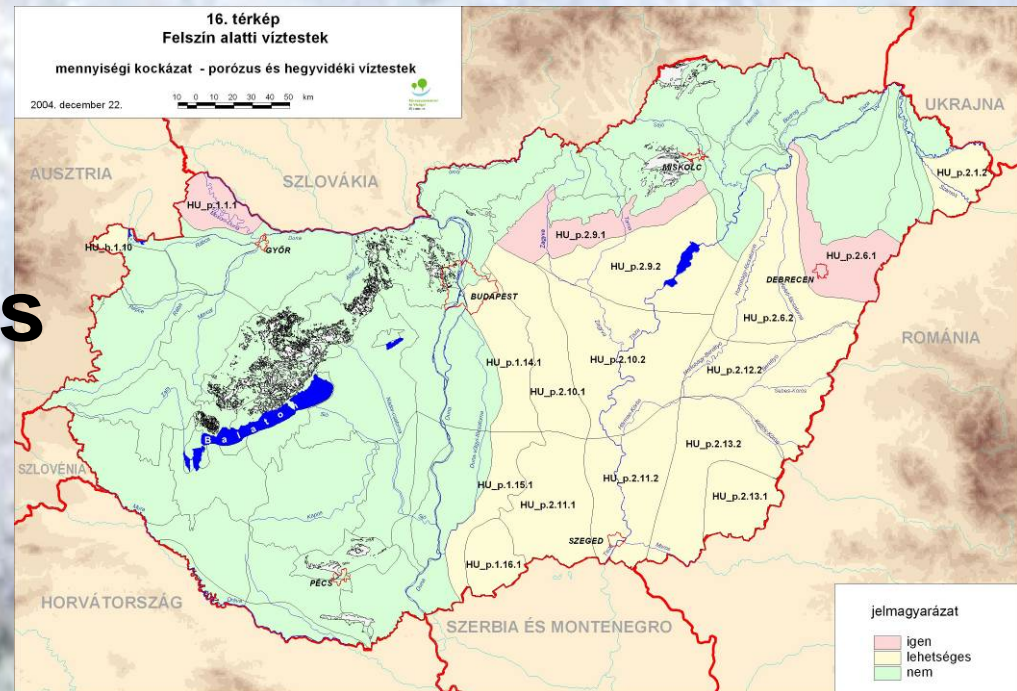
jelmagyarázat
hideg karszt
meleg karszt



**GW bodies
in risks due to**

**diffuse
pollution**

quantity status



3rd National Report sent to the EC in 2007

Monitoring programmes for:

- surface waters: ecological and chemical status and changes
 - rivers: 338 stations,
 - lakes 46 stations,
- groundwaters: chemical and quantity status and changes, 3200 stations.



Main pressures on the HU water bodies (surface waters)

- **Organic pressures (decreasing oxygen content)**
 - **unsuitable urban wastewater treatment**
 - **bad practice of animal & fish farming**
- **Nutrient pressures (eutrophication)**
 - **unsuitable agriculture practices**
 - uncontrolled artificial fertilizer uses**
 - contaminated internal water intaking**
 - agricultural activity close to the rivers**
 - **unsuitable urban wastewater treatment**
- **River bed regulation/ bank and shore modification**
 - **impoundments for storage(migration barriers) / longitudinal interruption**
 - **dams for flood protection (water dependant habitats deterioration)**
 - **bank and shore stabilization for management (water dependant habitats deterioration)**
- **Artificial channels for polder/internal water management**
 - **lack of water retention (water dependant habitats deterioration)**
 - **lack of revitalization (for good ecological potential)**
- **Artificial channels for irrigation**
 - **their role will increase in the near future (climate change effect)**

Main pressures on HU water bodies (groundwaters)

- local overabstractions for**
 - drinking water (water resources decreasing)**
 - irrigation (GWB dependant habitats deterioration)**
 - surface & subsurface mining (water resources decreasing)**
 - thermal water uses for bathing and greenhouses**
- contaminations**
 - genetic (geological e.g. As, B)**
 - antropogenic caused by present and past time leakages from urban, industrial and agro contaminated sites**

Programme of Measures by interested fields and offices

- **Agriculture and rural development**
- **Water resources management**
- **Spatial planning and local government**
- **Economy, energy and transport**
- **Nature heritage protection**
- **Other governance issues**

Planning of measures

Due to lack of biological data, emphasis is on hydromorphology and water quality.

Basic studies were carried out for identifying relations between biological and hydromorphological or water quality parameters.

Public information and consultation

Homepages

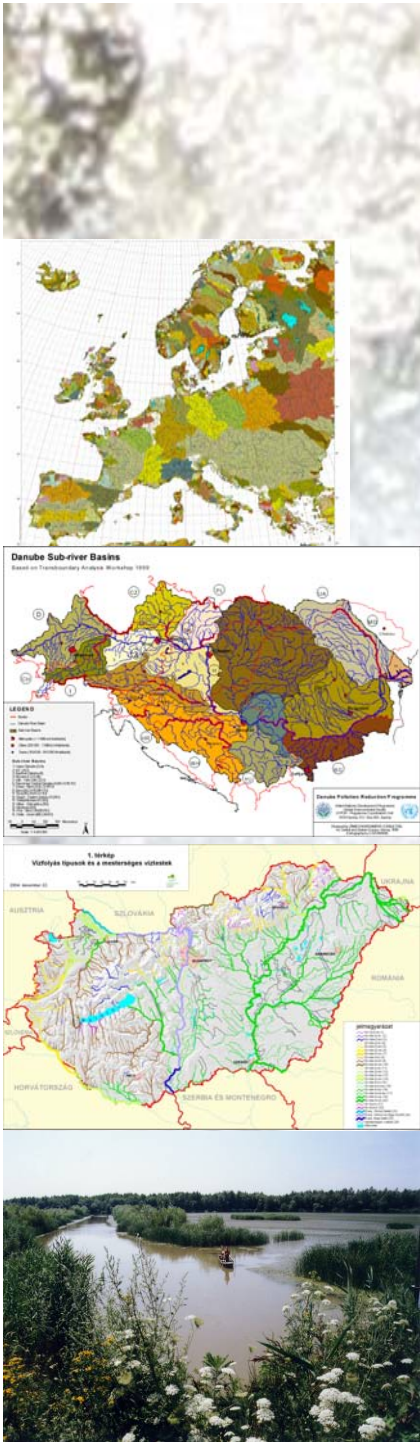
- www.euvki.hu website on WFD and HU - WFD relevancies
- www.vizeink.hu website on RBMP process and interim reports, drafts and final documentations for consultation

Fora for consultation

- on website
- on professional and stakeholder workshops
- on Water Management Council meetings (national, regional, local)
- on RBM planning unit area (42 venues)
- extra thematic consultations (25 events)

Media events – press conferences

- National (Central Directorate)
- Regional & local (12 water directorates/agencies)



European

river basin

national

local

levels need to
co-operate for
reaching good
water status by
2015

A scenic view of a calm river or lake surrounded by dense green trees. The water is still, reflecting the surrounding foliage. In the foreground, the wooden structure of a boat is visible. The sky is clear and bright.

**Thank you for your kind
attention!**