

THE ELBE and ODER RIVERS

IMPLEMENTATION OF THE WFD IN THE INTERNATIONAL COMMISSION FOR THE PROTECTION OF THE ELBE (ODER) RIVER

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of the Czech Republic





THE ELBE RIVER

Total catchment area of the Elbe river:

- Length of the river 1 091 km;
- $Q_{\text{average}} = 877 \text{ m}^3/\text{s}$
- Size 148 268 km²;
- population 24.7 million





THE ELBE RIVER

The catchment area
in Germany

(about 2/3 of total
length and size)





THE ELBE RIVER

Hydrological situation of the Czech Rep.

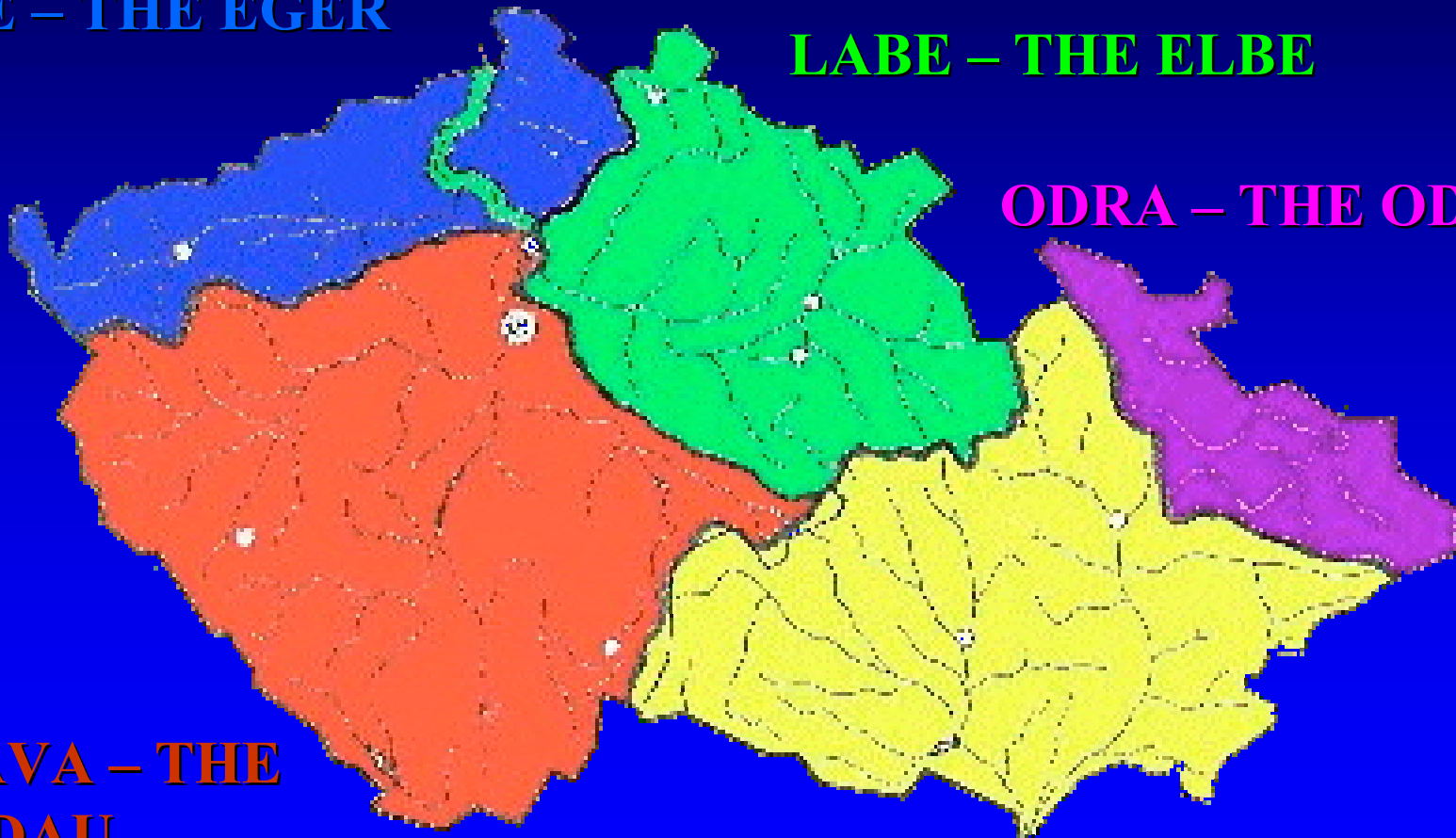
OHRE – THE EGER

LABE – THE ELBE

ODRA – THE ODER

VLTAVA – THE
MOLDAU

MORAVA





THE ELBE RIVER

The Elbe:

- The major Czech river draining 2/3 of the country area
- Historical role: *Porta Bohemica*
- Connection to the North Sea -> international dimension of the river quality control
- The involvement of the Czech Republic in international bodies



THE ELBE RIVER

The course of the river Elbe from its spring to the sea

The spring: 1 384 m
above sea

Steep woodland – control
of the flow by dams





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The Elbe in the Czech lowland

- Important role in the transportation scheme of the country
- Impressive system of locks from 1920s-1930s

Hradec Kralove



Pardubice





THE ELBE RIVER

Roudnice



Nymburk



Kolin





THE ELBE RIVER

The Elbe river meanders in the Czech lowland





THE ELBE RIVER

The confluence of the Elbe and Vltava in the heart of the Czech lowland – the town of Melnik





THE ELBE RIVER

The confluence of the Elbe and Vltava in the heart of the Czech lowland – the town of Melnik





THE ELBE RIVER

VLTAVA: The Czech National River





THE ELBE RIVER

The Elbe Passage through the rocks on the Czech – German border





THE ELBE RIVER

The Elbe Wine Road between Dresden and Meissen





THE ELBE RIVER

Magdeburg - the seat of the Commission on the Protection of the Elbe

Founded on
8 October 1990



©. Prange



THE ELBE RIVER

The Elbe in the German lowland





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The mouth of the Elbe river to the North Sea by Cuxhaven-Kugelbake





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The Elbe river commission MKOL – IKSE

- **1990-1992:** monitoring of pollution situation, summarizing the problems in catchment area, thorough survey of municipal and industrial pollution sources
- **1992-1995: First “urgent” Action programme:**
- to prepare and build 139 municipal wastewater treatment plants for the sources with a capacity higher than 20 000 PE
- to reduce the industrial pollution for 15 priority pollutants by at least 30 %



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The Elbe river commission MKOL – IKSE

- **1996-2010: Second “long-term” Action programme:**
 - to treat the municipal wastewaters also in smaller agglomerations than 20 000 PE
 - to achieve a significant reduction of the discharge of other 27 industrial pollutants relevant for the catchment area of the Elbe
 - to start the reduction of “diffuse pollution”



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The main achievements in wastewater treatment in the first decade

Period	Country	Number of finished WWTPs ¹⁾	Total capacity in million PE	Capital costs (without sewers)	
				billion CZK ²⁾	billion DEM ³⁾
1991-1995	CZ	30	5.04	6.77	
	D	96	8.58		4.0
	Total	126	13.62	6.77	4.0
1996-1999	CZ	12	3.43	4.22	
	D	43	4.29		1.95
	Total	55	7.72	4.22	1.95
1991-1999	CZ	42	8.47	10.99	
	D	139	12.87		5.95
	Total	181	21.34	10.99	5.95

In 1999: 1 EUR = 32 CZK
1 EUR = 2 DEM



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The reduction of main pollution indicators
resulting from newly built or upgraded
WWTPs in the period of 1991-1999

Country	Reduction in t/y for indicators:		
	BOD ₅	Nitrogen	Phosphorus
Czech Republic	40 970	3 870	730
Germany	42 800	10 380	2 590
Total	83 770	14 250	3 320



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The main investment actions:

- Central WWTP Prague, 1 920 000 PE: the upgrade to full mechanical-biological treatment with full nitrification (Kos and Wanner, 1995)
- WWTP Berlin-Ruhleben, 1 610 000 PE: realization of nitrogen removal
- WWTP Leipzig-Rosenthal, 440 000 PE: phosphorus elimination
- WWTP Wassmannsdorf: the construction of a new plant with final capacity of 1 300 000 PE



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The Prague WWTP after upgrade:

R - ZONE



4 NEW
CLARIFIERS





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Future plans for Prague WWTP:

- „less visible“ for public
- more resistant to floods

An example





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14 August 2002: water level 6 m above the ground





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Future tasks of the Action programme

- for municipal pollution sources, to achieve the objective of mechanical and biological wastewater treatment from all settlements with over 2 000 PE
- to increase the proportion of the population connected to public sewerage from 75 % to 80 %
- to introduce new stricter limits for industrial pollution, leading to a reduction of pollution and decrease in water consumption in industry, as a part of implementation of Directive 96/61/EC (IPPC) on integrated pollution prevention and control



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In December 2003 the Elbe River Commission accepted the so-called **Third report on the Action Programme**. In Chapter 6 the report summarizes the tasks which have to be met in connection with the application of the WFD. The most urgent task was the characterization of the Elbe river catchment area in the terms of the WFD, namely:





THE ELBE RIVER

- analysis of the main characteristics in individual zones of the catchment area
- evaluation of the impact of human activities on the level of ground and surface waters
- economic analysis of the water use in the catchment area



Mezinárodní komise pro ochranu Labe
Internationale Kommission zum Schutz der Elbe

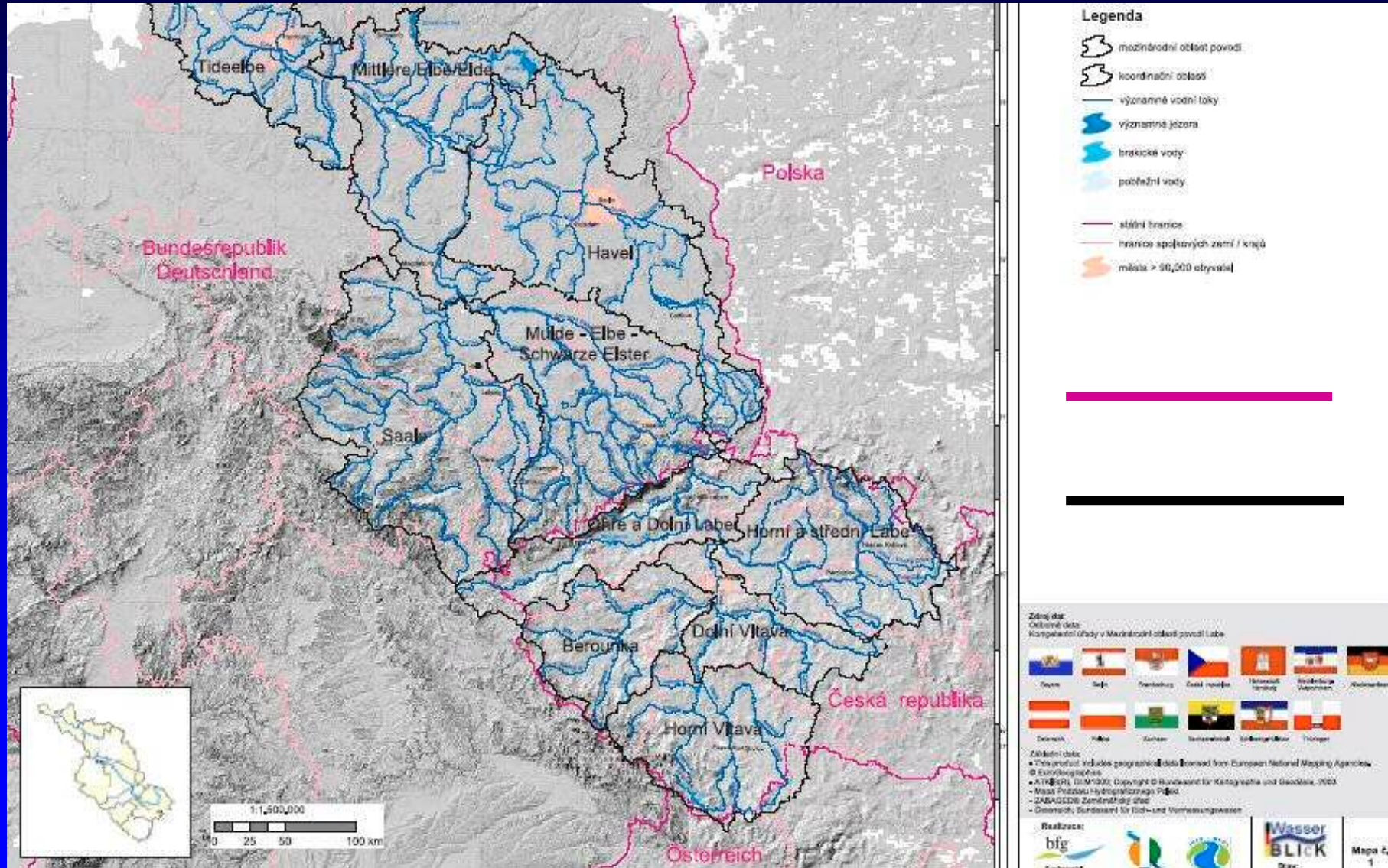
Třetí zpráva o plnění
„Akčního programu Labe“
v letech 2000 – 2002

Magdeburk dne 1. 12. 2003



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Definition of the International River Basin of the Elbe





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March 2005: the Elbe River Commission published the report according to the Article 15, para 2 of the WFD.

MEZINÁRODNÍ OBLAST POVODÍ LABE

CHARAKTERISTIKY OBLASTI POVODÍ, VYHODNOCENÍ
ENVIRONMENTÁLNÍCH DŮSLEDKŮ LIDSKÉ ČINNOSTI
A EKONOMICKÁ ANALÝZA UŽIVÁNÍ VODY



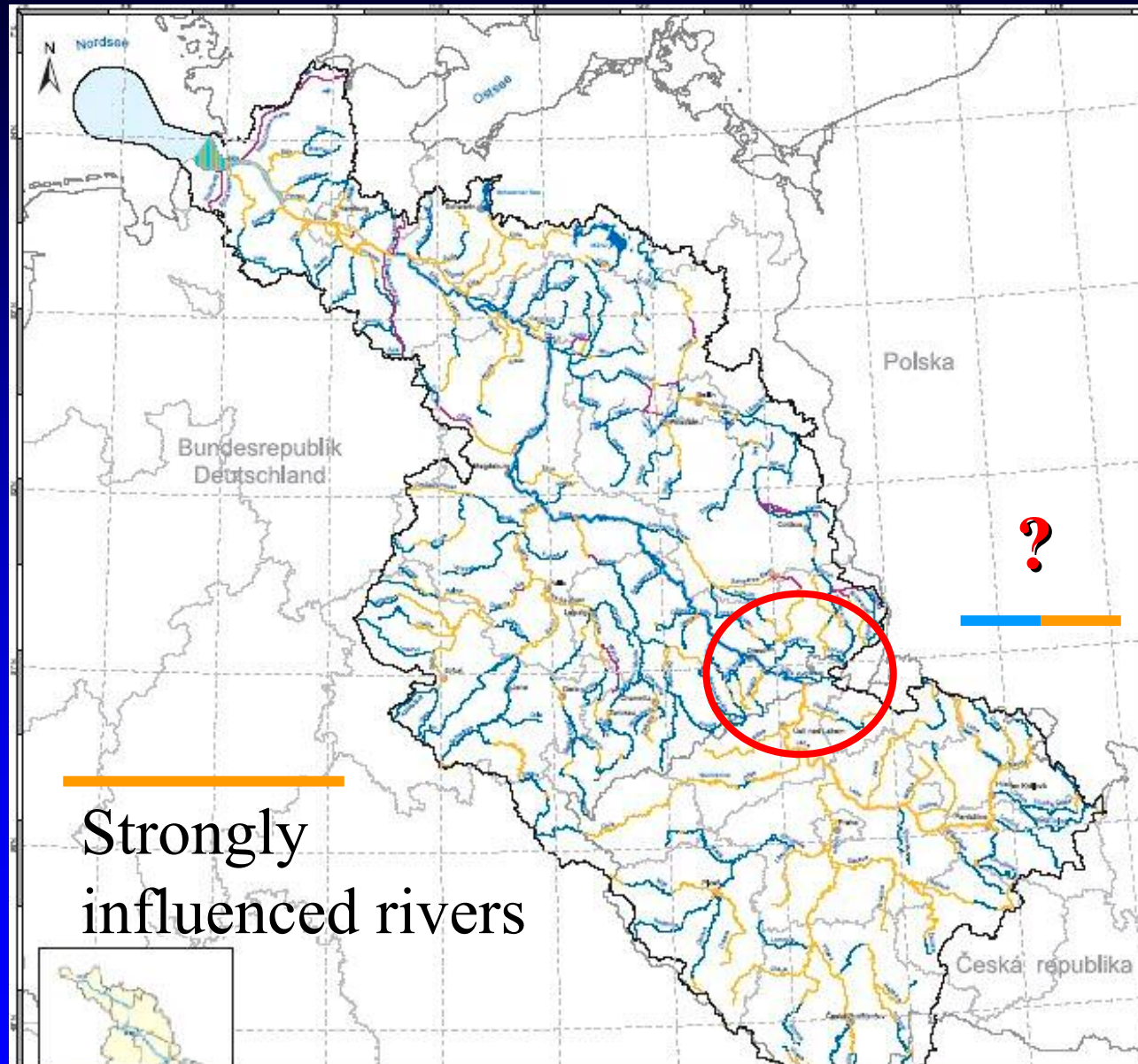
ZPRÁVA PRO EVROPSKOU KOMISI

*podle čl. 15 odst. 2 Směrnice 2000/60/ES
Evropského parlamentu a Rady ze dne 23. října 2000
ustavující rámec pro činnost Společenství v oblasti vodní politiky
(Zpráva 2005)*

Drážďany, 3. března 2005

Odborné zpracování a redakce:
Mezinárodní komise pro ochranu Labe (MKOL)





Strongly influenced rivers

Mezinárodní oblast povodí Labe
Zpráva A
Mapa č. 3: Útvary povrchových vod - kategorie

Legenda

- významné vodní toky
 - vodní toky
 - silně ovlivněné vodní toky *
 - umělé vodní toky *
- významná jezera
 - jezera
 - silně ovlivněná jezera *
 - umělé jezera *
- brakické vody
 - brakické vody
 - silně ovlivněné útvary brakických vod *
- pobřežní vody
 - pobřežní vody
 - silně ovlivněné útvary pobřežních vod *
- mezinárodní oblast povodí
 - linie pobřeží
 - státní hranice
 - hranice spolkových zemí / krajů
 - města > 90.000 obyvatel

* přibližné vymezení

Zdroj dat

Obecná data:
Kompetenční úřady v Mezinárodní oblasti povodí Labe

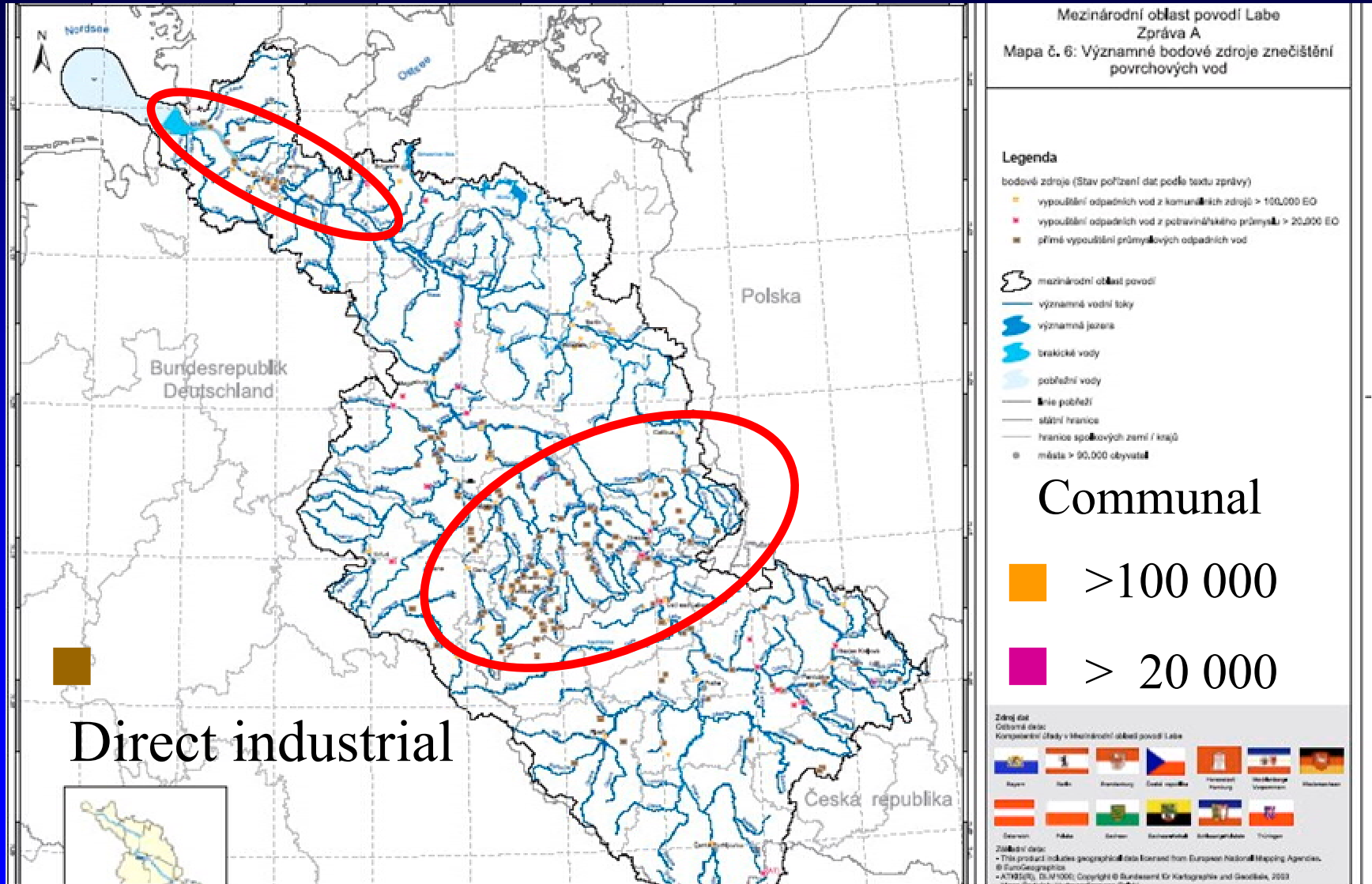


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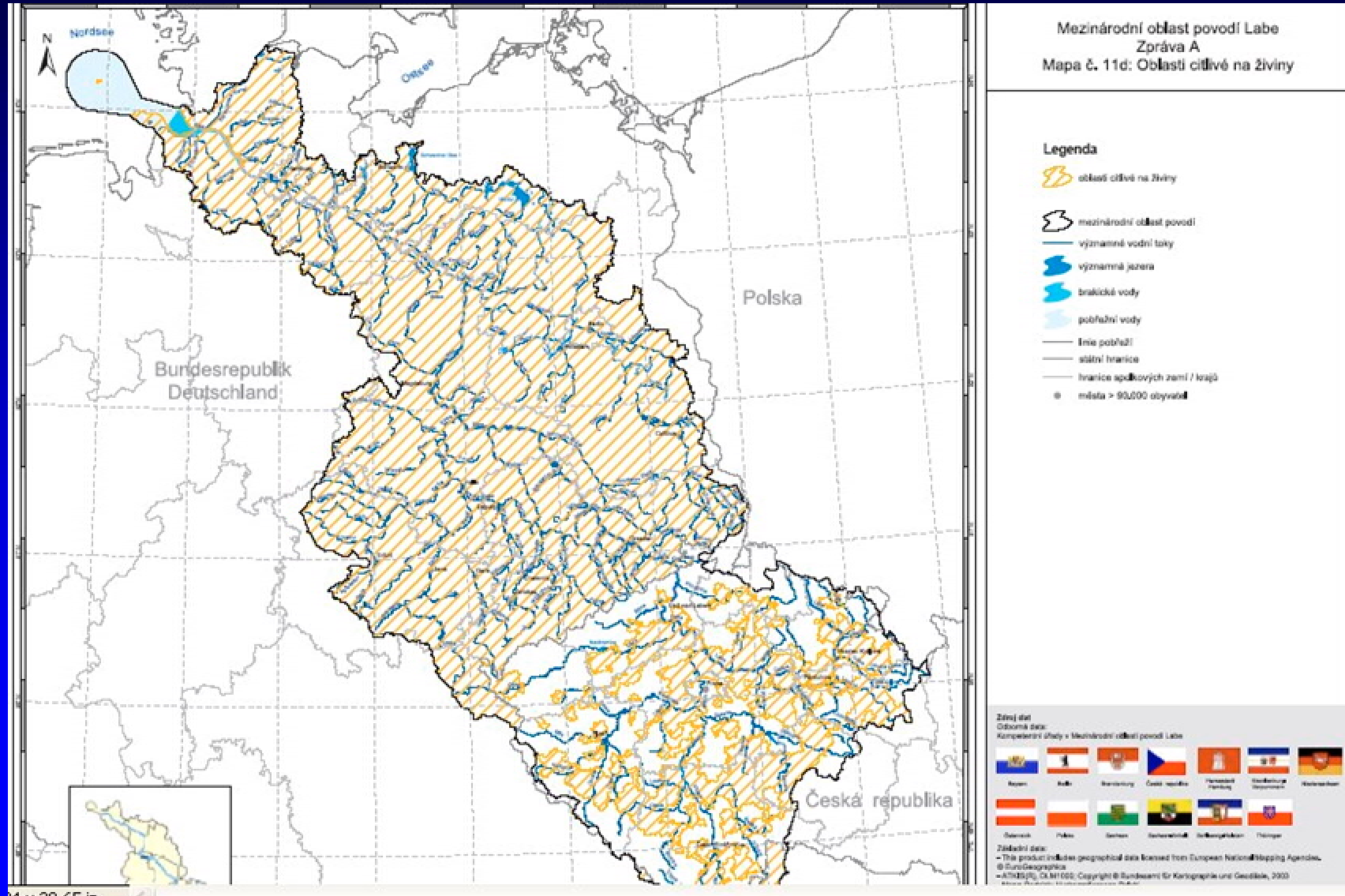
Important point-sources of pollution



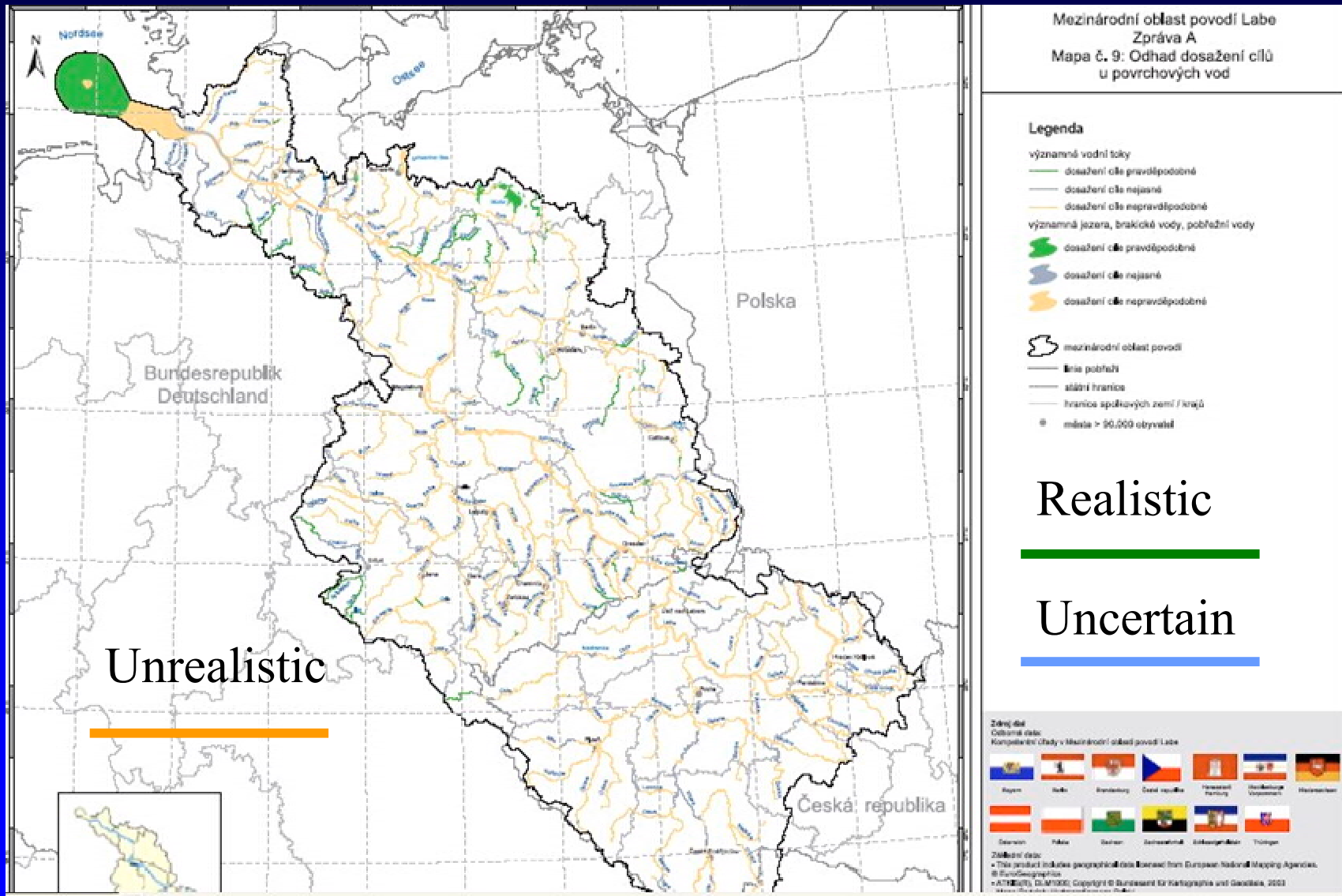


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Areas sensitive to the load of nutrients



Estimates of meeting the goals:





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Economic importance of the water use

- Most important ways of water use
 - Drinking water supply
 - Water for industry
 - Electricity generation
 - Transportation
- 96.4 % of population connected to public water supply



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Economic importance of the water use

- 86.0 % of population connected to public sewers
- 81.9 % of population connected to public wastewater treatment plants
- Decreasing use of surface water for industry (exception nuclear power station Temelin on the Vltava river)
- Prognosis to year 2015 in the report



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Next steps in the WFD implementation:

- October 2004: Establishment of working group “Optimization of the structure and work of IKSE/MKOL“
- October 2005: 18th General Meeting of IKSE/MKOL: Approval of the new structure of the commission
- Formation of new WG on *Implementation of the WFD in the International River Basin of the Elbe*



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Next steps in the WFD implementation:

- New WG directly supported by existing groups of experts
- Formation of the *Elbe forum*: information of and consultation with the public (e.g., so-called Magdeburg seminars)
- 2006: Proposal of situation monitoring for surface and ground waters



THE ELBE RIVER

www.ikse-mkol.de

Internationale Kommission zum Schutz der Elbe (IKSE)

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Adresa  <http://www.mkoo.pl/index.php>



 Přejít

Odkazy »



International Commission for the Protection of the Odra River against Pollution

Welcome to the ICPOAP

menu

Commission

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Founding act, aims and
working methods

Organisation chart

Chairman of the Commission
and Contracting Party
delegations

Secretariat

ICPO Convention

Rules of Procedure of the
ICPOAP

History

Coordination of WFD
Implementation

Report WFD 2004

Report WFD 2005



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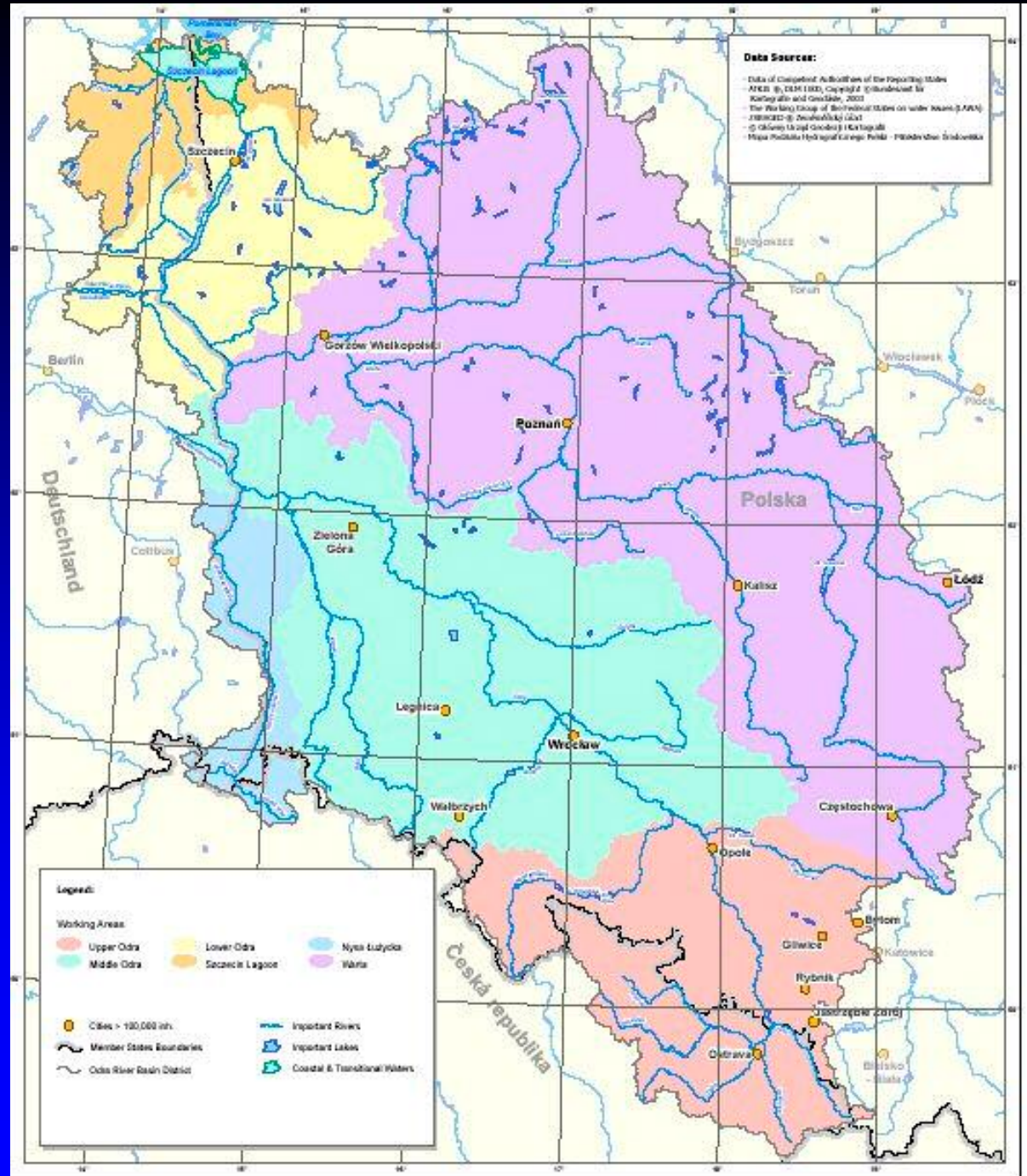
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International river basin

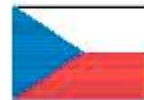


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2005 Report of the
Commission on the
implementation of the
WFD

MEZINÁRODNÍ OBLAST POVODÍ ODRY

CHARAKTERISTIKY OBLASTI POVODÍ,
VYHODNOCENÍ ENVIRONMENTÁLNÍCH DOPADŮ LIDSKÉ ČINNOSTI
A EKONOMICKÁ ANALÝZA UŽÍVÁNÍ VODY



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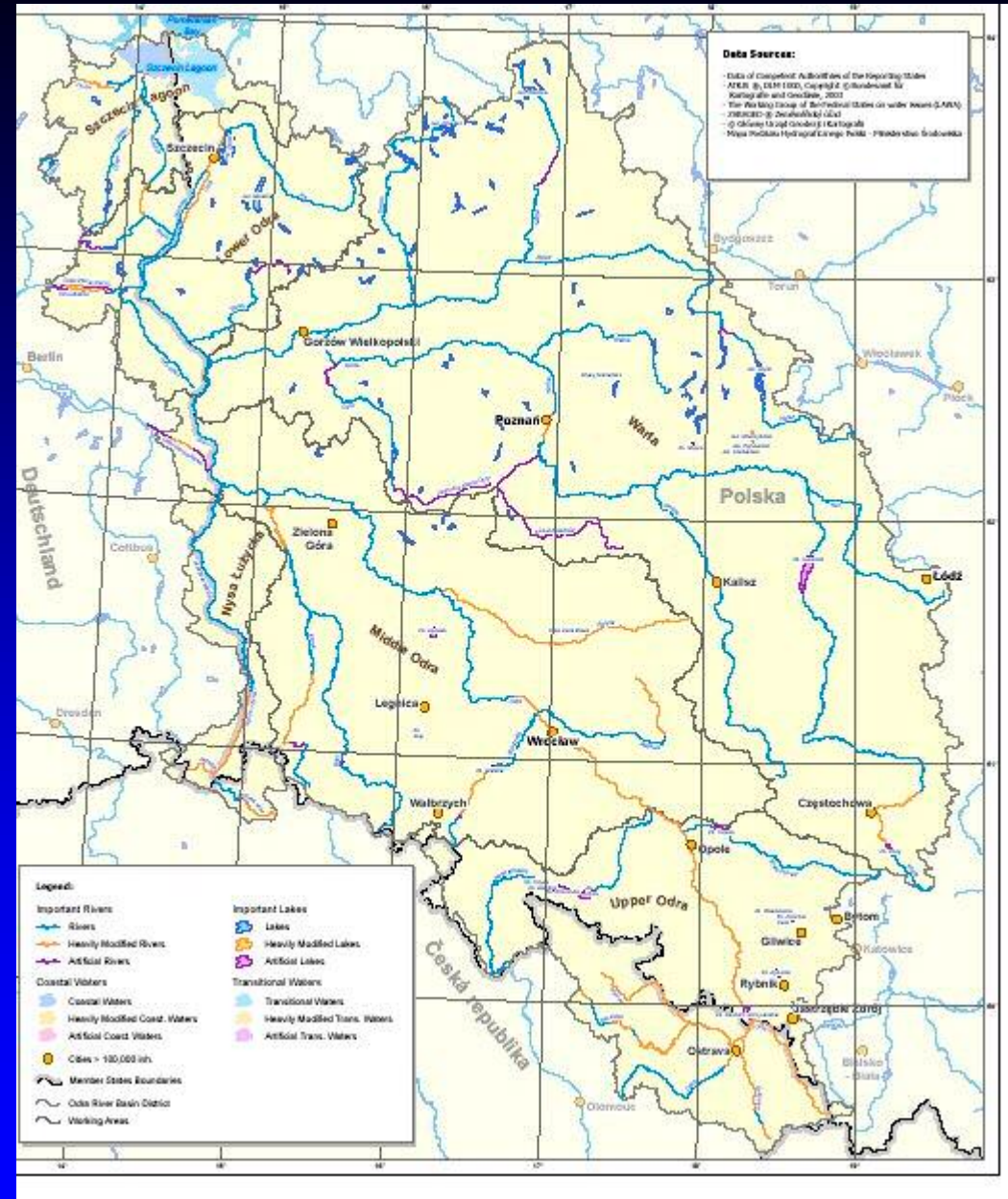
Koordinace v rámci Mezinárodní komise pro ochranu Odry před znečištěním

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Rivers, lakes

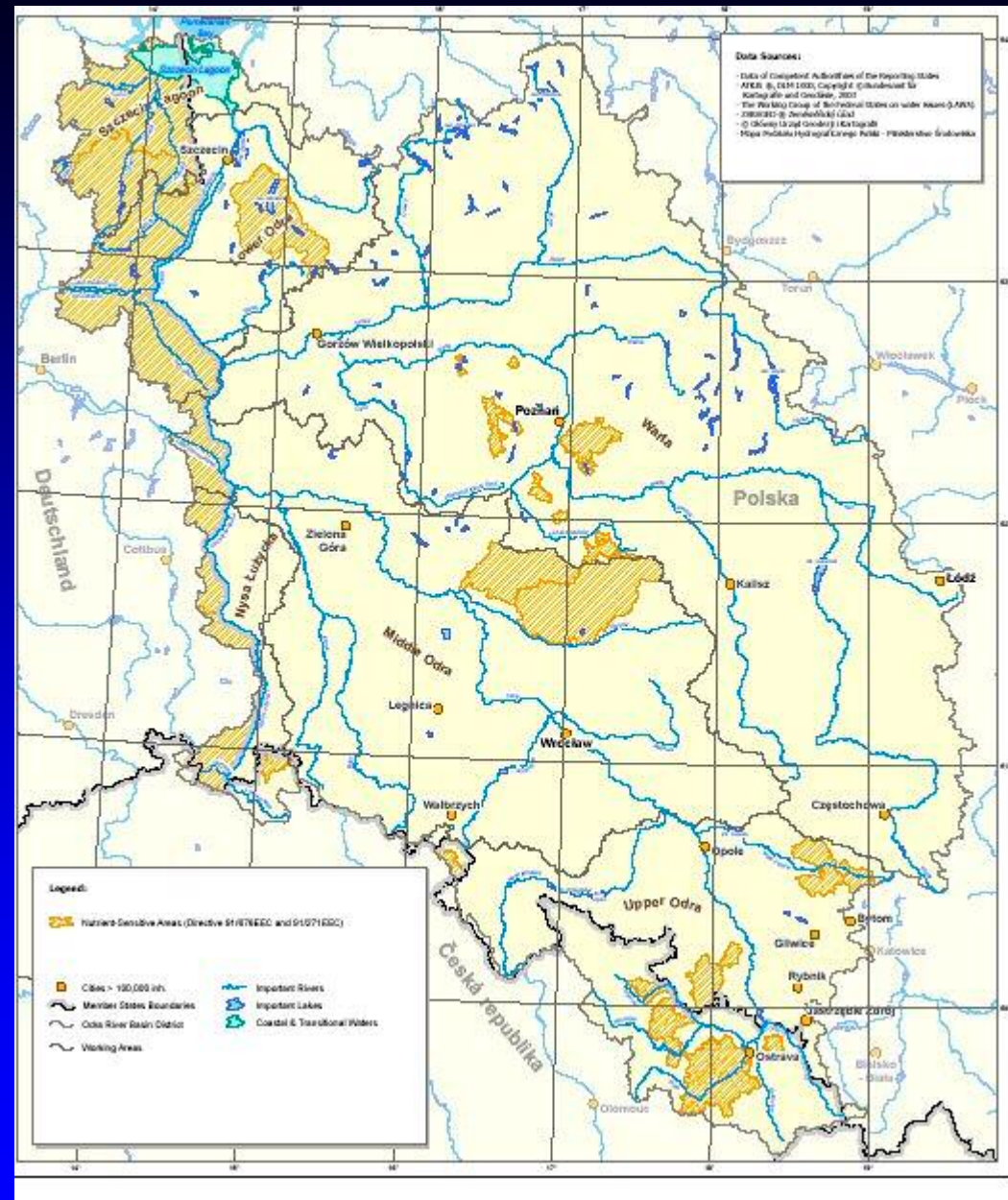
Heavily
modified water
bodies

Artificial water
bodies



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Nutrient sensitive areas



Our objectives are clear !

