

Is the Drava River basin
management well on
the way?



Statement
Austria/Carinthia



Introduction

Organisational Aspects

Problems and Challenges

Examples

Future Activities

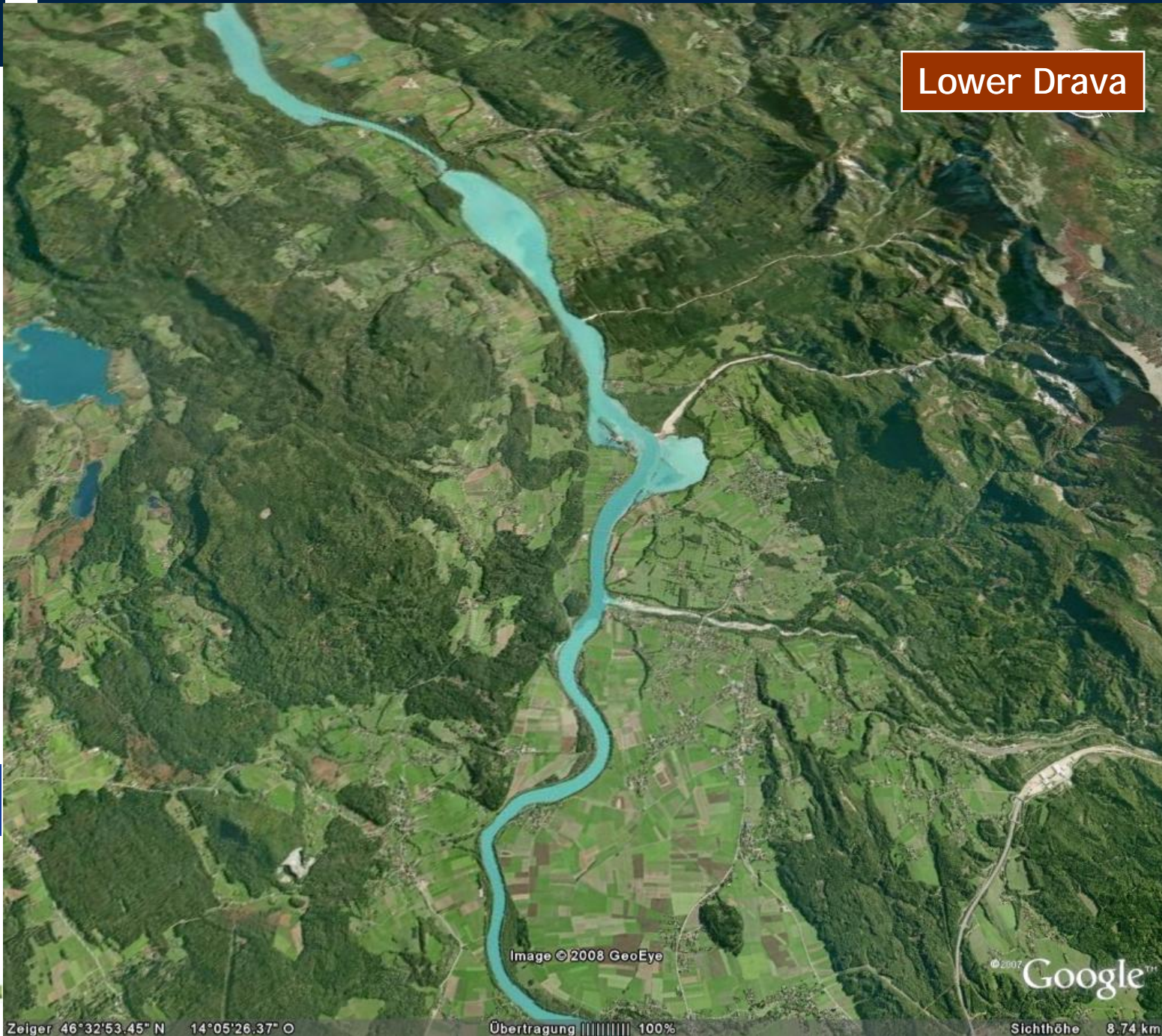
Conclusions and Expectations



Regional states: Tyrol, Carinthia
 Catchment area: 9420 km²
 River length: 260 km (51 km Tyrol, 209 km Carinthia)
 Slope: 3‰ to 1‰
 H.power stations: 14
 Natura 2000 area: 1000 ha
 Mean water flow: 74 m³/s (Upper Dr.), 290 (Lower Dr.)
 100 Year flood: 1050 m³/s (Upper Dr.), 2600 m³/s (Lower Dr.)



Lower Drava



Zeiger 46°32'53.45" N 14°05'26.37" O

Übertragung ||||| 100%

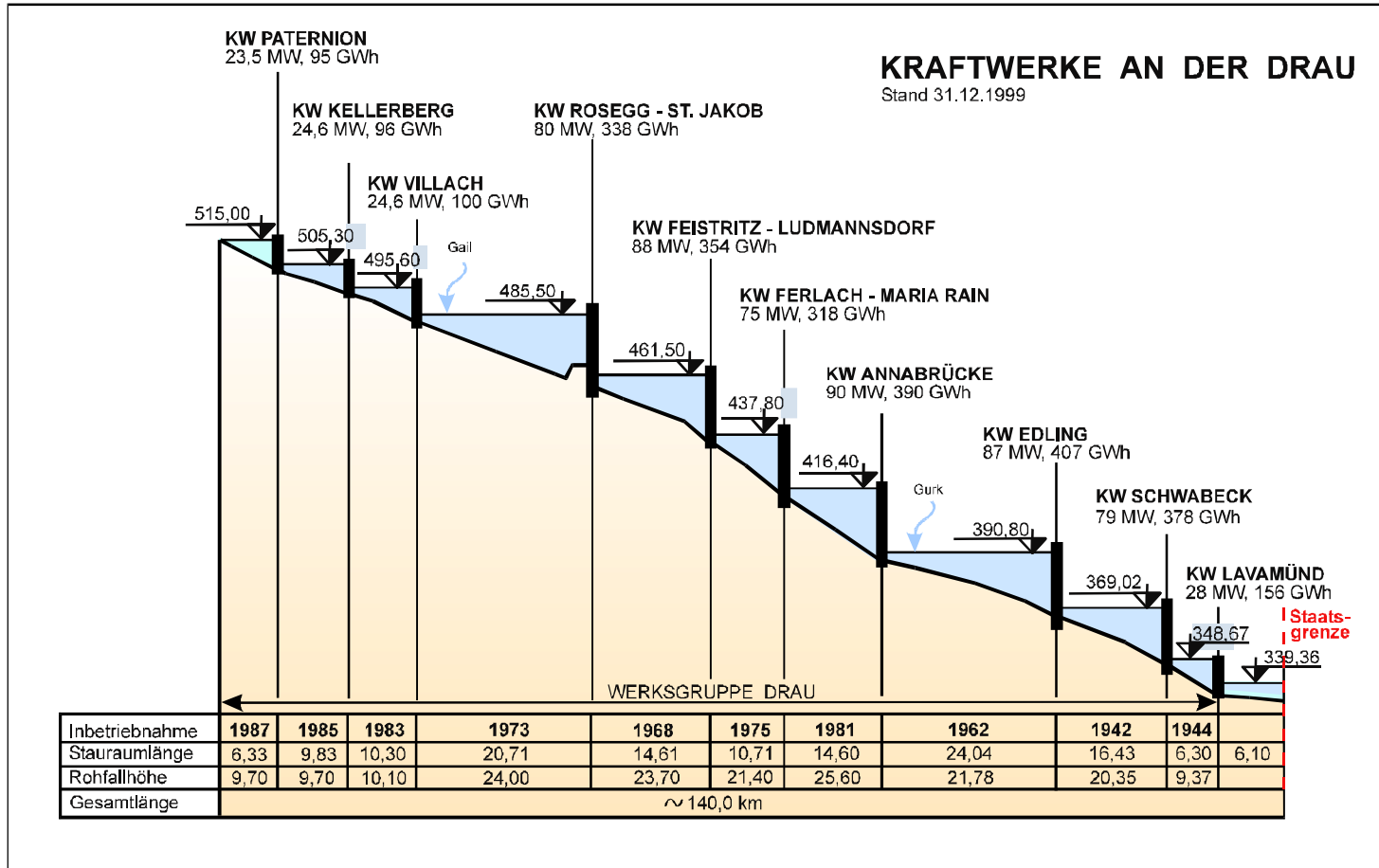
Sichthöhe 8.74 km

River-run power plants along the Drau in Austria



Grafik: Austrian Hydropower (AHP)





Grafik: Austrian Hydropower (AHP)



Flood management



flood protection



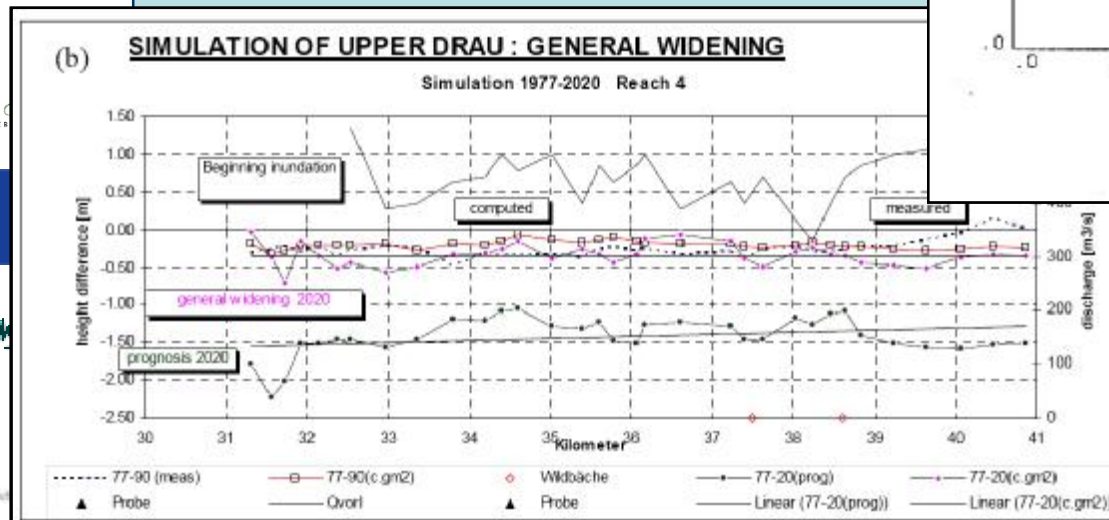
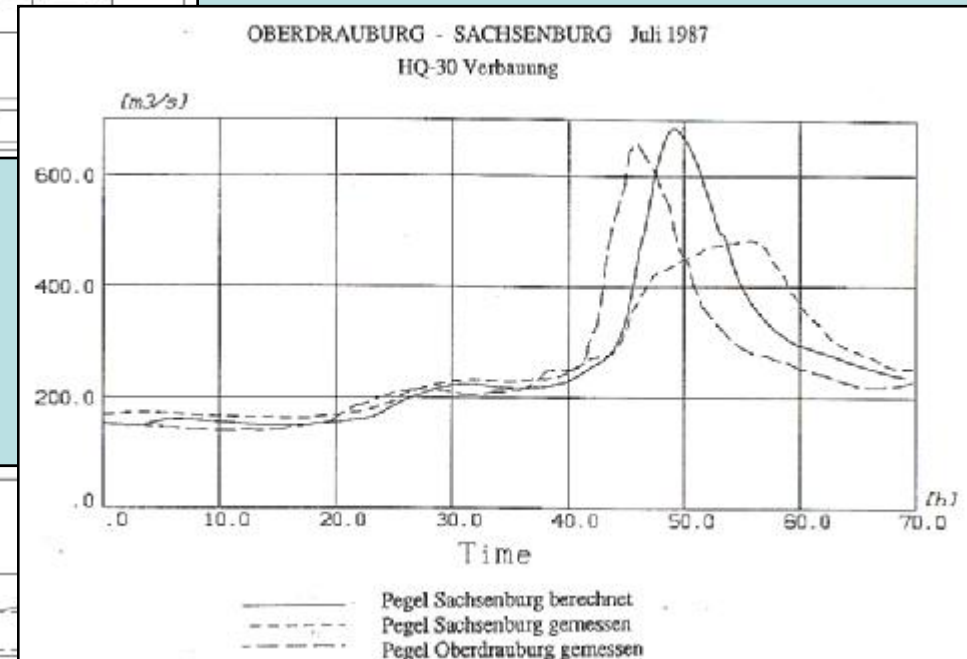
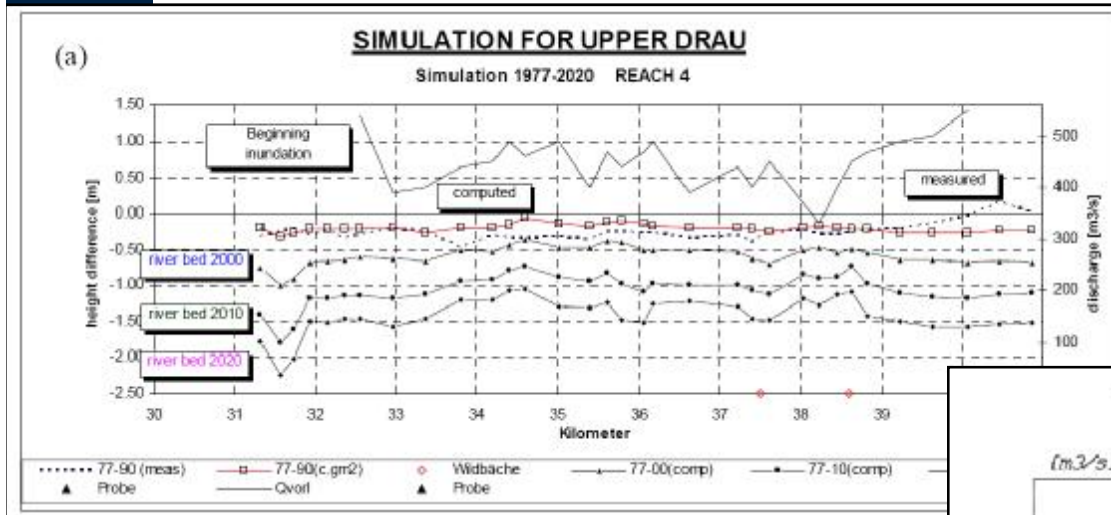
flood retention maintenance



river bed erosion



Problems and Challenges



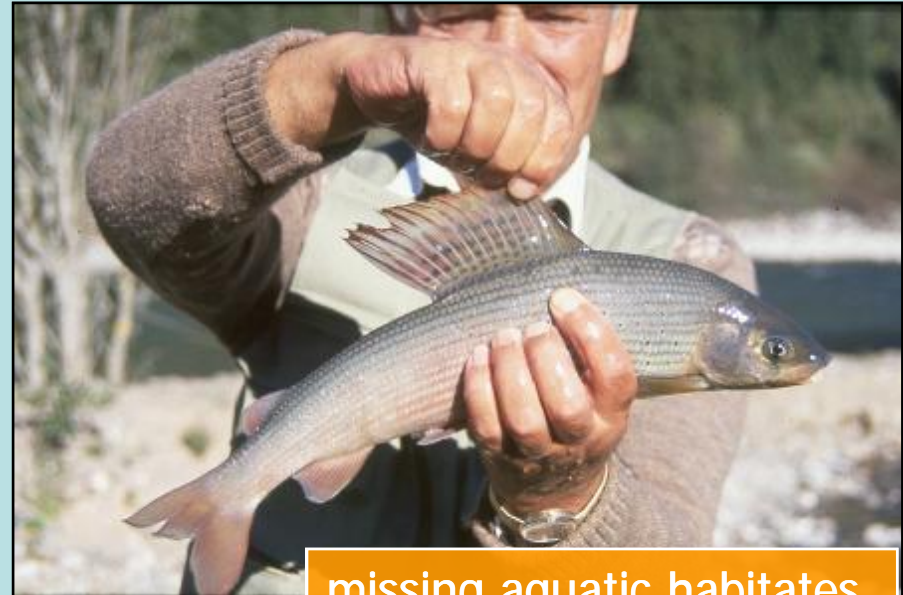
Nature protection



Ecological Status



monotonous river course



missing aquatic habitats



barriers for fish species

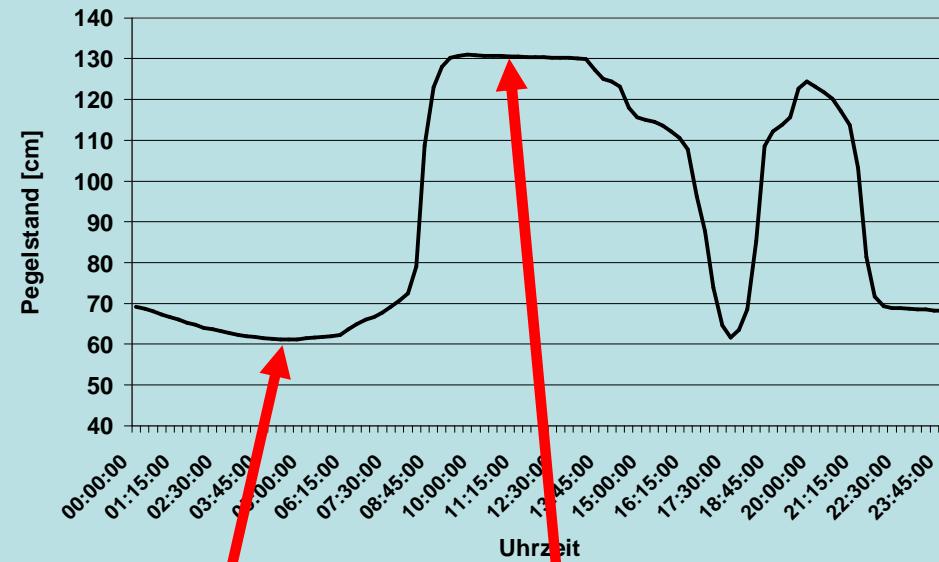


Problems and Challenges

Hydrological pressures



21. März 2003



25 m³/s

110 m³/s

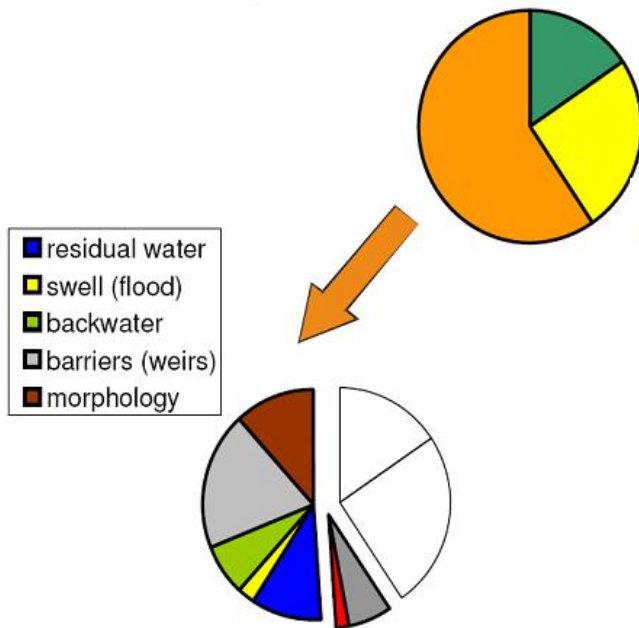
~ 70cm Pegelschwankung



WFD – Risk Analysis 2004

Risk assessment for water bodies
Austria general view

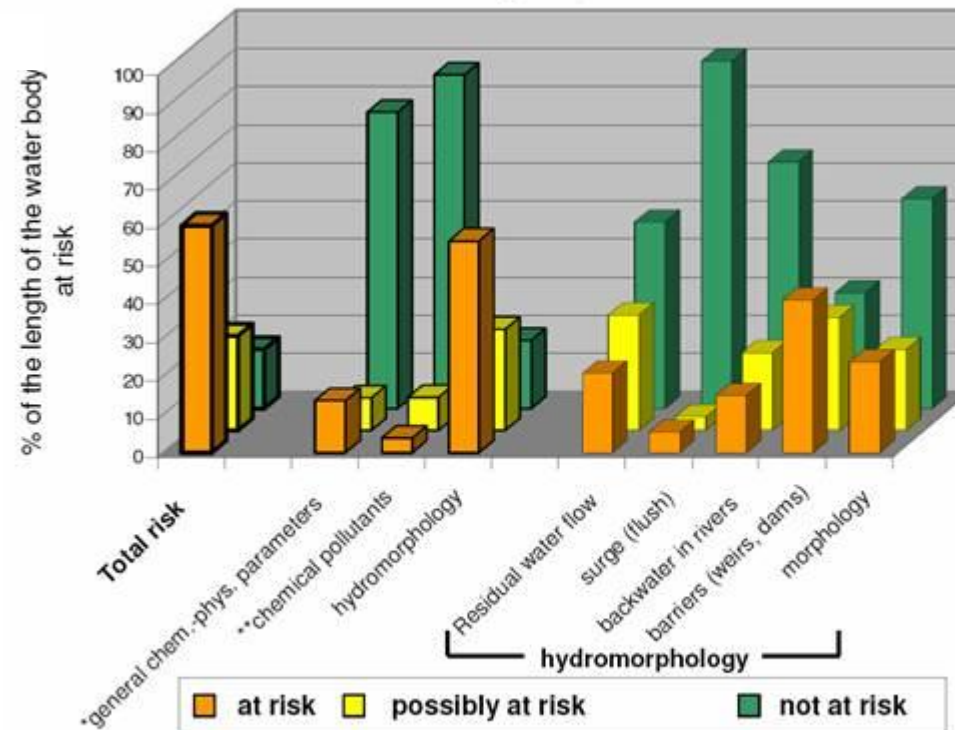
■ not at risk ■ possibly at risk ■ at risk



■ general chemical physical parameters
■ chemical pollutants



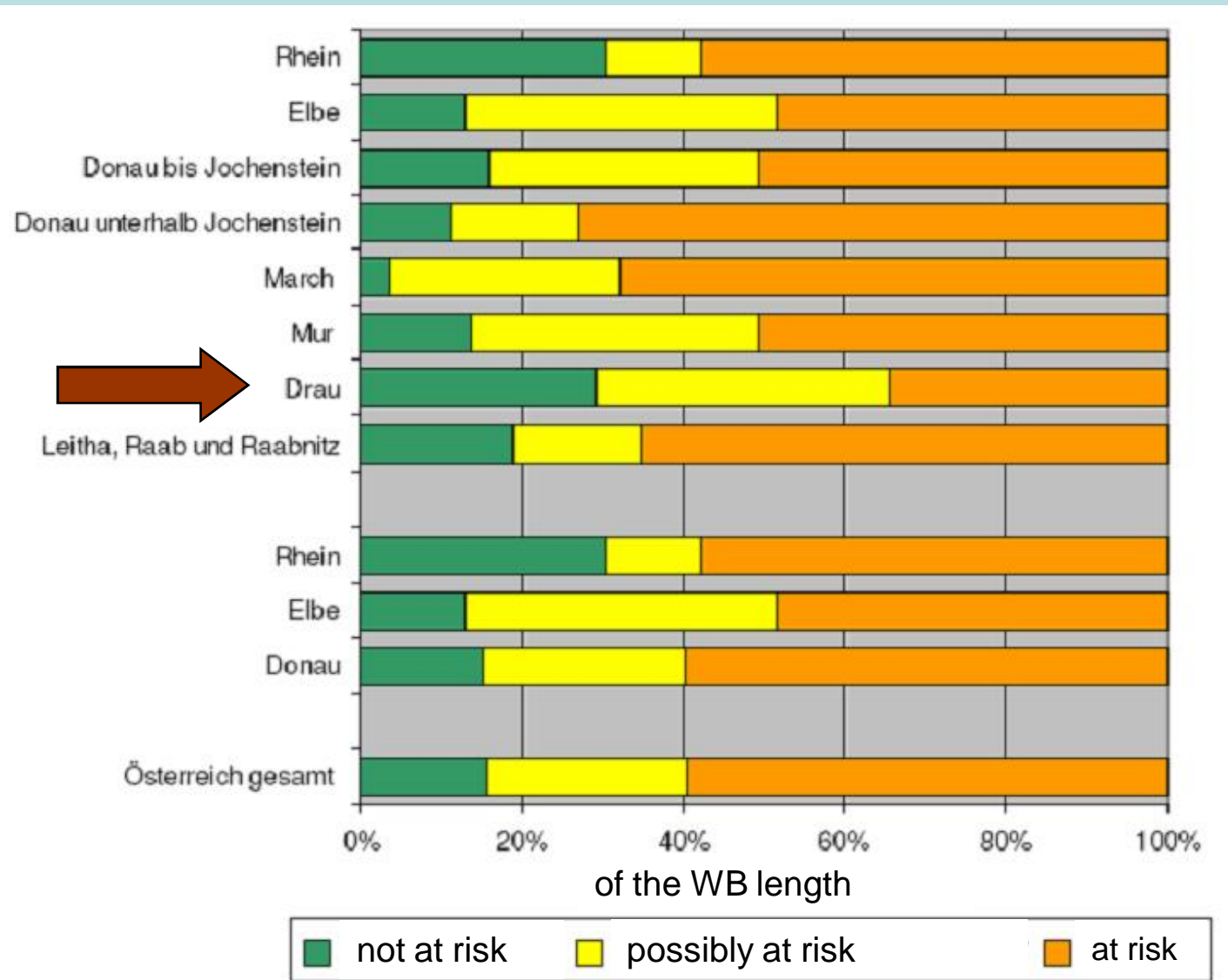
Distribution of risk
Austria general view



* Including saprobiological water quality

** priority substances and List I substances of EC Directive 76/464/EEC and other pollutants according to the WFD

WFD – Risk Analysis 2004



Project:

“Stream Care Scheme Upper Drau”
year 1991

December 1999 - December 2003

European Union LIFE
“Auenverbund Obere Drau”



EUR 6.462.000,00

September 2006 - August 2011

European Union LIFE
“Lebensader Obere
Drau”



EUR 3.828.262,00



Examples – River Widening Kleblach



Examples – River Widening Kleblach

2 Nov.1999



18 Sept.2002



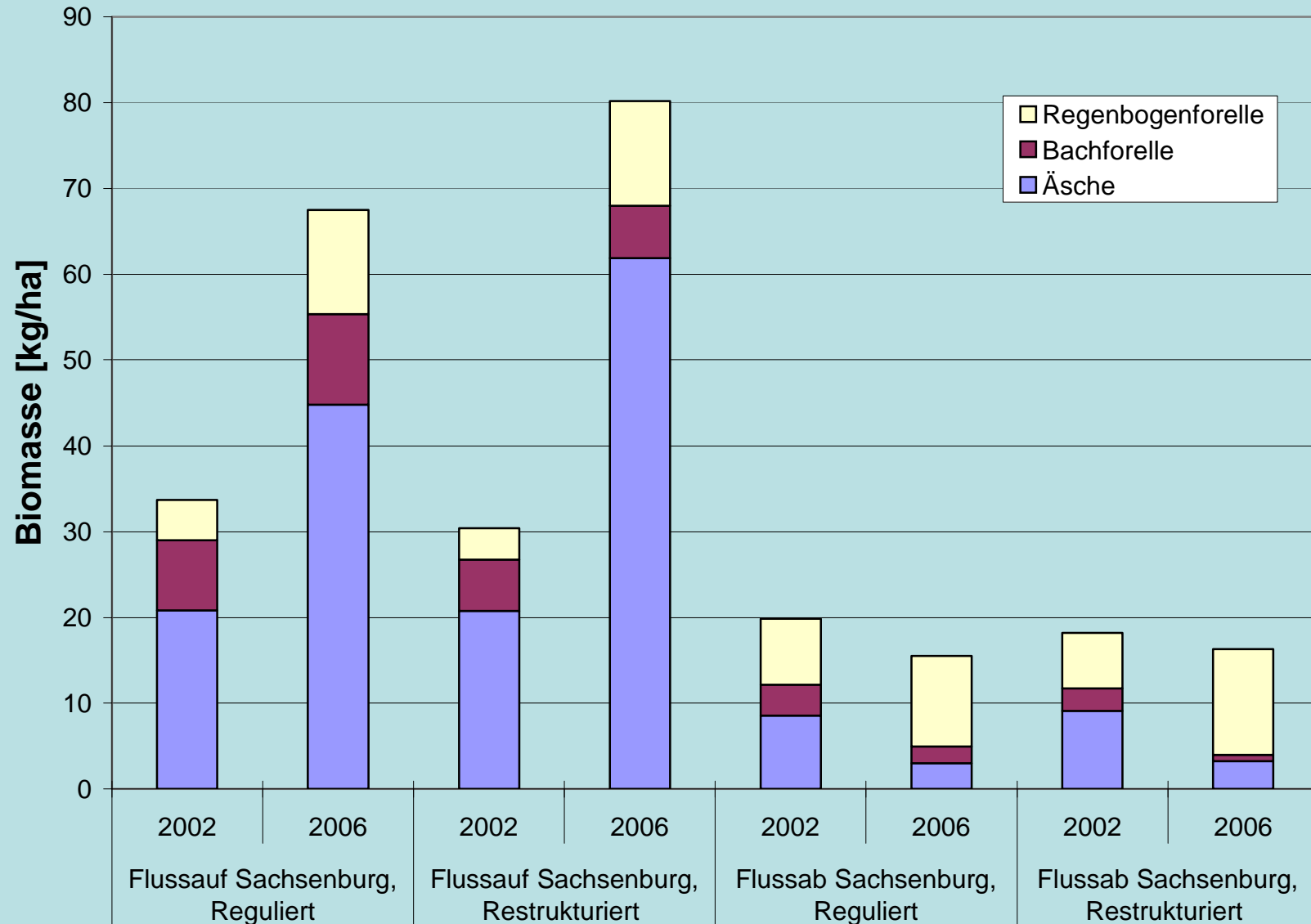
21 June 2003



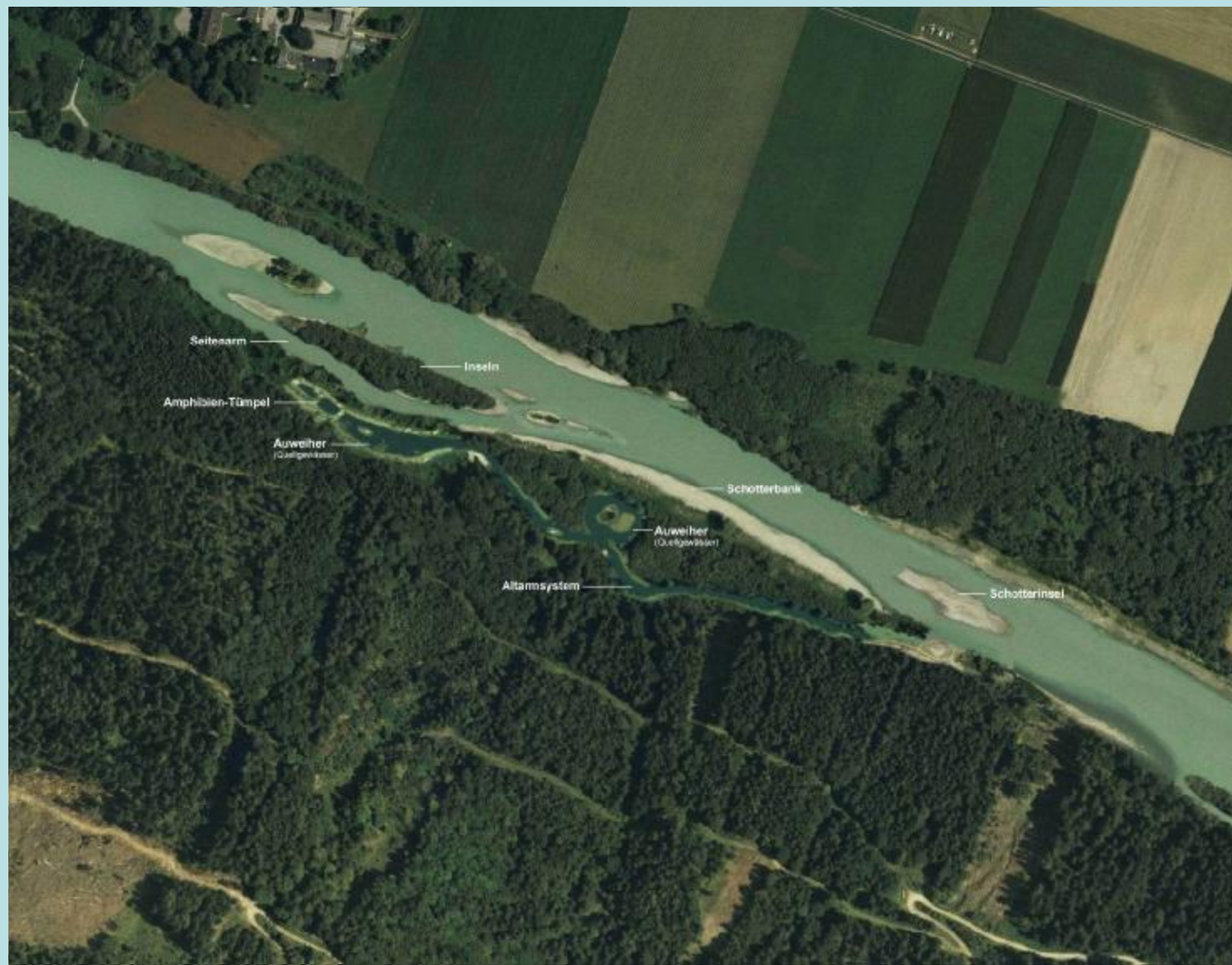
19. Juli 2006



Examples – River Widenings



Examples – River Widening Rosenheim



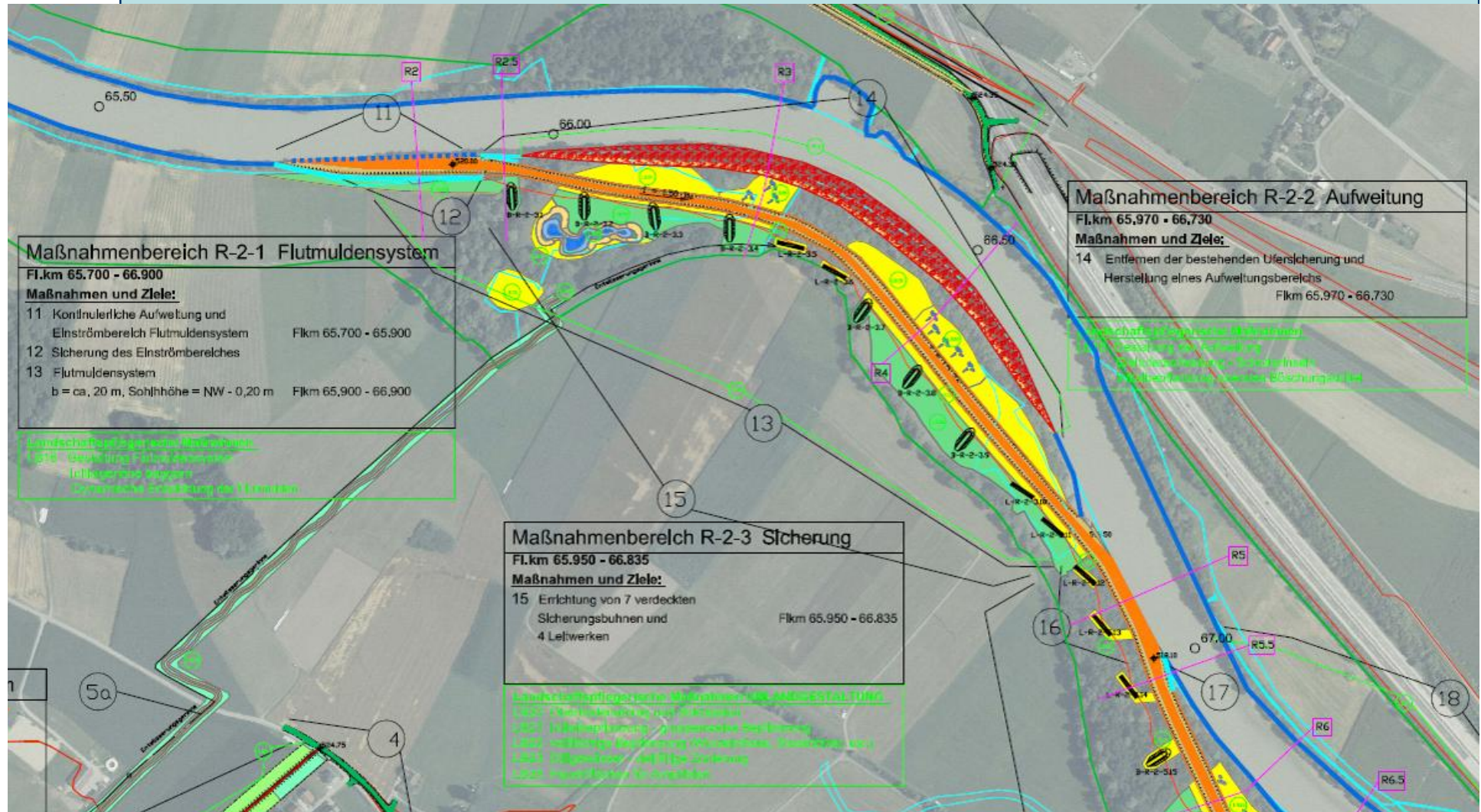
Examples – River Widening Rosenheim



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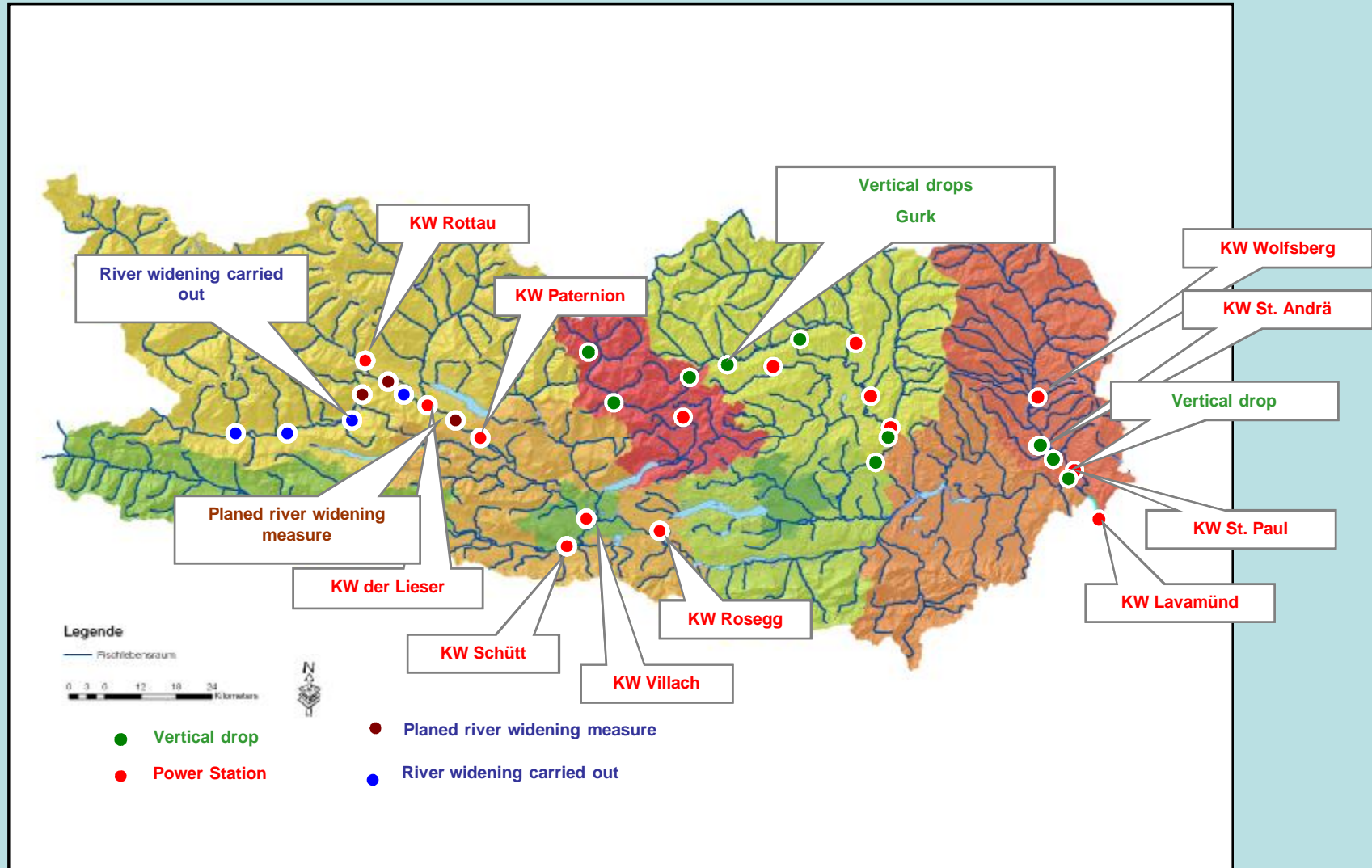


Examples – River Widening St. Peter





Measures - WFD



Increases in ...

Flood Protection

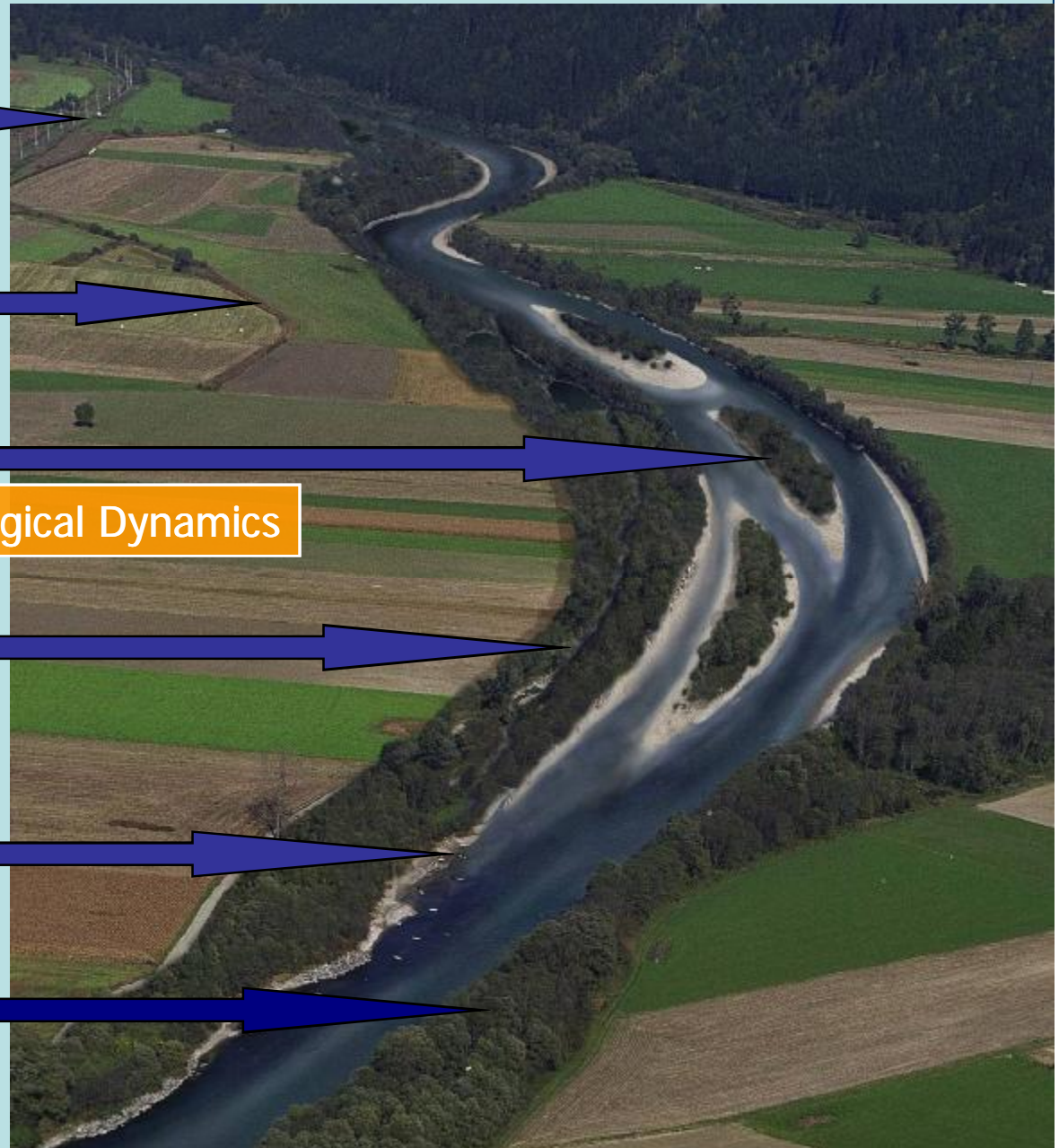
Retention Areas

Morphological Dynamics

Aquatic Habitats

Recreation Areas

Non Aquatic Habitats

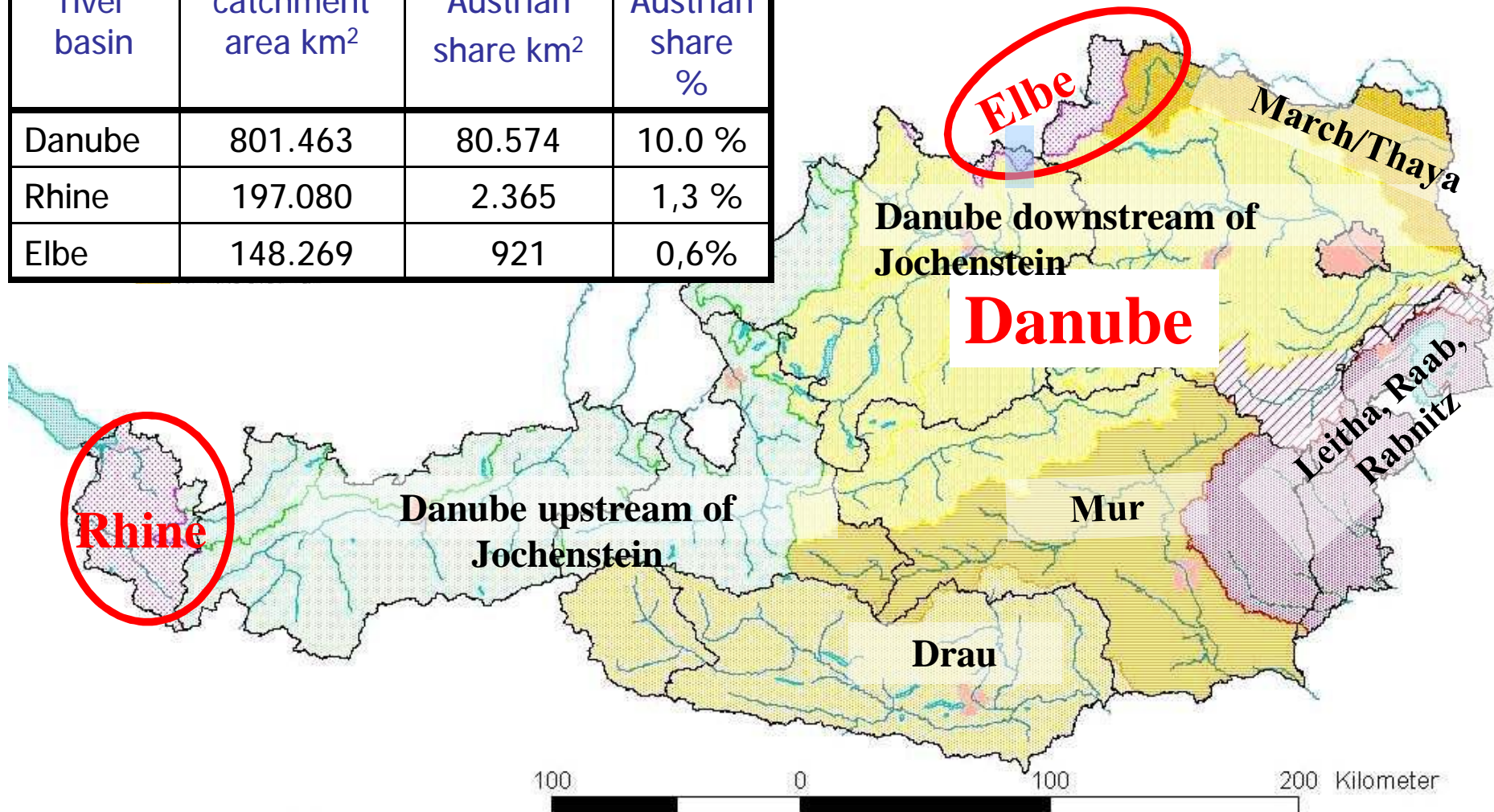


FEDERAL RIVER ADMINISTRATION CARINTHIA



Organisation of RBM

river basin	catchment area km ²	Austrian share km ²	Austrian share %
Danube	801.463	80.574	10.0 %
Rhine	197.080	2.365	1,3 %
Elbe	148.269	921	0,6%





Measures

