

Integrated River Engineering Project on the Danube East of Vienna

Requirements from the ecology side



Carl Manzano

Orth an der Donau, April 26th, 2007

Hydro power plant Greifenstein

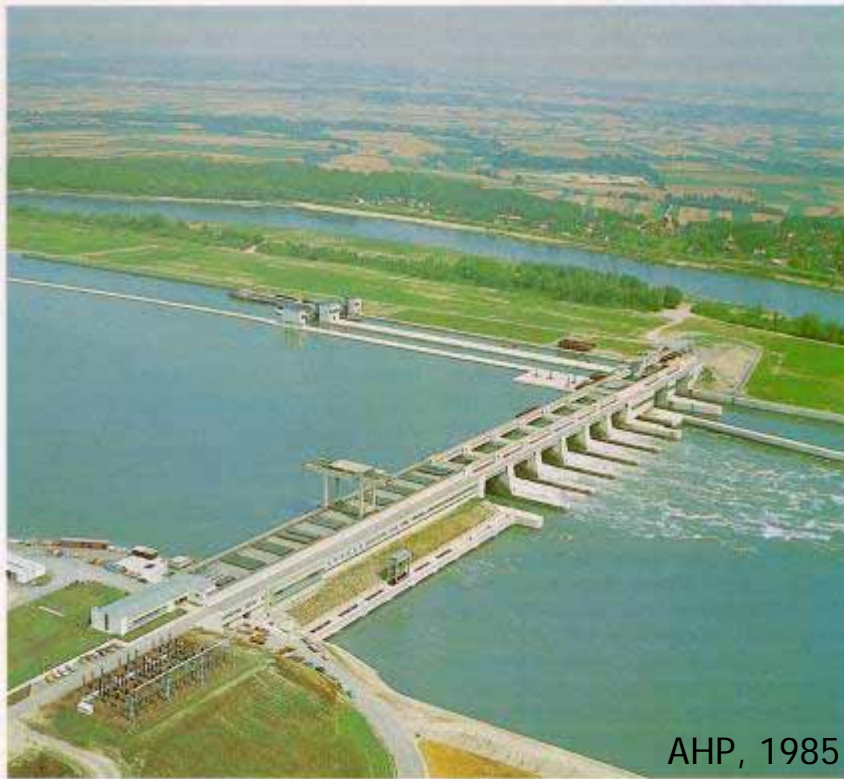


Hydro power plant Freudenau

Hydro power plant Gabčíkovo



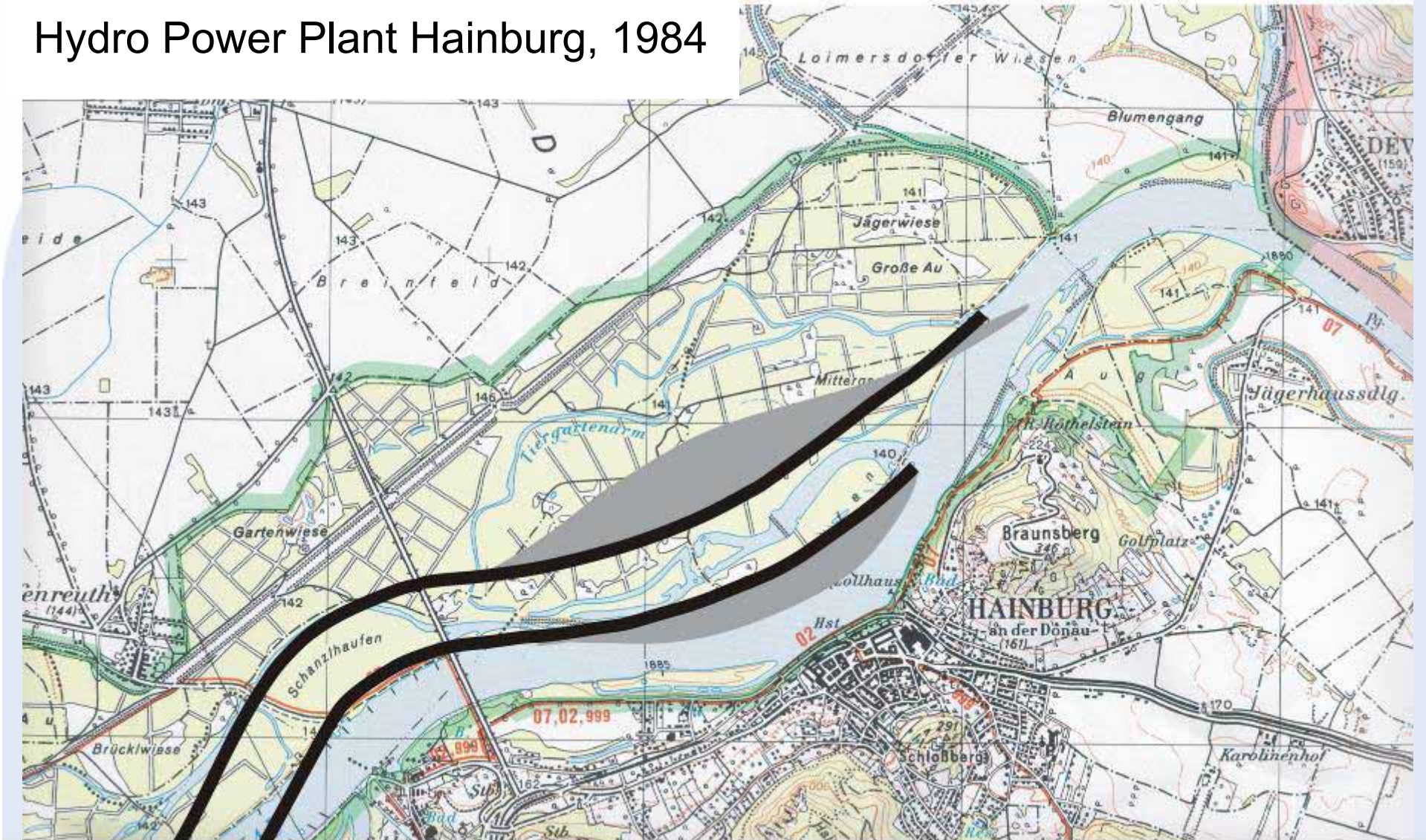
WWF, 1996



AHP, 1985



Hydro Power Plant Hainburg, 1984





December 1984

Agreement to establish the National Park, 27. 10. 1996





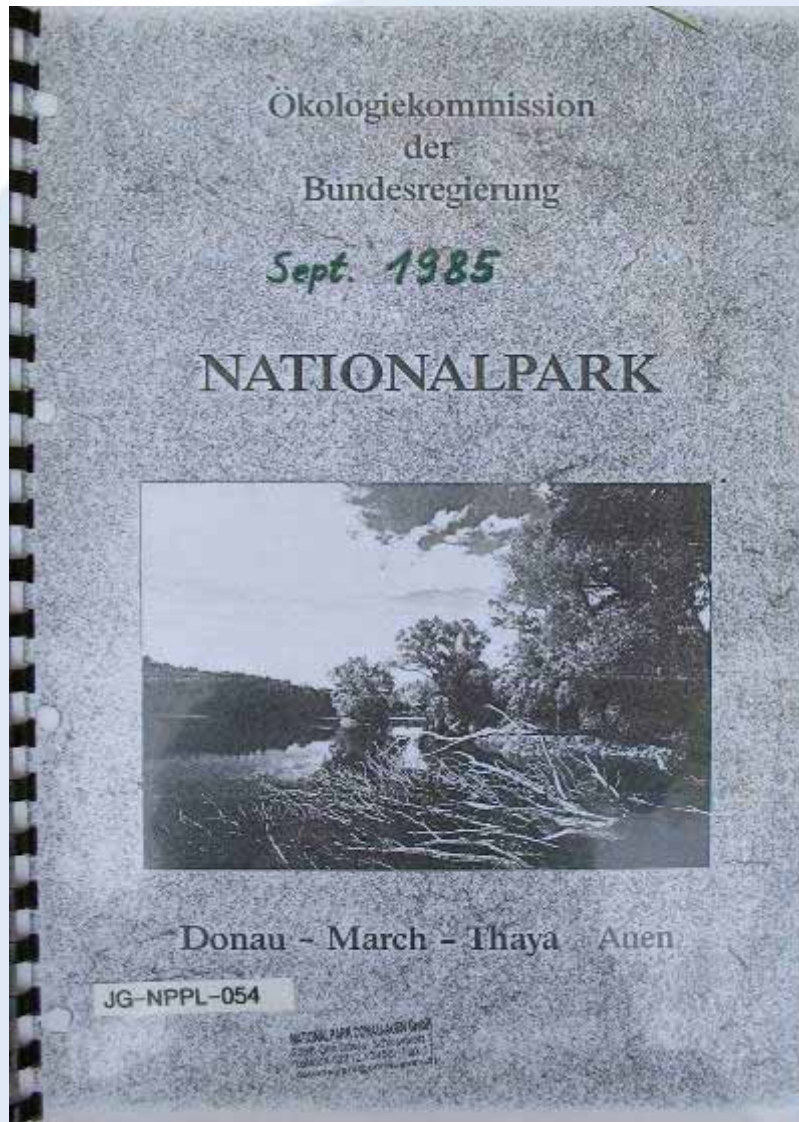




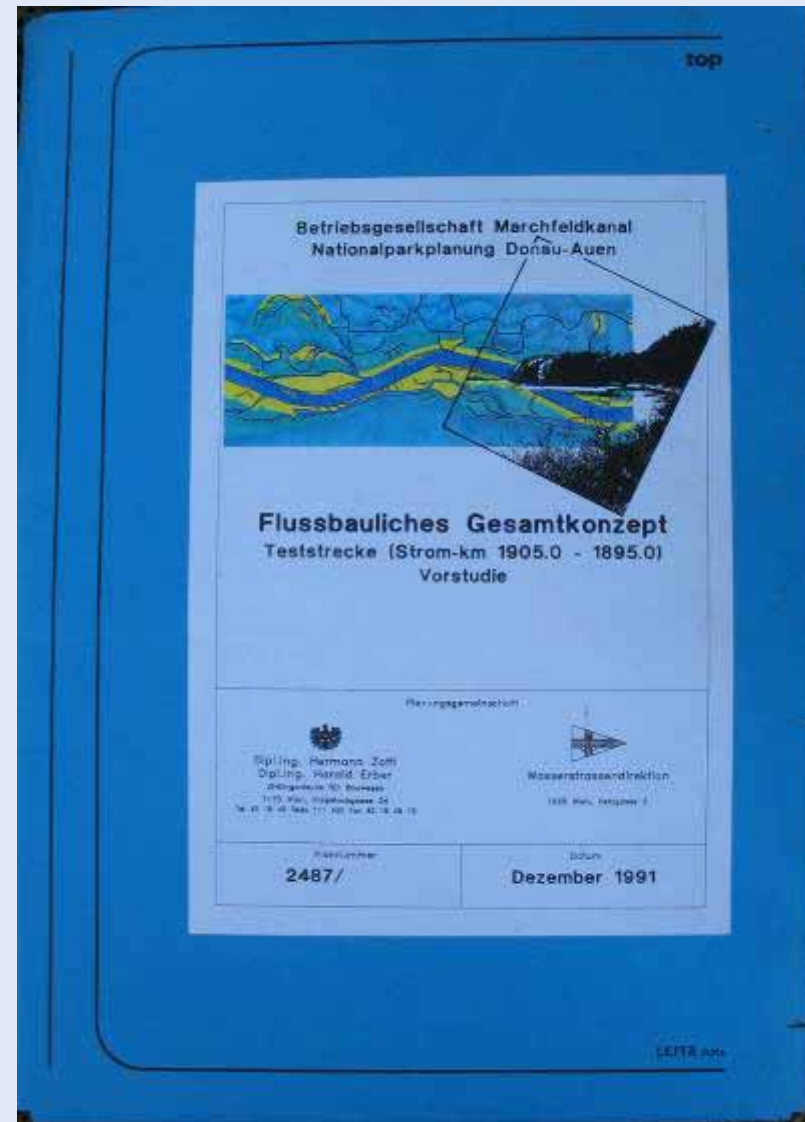
Josephinische Landesaufnahme, um 1775



Inflow area Orth: 1941 - 1996



Ökologiekommision 1985



Nationalparkplanung 1991



Culvert nearby Haslau



Inflow area nearby Orth



Inflow area nearby Orth

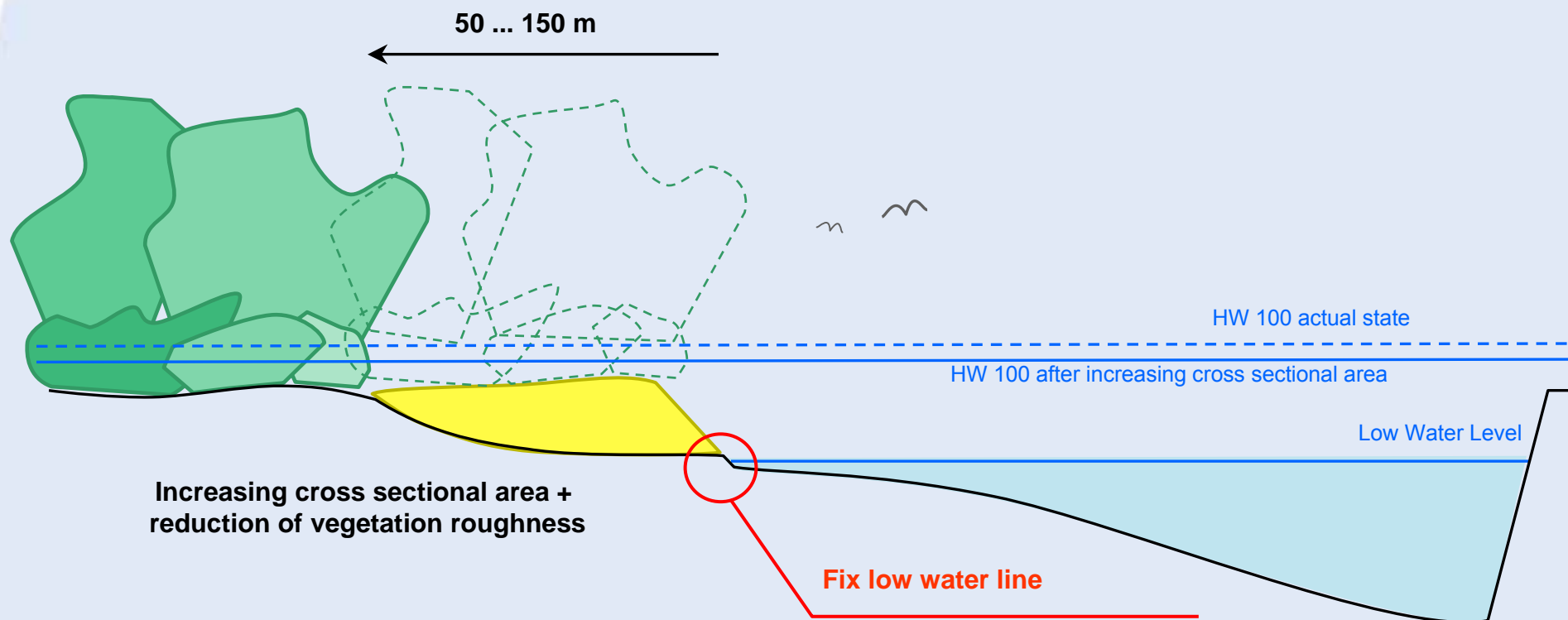


Reconnected side arm nearby Orth



Banded Demoiselle, *Calopteryx splendens*

River Bank Restoration







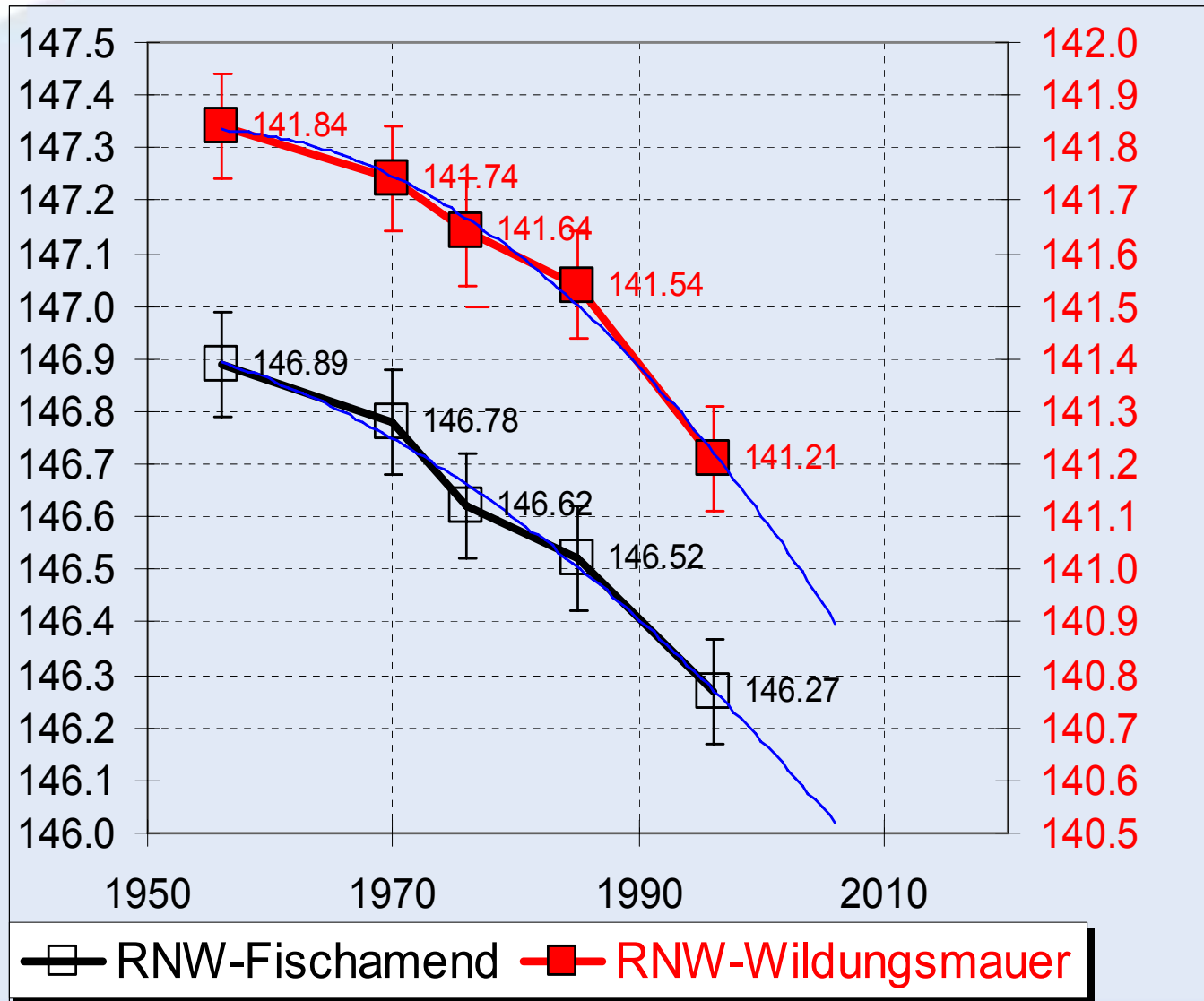


des Mangutes, ihre Umsetzung erfolgt gemeinsam mit der Wasserstraßendirektion. Erste Erfolge konnten bereits dokumentiert werden, weitere Verbesserungen erfolgen laufend.
Im Bereich der Unteren Lobau (Ölhafen bis Schönauer Schlitz) wurden die Erhebungen aus dem LIFE Natur Programm der EU finanziert, im östlichen Abschnitt bis zur Marchmündung aus Ausgleichsmitteln für Eingriffe durch Verlegung einer Leitungstrasse im Nationalpark-Gebiet.





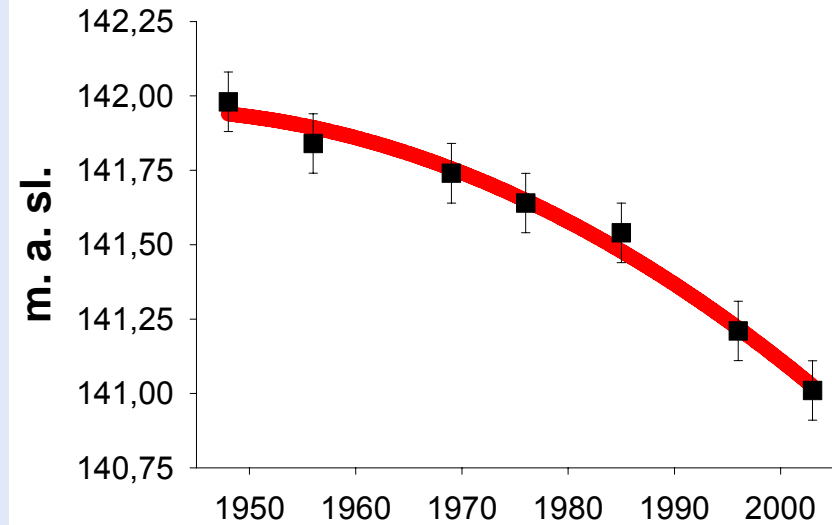
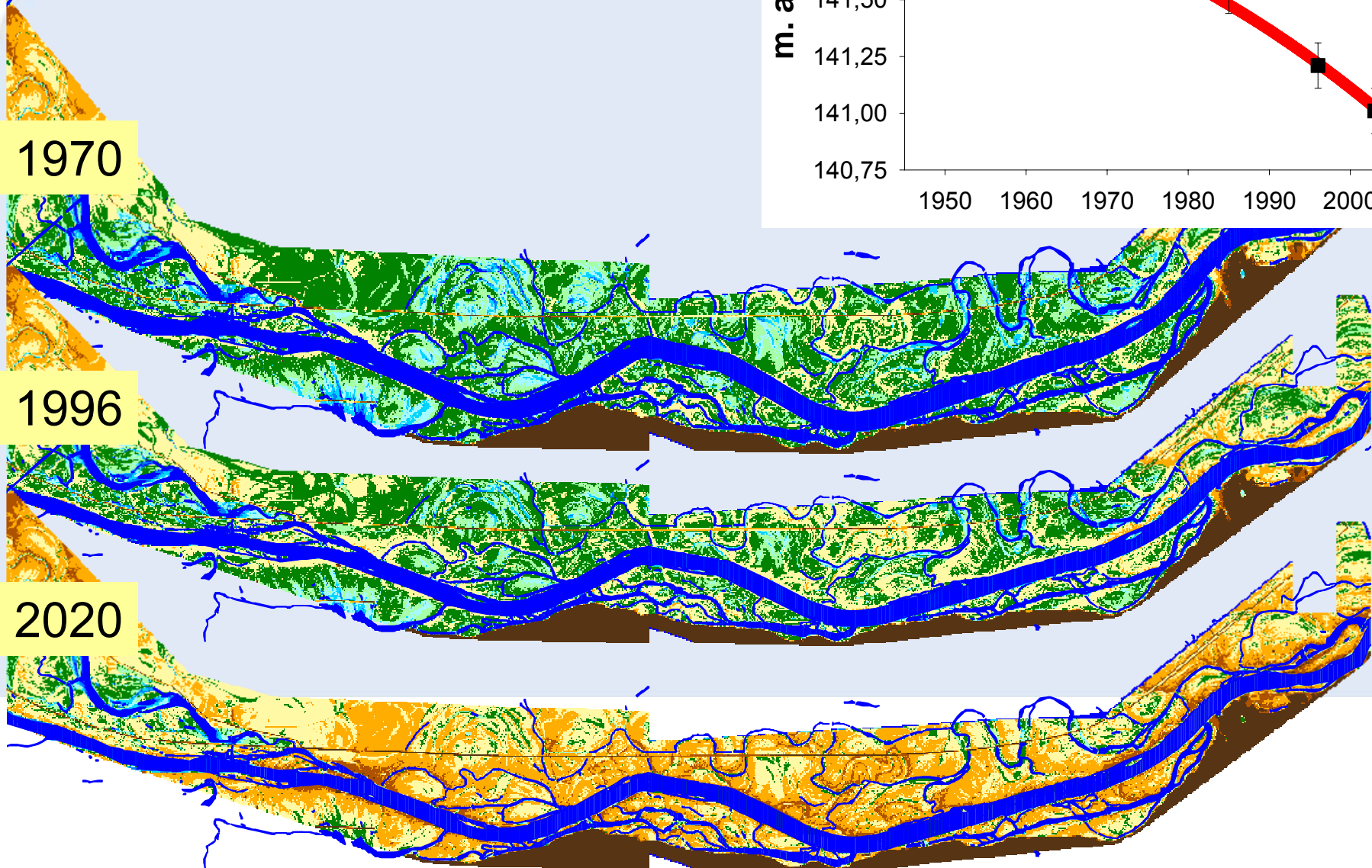
Little Ringed Plover, *Charadrius dubius*



Development of low-water level

Landscape development

Distance: surface – groundwater table







Produkt 1999: 32 dm



Josephinische Landesaufnahme, um 1775

1) Improvements for navigation should not worsen the problem of sole erosion, but provide a lasting and sustainable solution



2) Improvements of navigation have to be combined with all possible measures or river restoration



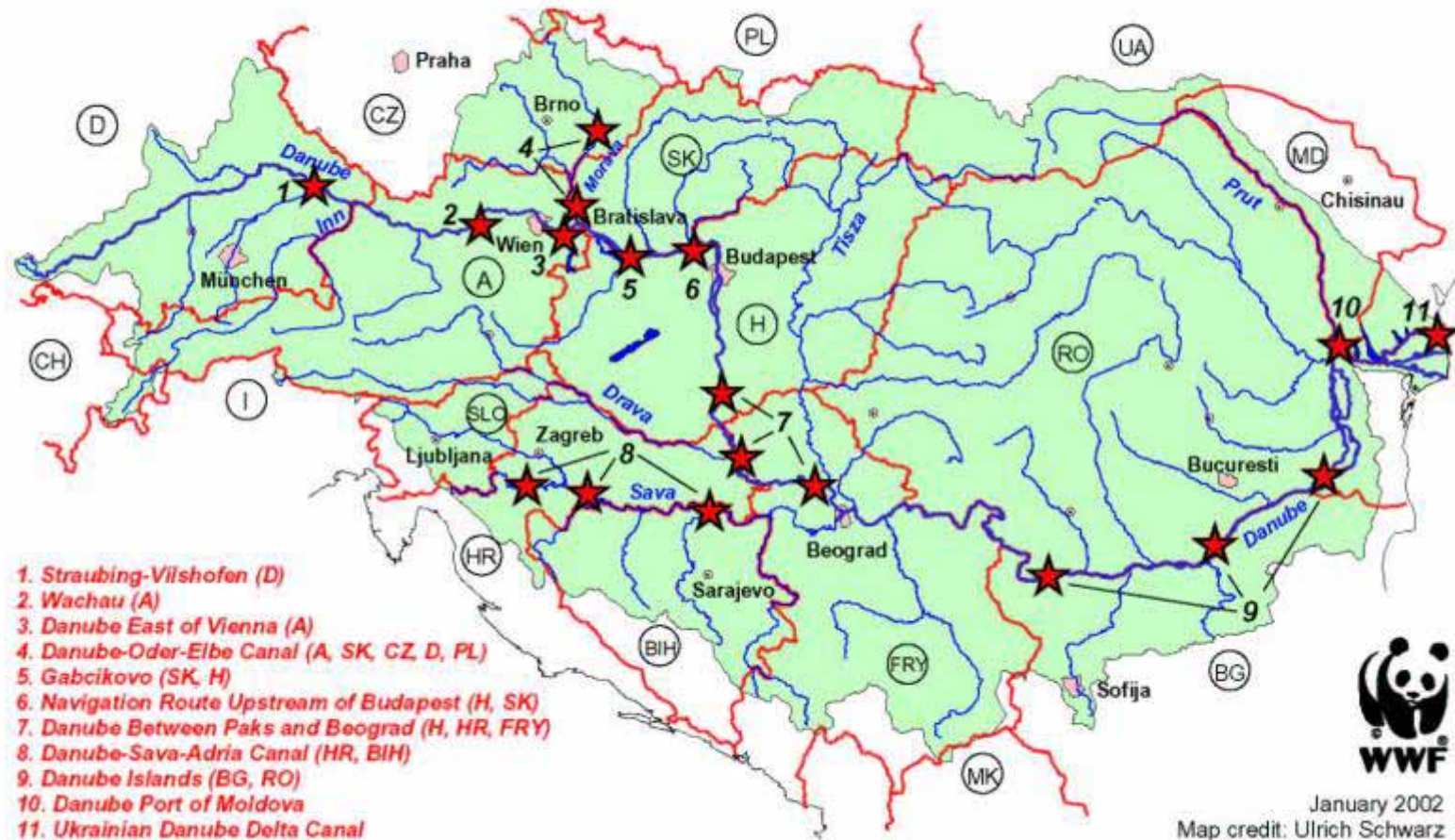
3) Low water regulation must not increase hard stone structures more than 10% of actual length





Integrated River Engineering Project 2006

The Eleven Hot Spots: Natural Areas in the Danube Basin Threatened by Development Plans for Waterway Transport





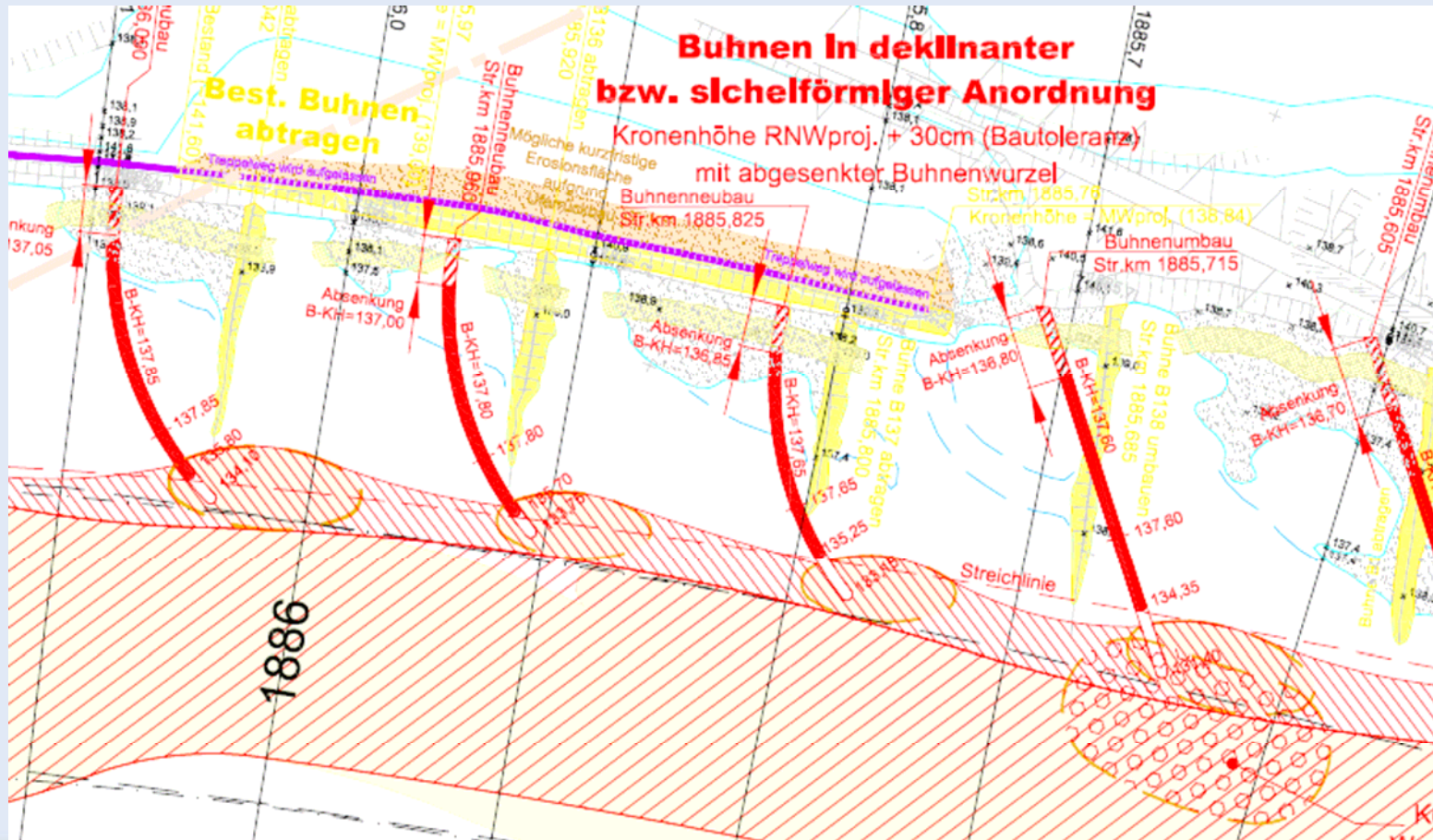
1) 20 years of discussion



2) Legal status of the National Park



3) Innovative technical solutions



**Thank you for your
attention!**



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