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FLOOD PROTECTION IN THE SAVINJA RIVER BASIN

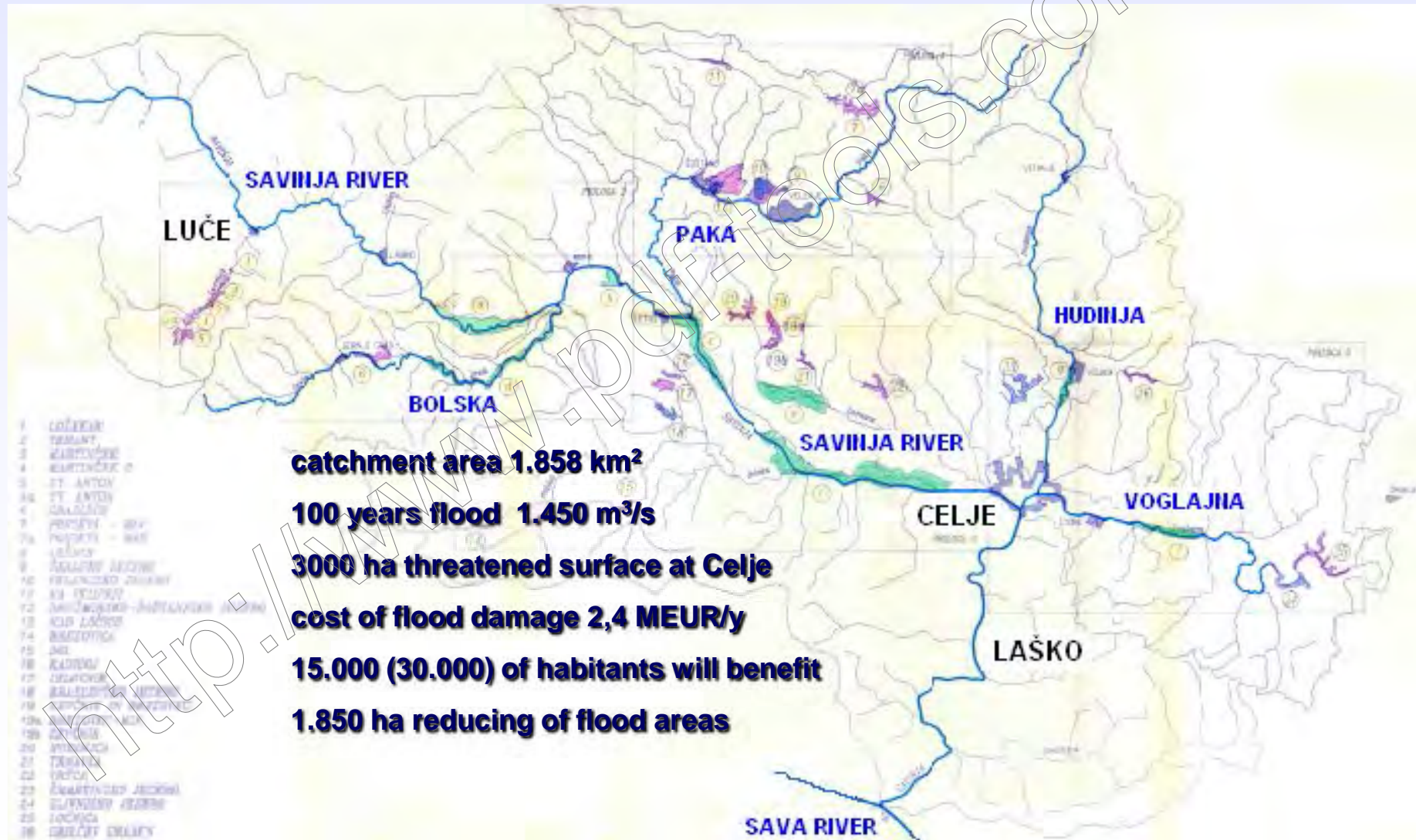
Andrej KRYŽANOWSKI

Ljubljana, 1. december 2016

IMPLEMENTATION OF COHESION POLICY

- in the Financial Perspective 2004-2013 **400 million EUR** was intended for financing environment infrastructure projects
- the strategic national program for reduction of adverse effects of water addressed river basins with high flood risk where flood reduction measures were planned: Mura River, Ljubljanica River, Savinja River, Sava River and Drava River
- among the planned projects only **Savinja** and **Drava** projects were feasible to complete within the deadline under the Financial Perspective 2007-2013

SAVINJA RIVER BASIN



SAVINJA RIVER BASIN – FLOOD EVENTS



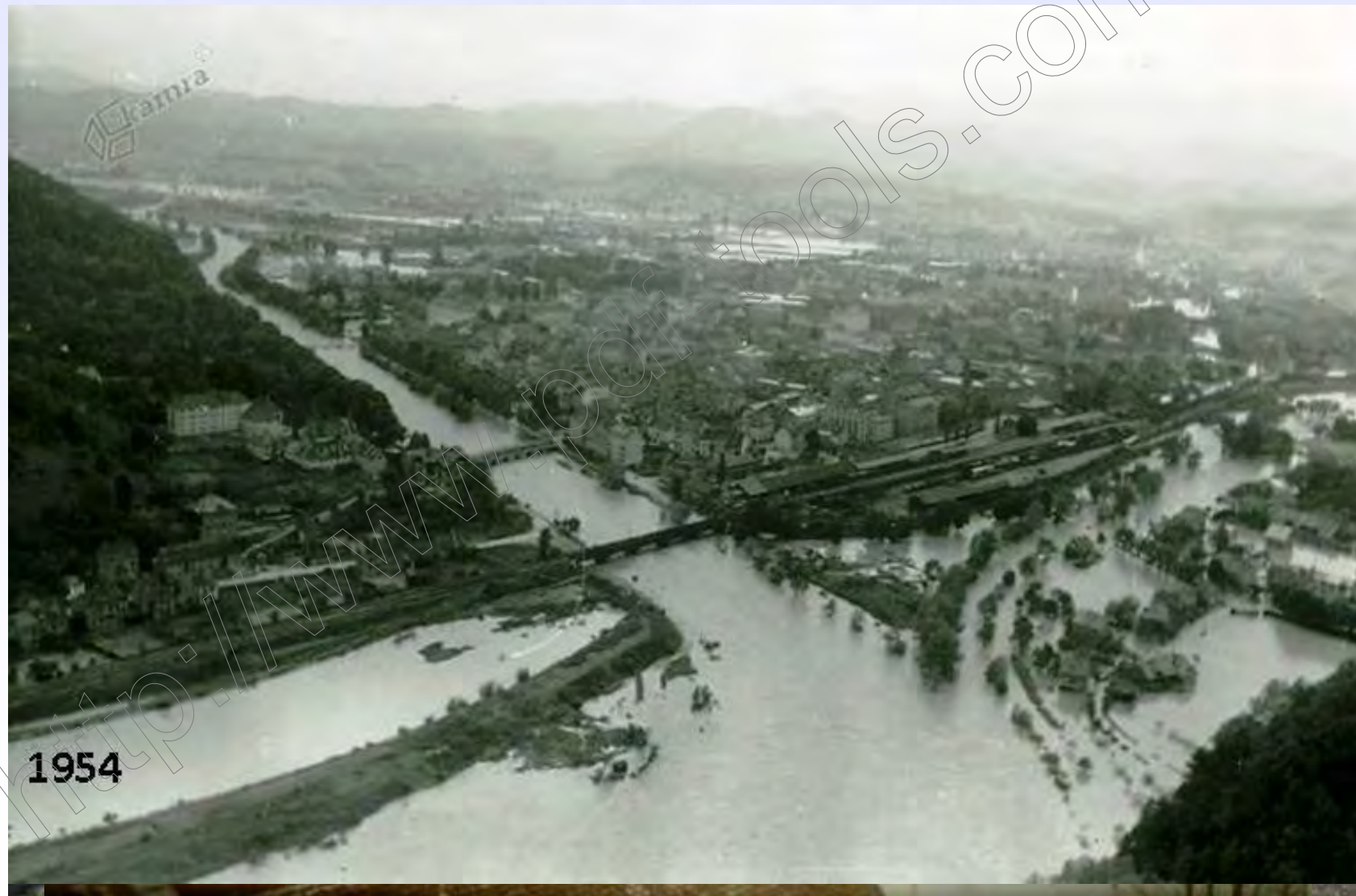
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SAVINJA RIVER BASIN – FLOOD EVENTS



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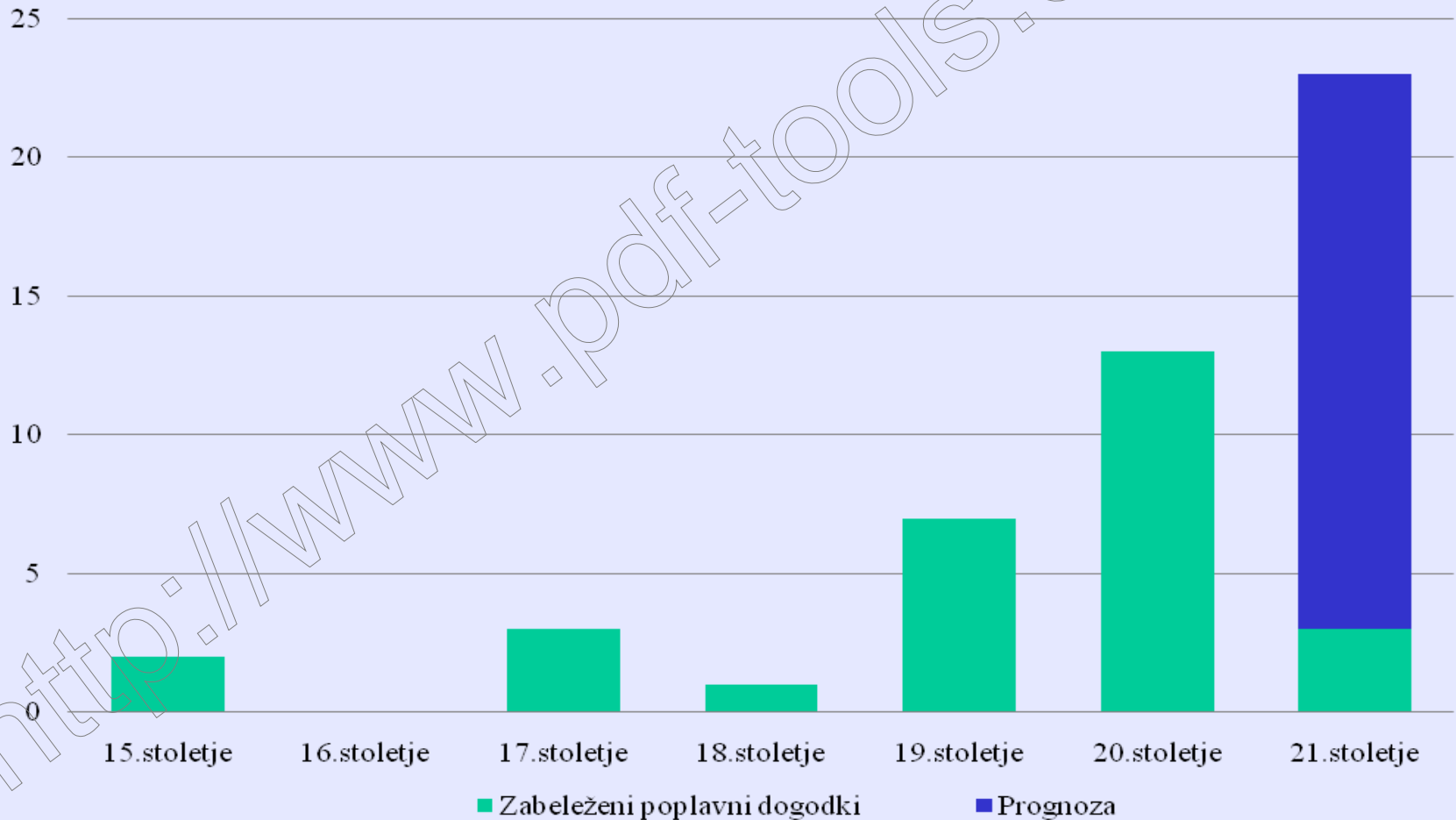
SAVINJA RIVER BASIN – FLOOD EVENTS



1998

SAVINJA RIVER BASIN – FLOOD EVENTS

Poplavni dogodki Celje



FLOOD PROTECTION MEASURES IN THE SAVINJA RIVER BASIN

- The basic goal of the project “Flood protection in the Savinja River Basin” is to protect the areas in Savinja River sections against floods with a 100 years return period
- Protection against the harmful effects of water will be implemented through measures aimed at preventing flooding in vulnerable areas of the Savinja catchment area
- These measures increased security against the adverse effects of water and they are carried out not to jeopardize the protection from harmful effects of water downstream
- Flood protection in the catchment area of the Savinja River Basin started in 2012 will be achieved completely with the implementation of the I. and II. Phase of flood protection measures by 2023.

PRACTICE OF SITE PLANNING IN SLOVENIA

- **site placing of flood safety measures were generally targeted at individual river section - such approach meant higher probability of site placement**
- **there were no requirement for hydraulic analyses at the basin scale of the effects to the areas downstream**
- **in compliance with technical guidance (JASPERS) the existing practice had to be changed – measures for flood protection should be addressed at the level of the entire river basin**
- **if the issue is solved gradually, each partial solution shall mean an improvement of the down stream condition**
- **in case of Savinja project an integrated hydrology-hydraulic study was done based on available data of flood events in 1990, 1998 and 2007**

FLOOD PROTECTION MEASURES IN THE SAVINJA RIVER BASIN

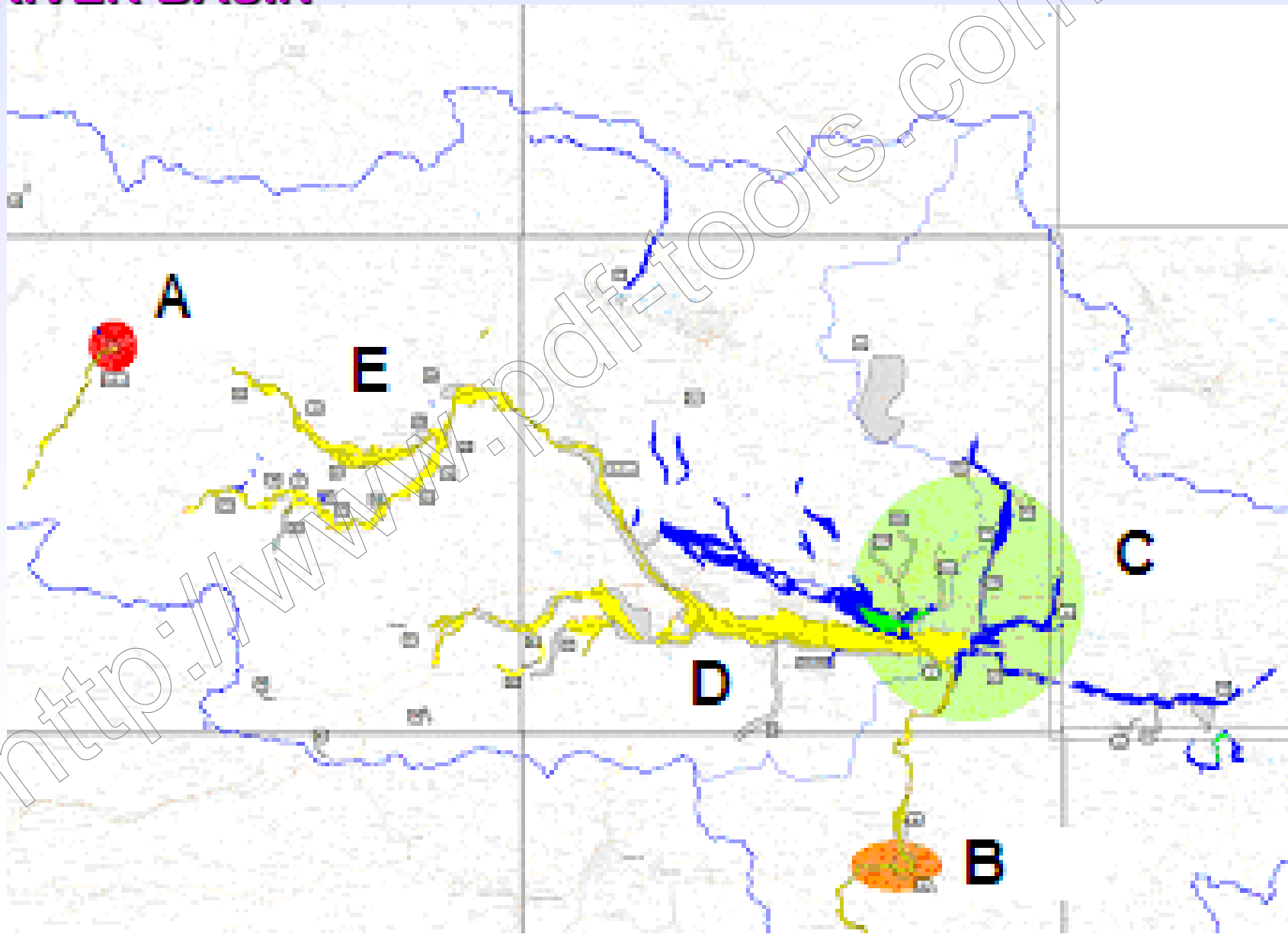
Phase I

- Flood protected measures on the area of municipality Luče
- Flood protection measures on the area of Celje
- Flood protected measures on the area of Laško – Marijagraški ovinek

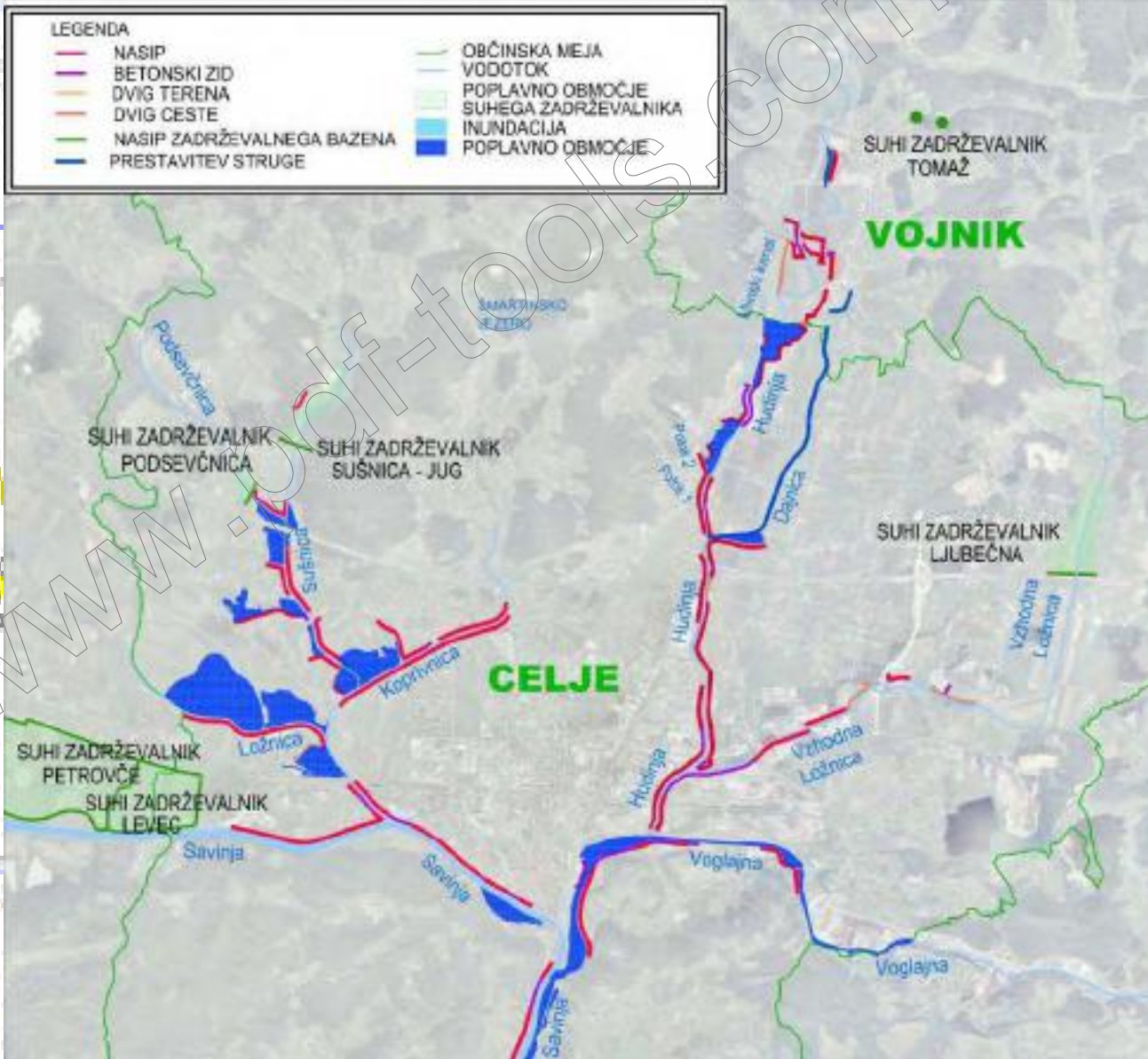
Phase II

- Flood protected measures on the area of river section Ločica – Letuš
- Flood protected measures on the area of downstream Savinja valley
- Flood protected measures on the area of Laško - reconstruction of river structures in the section of municipality Laško and between Laško and Marijagraški ovinek

FLOOD PROTECTION MEASURES IN THE SAVINJA RIVER BASIN

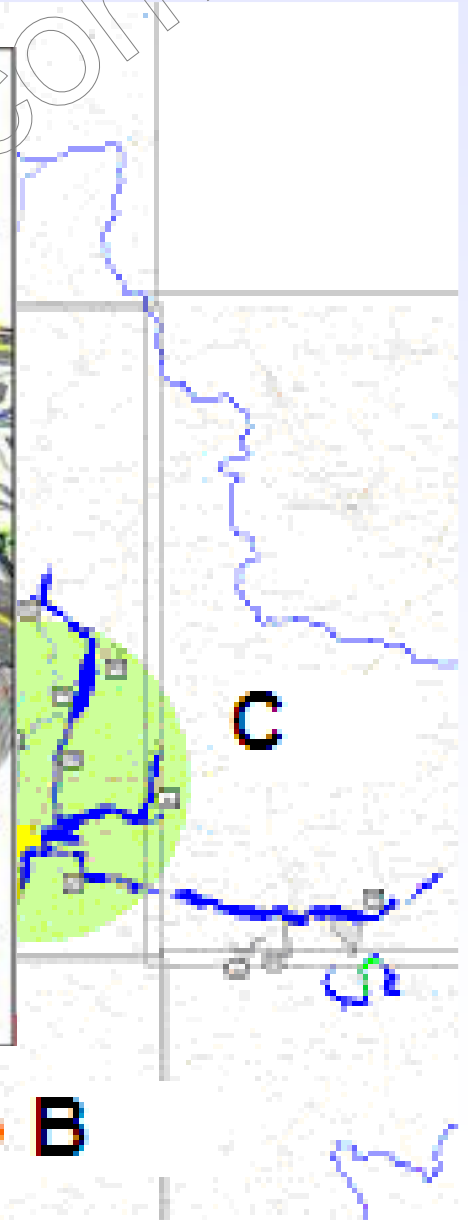
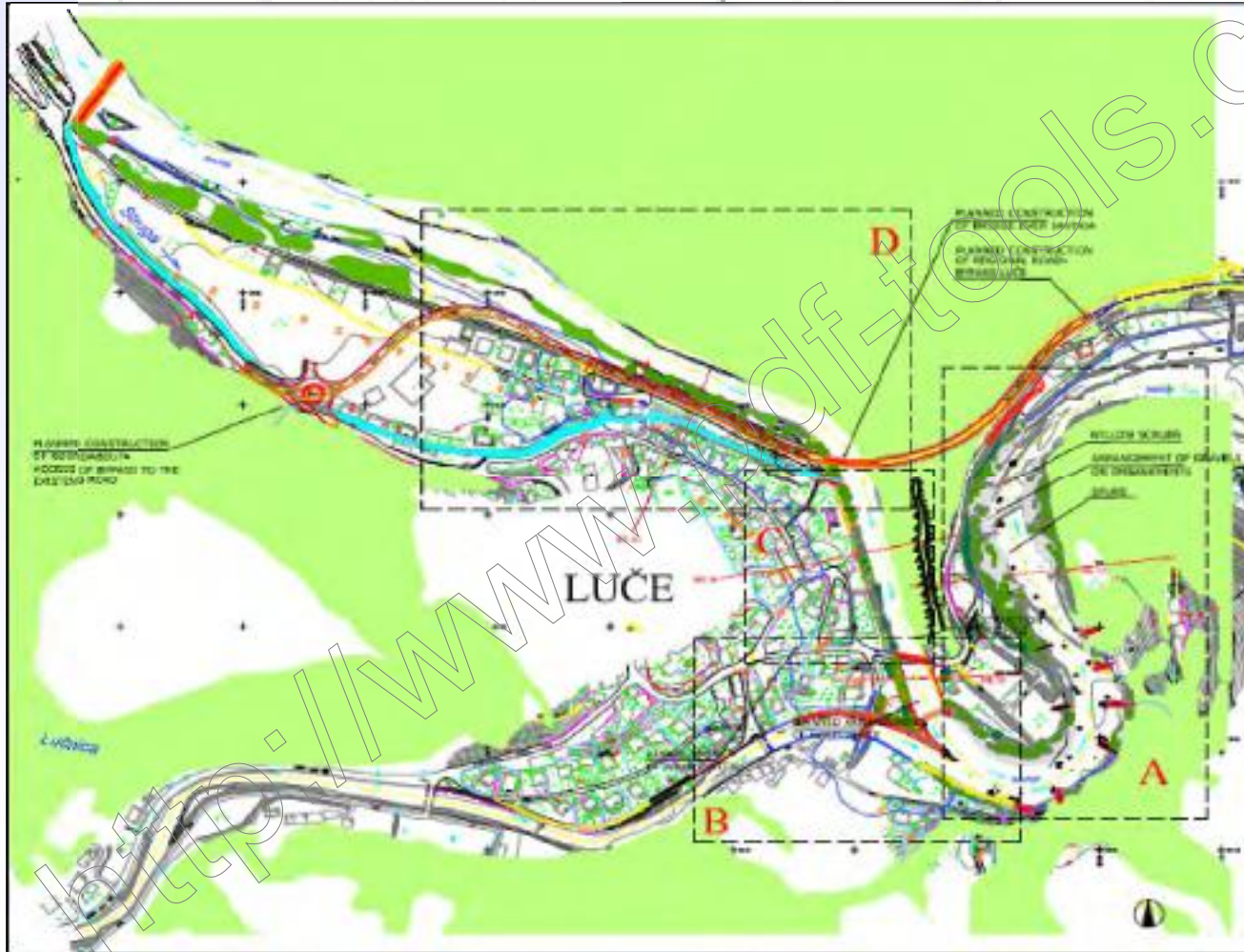


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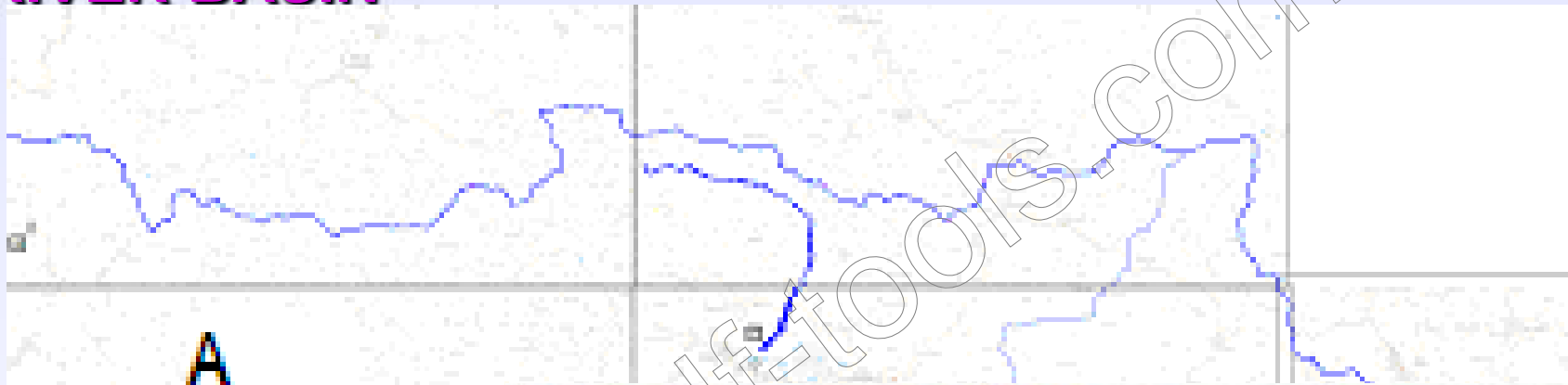


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