



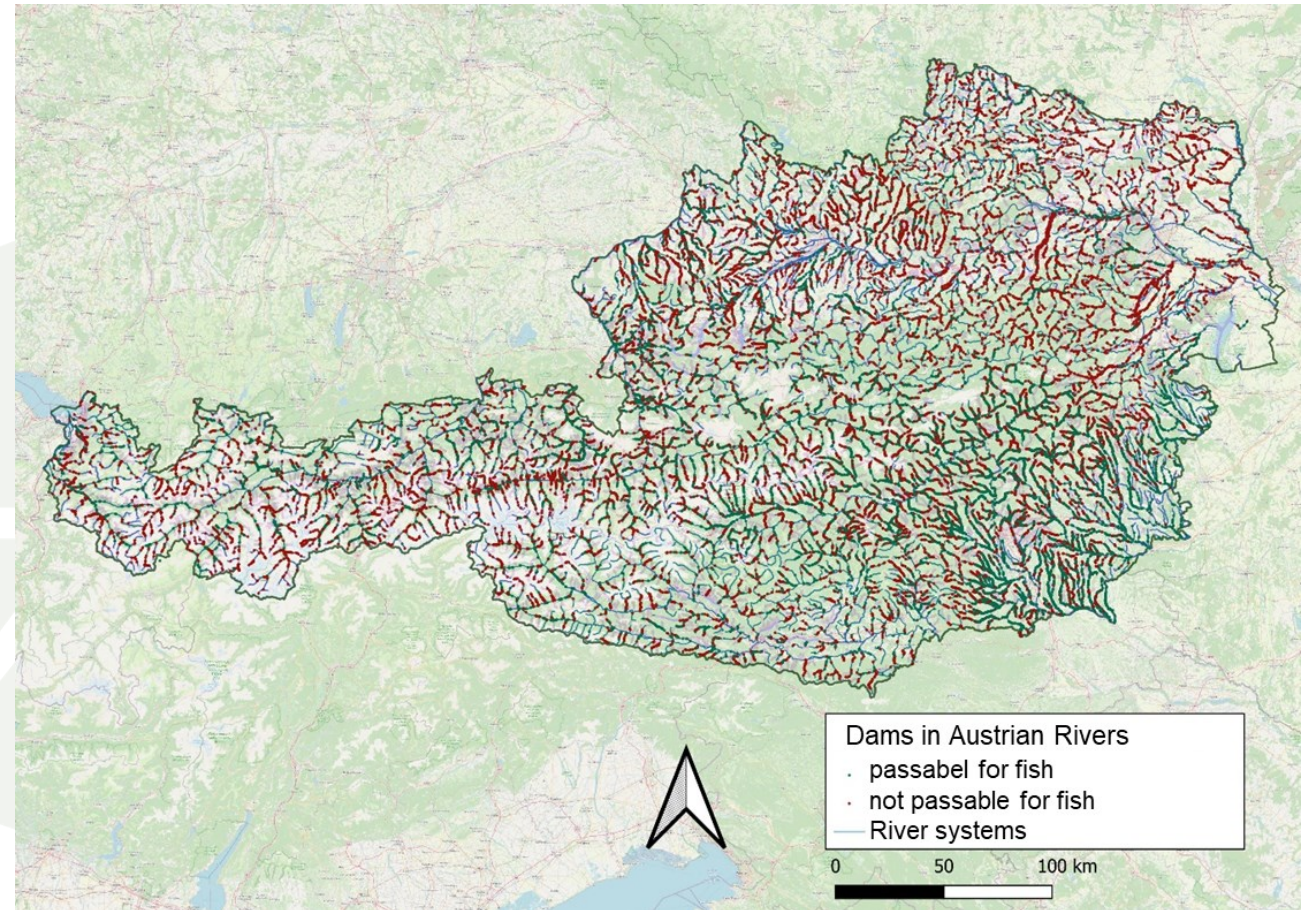
Clemens Gumpinger

Dam Removal in Austria

How to move from pilot projects to
standard procedure?

The current dam situation in Austria

- approx. 70,000 barriers in flowing waters with a catchment area of more than 10 km²
- 33,000 of them have a severe impact on the passability for the aquatic fauna
(Federal Ministry of Agriculture, Regions and Tourism 2021)
- since WFD 2002 highest priority : longitudinal connectivity in the bigger rivers – but hydropower is significant too – therefore main solution: fish passes



Dam-removals in Austria



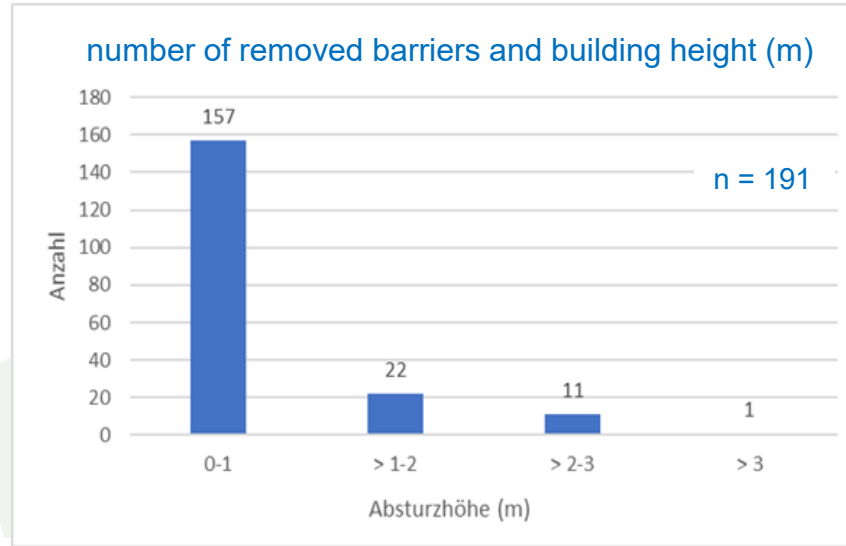
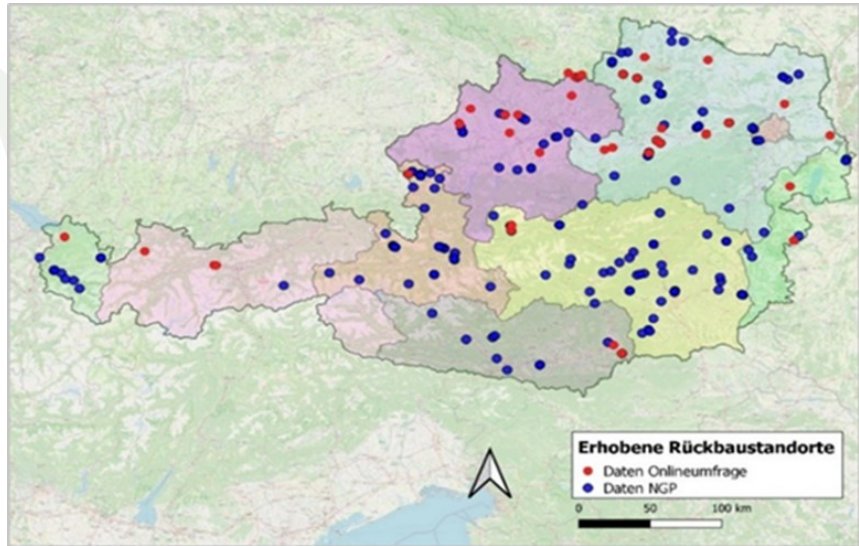
Study for WWF: overview about dam removal in Austria

1. Research in existing data sets (National water management plan, etc.)
2. online-survey for 80 institutions (provincial governments, ministries, planning offices, construct. companies, NGOs, universities)

Results

- 320 barrier removals between 2009 and 2021
- the survey yielded 110 additional removal projects
- for 2023: 12 more have been named (4 indeed removed, 8 authorised)

Dam-removals in Austria



- in total, there must be several hundred examples by now
- many barriers are removed during restoration projects or river maintenance work, so they are not listed as dam-removals
- the projects are communicated far too little

Dam-removal example 1

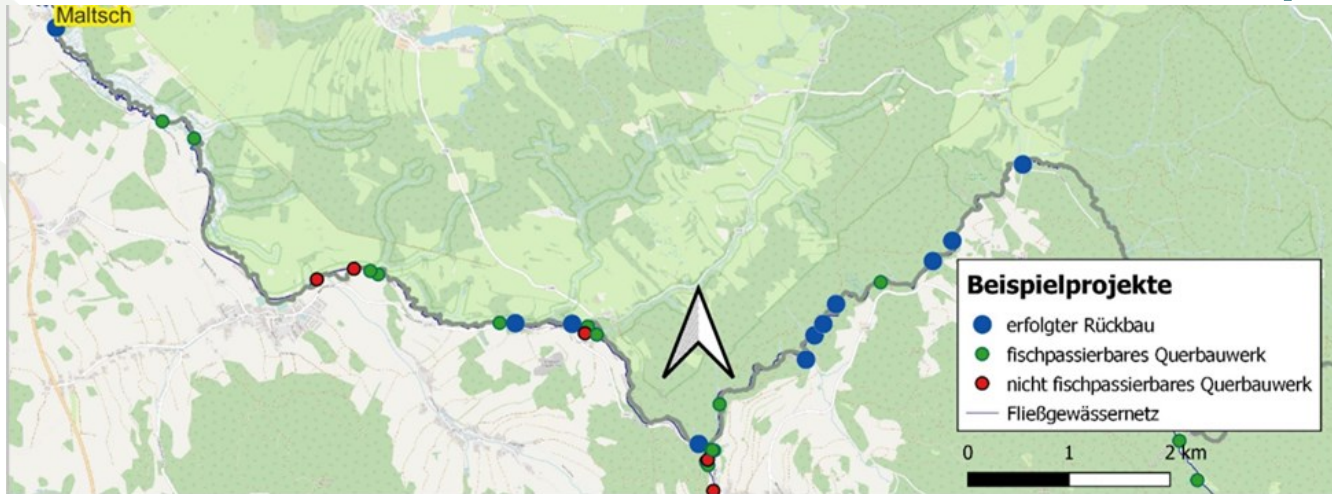
River Lech - Hornbachsperre



- 13.5 m high sediment retention dam
- removal in several lowering-stages
- re-connection of 17 km free flow river stretches

Dam-removal example 2

River Malsch – border to Czech Republic



- removal of 10 barriers in the River Malsch
- rather smaller barriers (0.4 to 1.6 m high)
- highly sensitive in terms of nature conservation (e.g. lampreys, freshwater pearl mussel) – Natura 2000 site, European Greenbelt

Dam-Removal Example 2

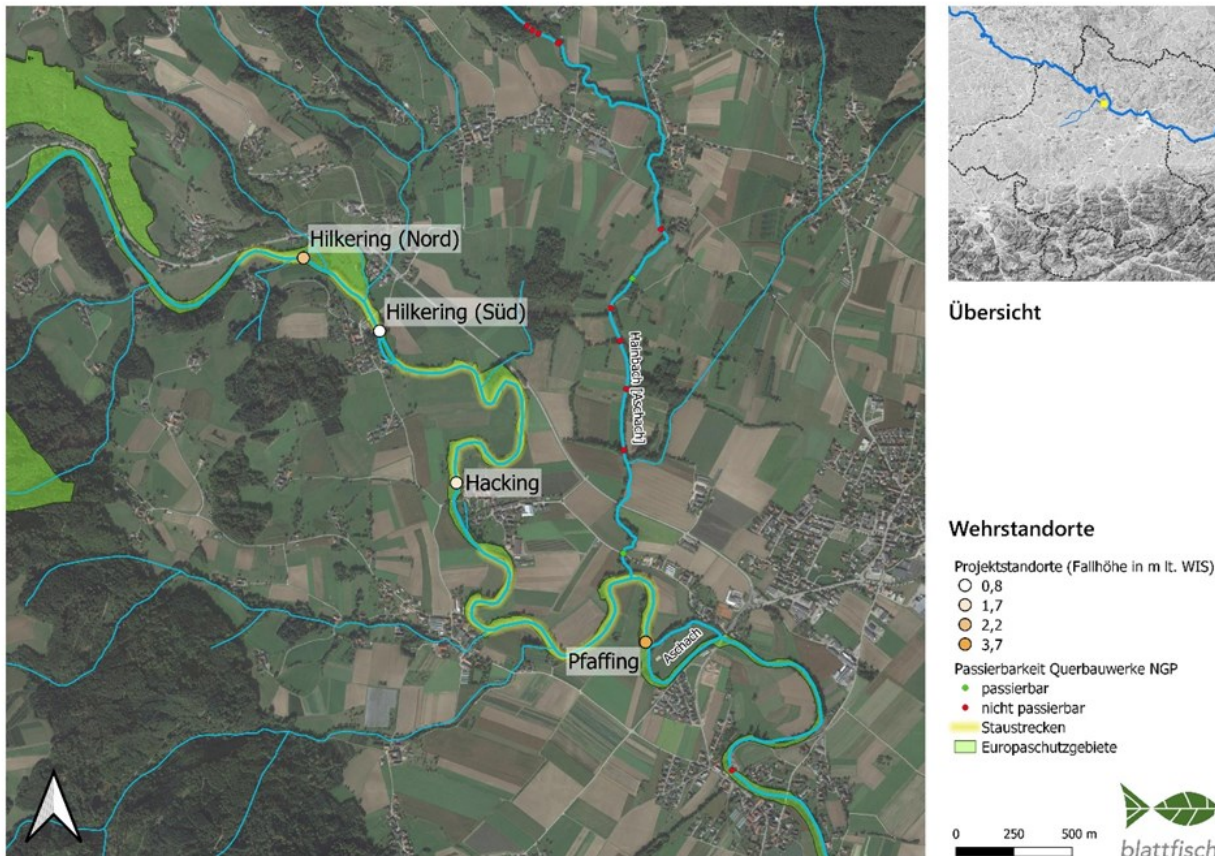
River Maltsch – border to Czech Republic

➤ historical importance (because of the “Iron Curtain”)



Dam-removal example 3 ???

River Aschach



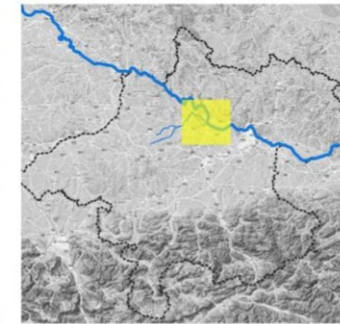
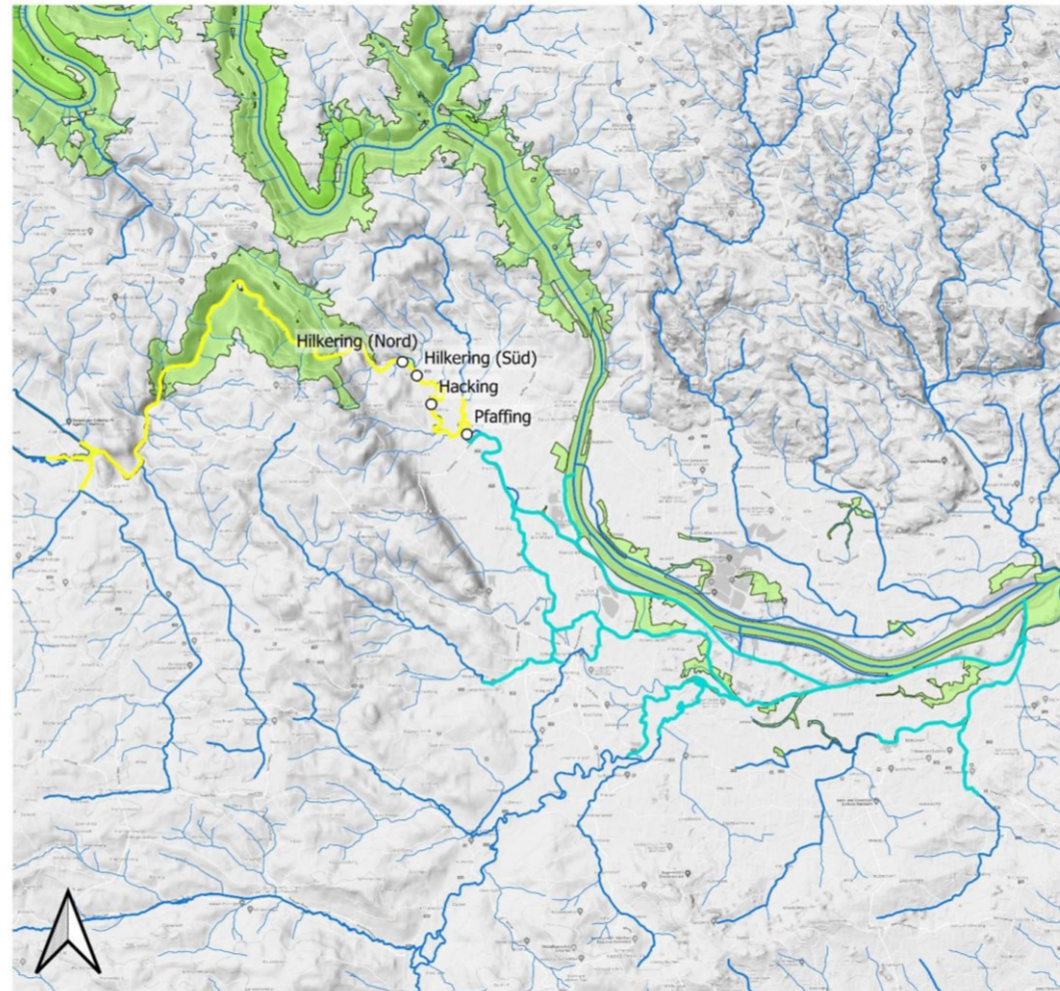
4 former mill weirs

- 3 abandoned since decades
- public authorities want to remove the abandoned (but they have to ask for subsequent use in a public process first)
- 1 still in use, but very inefficient (expert report on economic efficiency)
- the owner of the one in use doesn't want to sell

Dam-Removal Example 3 ??

River Aschach

- ▶ 20 km of the River Aschach would become accessible
- ▶ in total more than 90 km FFR



Übersicht

Wehrstandorte

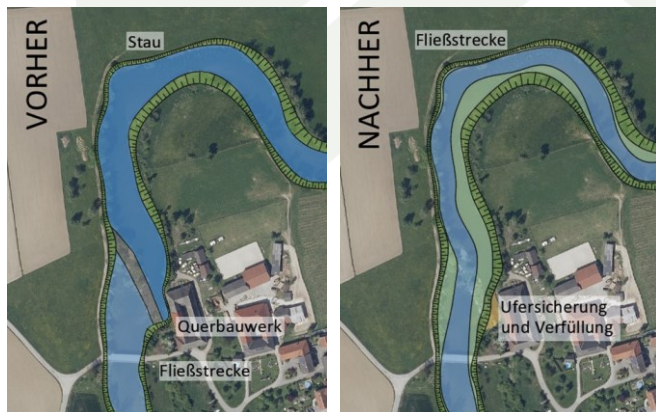
- Projektstandorte
- Europaschutzgebiete
- Wiedervernetzung
 - aktuell weitgehend durchgängig
 - neu erreichbar

Aktuell im Aschach-System weitgehend vernetzt: ca. 69 km
Zusätzlich erreichbar nach Umsetzung: ca. 20 km

0 1 000 2 000 m

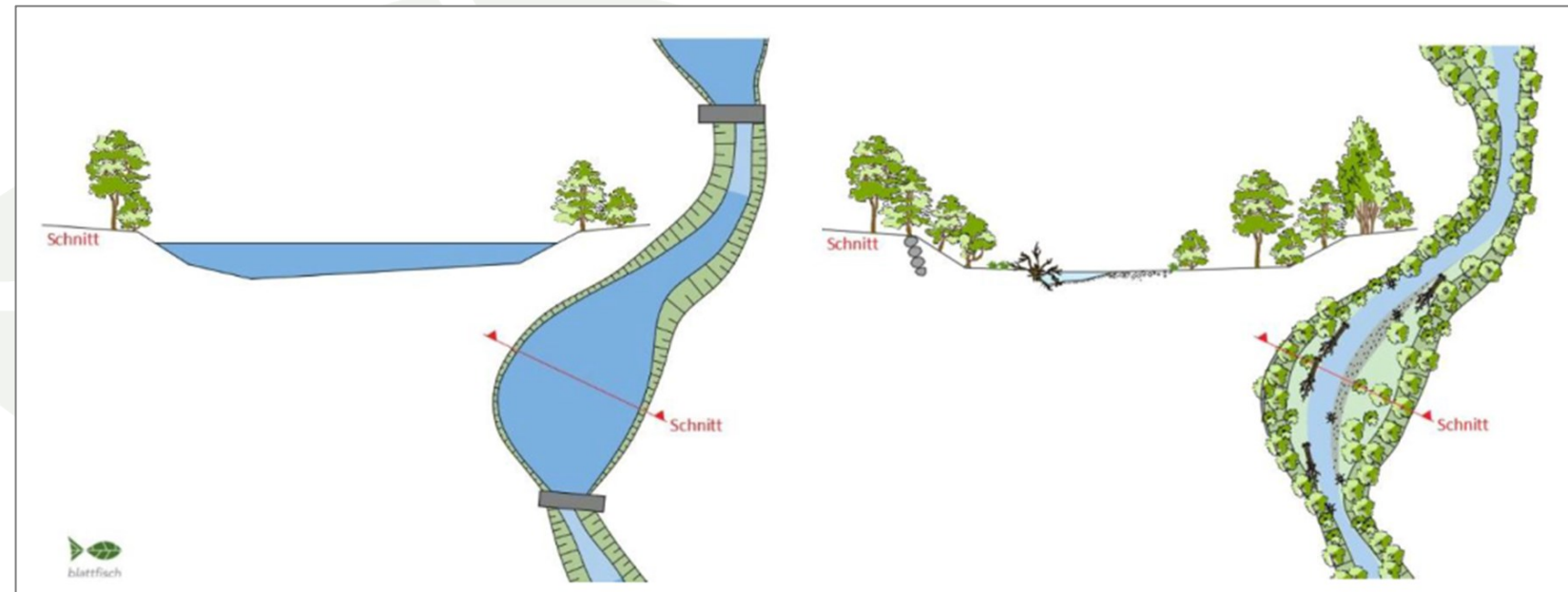
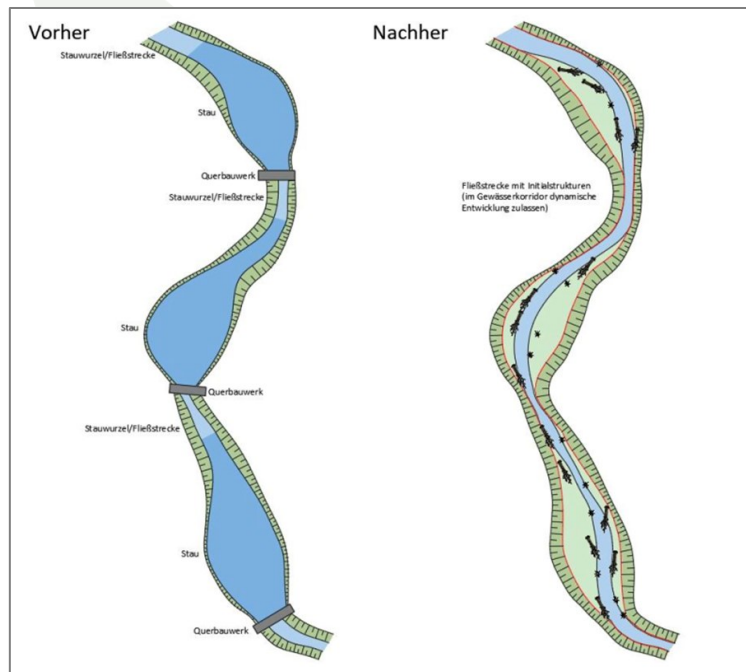
Dam-removal example 3 ??

concept-planning / visualisation to convey a feeling for the citizens



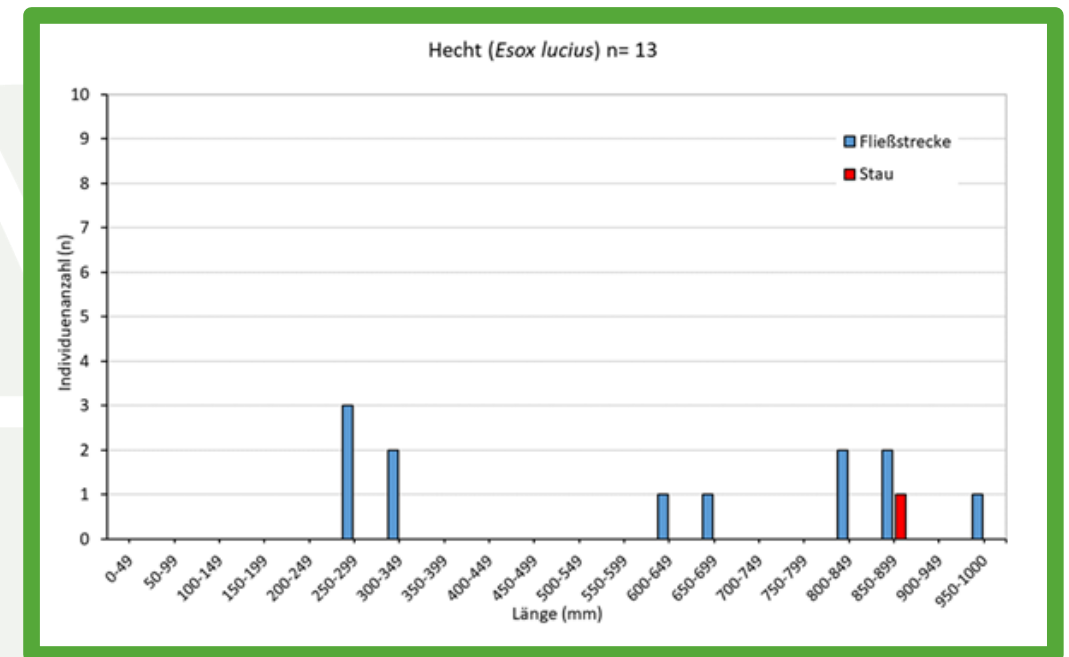
Dam-removal example 3 ???

conceptive visualisation to convey a feeling for the citizens



Ex. 3 - Socio-economic / cultural aspects

- the weirs exist since about 700 years
- one stabilizes a bridge pillar
- one municipality wants to use a weir for (renewable!) energy production
- some citizens want to use the backwater as a bathing area (as since many years)
- one fishing rights owner would like to have the backwater as "optimal habitat" for pike



Socio-economic / cultural...



...and other aspects

- concerning the legal situation, in Austria, the owner has to remove the dam/weir, when the water rights are not renewed – but authorities are not so strict...
- fear of ground water lowering / drying up of drinking water fountains
- water engineers are afraid of an increase of flood risk
- land is needed along rivers (most floodplains are used agriculturally)
- this land and the whole river landscape will be rewilded (not cleared up fine and not usable for food production any more)
- politicians are afraid of not being elected again

Socio-economic / cultural **Solutions**



How to move from pilot projects to standard procedure?

- rivers and river landscapes must be given a higher social value
- simplification in formal procedures and a higher weighting on nature as public interest

Toolbox needed:

- a harmonized procedure for the calculation economic viability of hydropower plants (accepted by all stakeholders)
- better (national) funding for dam removal
- better legal options to remove sense- and useless barriers and even uneconomical hydro power plants

The easiest and best solution for nature



**Don't fear everything that could
possibly happen at some point
somewhere somewhen...**

Thank you for
your attention!



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