

Demonstrated use of the RESTORE / ECRR RiverWiki

28.11.2014

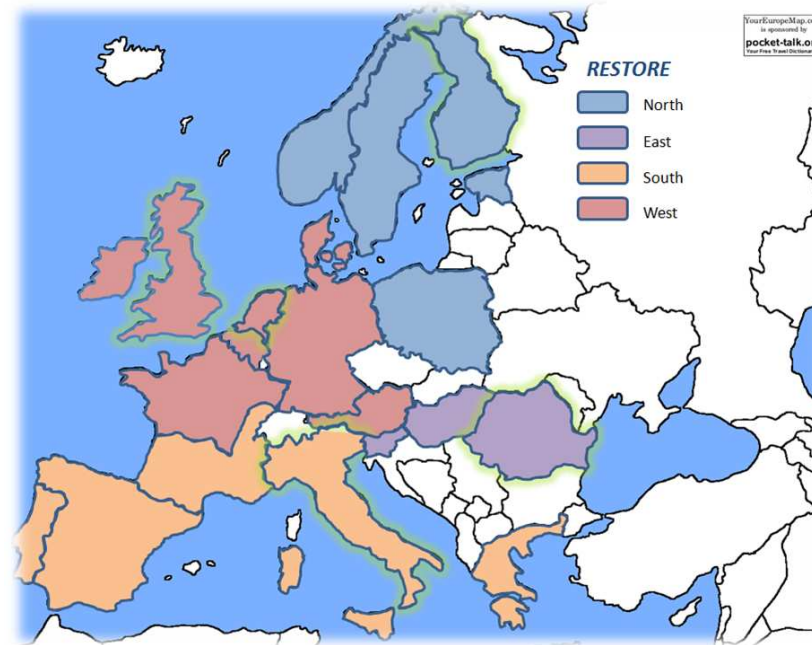
Jukka Jormola,

Finnish Environment Institute SYKE /ECRR

What is/was **RESTORE**?

- EU LIFE + Information and communication project
 - 2010-2013
- Lead partner the *Environment agency of England and Wales*
- Partners:
 - River Restoration Centre RRC, UK
 - Finnish Environment Institute SYKE, FI
 - Italian River Restoration Centre CIRF, IT
 - DLG Government Service for Land and Water Management, NL
 - Wetlands International, NL
- In close co-operation with European Centre for River Restoration, ECRR

RESTORE regions covering most of Europe



- Four geographical regions
 - North – SYKE
 - West – RRC, River Restoration Centre
 - East – DLG, Dutch water agency
 - South – CIRF, Italian river restoration centre

Goals of **RESTORE**

- Promoted establishment of new river restoration networks and centres
 - North: Finland, Poland
- Promoted river restoration as a tool of River Basin Management and the Water Framework Directive
- RiverWiki

What is RiverWiki?

- An online database with about 800 river restoration case studies from 31 countries European wide (Oct 2014)
- A tool for sharing best river restoration practices
 - Easily accessible – contents are useful for policy makers, practitioners and researchers.
 - Case studies can be searched through country, coordinates, name and theme
 - Interactive – anyone can create a new case study description and other users are able to comment and/or fulfil it – new monitoring results needed for every case
 - Accepting and moderating new cases (drafts) will be done by existing national river restoration centres

Moderators for RiverWiki cases in different countries

- Finland, Sweden, Denmark, Estonia: SYKE
- Latvia, Lithuania: ?
- Norway: Norwegian Environment Agency- Miljødirektoratet
- Russia : RosNIIVH
- Romania: RRRC
- Poland: SSGW
- Czech Republic, Slovakia : ?
- Hungary: Agnes György
- Bulgaria: Vasil Uzunov
- Bosnia and Herzegovina: ?
- Slovenia : IzVRS
- Germany: ?
- The Netherlands: NCR
- Belgium: ?
- UK & Ireland: RRC
- France: ONEMA
- Italy, Greece, Switzerland: CIRF
- Spain: CIREF
- Rest of Europe : ECRR secretary

How to use it?

- Type <http://riverwiki.restorerivers.eu>
- Navigation on left hand side – click search case studies or advanced search
- Choose e.g. country: Switzerland and click Run query below the map
- You can create a **new case** yourself

Main Page

Welcome to the river restoration case studies **RiverWiki**. This tool is for sharing best practices and lessons learnt for policy makers, prac

This is an interactive source of information on river restoration schemes from around Europe!

Up to now, the database holds **782** river restoration case studies from **31** countries

HAVE YOUR SAY, we are happy to receive any suggestions for improvements to the site [please contact us](#).

The RiverWiki has been developed by the RESTORE partnership for sharing knowledge and promoting best practice on river restoration. of the LIFE+ financial instrument of the European Community. [Read more on the RESTORE partnership](#).

Contents <small>[hide]</small>	Latest updated case studies	Modification date	Country
1 Map of case studies	Source to Sea Programme	8 September 2014 11:35:08	England
2 Countries	Source to Sea Programme – 1. Leighton Moss Resource Protection	8 September 2014 11:12:09	England
3 Search	Restoration of the River Witham	28 August 2014 14:38:24	England
4 Create a case study	Urban River Enhancement Scheme (URES) in Burnley	28 August 2014 10:48:34	England
5 Other resources	Guash Habitat Restoration Project (Phase 1 and 2)	28 August 2014 10:44:09	England
6 Contacts	more..		

Map of case studies



Search tool according to themes

Basic Search

Status: ☐ Complete ☐ In progress ☐ Planned

Theme: ☐ Economic aspects ☐ Environmental flows and water resources ☐ Fisheries ☐ Flood risk management ☐ Habitat and biodiversity ☐
☐ Land use management - agriculture ☐ Land use management - forestry ☐ Monitoring ☐ Social benefits ☐ Spatial planning ☐ Water

Country:

Afghanistan
Albania
Algeria
Andorra
Angola
Antigua and Barbuda
Argentina
Armenia

▲
☐
▼

(CTRL+click to select/unselect multiple countries)

Search by country: Germany/Switzerland

Case study: Rheinfelden bypass

0.00 ★★★★★

To discuss or comment on this case study, please use the [discussion page](#).

Contents [hide]
1 Project overview
1.1 Project context
1.2 Monitoring surveys and results
1.3 Lessons learnt
2 Image gallery
3 Comment and subscription
4 Site
5 Project background
5.1 Cost for project phases
5.2 Reasons for river restoration
5.3 Success
5.4 Monitoring
5.1 Photomorphological quality elements
5.2 Ecological quality elements
5.3 Physico-chemical quality elements
5.4 Any other monitoring, e.g. social, economic
5.5 Monitoring documents
6 Additional documents and videos
10 Additional links and references
11 Supplementary information



Project overview

Status	Complete
Project web site	
Themes	Economic aspects, Fisheries, Habitat and biodiversity, Hydropower, Hydromorphology
Country	Germany, Switzerland
Main contact forename	Walter
Main contact surname	Binder
Main contact user ID	User:Kasvio
Contact organisation	
Contact organisation web site	
Partner organisations	
Parent multi-site project	
This is a parent project encompassing the following projects	No

Project summary

The bypassing water course at the hydropower plant Rheinfelden, on the High Rhine, is the largest fish pass facility of this type in Central Europe. The old hydropower station was a diversion-channel type plant. The new station is a run-of-river power plant. Three fishways are installed, a vertical slot pass at the power house (left bank), the new bypassing river course installed in the old headrace channel (right bank) and a rock cascade pass which connects the tailwater of the weir with the river course.

The main intention of this new river course is to provide suitable habitat for rheophilic species, especially spawning grounds for gravel dependent fish species, for example barbel (*Barbus haasi*) and nase (*Chondrostoma toxostoma*).

With a width of 40-50 m, a mean gradient of 0.9 ‰ and a discharge of up to 35 m³/s the bypass channel has the character of a mountain river. The mean discharge is 15 m³/s and the attraction flow is 15 m³/s.

The aim is to provide a high variety of bottom and flow structures induced by sequences of riffles, bars, pools and single gravel islands. The bed material consists of continuous gravel. In riffles and fast flowing reaches coarser material is provided. A deeper flow path ensures fish passage even at minor discharges. The river banks are characterized by bars, shallow regions, small bays, undercut banks and riparian vegetation. The bypass channel is connected to the weir impoundment with a gentle transition involving several braided channels. The intake structure itself is divided into two sections. One section will be controlled by two gates, the other will be unregulated. The unregulated section will guarantee a constant discharge of 10 m³/s-1 in the bypass channel. Additional discharge up to 25 m³/s-1 can be provided via the regulated gates in order to provide a dynamic flow regime.

The downstream entrance is designed as a rock ramp with a steeper gradient (3 ‰), thus downstream water-level fluctuations are limited to this ramp; i.e. flow characteristics in potential spawning grounds in the bypass channel will not change. The cross-section at the mouth of the channel is narrowed to provide more efficient attraction flow into the tailrace.

The total cost of the project was 6 mil. € and the by-pass channel cost 4 mil. €. There is no constant monitoring yet, but they have calculated the amount of the fish in the by-pass channel to be 30 000. In the other fish way the number of fish was 3 000.

Monitoring surveys and results

Lessons learnt

Image gallery

File

Discussion

RESTORE partnership

RESTORE web site

Wiki navigation

Main page

Search case studies

Advanced search

Create a new case study

Add new term

Top rated case studies

Recent changes

Help

Toolbox

What links here

Related changes

Special pages

Printable version

Permanent link

File:IMG 7132.JPG

1.74 MB, MIME type: image/jpeg

Edit project overview



The largest bypass for fish in Europe. The bypass is constructed at Rheinfelden.

Edit project overview to modify the project summary

This case study hasn't got any Monitoring survey and results, you can add some by editing the project overview.

This case study hasn't got any lessons learnt, you can add some by editing the project overview.

Search by theme: Hydropower

Case study: Albbruck-Dogern (bypass and nature-like pool pass)

0.00 ★★★★★

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Contents [hide]

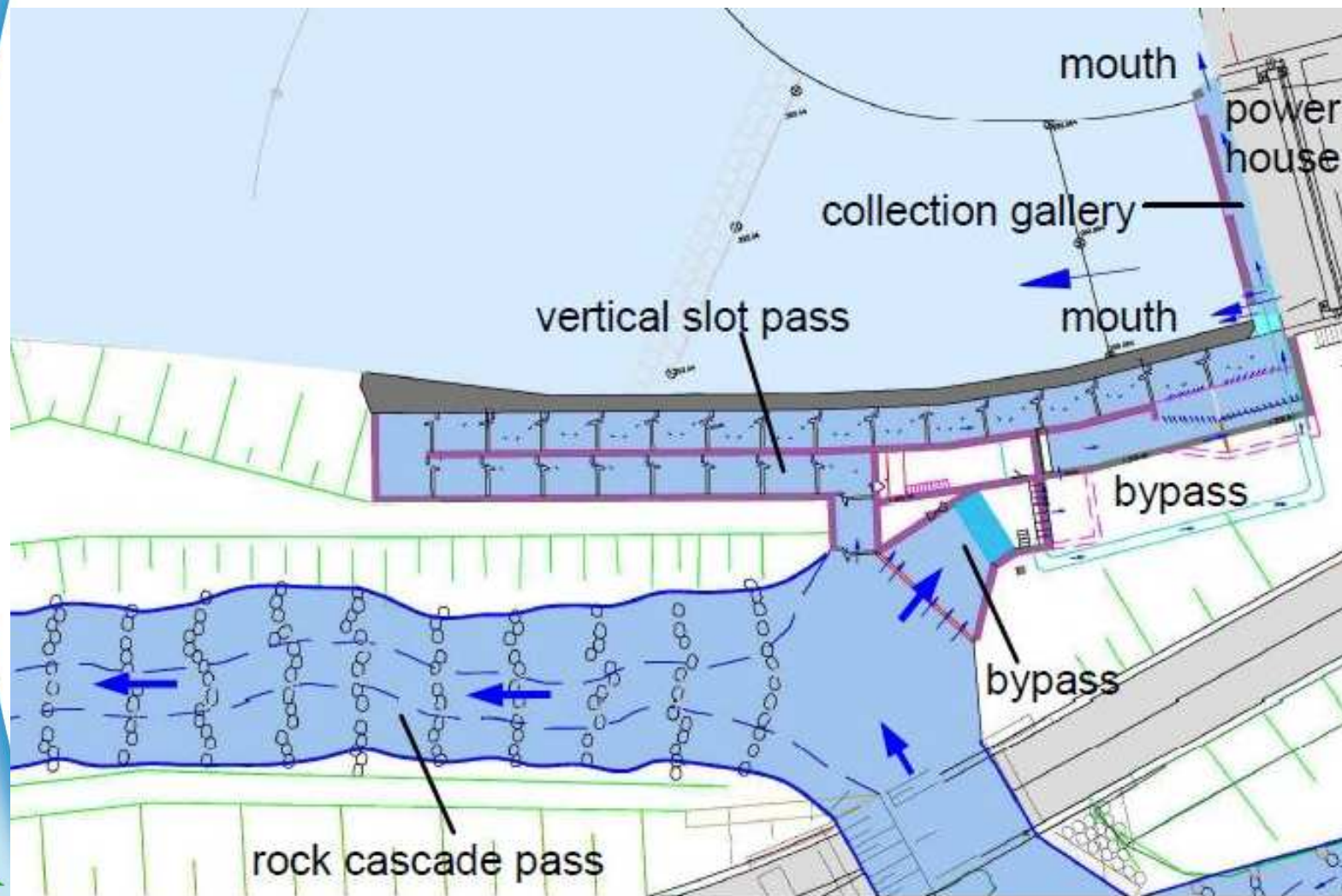
- 1 Project overview
 - 1.1 Project summary
 - 1.2 Monitoring surveys and results
 - 1.3 Lessons learnt
- 2 Image gallery
- 3 Catchment and subcatchment
- 4 Site
- 5 Project background
 - 5.1 Cost for project phases
- 6 Reasons for river restoration
- 7 Measures
- 8 Monitoring
 - 8.1 Hydromorphological quality elements
 - 8.2 Biological quality elements
 - 8.3 Physico-chemical quality elements
 - 8.4 Any other monitoring, e.g. social, economic
 - 8.5 Monitoring documents
- 9 Additional documents and videos
- 10 Additional links and references
- 11 Supplementary Information

Location: 47° 35' 9" N, 8° 7' 59" E



Left click to look around in the map, and use the wheel of your mouse to zoom in and out.

Plans, details



Impressions through RiverWiki



Photos of new approaches: Habitats in connection with the fish pass



Example from Finland

Reinikkalankoski, transbordering river

Case study: Restoration of Reinikkalankoski torrent

0.00 ★★★★★

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Contents [\[hide\]](#)

- 1 Project overview
 - 1.1 Project summary
 - 1.2 Monitoring surveys and results
 - 1.3 Lessons learnt
- 2 Image gallery
- 3 Catchment and subcatchment
 - 3.1 Catchment
 - 3.2 Subcatchment
- 4 Site
- 5 Project background
 - 5.1 Cost for project phases
- 6 Reasons for river restoration
- 7 Measures
- 8 Monitoring
 - 8.1 Hydromorphological quality elements
 - 8.2 Biological quality elements
 - 8.3 Physico-chemical quality elements
 - 8.4 Any other monitoring, e.g. social, economic
 - 8.5 Monitoring documents
- 9 Additional documents and videos
- 10 Additional links and references
- 11 Supplementary Information

Location: 60° 34' 44" N, 27° 49' 58" E

[Edit location](#)



Left click to look around in the map, and use the wheel of your mouse to zoom in and out.

Before



During restoration



After: Accesable for Sea trout from Russia, new habitats



Sweden – biokanal (bypass for all organisms)

Case study:Eldbäcken

0.00 ☆☆☆☆☆

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Contents [hide]

- 1 Project overview
 - 1.1 Project summary
 - 1.2 Monitoring surveys and results
 - 1.3 Lessons learnt
- 2 Image gallery
- 3 Catchment and subcatchment
- 4 Site
- 5 Project background
 - 5.1 Cost for project phases
- 6 Reasons for river restoration
- 7 Measures
- 8 Monitoring
 - 8.1 Hydromorphological quality elements
 - 8.2 Biological quality elements
 - 8.3 Physico-chemical quality elements
 - 8.4 Any other monitoring, e.g. social, economic
 - 8.5 Monitoring documents
- 9 Additional documents and videos
- 10 Additional links and references
- 11 Supplementary Information

Location: 60° 26' 10" N, 14° 13' 48" E



File:Eldbacken.PNG



Project overview

Status	Complete
Project web site	http://www.nrv.se/
Themes	Habitat and biodiversity, Hydropower
Country	Sweden
Main contact forename	Stina
Main contact surname	Gustafsson
Main contact user ID	
Contact organisation	Karlstad University
Contact organisation web site	http://www.nrv.se/
Partner organisations	



Estonia, Pirita river

Case study: Restoration of Pirita River

This case study is pending approval.

Approve case study

Contents [hide]

- 1 Project overview
 - 1.1 Project summary
- 2 Catchment and subcatchment
- 3 Site
- 4 Project background
 - 4.1 Cost for project phases
- 5 Reasons for river restoration
- 6 Measures
- 7 Monitoring
 - 7.1 Hydromorphological quality elements
 - 7.2 Biological quality elements
 - 7.3 Physico-chemical quality elements
 - 7.4 Any other monitoring, e.g. social, economic
 - 7.5 Monitoring documents
- 8 Image gallery
- 9 Additional documents and videos
- 10 Additional links and references
- 11 Supplementary information

Location: 59° 11' 5" N, 25° 10' 10" E

Map Satellite

Edit location

Project overview

Edit project overview

Status	Planned
Project web site	http://
Themes	Fisheries, Habitat and biodiversity, Hydropower, Water quality
Country	Estonia
Main contact forename	-
Main contact surname	-
Main contact user ID	
Contact organisation	
Contact organisation web site	http://
Partner organisations	
Parent multi-site project	
Multi-site	No

Project summary

The Pirita River is 105 km long river in the northern part of Estonia and it runs into the Gulf of Finland. Catchment area of the river is 799 km². The lower part of the Pirita River has ideal sites for salmon and trout reproduction. However, the salmon production is rather limited and the large dam of the Tallinn waterworks from 74 kilometers upstream makes it impossible for migrating fish to rise up in the stream. Modifying the dam to enable migration has been discussed.

New sites in Pirita River 2014 - not yet added in RiverWiki



Advantages of using River Wiki

- You can learn of cases in other countries and regions
 - river restoration methods are same
- You can convince decision makers and practitioners
 - similar was already done somewhere
- You can practice virtual travelling (convinient)
- You can easily plan real site visits
 - background info, monitoring results, contacts
- You get your own work be seen
 - you exist in the world of River Restoration!