

# Restoring Europe's Rivers

## RESTORE

**partnership for sharing knowledge &  
promoting best practice on river restoration  
in Europe**

The RESTORE project is made possible with the contribution of the LIFE+  
financial instrument of the European Community

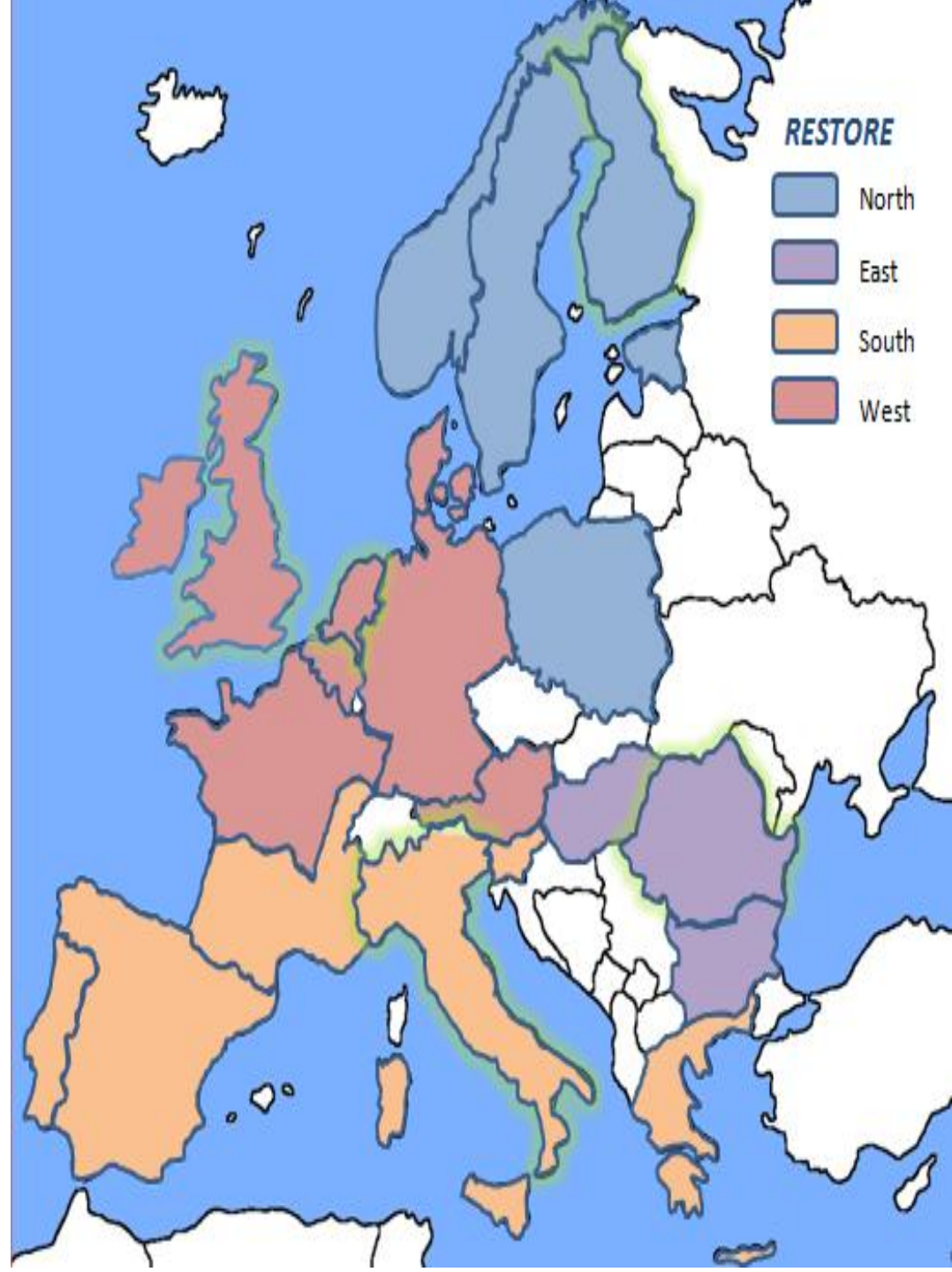


and works in partnership with



## RESTORE partners:

- *Environment Agency*
- *UK River Restoration Centre,*
- *Finnish Environment Institute,*
- *Italian River Restoration Centre,*
- *Dutch Gov't Service for Land & Water Management*
- *Wetlands International*
- *NIHWM - Romania*



# What has happened to our rivers?



- 1 Poor drainage** rain now falls onto hard surfaces such as roofs, paving and roads and drains quickly into the river system increasing storm flows and runoff increasing the potential for flooding. And can also quickly enter sewerage systems risking overload and flooding.
- 2 Development within the floodplain:** housing, industry, infrastructure and agriculture can lead to flooding, loss of habitats and biodiversity.
- 3 River profile:** raising river banks, culverting and straightening were used to try and reduce flooding and drain land. They might have solved a local problem but they often put pressure on the watercourse and downstream land.
- 4 Water supplies:** abstracting water from rivers, canals, reservoirs, lakes or underground aquifers to provide public water supply for agriculture and industry.
- 5 Pollution:** waste dumping, chemicals from industry, sediment, pesticides and fertilisers from agriculture and drainage from roads containing oil are all contributors to river pollution, leading to loss of water quality and biodiversity.











# What do we mean by river restoration?



**Before**



**After**





















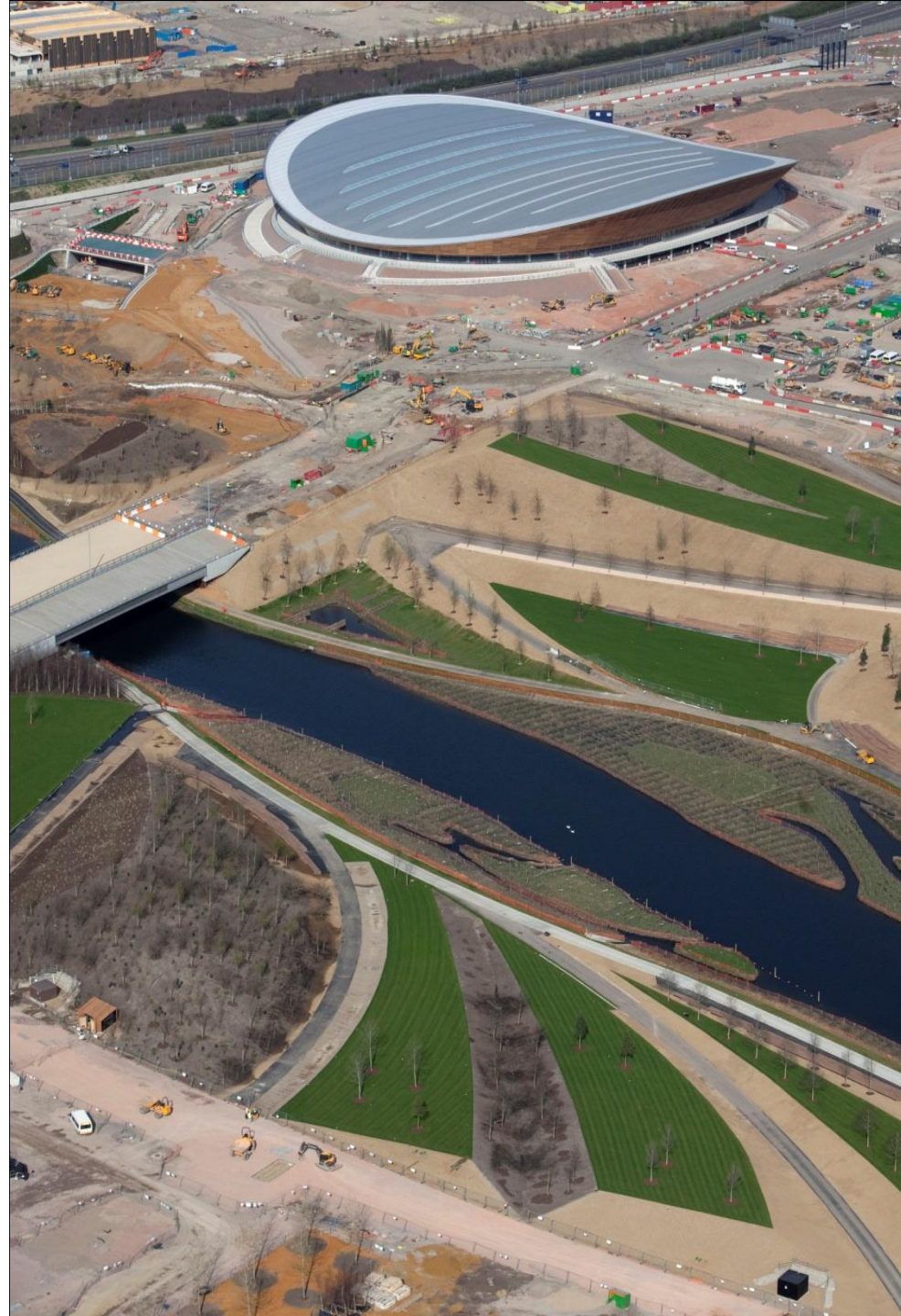






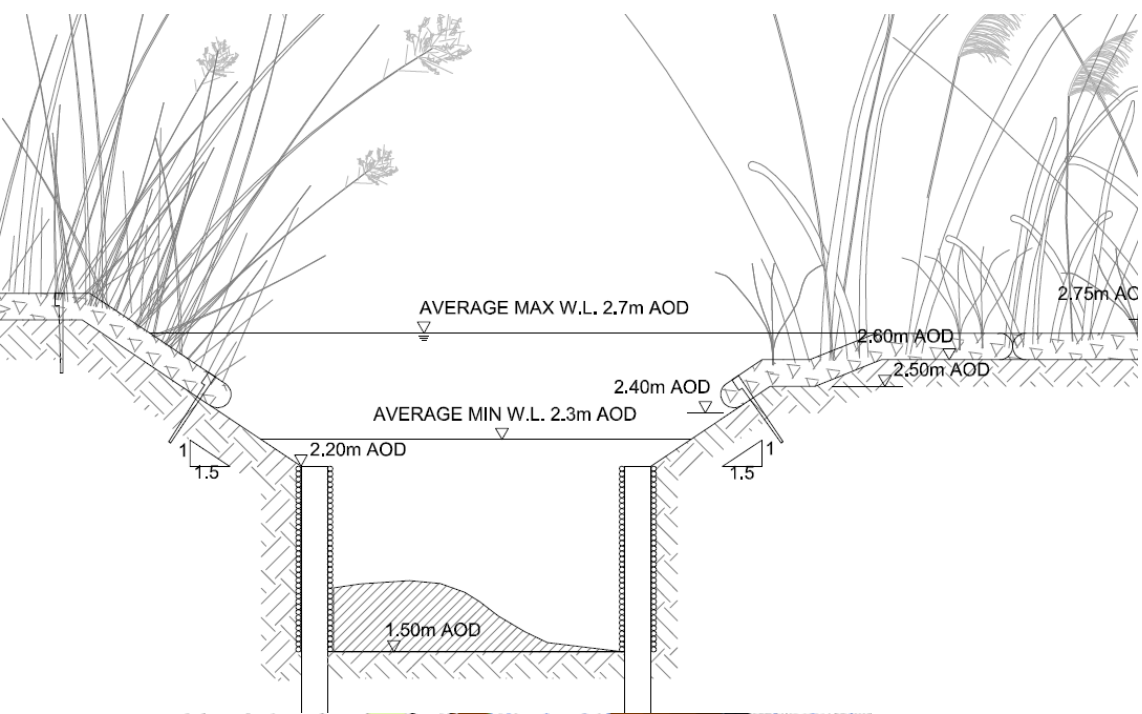
# Olympic park

- Restoration options constrained
- Obviously “complete” restoration philosophy can not be applied here
- Constraints of the Olympic Park
- Restoring biodiversity to river margins





# Wetland channels





# Wet Woodlands







2005:  
Overgrown & low value





2012 :  
Colour structure, habitat with value



## Restoring Europe's Rivers

[Home](#) | [About](#) | [Network map](#) | [River Restoration](#) | [Case studies WIKI](#) | [News & Events](#) | [Publications](#)

[Search](#)

River Restoration

Land use sectors

### Explore

- ▶ [What is river restoration?](#)
- ▶ [Why restore rivers?](#)
- ▶ [Meeting EU directives](#)
- ▶ [Regional and national policies](#)
- ▶ [Economics](#)
- ▶ [Flood risk management](#)
- ▶ [Habitats and biodiversity](#)
- ▶ [Hydropower](#)
- ▶ [Land use sectors](#)
- ▶ [Social benefits of river restoration](#)
- ▶ [Spatial planning](#)

### ✓ River restoration and land use sectors



#### Agriculture and forestry

##### Searching balance between maintenance and ecology of rivers and brooks

Drainage, dredging and straightening have impacted most small rivers and brooks in Europe. Nutrients from farming are a major cause of algae blooms in lakes and the sea. Environmental practices in farming, forestry and hydraulic engineering should be applied to maintain the diversity of rivers and brooks.

It is advisable to transform flood-prone farmlands into flooded meadows,

### ✓ Featured Case Studies

A selection of case studies related to land use:

- [Restoration of Korvuanjoki River, Finland](#)
- [Restoration of Ingarskilanjoki River, Southern Finland](#)
- [Ritobäcken brook, Finland](#)

### ✓ Case studies

[Timber float restorations at River Iijoki](#)

[Ritobäcken-environmentally preferable two-stage drainage channels](#)

[Restoration of Siuruanjoki River](#)

[Restoration of Siuruanjoki River](#)

[Rother meander reconnection](#)



# CASE STUDIES



<http://riverwiki.restorerivers.eu>



# *RESTORE* Outputs

- **36 events in over 15 countries**
- **1200 persons engaged through events**
- **500 case studies on the WIKI case studies database**
- **A guide for planners, developers & architects**
- **90,000 persons through project outreach**
- **International River Restoration Conference in Vienna  
September 2013**

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