



Water Management
Agency
Grand Duchy of Luxembourg

RESTORING THE TRÄTTER BAACH STREAM in Wincrange



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In Luxembourg, we are committed to restoring our rivers, which have been severely altered through human activity, to a more natural state.

These restoration projects have many advantages, such as reducing the risk of flooding, creating habitats for many species such as fishes and birds, and providing recreational spaces for citizens.

Restoration projects also contribute to bringing our rivers to a good ecological status, as required by the Water Framework Directive (WFD).

WATER FRAMEWORK DIRECTIVE (WFD)

The WFD harmonises European water management legislation and establishes obligations to protect and restore water quality and the aquatic environments throughout the European Union. The ecological status of a water body is determined on the basis of biological, hydromorphological and physico-chemical criteria.



This project concerns the Trätter Baach, a tributary of the Woltz, along a section of about 600 meters at Breitwies, upstream of the Neimillen mill. It is located within a Natura 2000 site and on land owned by the Foundation «natur&émwelt Fondation Hëllef fir d'Natur».

NATURA 2000
COPIL Éislek



Initial situation and problems

Like many other watercourses, the Trätter Baach was straightened during the 19th century. This practice involved removing the river **meanders** to make it straight, which facilitated agricultural work and simplified urban planning. Today, this practice is prohibited as it significantly affects the ecological condition and hydraulic regime of watercourses.

Prior to the project, the Trätter Baach had the following characteristics:

- ☞ mostly straight-course ;
- ☞ lack of variability in river morphology (depth and width), flow and structures ;
- ☞ low substrate diversity ;
- ☞ presence of a small weir of about 40 centimeters, which hindered the **ecological continuity** of the watercourse ;
- ☞ presence of coniferous trees along the banks of the watercourse, depleting the soil and preventing other vegetation from developing.

Overall, this initial condition was unfavorable for the establishment of a diverse aquatic flora and fauna.

Objectives

- ☞ Ecological enhancement of the watercourse: creation of habitats favorable to the development of a diverse aquatic and semi-aquatic fauna and flora.
- ☞ Reestablishment of the **ecological continuity**.

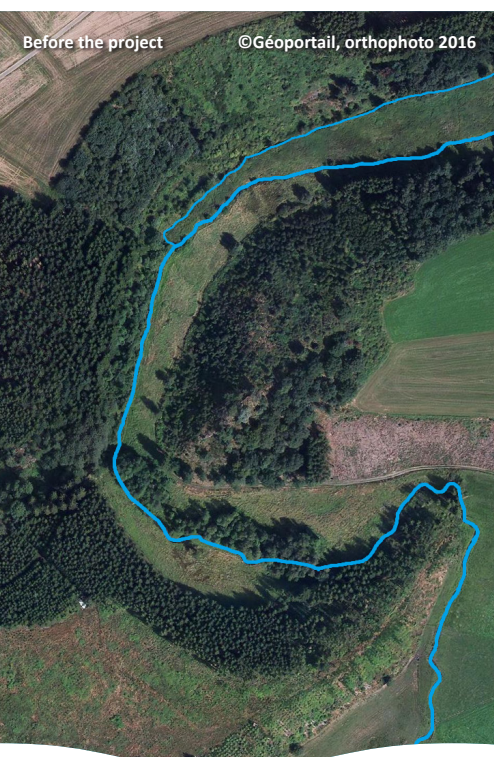


MEANDERS

A meandering river is formed by a succession of curves. These curves give the watercourse a fluvial dynamic, controlling erosion and sedimentation, which in turn, shape the riverbed and create diverse aquatic habitats for fauna and flora.

ECOLOGICAL CONTINUITY

Ecological continuity enables the free movement of organisms and sediments within a watercourse. In particular, it allows fish to have access to the various habitats they need to complete their life cycle (reproduction, growth, feeding and shelter). Waterfalls and dams are examples of obstacles to ecological continuity.





Work carried out

The watercourse was moved back to its original bed, which was still partially visible on the ground and on old maps, thus regaining its former meanders. This action is called «re-meandering».

Other measures taken included:

- levelling of the weir ;
- creation of habitats through the integration of **structural elements** (stumps, trunks and boulders) ;
- creation of a hydraulic annex in the form of a pond ;
- cutting of conifers and extensification of forest exploitation ;
- creation of **riparian buffers**.

STRUCTURAL ELEMENT

A structural element is a natural feature (boulder, tree trunk or stump, etc.) that diversifies the habitats and the flow of the watercourse, thereby promoting its dynamics.



RIPARIAN BUFFERS

Riparian strips are riverbank corridors, which are free from any form of exploitation, thus allowing the development of the natural riverside vegetation (such as alders, willows, ashes, etc.). They have many benefits: shading, bank stabilization, protection against nutrient and pollutant runoff, refuge for wildlife, etc.

Project by

Communal administration
of Wincrange



Project partners

Ministry of the Environment,
Climate and Biodiversity

-
Water Management Agency

-
Nature and Forest Agency

-
Communal administration of
Wincrange

-
natur&ëmwelt Fondation
Hëllef fir d'Natur

-
Stream&River Consult

-
Geschw. Balter Bauunternehmung
GmbH

Project costs

130 228 €

Financing



LE GOUVERNEMENT
DU GRAND-DUCHÉ DE LUXEMBOURG
Ministère de l'Environnement, du Climat
et de la Biodiversité

Fonds pour la gestion de l'eau

Duration of works

August 2017 – November 2018

