

# RESTORATION OF ECOSYSTEM SERVICES ALONG THE MIDDLE GARONNE RIVER (SW FRANCE): OBJECTIVES, **MANAGEMENT AND TERRITORIES**

In January 2018, laws attributing the competence GEMAPI - management of aquatic environments and flood prevention - to the French intermunicipalities have come into force.

One year earlier, we have carried out an overview of actions aimed at restoring ecosystem services along the middle Garonne River downstream of Toulouse (SW France - 90 km length).

### A simple Google-based method

- The keywords « Garonne River Management » have been entered in the Google search engine in order to identify the main entities involved in the river management.
- For each action aimed at restoring ecosystem services i.e., habitat, regulatory and/or information functions - more in-depth research was carried out to analyse the targeted sites and objectives.

### Results that suggest a lack of overall governance

- Nine stakeholders share the management of 24 restoration sites: the Urban Community of Toulouse (CUTM) operates on the upstream part of the study section; five riverside municipalities and the association Nature Midi-Pyrénées (NMP) work on the middle part of the section; the departmental board of Tarn-et Garonne (CD82) and the Syndicat Mixte for the study and management of the Garonne River (SMEAG) are more focused on the downstream part of the section.
  - Target objectives often differ from one project to another: vegetation management, public reception, ecological habitat protection, site clean-up, restoration of hydraulic conductivity, sediment resource management, and "let it happen"

#### What about the future?

The repetition and development of the inventory could show the effects of the competence GEMAPI on this fragmented restoration pattern.

## What about upstream?

An ongoing study seems to reveal a better cohesion of restoration projects on the upstream Garonne. In this sector, the stakeholders concerned with hydropower and fishing are driving forces.



RESTORATION ACTIONS COMPLETED (55) Municipalities I Association NMP

management of the Garonne (SMEAG)

CD82 CUTM | SMEAG 25 10 15 RESTORATION ACTIONS IN PROJECT (31) Municipalities Association NMP CD82 CUTM = SMEAG

TYPE OF ACTIONS : ■ Vegetation management (clearing, planting, grazing)

 Public recention (trail creation, infrastructure installation) Ecological habitat protection (restriction of public access) Site management (cleaning, regular maintenance)
Restauration of hydraulic connectivity (reconnection of waterways)

Sedimentary resource management (creation of pebble beaches sediment bars monitoring)

"Let it happen"



**Toulouse**