

Consulting



#17

# OUR CHALLENGE

Reconnecting  
with nature in the  
heart of our cities



## In Chambéry, reconnecting the city center with its precious natural heritage

Solange has very special memories of visiting the capital of Savoie: Chambéry.

From the waterfalls nearby the city center, to the remains of a chapel dug into the rock, not forgetting the many activities available from the city in the direction of the Alps... plenty to get busy!

What stands out? The heart of the town is built around the Leysse and the Hyères, Alpine rivers connecting to the Lac du Bourget and that are essential natural paths to maintain biodiversity and ensure inhabitants' comfort.

But Solange knows, these natural environments, which have been developed since the 17th century to gain agricultural space and then for urbanization, are highly constrained. Their dedicated space is constantly shrinking and subject to the vagaries of the climate... They sometimes respond with force.



**How can we restore the Hyères to preserve a precious natural heritage?**

**How can we restore our natural resources in the city?**

⇒ **The protection of the surrounding inhabitants is crucial!**



# OBJECTIVE

## For a safer and livelier river

1,9 km

of river restored with  
over 4,000 plants and  
cuttings

SUEZ Consulting was commissioned by the **Comité Intercommunautaire pour l'Assainissement du Lac du Bourget** (CISALB) to restore the Hyères alongside the Compagnie Nationale du Rhône.

A set of missions, from the project study to the completion of the works with:

- **The carrying out of a hydraulic study** in order to define the shape of the bed and dykes of the Hyères to protect against the 100-year flood of more than 700 inhabitants and 2,100 employees, saving an estimated €21 million in damage
- Design and monitoring of restoration work to ensure:
  - **Ecological and pisciculture continuity:** redevelopment of a weir to allow the passage of sculpin
  - **Diversification of habitats:** implementation of a bed with diversified morphologies and a variety of bank shapes and species
  - **Better water quality:** improvement of exchanges with the hyporheic zone
  - **Eco mobility:** cycle paths and riverbank walks



# SOLUTIONS

● Chambéry

## Develop an operational portal integrating:

- ⇒ **Opening up the river space** laterally and vertically for better flood management: readjustment of the longitudinal profile and the space available on the banks
- ⇒ **Creation of a minor bed** with an adjusted size for low water flows
- ⇒ **Recomposition and densification**: plantations, vegetation engineering works, management of the green screen vegetation providing shade, food, habitats and ecological continuity
- ⇒ **Diversification of fish habitats** and achievement of fish continuity through the partial opening of a weir
- ⇒ **Implementation of riprap** at the foot of the slopes and restoration of dykes in highly constrained areas
- ⇒ **Implementation of nature-based solutions**: fascines and planting of vegetation for the stabilisation of slopes and the reconfiguration of the river

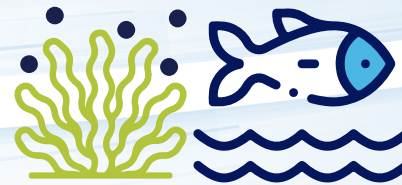
● Chambéry

# DID YOU KNOW?



**270,000 KM**  
OF PERMANENT WATERWAYS  
IN METROPOLITAN FRANCE

Source: UICN



**21%**

OF THE 1,372 AQUATIC SPECIES ASSESSED IN  
MAINLAND FRANCE AND OVERSEAS ARE EXTINCT  
OR THREATENED IN JUNE 2020. SDES-OFB

Source: SDES-OFB

IN 2015, ONLY **44.8%**  
OF FRENCH WATER BODIES WERE IN  
GOOD OR VERY GOOD ECOLOGICAL  
STATUS WATER AGENCIES OFB

Source: Agences de l'eau OFB



**26.8%**

OF FRENCH PEOPLE LIVE IN AREAS  
LIKELY TO BE FLOODED BY  
OVERFLOWING RIVER

Source: Georisques.gouv.fr





And you, what kind of connections to nature would you like to develop today?



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