



Bruxelles Environnement  
Projet LIFE Belini

Leefmilieu Brussel  
LIFE Belini Project



# LIFE Belini?

*Belgian initiative for making a leap forward towards good status  
in the river basin district of the Scheldt*



Leefmilieu Brussel, een speler in beweging

# Actions overview

A

« PREPARATORY » ACTIONS

C

CONCRETE IMPLEMENTATION ACTIONS

Ca. Actions to diminish pollution and improve quality of rivers  
Cb. Actions to enhance hydro-morphological quality and continuity of rivers  
Cc. Actions to restore natural water retention capacity of rivers to better manage flood risks and increase biodiversity

D

MONITORING THE IMPACT OF THE PROJECT

E

PUBLIC AWARENESS AND DISSEMINATION OF RESULTS

F

PROJECT MANAGEMENT AND MONITORING OF PROJECT PROGRESS

Q

COMPLEMENTARY ACTIONS



# Actions overview & Partners

|  | Action  | Partners |       |     |     |     |         |    |     |
|--|---|----------|-------|-----|-----|-----|---------|----|-----|
|  |   | VMM      | BE-LB | SPW | VLM | VBR | Vivaqua | WG | DVW |
| Policy   | A1 Lifting the interregional cooperation to a higher level  | x        |       | x   |     |     |         |    |     |
|  | <b>A2 Working out a common pressure and impact analysis for the Scheldt RBD</b>   | x        | x     | x   |     |     |         |    |     |
| Water quality  | Ca.1 Mitigating the impact of 3 major combined sewer overflows of Brussels  |          |       |     |     |     | x       |    |     |
|  | <b>Ca.2 Treatment of polluted highway (road) stormwater runoff</b>  | x        | x     |     |     |     |         |    |     |
|  | Ca.3 Tackling pollution from nitrate originating from agriculture   |          |       |     | x   |     |         |    |     |
|  | Ca.4 Anti-erosion control measures at strategic points  |          |       |     | x   |     |         |    |     |
|  | Ca.5 Assessment of the origin and nitrate trends near the drinking water abstraction site of Leefdaal Puttebos  |          |       |     |     |     |         | x  |     |
|  | Ca.6 Integral analysis of the waterbodies with an aquatical ecological model  | x        |       |     |     |     |         |    |     |
| Structural quality   | Cb.7 Restoration of quality structure and improvement of sticking points fish migration in the city centers of Sint-Pieters-Leeuw (Zuunbeek) & Leuven (Dijle) | x        |       |     |     |     |         |    |     |
|  | Cb.9 Land and water development project in the valley of the Maalbeek   |          |       |     | x   |     |         |    |     |
|  | Cb.10 Restoring Molenbeek (Hunderenveld) and cleaning tube verkeersplein  |          |       |     |     | x   |         |    |     |
|  | Cb.11 Land and water development project on the Woluwe river  | x        |       |     |     |     |         |    |     |
|  | <b>Cb.12 Suppression of fish migration barriers and creation of fish spawning areas on the Zenne/Senne</b>  |          | x     |     |     |     |         |    |     |
| <b>Cb.13 Restoration of the Zenne/senne river in the Brussels capital region</b> |   | x        |       |     |     |     |         |    |     |
| Water quantity   | Cc.14 Land and water development projects in the valleys of the Molenbeek, Zevenborrebeek and Kwadebeek   |          |       |     | x   |     |         |    |     |
|  | Cc.15 Construction of flood area Grote weide - Groebengracht, Halle   |          |       |     |     | x   |         |    |     |
|  | Cc.16 Natural water retention area on the Hain river  |          |       | x   |     |     |         |    |     |
|  | Cc.17 Natural water retention area on the Senne river   |          |       | x   |     |     |         |    |     |
|  | Cc.18 Land and water development projects in the valley of the Ijse   |          |       |     | x   | x   |         |    |     |
|  | Cc.19 Natural water retention area on the Samme/Senette and Ancien canal  |          |       | x   |     |     |         |    |     |
|  | Cc.20 Project Demer valley: reinstating river forelands and reconnecting meander  |          |       |     |     |     |         |    | x   |
| Cc.21 Renaturation of existing water retention area                              |   |          | x     |     |     |     |         |    |     |
| Monitoring   | <b>D1 Monitoring of the impact of the project actions</b>   | x        | x     | x   |     |     |         |    |     |
|  |   | 7        | 5     | 7   | 5   | 3   | 1       | 1  | 1   |



# BE People involved



# A1 – Lifting the interregional cooperation to a higher level

## What?

- Development of **new collaborative ways of working**
- **Strengthen and deepen** the **interregional cooperation and coordination** for both the Water Framework and the Floods Directive
- Through **working & consultation groups** (CCIM, Exemptions, EQS-RBSPs,...)



# A1 – Lifting the interregional cooperation to a higher level

## *Sub-actions*

- Setting up a new consultation platform within the Steering group Water of the CCIM/CCPIE
- New governance agreements and schemes leading to better coordination of the WFD
- Two permanent representatives for every region (for WFD and FD)
- Inviting additional experts to the platform
- 3-4 times a year the consultation platform will meet
- Meetings can be supplemented by additional bi- or trilateral meetings
- Report to the Steering Group water
- Mainly high level implementation issues are considered
- Agreements on how to set up local consultation platforms (E3)



# A2 – Working out a common pressure and impact analysis for the Scheldt RBD

## What?

- **Inventory of emissions** coming from all kinds of water use sectors including a **quantification of transboundary loads** (in- and out-coming loads) **at regional borders**
- Development of a common impact & pressure analysis for all the 3 Belgian regions

## Why?

- Achieve a **better coherence between transboundary loads**, calculated by the regions by exchanging data and expertise on methods for calculating
- Perform a **basin-wide pressure and impact analysis** for a selection of parameters for the transboundary Senne river basin
- **Formulate recommendations** based on those pilot experiences for the entire Scheldt RBD and disseminate those towards others RBDs





# A2: Sub-actions

- Calculation of transboundary loads for the three Belgian regions for a selection of parameters (A2.1)
- Pressure and impact analysis for the transboundary Senne basin (A2.2)



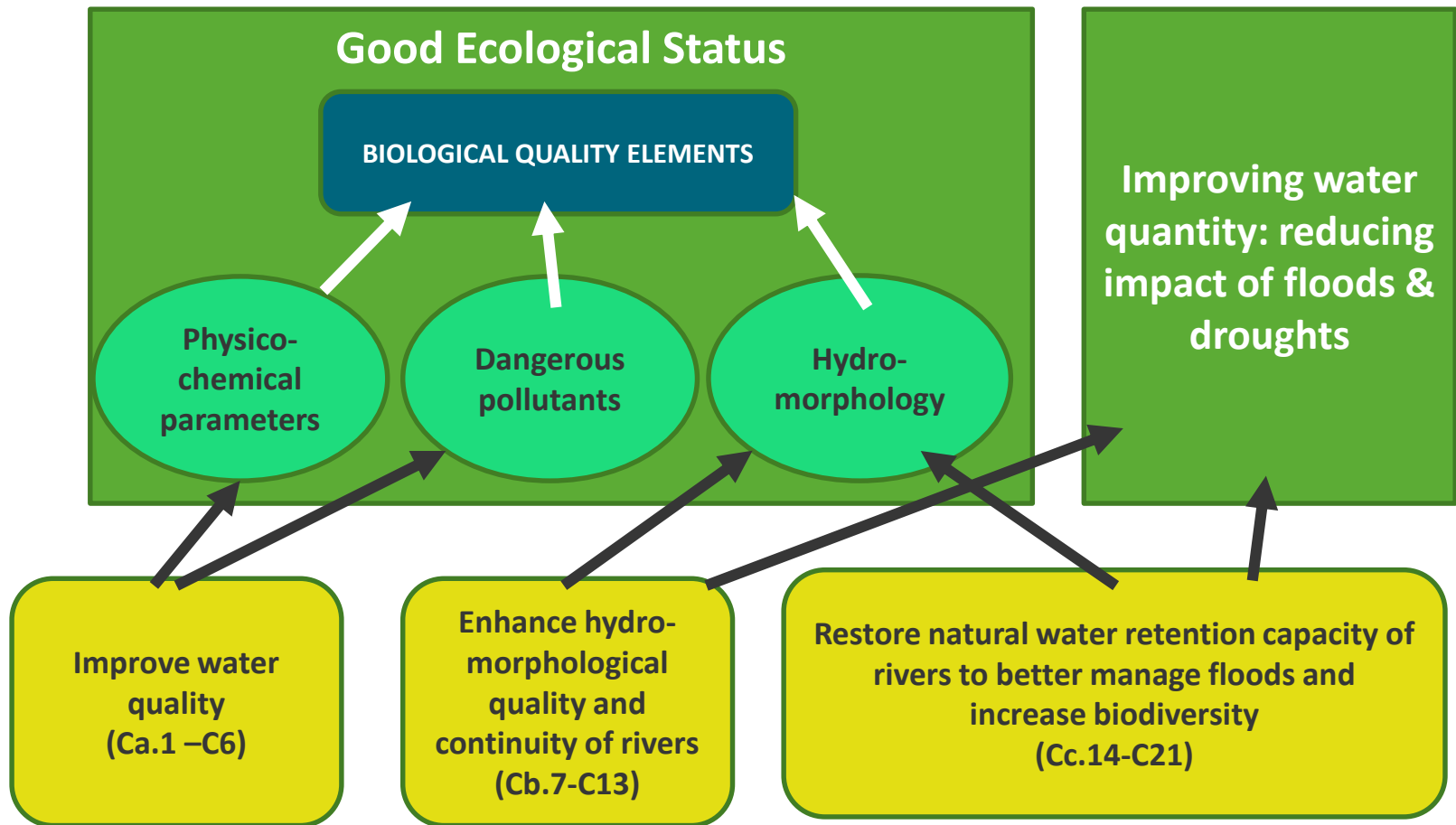
# A2 – Working out a common pressure and impact analysis for the Scheldt RBD

## *Sub-actions*

- Transboundary loads (TL) in the main rivers: selection of parameters
- TL in the main rivers: agree on a work method
- TL in the main rivers: comparison on transboundary loads calculated exchanging concentration and flow data of the pollutants
- TL in the main rivers: examine and explain differences (and if possible eliminated)
- TL : lessons learnt/recommendations are compiled in a brief report
- Pressure and Impact Analysis (P&I A) Senne: selection of parameters
- P&I A Senne: agree on work method for this selection
- P&I A Senne: examine and explain differences (and if possible eliminated)
- P&I A Senne: common impact and pressure analysis will be agreed upon
- P&I A Senne: will be carried out on a subset of parameters for the transboundary Senne river basin
- P&I A Senne: lessons learnt/recommendations are compiled in a brief report



# Actions 'in the field'



# Ca.1 – Mitigating the impact of 3 major combined sewer overflows of Brussels

## What?

- **Equip** 3 major (CSO's) - « Nouveau Maelbeek », « Paruck », « Molenbeek » - with devices that remove floatable materials and suspended sediments
- **Optimize the properties of the CSO weirs** so that they activate only if really needed

⇒ **Different strategies still under discussion**

## Why?

- **Improve overflowing water quality** and hence **mitigate** their **impact** on the receiving river
- **Reduce the source of pollution** for the river by removing sediments



# Ca.2 – Treatment of polluted highway (road) stormwater runoff

## What?

- Polluted runoff water poses an ecological threat to a number of watercourses within the catchment area of the Senne and Dyle. **4 case-studies** have been selected to study and develop road runoff treatment:
- **2 cases** are located **in the Brussels Region** along the Senne:
  - **E411 viaduct (Auderghem)** which releases its runoff water towards the Roodklooster ponds into the Woluwe river;
  - **“Small ring” of the city** which releases its run-off water directly towards the Senne river through almost 100 diffuse connections.

## Why?

- **Monitor the impact** of highway runoff on water resources
- **Implement of infrastructures** and thus **improving the quality of the receiving rivers**
- **Exchange of expertise**



# Cb.12 – Suppression of fish migration barriers and creation of fish spawning areas



**Cb.12\_1** – Suppression of a fish migration barrier at the beginning of the vaulting

**Cb.12\_2** – Creating a fish spawning area nearby the Brussels North WWTP



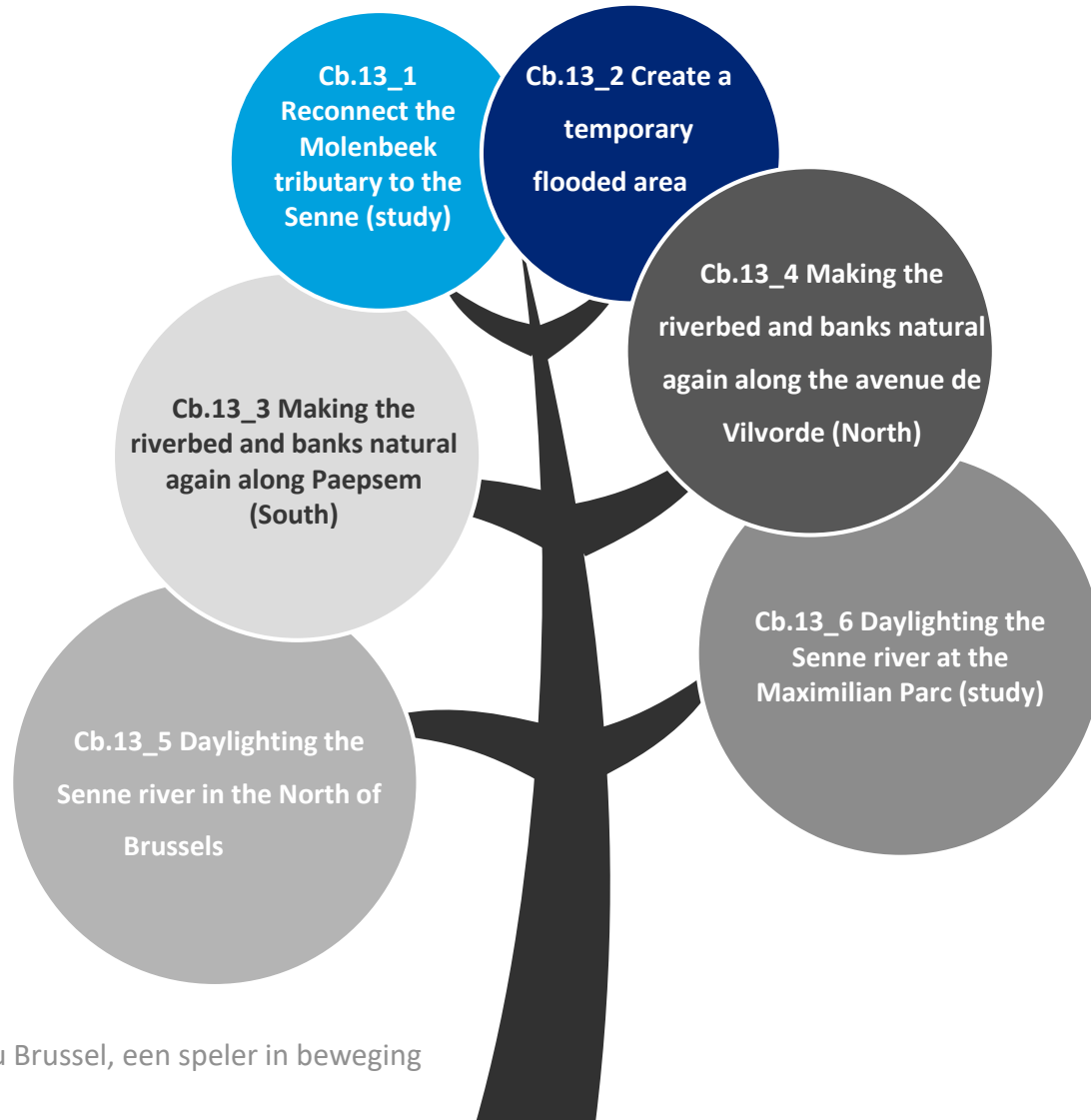
**Cb.12\_3** – Creating light and aeration point in the Senne vaulting at Sainclette square (study)



**Cb.12\_4** – Creating light and aeration point in the Senne vaulting at boulevard Point Carré nearby the Sewer museum (study)



# Cb.13 Restoration of the Zenne/senne river in the Brussels capital region




# D1 – Monitoring

## What?

- **Monitoring of all actions** and on **the way they participate to reaching the objectives of WFD** (and FD) → **Technical & environmental impact**
- The **impact of the projects on socio-economic aspects** and **on the ecosystem functions restoration** will also be assessed.
- *In order to act as a leverage to maximize synchronized planning, implementation and reporting between the 3 Belgian regions, the progress made will be monitored periodically and discussed during project meetings and in the CCIM.*







S'appuyer sur le monde  
d'aujourd'hui pour construire  
le monde de demain

De wereld van vandaag als  
basis  
voor de wereld van morgen



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