



natuurpunt

RESTORING
1500 HECTARES
OF WETLANDS
IN FLANDERS

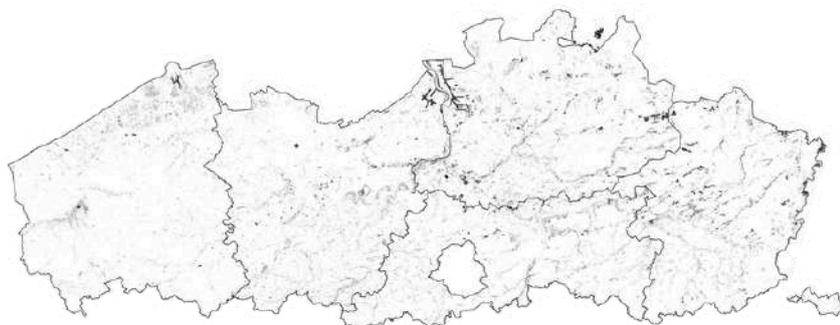
Wetland plan

PROJECT SUMMARY

An aerial photograph of a wetland landscape. A winding waterway, likely a broek, flows through a dense expanse of green vegetation. The water is a dark, muted color, contrasting with the vibrant green of the plants. The overall scene is a typical representation of a wetland environment.

**FLANDERS HAS
LOST 75% OF
ITS WETLAND
SURFACE.**

**TODAY, WETLANDS IN FLANDERS
COVER 68,000 HECTARES, TOTALLING
ONLY 5% OF ITS SURFACE...**



**... BUT 147,000 HECTARES CAN BE
RESTORED, A THIRD OF WHICH HAS A
FAVOURABLE SPATIAL PLANNING**

The past 75 years, Land use change has diminished Flanders' vast natural wetland cover by three quarters. With it, the region has lost its superhero ecosystems and the wealth of ecosystem services they offer.

Now climate change is becoming ever more tangible, restoring wetlands and their natural functions can turn the tide and make our environment more resilient to its consequences - if we now make room for water again, at least.

Due to decades of poor management of natural water systems, Flemish **water reserves are scarce** and dissipate quickly. This water limitation, in turn, is exacerbated by inefficient water (re)use, excessive drainage and extreme urbanisation. At a global scale, Belgium even ranks among desert states in terms of **vulnerability to water stress**.

Increasingly, **droughts** are hitting agriculture and (drink)water supplies, while **floods** are destroying livelihoods. Today, Belgium spends **billions per year** to the consequences of floods, droughts and heat waves, which claim hundreds of lives every year - numbers that are expected to only increase. In 2050, these disasters will demand **9,5 billion EUR** (2 percent of the Belgian GDP).

Floods and droughts are symptoms of one and the same illness: a **disturbed water balance** of the landscape. Rehabilitating the wetlands' capacity to buffer water is one of the most effective remedies. Like **giant sponges**, wetlands store vast water volumes that can slowly infiltrate and that are released again when necessary. Fortunately, **at least 49,000 hectares of wetlands can be restored** in Flanders.

The Flemish government has launched its **Climate Adaptation Plan** - aiming to have 20,000 hectares of wetlands restored by 2030 - and is now preparing to implement the European **Nature Restoration Law**. Both frameworks are expected to issue specific (co-)financing for restoration actions on top of existing Flemish and European incentives. Such initiatives are spurring wetland restoration projects, as the projects' realisation is fueled by **different sources of funding**.

NATUURPUNT STEPS UP & RESTORES 1500 HECTARES.



ENTER WETLAND PLAN

... a restoration framework that brings together 18 nature reserves across Flanders, which are together assigned as a priority to establish 1,500 hectares of healthy wetlands by 2027. Diverse nature reserves and wetland types are included, each with unique characteristics and values.

The Wetland Plan has been distilled from Natuurpunt's decade-spanning track record of nature management and sets an ambitious pace for restoring wetlands and their biodiversity to harness their function as climate buffers and biodiversity hotspots.

As a partner of Wetlands International, Natuurpunt channels its efforts into expanding its experience from success stories of restoration in the Blankaart and the Valley of the Zwarte Beek.

Today, Natuurpunt

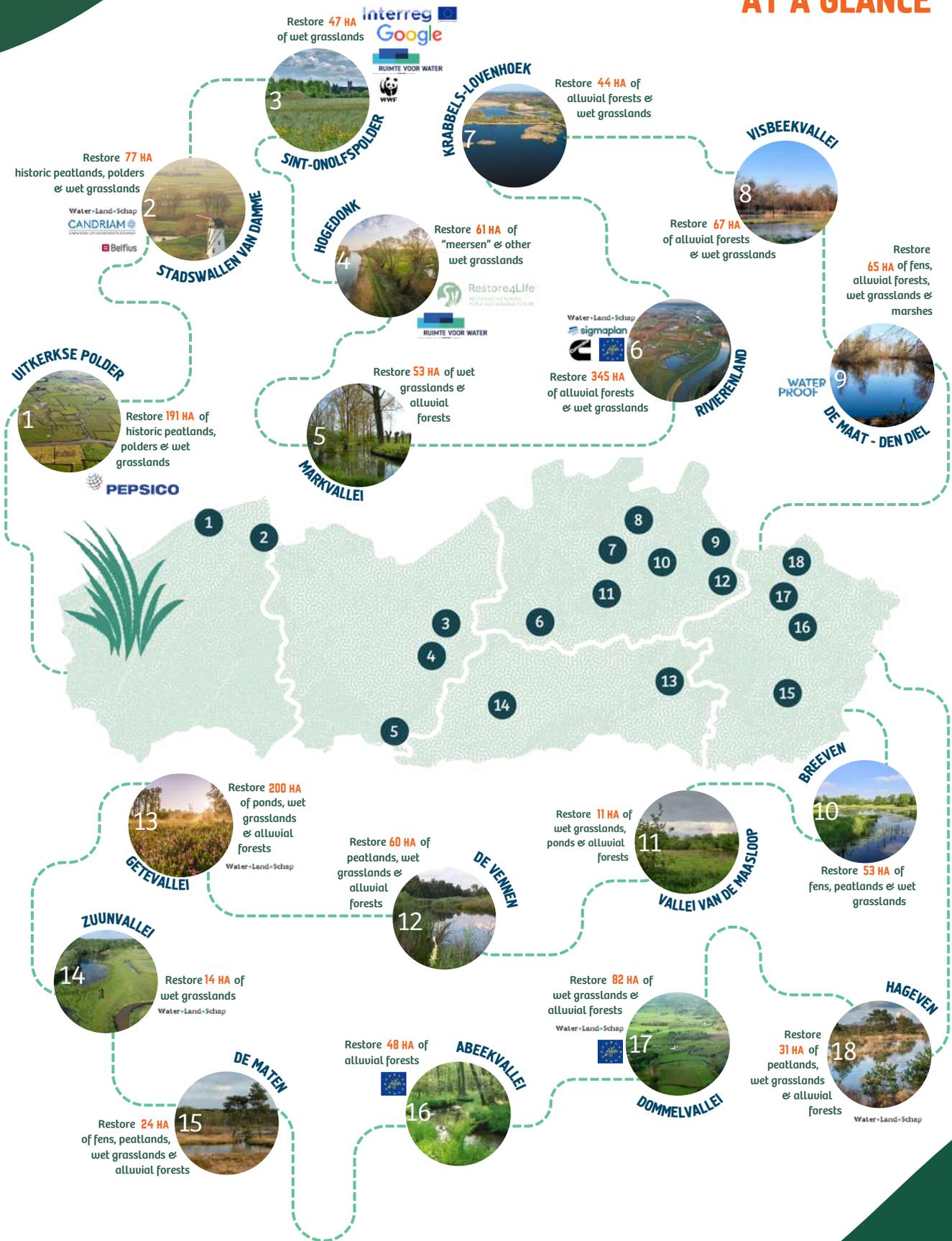
- takes care of more than **29,000 hectares of nature** in Flanders
- manages **one out of five Flemish wetlands**
- is strongly embedded in the Flemish landscape thank to its **participatory approach**, connecting volunteers and stakeholders
- has successfully (co-)realised more than **40 European projects** - and counting - putting Natuurpunt on the international map as well
- has developed **water replenishment projects with industrial partners**, including AB Inbev, Coca Cola Company, Cummins, Ecover, Google & Pepsico.

The selection of project areas resulted from

- analyses of the **wetland restoration potential** based on the work of Decler and colleagues,
- a **multicriteria analysis** of soil characteristics, ownership and **ecosystem services** (Staes and colleagues),
- surveys with **land managers & nature consultants**
- the **local management context**.



18 NATURE RESERVES OF THE WETLAND PLAN AT A GLANCE





PEATLAND



SPECIES-RICH
GRASSLAND



FEN



MARSH



ALLUVIAL FOREST

Wet-what?

“Wetlands” include various types of nature shaped by water. They are the bridges between land and open water. No less than **40 percent of all extant species worldwide** rely on these ecosystems for survival - including humans.

Varied in size, soil, water level fluctuations and the plants and animals living there, wetlands are also counted as true **carbon-storing and water-purifying champions**. Reverting wetland losses is therefore crucial to make our environment more **resilient** to climatic perturbations.

It is clear that purely **technical solutions alone do not measure up** to the challenge of mitigating and adapting to climate change. These measures are often more **expensive** and underperform when it comes to **ecosystem services and biodiversity values**.

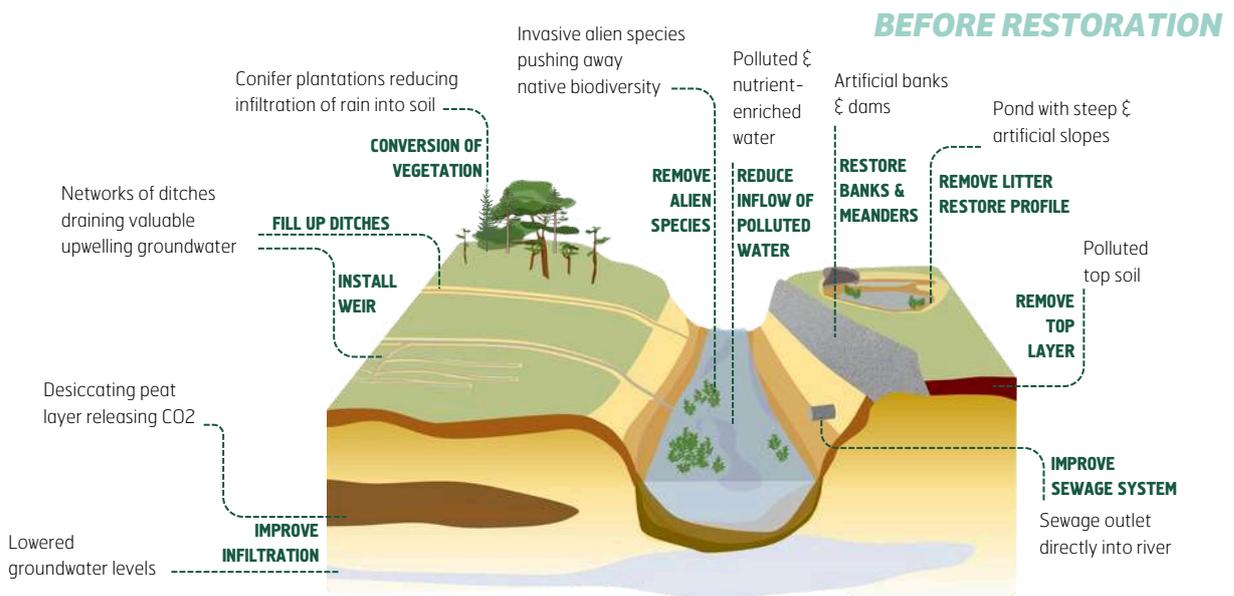
To restore wetlands, we need to understand how the system is functioning hydrologically. This **scientific foundation** is important, as water flows regardless of administrative boundaries and the effects of actions can be far-reaching, both up- and downstream as well as for surface and groundwater levels. The **nature management plan and ecohydrological research** are therefore for restoration. Restoring wetlands does not need to entail wet feet, though: sometimes **stabilising groundwater levels** is already a major improvement.

Often, a careful **combination of multiple measures** is required for restoring healthy wetlands. Some actions have immediate effect, others require more time. The degree of technical difficulty and e.g. permit obligations also vary, entailing careful **technical and administrative procedures**.

The story does not end with restoration, however. Appropriate **after-restoration management measures** must be taken so that wetlands are maintained in good condition – after all, nature continues to evolve. Mowing, for instance, safeguards sensitive grassland vegetations from succession towards woodlands. Such after-care facilitates **longer-term improvements** of i.a. carbon and nitrogen balances.

SOURCES Seddon et al. (2020) Global Sustainability, Philosophical Transactions of the Royal Society of London B; Turkelboom et al. (2021) Ambio; Yimer et al. (2024) Journal of Environmental Management

Giving wetlands the room to roam





The beating heart of Natuurpunt: **VOLUNTEERS**
managing reserves, organising events, running
visitor centres and connecting local communities

**NATURE
MANAGEMENT
CONSULTANTS**

develop
restoration
measures and
technical and
management
plans

NATURE & LANDSCAPE TEAMS

execute larger management works

CONSERVATORS

take care of the daily
management and
organisation in reserves,
in close collaboration
with nature management
consultants

ECOHYDROLOGIST

manages the piezometer network,
simulates and models proposed
restoration actions, maps and
monitors the effect of restoration

Zuunvallei

THE WETLAND PLAN IS POWERED BY PEOPLE



Realising the Wetland Plan will cost nearly **60 million EUR** – including research, land acquisition, restoration works, infrastructure and materials, communication and staff. A significant part will be covered by funding from various public **Flemish and European sources**, but such financing is mostly limited to 60 or 90 percent of the project. So, to cover the remaining expenses, the Wetland Plan's success relies on support from **private partners**.

Teaming up with local stakeholders, including municipalities and corporations, creates a **win-win** situation for nature & people, while enhancing their involvement in nature projects near home. As such, a solid base of **public support and the enjoyment of nature benefits** go hand in hand.

STUDY & SCIENCE UNIT

analyse (citizen science) data and support biodiversity and ecological monitoring

LOCAL TEAMS & CONSULTANTS

keep track of how the ecosystem is evolving and identify required actions through field visits

(PROJECT) COORDINATORS

organise financing through projects and larger-scale initiatives, develop and manage projects

NEIGHBOURS & VISITORS

savour nature, its beauty and experience the (health) benefits of having a nature reserve close to home



2022

- 1 Sluices obstructing fish migration
- 2 Exploitation of non-renewable resources such as gravel
- 3 Covered tributary river
- 4 Dense and fragmented road network
- 5 Canals lined with industrial development
- 6 Ribbon development and dispersed infrastructure lead to high spatial requirements, high infrastructure costs and inefficient public transportation
- 7 Light pollution
- 8 Polluted watercourses due to discharge, fertiliser runoff and erosion
- 9 Large stables and intensely fertilised grasslands and fields
- 10 Drained fields in flooding zones
- 11 Steep dykes with paved banks and straightened rivers
- 12 Low groundwater levels



2050



Sluices removed or equipped with fish passage

1

Nature areas connected by ecoducts

2

Efficient and climate-friendly transportation

3

Industrial areas adjacent to residential zones
with green or energy roofs

4

Sustainable agriculture with room for natural banks

5

Water storage as a buffer for drought periods

6

Complete sewage system ensuring clean water courses

7

Natural river banks and room for
water buffering in flooding zones

8

Room for recreation

9

Wet species-rich (hay) meadows between
winter dykes and rivers

10

Residential areas with multi-layered buildings,
incorporating many blue-green elements

11

High groundwater levels

12

A FUTURE RIVER VALLEY LANDSCAPE

Natuur in het Hart, Natuurpunt



IMAGE CREDITS

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Front page: Hageven / Back page: De Vennen

MORE INFORMATION

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WETLAND PLAN

Restoring 1500 hectares of wetlands in Flanders

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