Vol. 01 Flanders- Belgium

NBRACER
Nature Based Solutions
for Atlantic Regional Climate Resilience

Stories that aren't tales

Nature Narratives

OUDE KALE RIVER

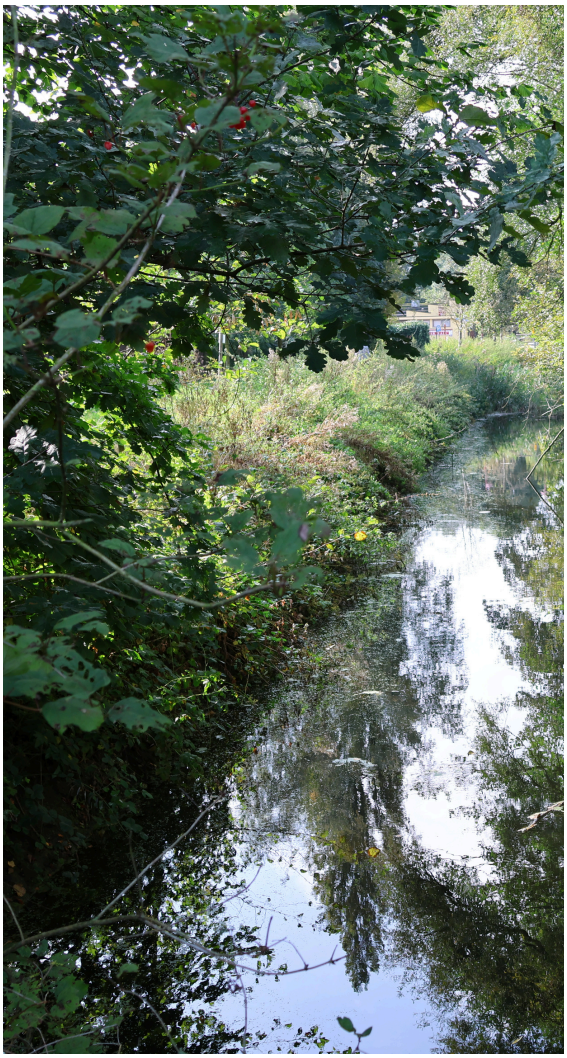
How a Belgian River is Making Waves in Environmental Restoration

Funded by
the European Union

OUDE KALE

Flowing with Nature: How a Belgian River is Making Waves in Environmental Restoration

In Landegem, a village not far from the city of Ghent in Belgium, something remarkable is happening. The Oude Kale River, once straightened and silenced by human hands to expand the Schipdonkkanaal, is finding its course again. This is the story of a community, a river, and an innovative approach to healing the land, biodiversity and water quality—together.



Oude Kale Landegem

Discovering the Landscape an Ecosystem of the Oude Kale

Imagine standing on the banks of the Oude Kale in the peaceful village of Landegem. Here, you're just a few kilometers from Ghent, yet it feels like another world. The Oude Kale flows gently through an open, rural landscape, drawing hikers, cyclists, and locals who come to find peace among fields, wildflowers, and the soft sound of flowing water.

This river, with its newly restored curves, represents a transformation in how we think about waterways. Once altered and straightened to rush water downstream, the Oude Kale is now part of a major Nature-based Solution (NbS) project carried out by the Vlaamse Milieumaatschappij, the Flemish Environment Agency (VMM) who manages the watercourse of the Oude Kale. But what exactly does that mean? And how did this quiet river come to symbolize the future of sustainable water management?

What Are Nature-Based Solutions, Anyway?

Picture this: Instead of constructing artificial channels or concrete dams to control rivers, Nature-based Solutions embrace natural processes. This means a river flows as it once did, encouraging wetlands, or restoring natural bends. In essence, its water management inspired by the environment itself.

The Oude Kale project embodies this approach perfectly. By reintroducing natural meanders (those beautiful curves) to the river, the project team has improved water quality, reduced flood risks, and restored new habitats for fish, plants, and wildlife. The impact of these changes spreads through the entire ecosystem.



Oude Kale Landegem

Have you ever wondered what makes this approach so innovative and transformative?

Water quality improvement: By restoring the natural flow of river systems, the self cleaning capacity of the river is enhanced.

Enhanced Biodiversity: Restoring natural habitats boosts wildlife and promotes rich biodiversity.

Climate Resilience: These solutions can help reducing the impact of floods and droughts, making communities more resilient to extreme weather.

Long-Term Cost Savings: Nature often maintains itself, so while projects like these require planning, they typically need less upkeep over time.

Beauty and Recreation: Revitalized landscapes bring recreational, aesthetic, and community benefits—something locals can see and experience firsthand.

A River's Revival: The Impact of Meandering

As the Oude Kale found its curves again, the transformation in the river were nothing short of magical. Through this restoration project, the watercourse was given back its natural winding trajectory with unpaved banks, narrower wetted perimeter and alternating steep and gentle curves. The new meanders create more flow variation, making the watercourse ecologically more valuable for fauna and flora, and also enhancing its self-cleaning capacity.

Between 2017 and 2018, the Vlaamse Milieumaatschappij (VMM), leading the project, monitored these changes closely. Early results were encouraging: oxygen levels increased, while harmful nitrogen and phosphorus levels decreased. And it wasn't just the chemistry of the water that was changing. By restoring the river more diverse habitats were created for fish and other fauna and flora. Some of the effects on species composition are already visible.



Schipdonkkanaal, Deinze

The Role of the Community: Coming Together to Save a River

What makes the **Oude Kale** project truly remarkable isn't just the ecological impact—it's the people behind it.
From the very beginning, local residents, environmental groups, and government bodies came together to participate in the project. Partners included De Vlaamse Waterweg, Natuurpunt De Ratel, the Agentschap voor Natuur en Bos, and officials from the municipality of Deinze.

Perhaps the most inspiring part? The local youth! When young people asked for a space where they could interact with nature, the project team listened. They created playful spaces—perfect for families to explore and engage with the environment.

Community Voices: Concerns, Challenges, and Solutions

As the re-meandering river restoration progressed, the project extended beyond one site. A little further downstream, near Landegem station, the transformation continued between 2023 and 2024, giving the river even more room to flow. With 400 meters of new gentle bends, the water slowed its pace, creating better living conditions for fish and other wildlife. This wasn't just about changing the river's path—it was about bringing nature back to life, one curve at a time.

Of course, no transformation comes without its challenges. Some local residents were concerned about the need to clear parts of the original forest. In response, the project team committed to reforesting the area with more than twice the number of trees that were lost.

Another challenge?

A persistent foe: the invasive Japanese knotweed, a plant well known for its ability to take over and crush native flora. This time, however, nature-friendly methods came to the rescue, using innovative, electrocuting techniques and barriers to prevent the knotweed from spreading.

Despite initial concerns, the community has grown increasingly proud of what their local river is becoming—a healthier, wilder, and more resilient waterway. This local pride, encouraged by open communication and transparency, has been essential to the project's success.



Re-meandering of the Oude Kale

Lessons learned from the Oude Kale: Insights for the Future

So, what does this mean for other places looking to restore their rivers?

Think Beyond Borders



River restoration should be part of a broader regional strategy, ensuring benefits for ecosystems, economy, and communities. Engaging environmental conservation, urban planning, and social policies to ensure lasting positive change.

Start Local, Think Big



Engage local communities right from the beginning. The process may take longer, but it's worth it in the end.

Design with Nature



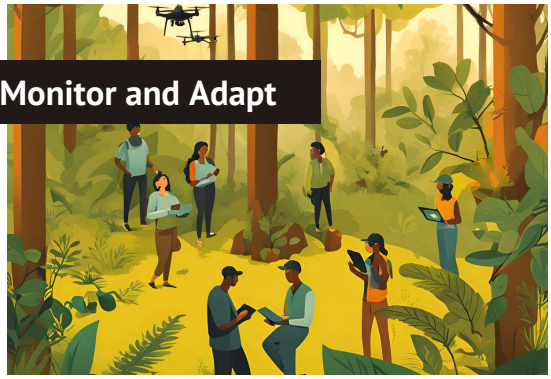
Biodiversity should be at the heart of restoration efforts. Focusing on species and habitats ensures long-term ecological health.

Build with Nature



Nature-based solutions like meandering, wetland restoration, and buffer zones work in harmony with the ecosystem, benefiting both people and wildlife.

Monitor and Adapt



Regular monitoring enables teams to track changes, make adjustments, and build on what works best.



Looking Forward

The first sparks of transformation begin to spread, shaping the path towards climate resilience

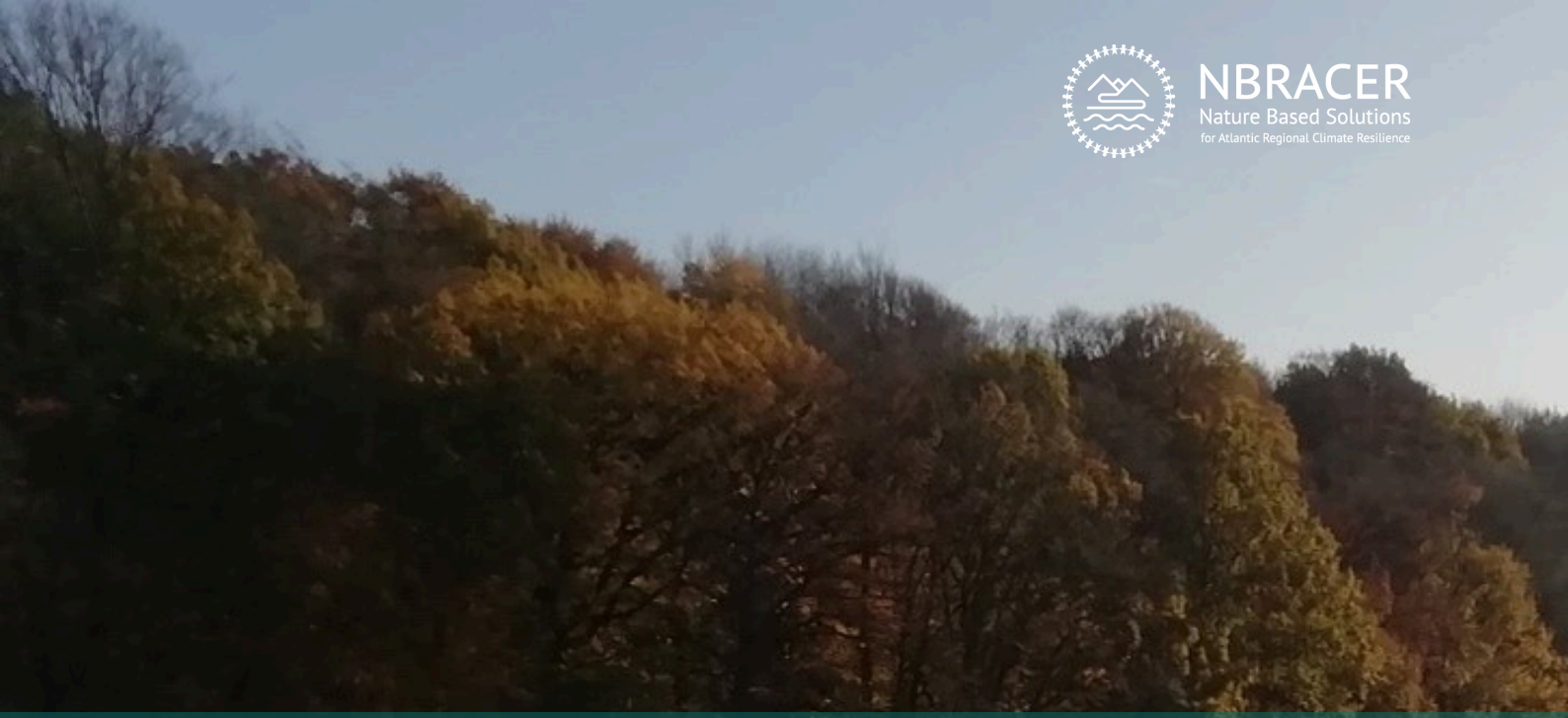
The Oude Kale has set an inspiring example, not just for Belgium, but also for communities worldwide. In a time where environmental challenges grow more pressing every day, this small river project in Landegem reminds us of the power of reconnecting with nature.

By listening to the land, collaborating with communities, and embracing innovative solutions, we can bring new life to rivers and strengthen our bond with the natural world.

So the next time you find yourself by a riverbank, think of the Oude Kale. Every river has its own story—what if we just let it tell it?



VLM-VMM-VITO



NBRACER
Nature Based Solutions
for Atlantic Regional Climate Resilience

Funded by
the European Union

Disclaimer

Funded by the European Union. Views and opinions expressed in this report reflect only the author's view and do not necessarily reflect those of the European Union or The European Climate, Infrastructure and Environment Executive Agency (CINEA). Neither the European Union nor the granting authority can be held responsible for them.

