



To Flood or not to flood?

Welke plaats krijgen biodiversiteit en landschap
in een verander(en)de Demervallei?

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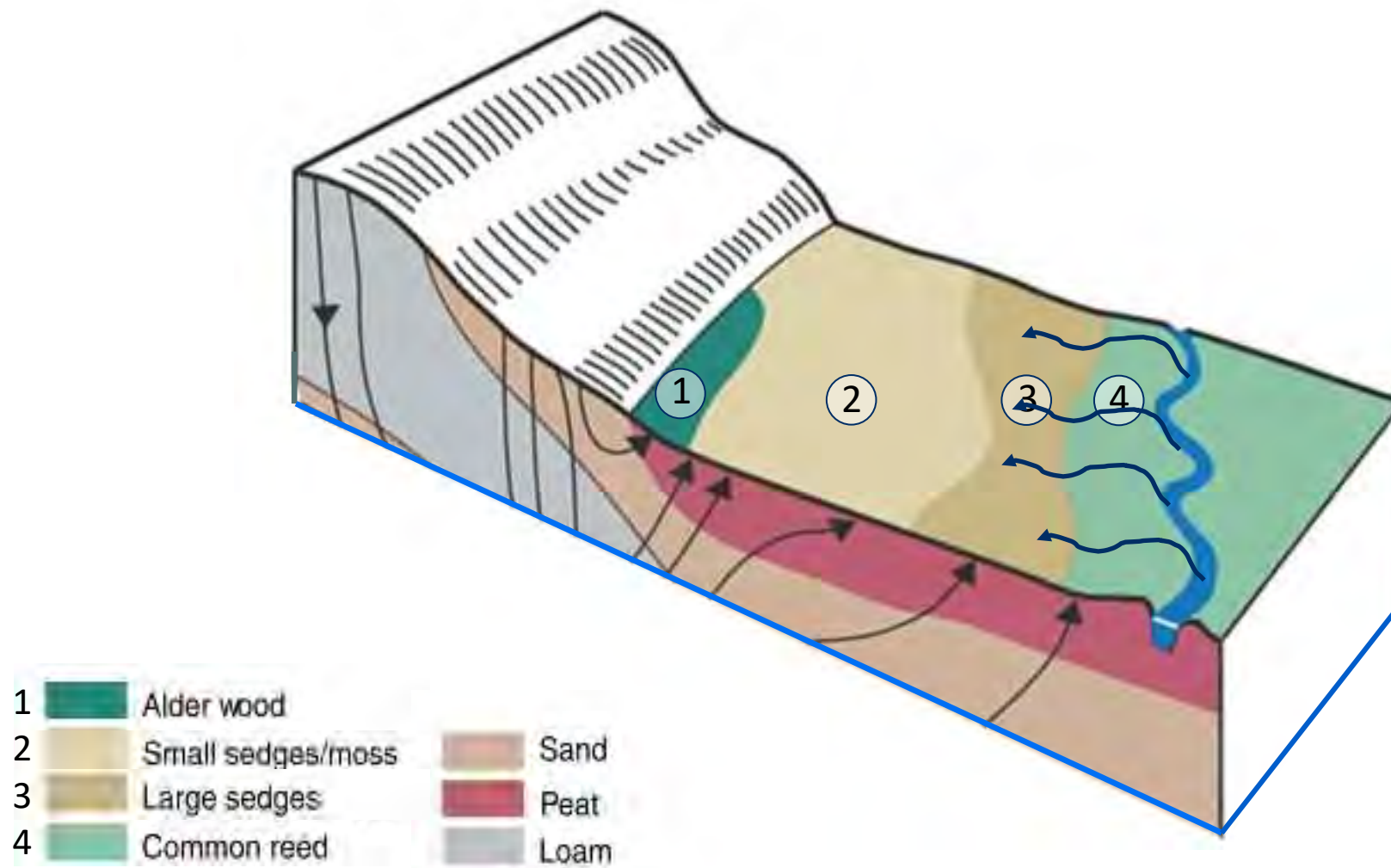
An aerial photograph showing a river with multiple meanders flowing through a valley. The river is dark blue, contrasting with the green grass and dense forests on either bank. The landscape is a mix of open fields and wooded areas.

Een natuurlijk riviersysteem uit de lucht

Rospuda valley

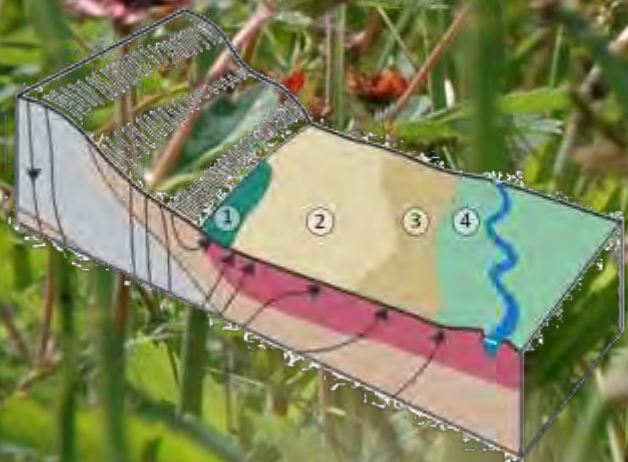
<https://pracownia.org.pl/pracownia-aktualnosci>

Vegetatie-zonatie natuurlijke rivier- en beekdalen

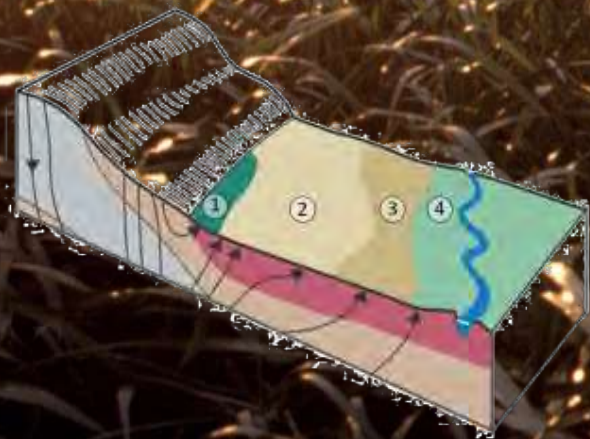




1. Elzenbroek

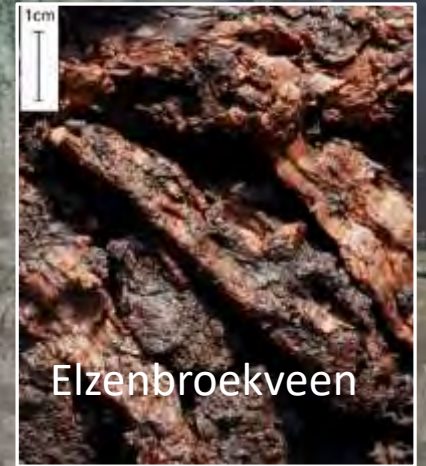


2. Grondwatergevoed veen



3,4 Overstromingsveen

Ook in andere valleien was dit de natuurlijke situatie



Hoe weten we dat?

Uit veenboringen



An aerial photograph showing a winding river or canal through a lush green landscape. The water body is dark and meanders through fields of various shades of green and brown. There are dense clusters of trees and some small buildings visible in the distance. The overall scene is a rural, natural landscape.

Demervallei vanuit de lucht

Foto: [//www.integraalwaterbeleid.be/nl/bekkens/demberbekken](http://www.integraalwaterbeleid.be/nl/bekkens/demberbekken)

An aerial photograph showing a winding river or canal through a rural landscape. The river flows from the top center towards the bottom left, curving around a large green field. The surrounding area is a mix of green fields, brown plowed land, and dense green forests. In the distance, some small buildings and more fields are visible under a clear sky.

Er is nogal wat
veranderd in de
Demervallei!



Vanaf het Neolithicum hebben we de
infiltratiegebieden grotendeels ontbost

Effect van afgenomen infiltratie



Pepinster 2021
www.vrt.be/vrt-nws

A black and white photograph showing five men working together to dig a long, straight trench in a field. The men are positioned along the trench, using long-handled tools like shovels and pickaxes to dig. The ground is dark and appears to be wet or muddy. In the background, there is a simple, light-colored building and some trees. The sky is bright and overexposed. The overall scene depicts manual labor in a rural or agricultural setting.

We hebben sloten gegraven om landbouw mogelijk te maken

Verbetering van waterafvoer

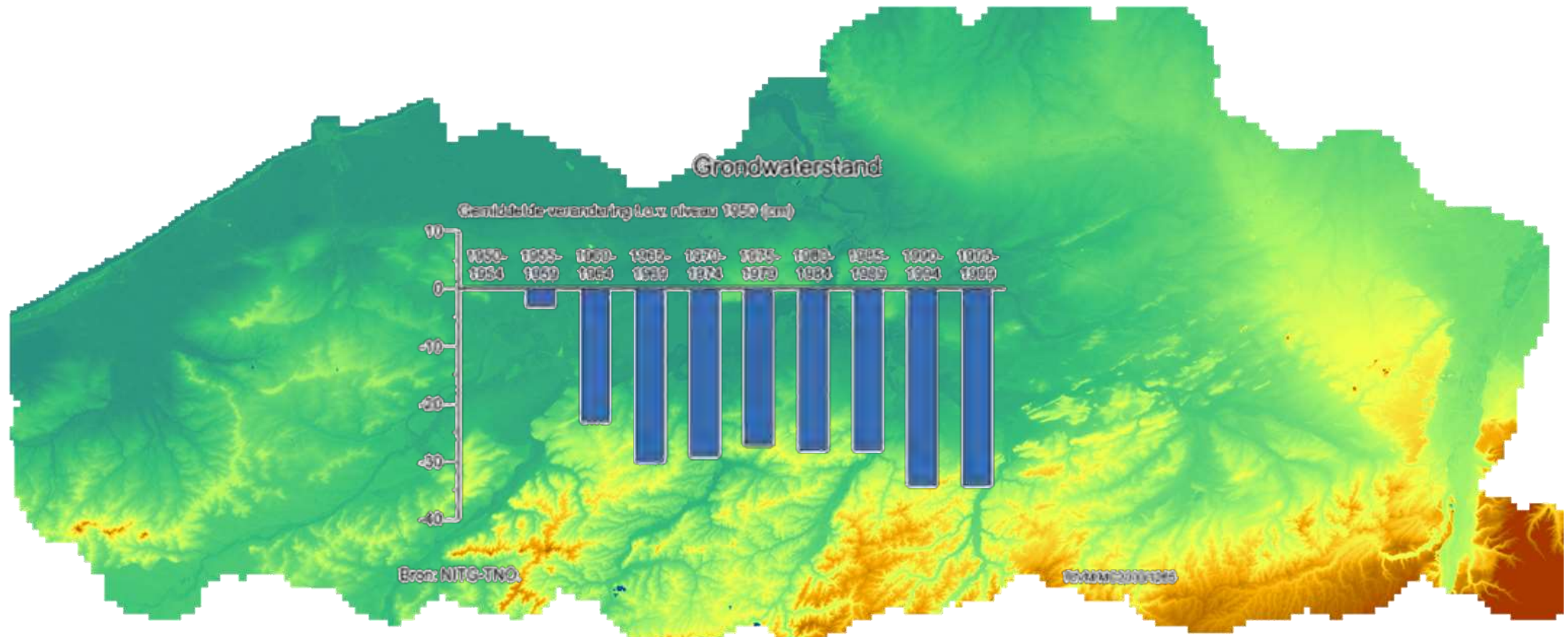
Kleine nete

Kanaal Bocholt-Herentals

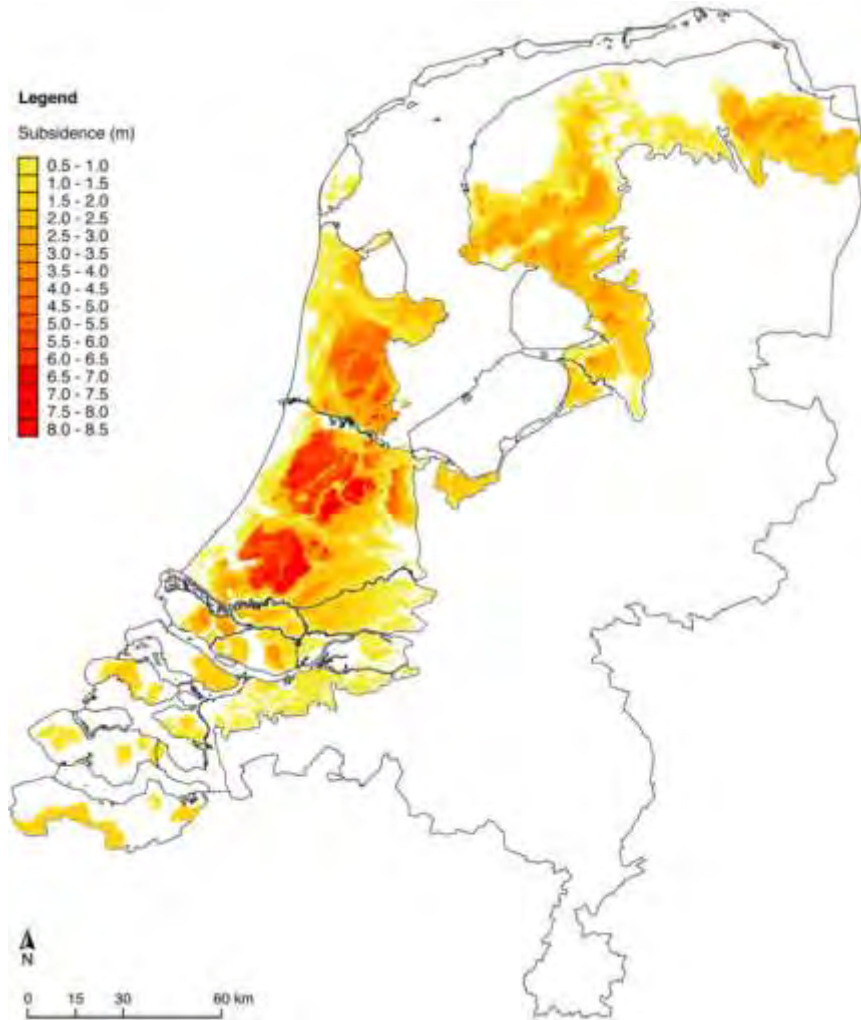
1890



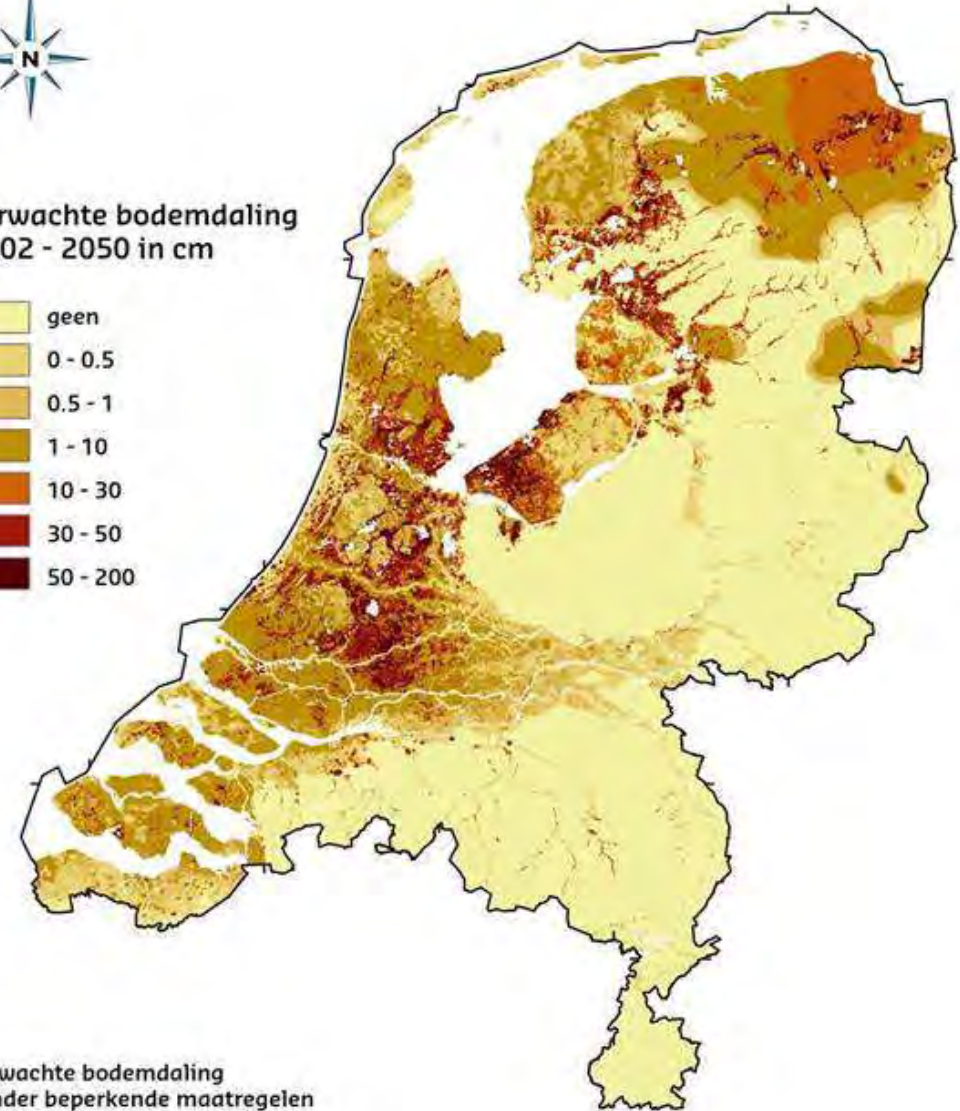
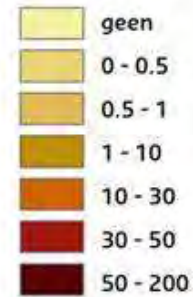
Grondwaterstandsveranderingen 1950-2000



Bodemdaling



verwachte bodemdaling
2002 - 2050 in cm



verwachte bodemdaling
zonder beperkende maatregelen



Beieren: 3 m verlies
sinds 1836

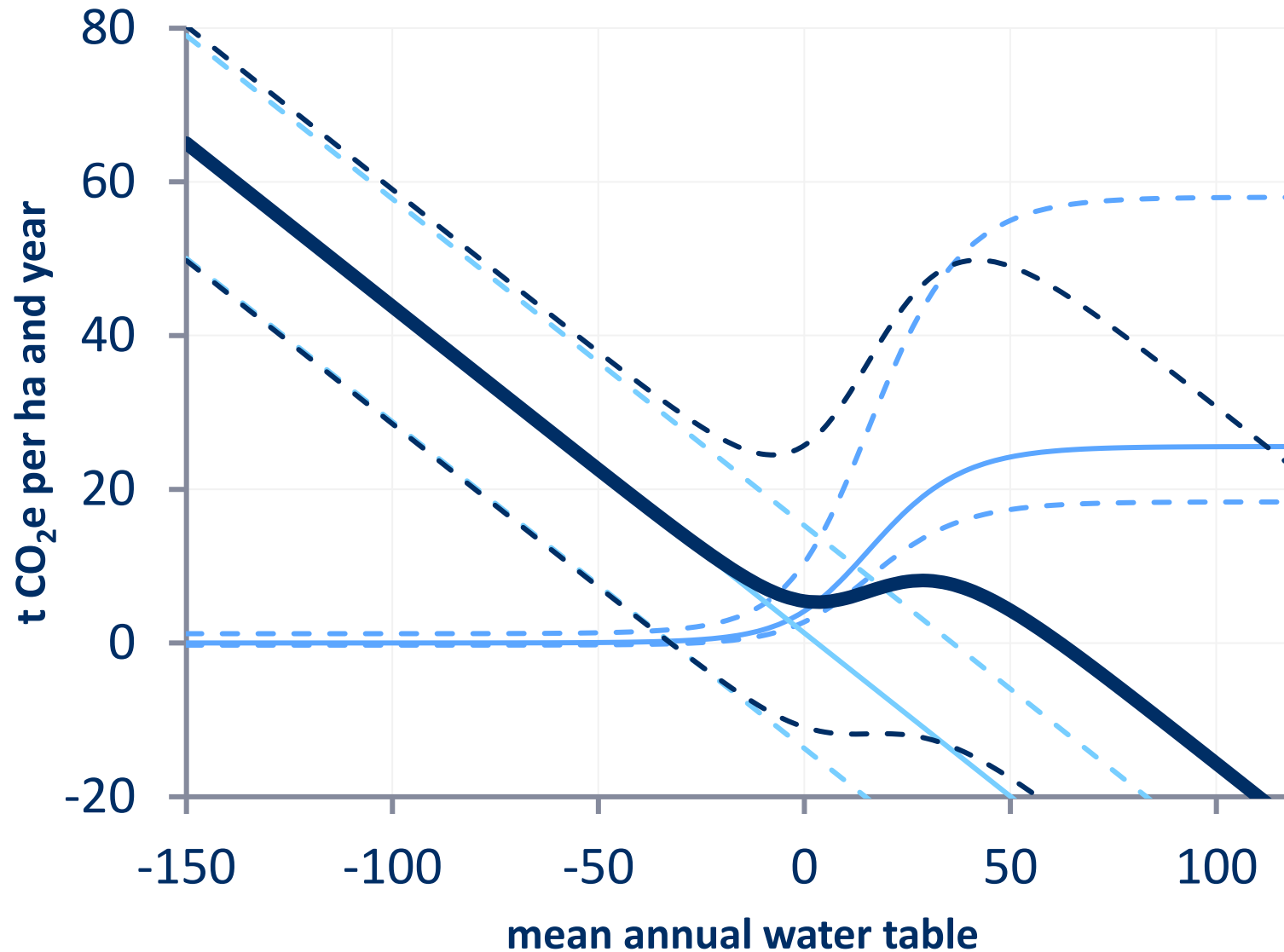


Nederland: 4 m verlies sinds
1500



UK: 4 m verlies sinds
1870

Deeper water table → more greenhouse gas emissions:
In Germany: every 10 cm deeper → 5 tons more



We onttrekken grondwater omdat het oppervlaktewater daarvoor onbruikbaar is geworden

Grondwaterverbruik



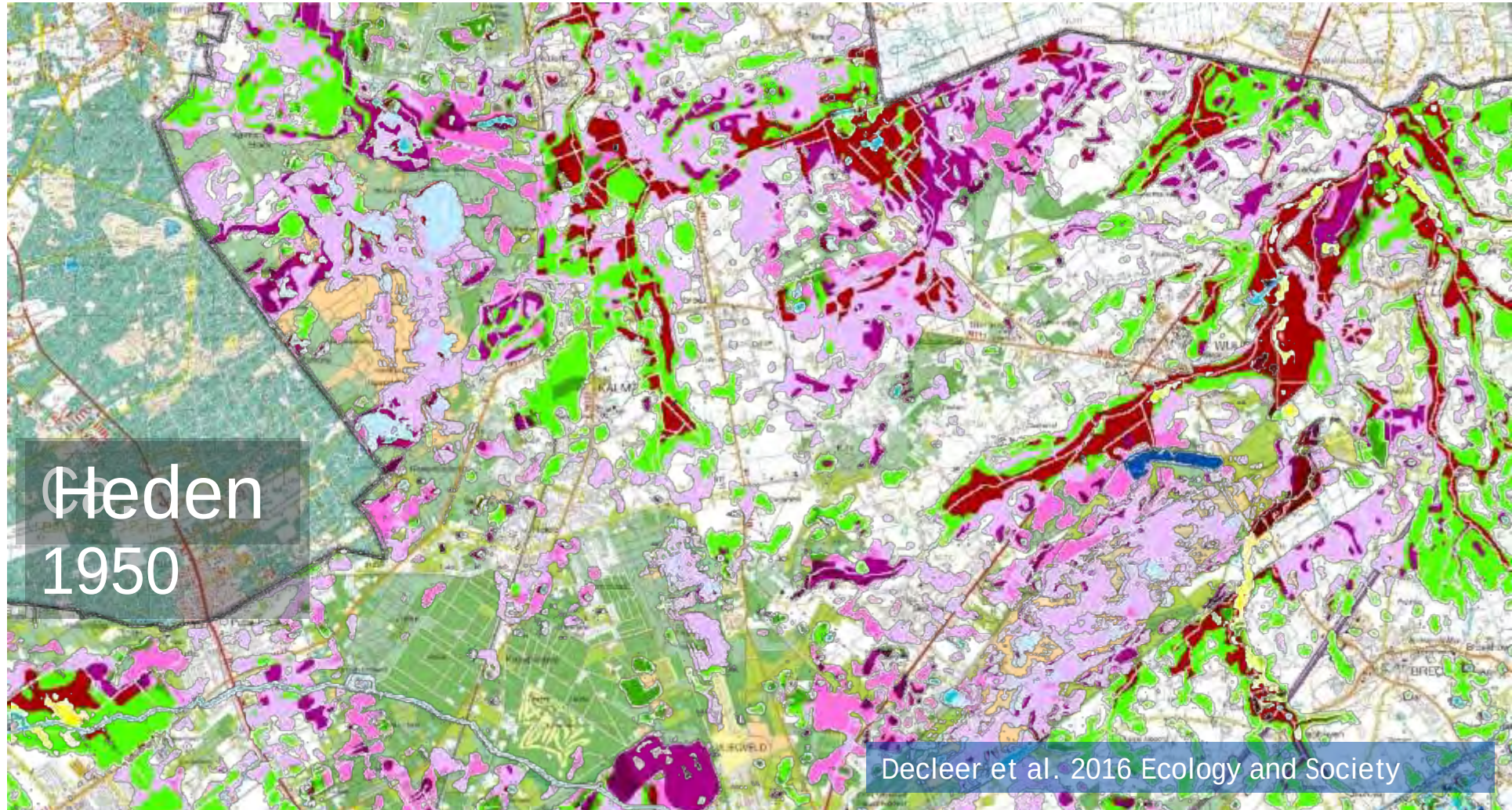
Bron: VMM

Ca. 1960

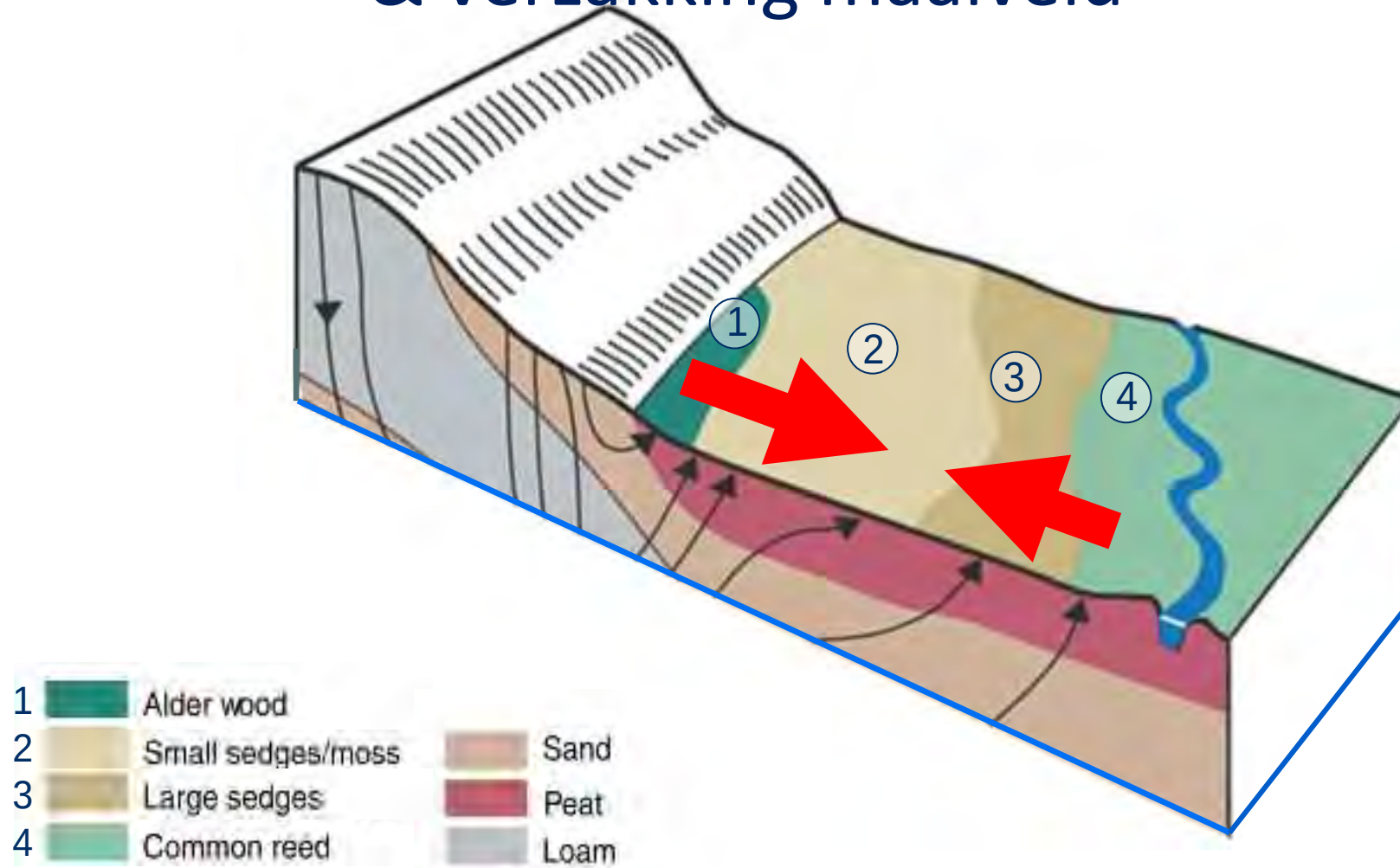


Huidige Situatie

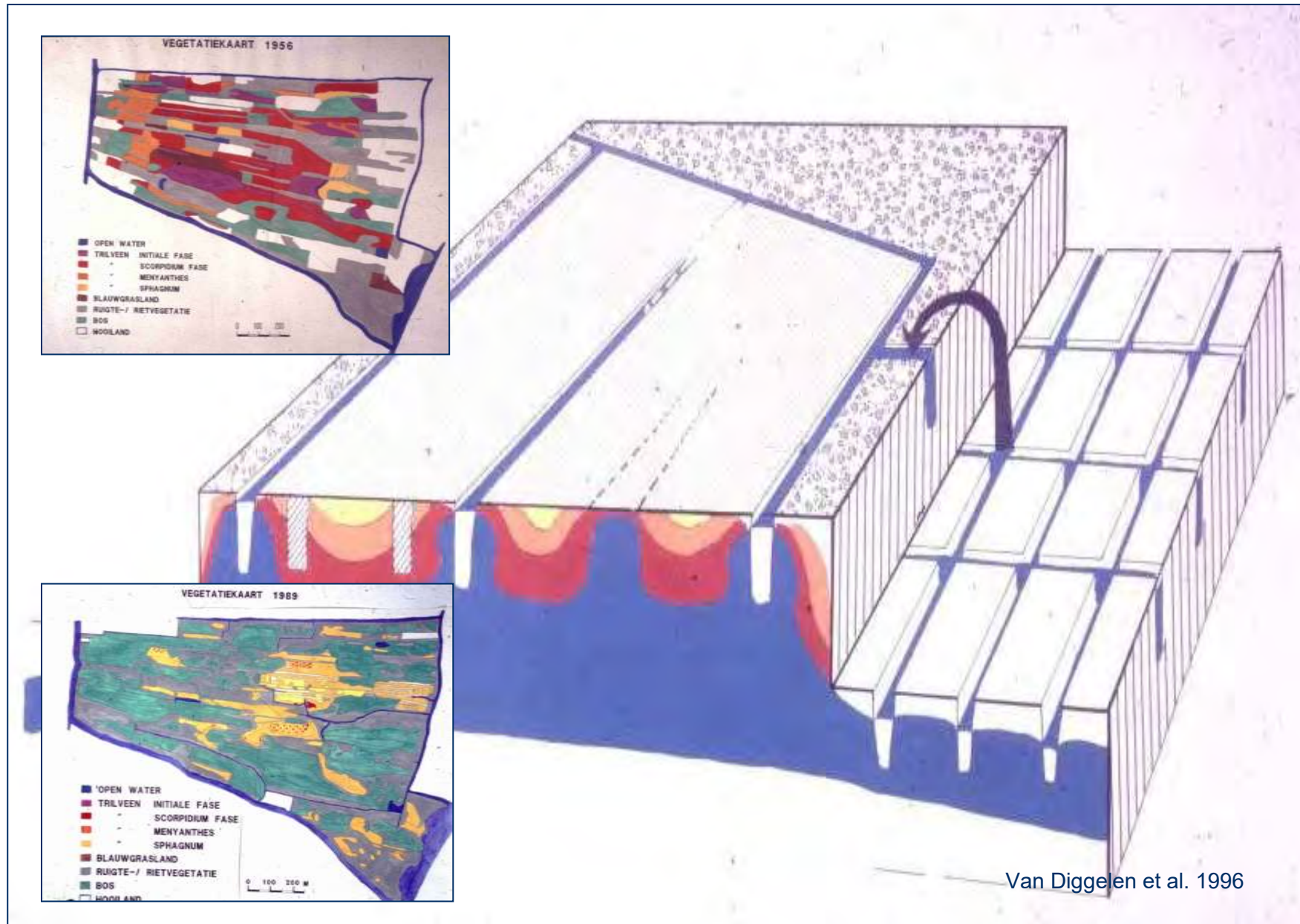
Wetlands Kalmthout Wuustwezel



Effecten verminderde grondwater toestroming & verzakking maaiveld



Veranderingen in pH/basen verzadiging



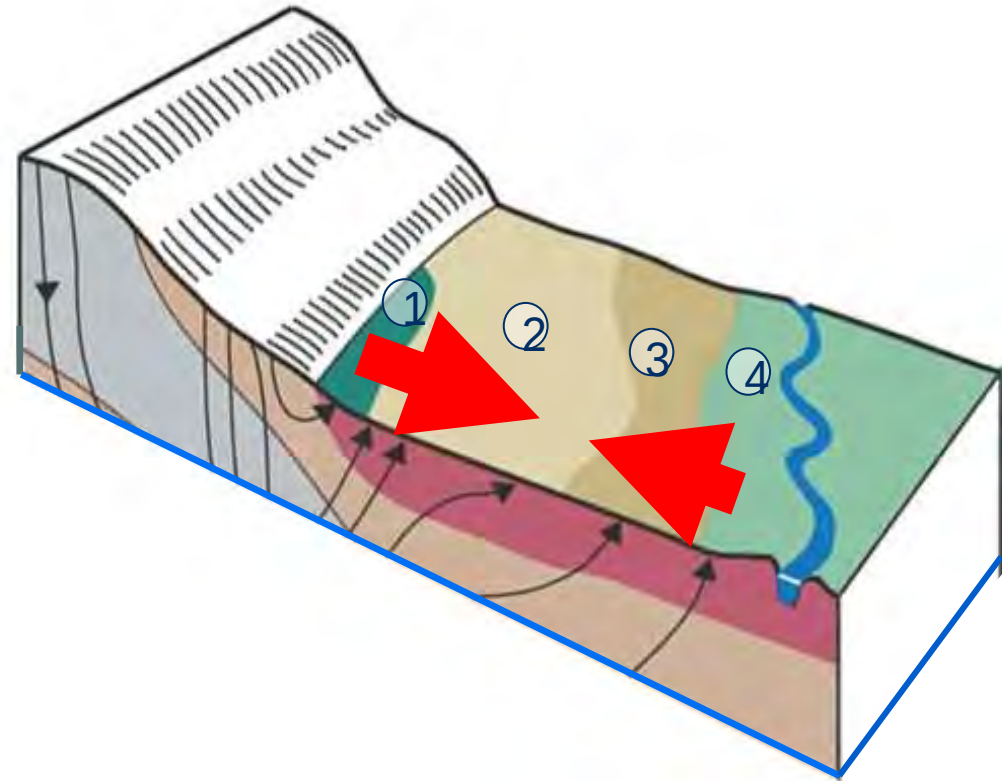
An aerial photograph of a river valley. A winding river flows through the center of the image, surrounded by lush green fields and dense forests. The landscape is a mix of open land and wooded areas, with the river acting as a central feature. The text is overlaid on a semi-transparent dark grey box in the center of the image.

De hele landschappelijke context in dalen zoals de Demervallei is veranderd. De ecologische konsekwenties zijn met name groot in de intermediaire zone met veel Rode Lijst soorten

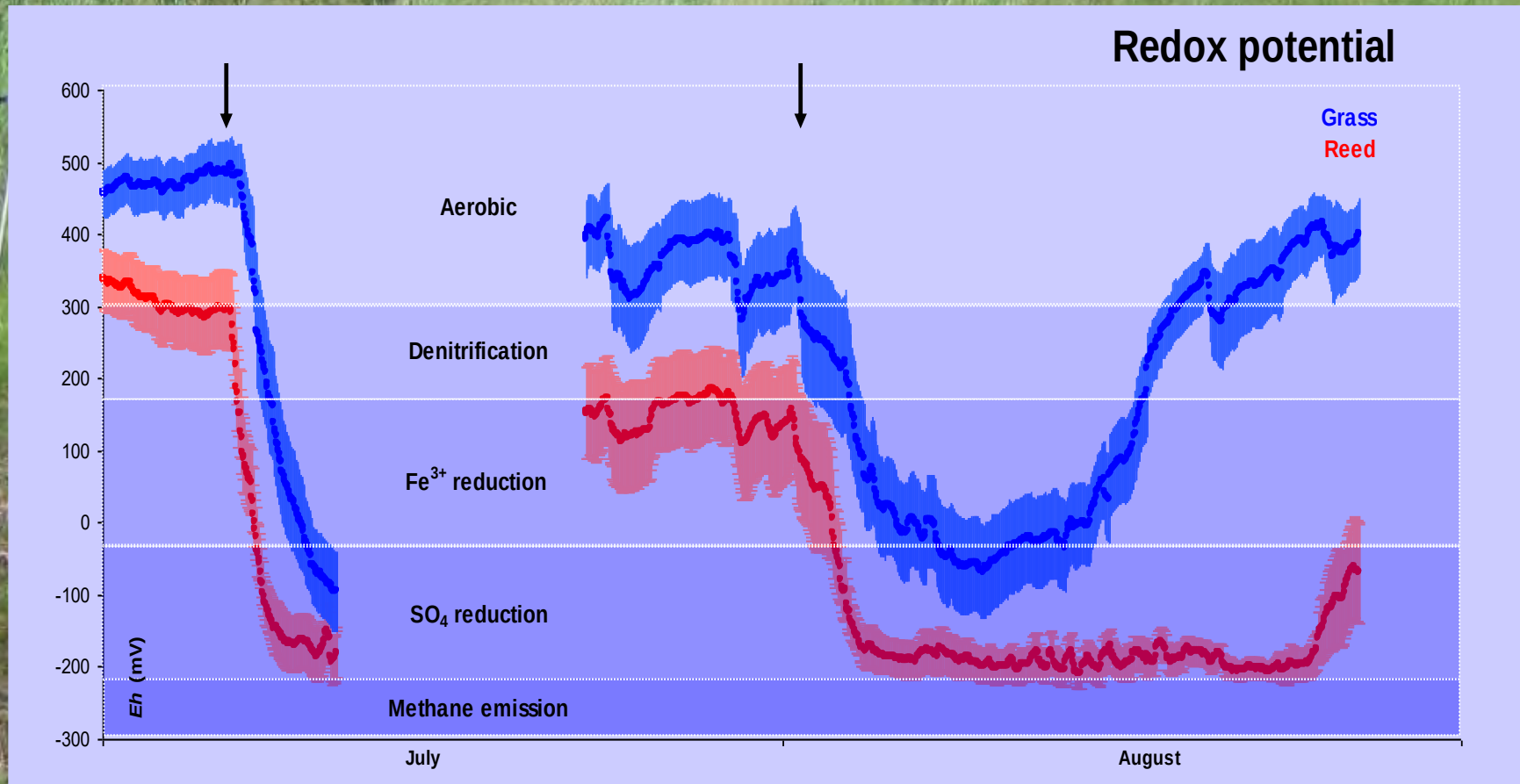
Is overstrooming met rivierwater een goede optie?

NEE

- De eutrofe zone verschuift nog verder naar het midden en verdringt de zone met Rode Lijst soorten nog meer door depositie van eutroof slib
- Anaerobe decompositie leidt tot snelle afbraak van bestaande vegetatie en veen: interne eutrofiëring en verhoogde broeikasgasemissies



Effecten van overstroming op redoxpotentiaal en afbraak organische stof



Waar dan wel water te bergen?

In de haarvaten van het systeem !



<https://www.integraalwaterbeleid.be/nl/bekkens/denderbekken/>

An aerial photograph showing a winding river or canal flowing through a lush green landscape. The river meanders through fields, some of which are brown, possibly due to being recently plowed or dry. There are dense clusters of trees and forests along the banks and in the background. The overall scene is a mix of natural and agricultural land.

Dank voor uw aandacht