



PILOT SITE DESIGN

SOERENDONK

SOERENDONK, THE NETHERLANDS



The site is situated besides the waste water treatment plant (capacity 38.000 inhabitant equivalent and 1.830 m³/h see <https://www.dommel.nl/soerendonk/>). Near the small river the Bulder Aa.

There are 2 sections with ditches, in which some reeds and duckweed are growing in the ditches. Cattail will be planted in spring 2020.

Water level can be regulated but depends on water availability in the area and the operation of the treatment plant. Water quality is monitored in the waste water treatment plant.



Size: 10.500 m²

Peat soil: Sandy soil

Crop type: Cattail

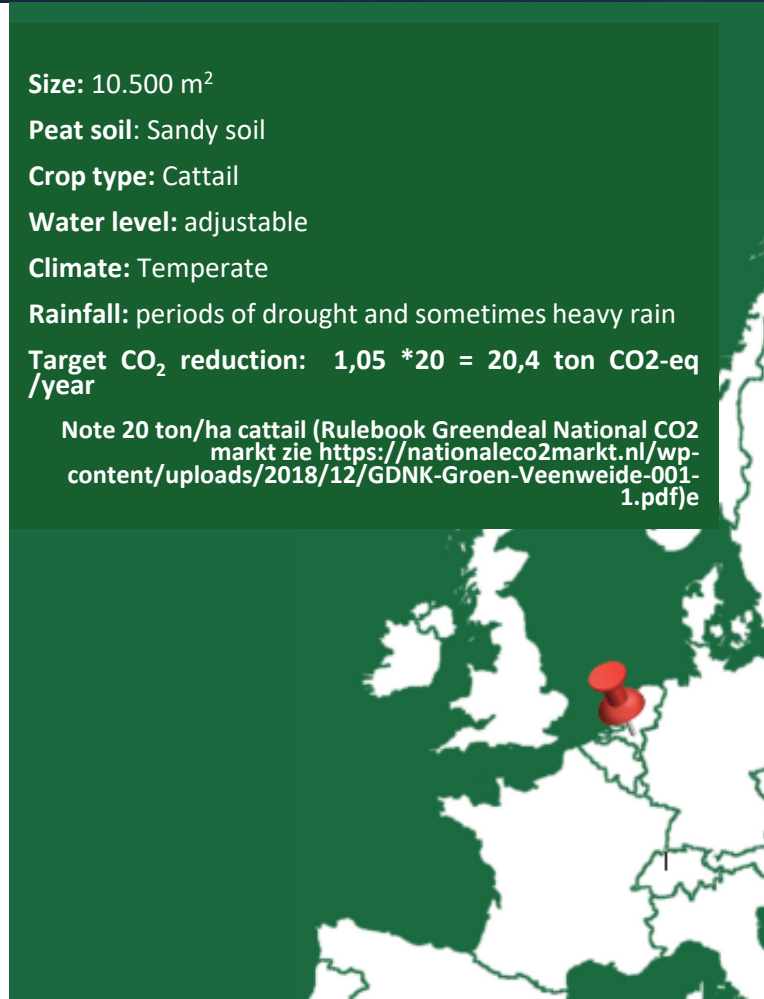
Water level: adjustable

Climate: Temperate

Rainfall: periods of drought and sometimes heavy rain

Target CO₂ reduction: 1,05 *20 = 20,4 ton CO₂-eq /year

Note 20 ton/ha cattail (Rulebook Greendael National CO₂ markt zie <https://nationaleco2markt.nl/wp-content/uploads/2018/12/GDNK-Groen-Veenweide-001-1.pdf>)



CHALLENGES

CLIMATE CHANGE

Summers of 2018 and 2019 were very dry. But some heavy rains may also occur in this area as occurred in summer 2016.

WATER QUALITY & BIODIVERSITY

The ecological zone is meant to bring life back into the treated water. Water quality and Biodiversity is are of goals.

INTERACTION WITH WASTEWATER TREATMENT

The water level and quality in the cattail basin depends and on the operation of the wastewater treatment plant and on water availability in the area. Both are monitored.

GOALS

- Learning how to grow and harvest cattail
- Production of cattail for start-ups in the region

BUSINESS MODELS

- Cattail for furniture, insulation, packaging or bio-composites.
- Cattail for water quality
- Cattail for biodiversity

PILOT SITE TIME LINE

2019	Identifying pilot site Selection of crop
2020	Spring planting cattail Contact with regional farmers and start-ups Harvest



Layout of wastewater treatment plant

