

# Restoration on tidal rivers in Flanders

## Case study on the Grote Nete

Michaël Van Rompaey

*Tractebel Engineering*

Maarten Jans

*Waterwegen en Zeekanaal NV*





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## Case study on the Grote Nete

### OVERVIEW

#### ▪ Sigma Plan

- Safety & Nature in the Scheldt Estuary
- Enhancing European Biodiversity

#### ▪ Grote Nete valley

- Insights in water course management
- Nature where possible and protection where needed
- Process overview
- Detailed land use plan

#### ▪ Conclusions

- Framework
- Grote Nete valley

# Sigma Plan

## Safety & Nature in the Scheldt Estuary

project areas of the Sigma Plan



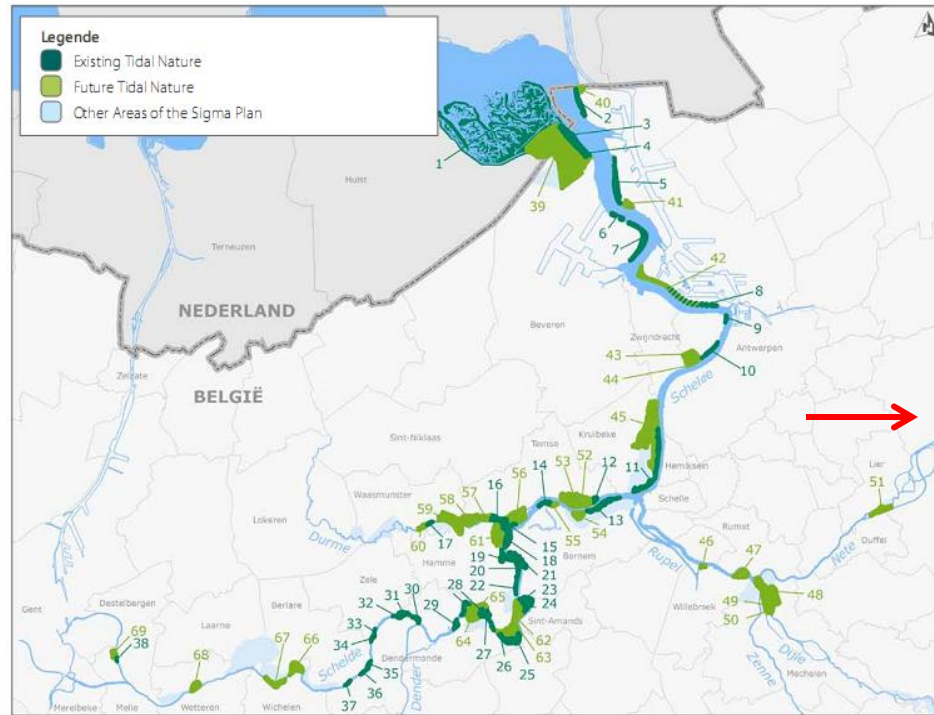
- **1976** (start) – **2005** (actualisation) – **2030** (completion)
- **500+** kilometers river dykes
- **5,000** hectares flood control and nature areas



# Sigma Plan

Enhancing European biodiversity

- **Natura 2000 in Flanders**
- **Scheldt Estuary a self-sustaining ecosystem**



*existing and future tidal nature in the Scheldt estuary*

**FLANDERS**  
 100,000 hectares  
 Special Protection Areas  
 Special Areas of Conservation

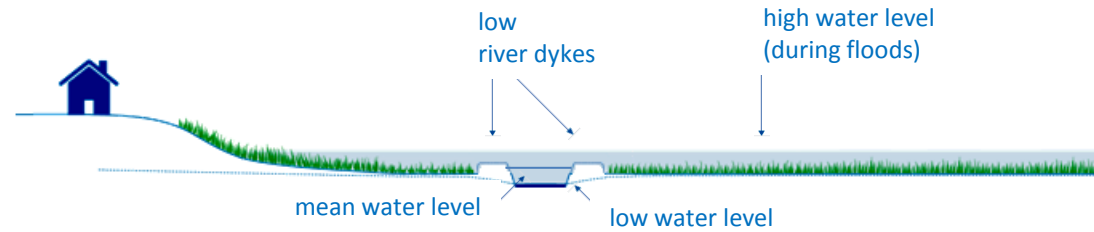
**SIGMA PLAN**  
 2,000 hectares tidal nature  
 3,000 hectares wetlands

**VALLEY OF THE GROTE NETE**  
 850 hectares wetlands

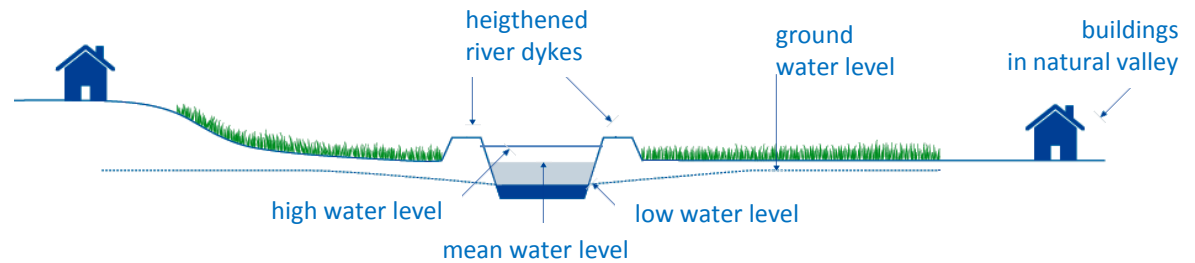
# Grote Nete valley

## Insights in water course management

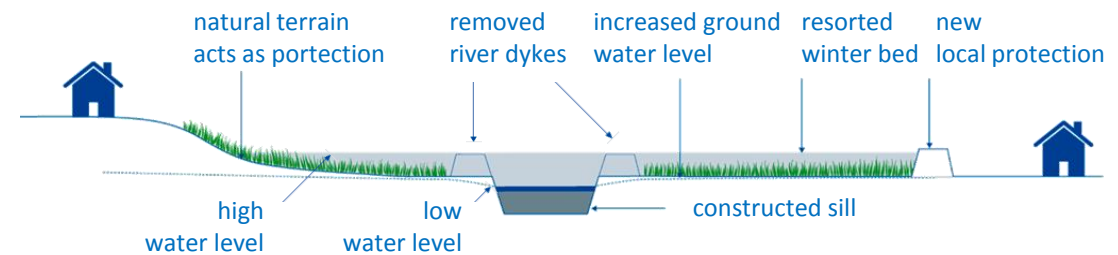
### ▪ historical situation



### ▪ current situation

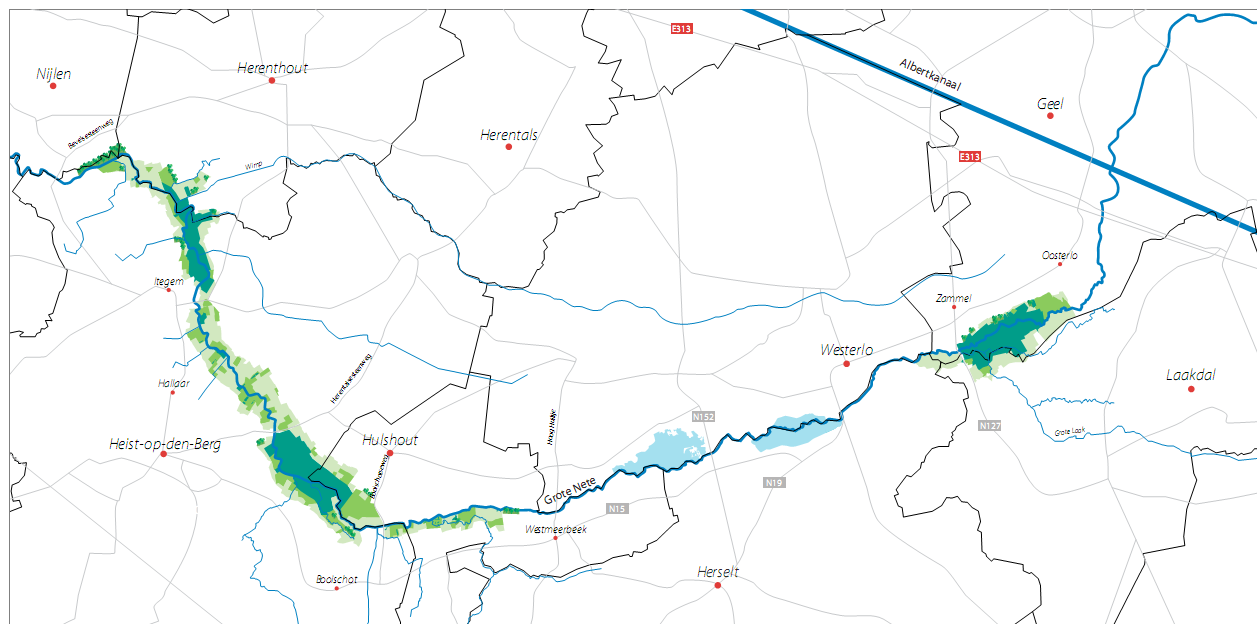


### ▪ target situation



# Grote Nete valley

Nature where possible and protection where needed



overall future layout of the Grote Nete valley

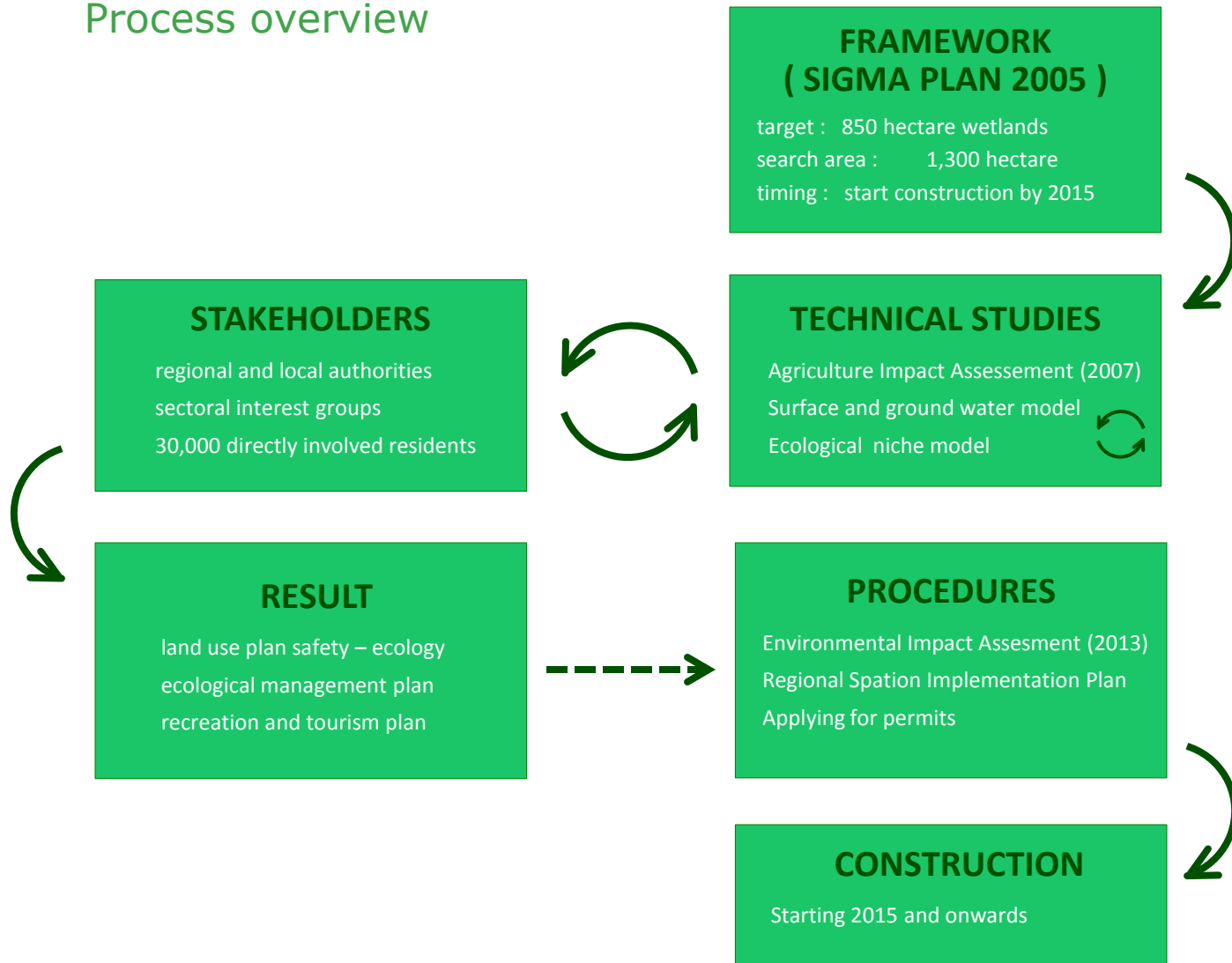
## Legend

- 80 hectares of alluvial and oak forests
- 400 hectares of lowland hay meadows and marsh marigold grass land
- 120 hectares of hydrophilous tall herb fringe communities
- 250 hectares of reed beds
- 140 hectares of flood control areas + restored winterbed



# Grote Nete valley

## Process overview

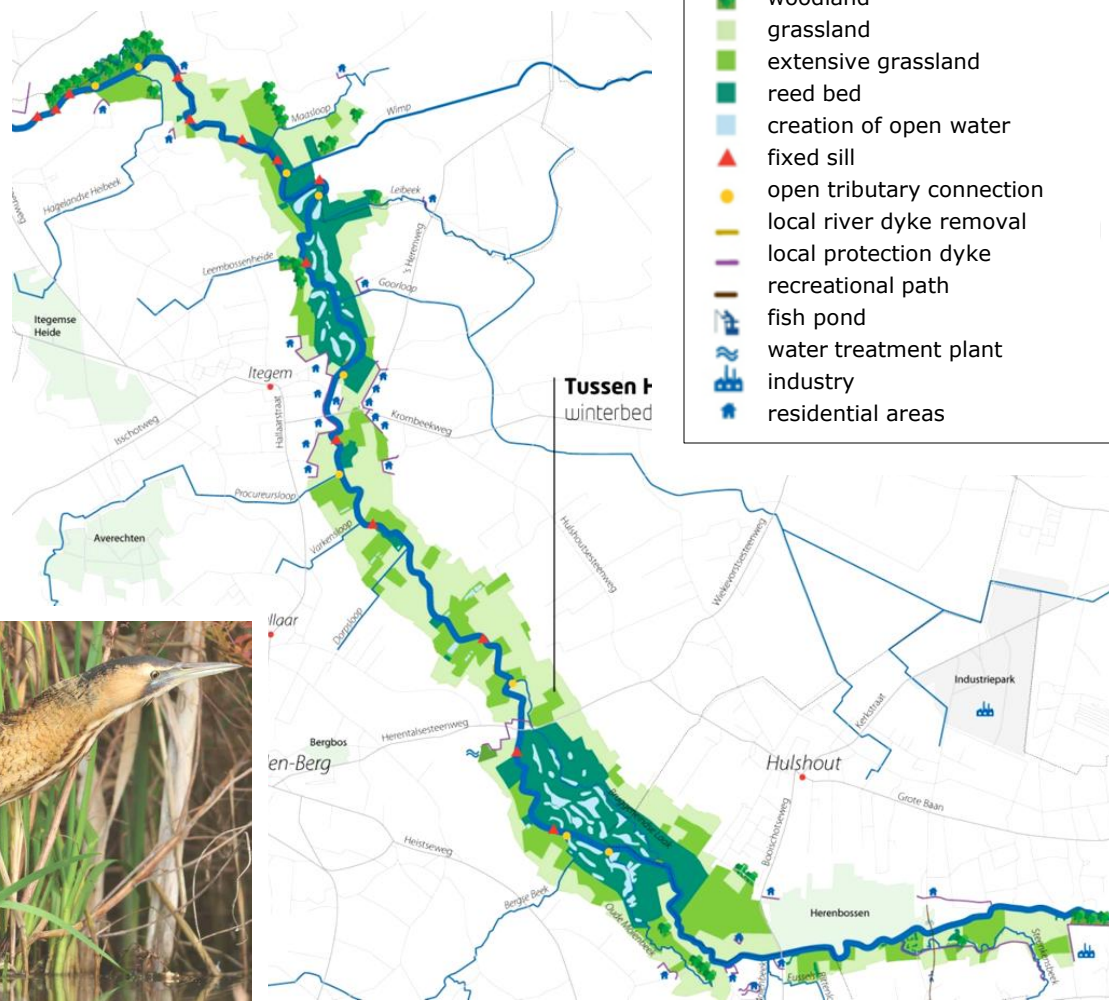


# Grote Nete valley

## Detailed land use plan



Great Bittern



detailed land use plan for the downstream part of the valley of the Grote Nete



# Conclusions

## Framework

### ▪ firm basis

- extensive multidisciplinary system studies
- legal policy decision

### ▪ uniform process layout

- preparation
- consultation
- formal procedures
- realisation

### ▪ main goal

- Safety & Nature in Scheldt estuary
- robust and self-sustaining ecosystem

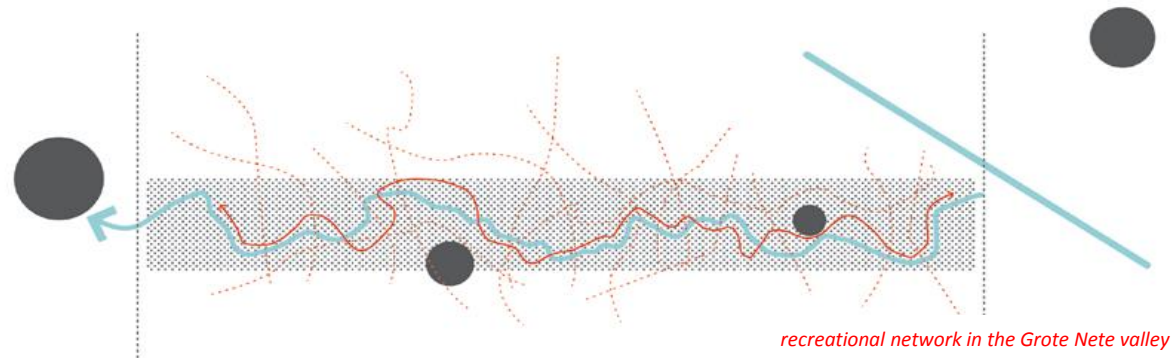


*process layout  
Sigma Plan projects*

# Conclusions

## Grote Nete valley

- **added value of a framework**
  - places the contribution of an element in the complete picture
  - provides necessary leverage to get things done
  - ensures uniform approach to attain a conclusive result
- **invest in a thorough preparation**
  - level of detail : initially underestimated
  - multidisciplinary : water and ecology models
  - result : conclusive project layout
- **local involvement is indispensable**
  - regional : authorities already familiar with Sigma Plan
  - local : creation of social support was needed
  - result : social optimum at beginning of formal procedures



*recreational network in the Grote Nete valley*