Boskalis
Dredging & Marine Experts

PROJECT SHEET

MUNICIPALITY OF UTRECHTSE HEUVELRUG, NETHERLANDS
ECOLOGICAL DEVELOPMENT OF THE AMERONGSE BOVENPOLDER

INTRODUCTION

The ecological development of the Amerongse Bovenpolder nature reserve is the first Dutch project to be implemented under the European Water Framework Directive. With this project, Boskalis is contributing to the realisation of a part of the "Netherlands national network of protected areas". Thanks to this intervention, the river landscape will regain its original natural dynamics.

NEW HABITAT FOR PLANTS AND ANIMALS

The Amerongse Bovenpolder nature reserve will be gradually transformed into a riverbank reserve. A partially new "seep-trench river" covering nearly six kilometres is being dug. This river will be fed by clean water seeping from the Utrechtse Heuvelrug push moraine (a ridge of hills) and the Rhine. This will result in high and low water levels, sand and sludge will be both deposited and washed away, and natural grazing will promote a wide variety of vegetation. In the future, this area will also feature almost 10 hectares of swamp and gullied landscape.

CONTRACT FOR THE ECOLOGICAL DEVELOPMENT OF THE AMERONGSE BOVENPOLDER

The award criterion for this project was MEAT (Most Economically Advantageous Tender). Boskalis achieved the highest score both in terms of price and quality. This project is being carried out under a Design & Construct contract, to which the UAV-GC 2005 [Uniform Administrative Conditions for Integrated Contracts 2005] apply. It has also been agreed that Boskalis will be responsible for the marketing of the materials.

Jaring van Rooijen, DLG project manager:
"The Boskalis employees are very experienced and, thanks to this, know how to deal effectively with unforeseen circumstances that arise during the works."


A

FEATURES

Client	Government Service for Sustainable Rural Development (DLG)
Location	Municipality of Utrechtse Heuvelrug
Period	2011-2015
Contractor	Boskalis bv
Type of contract	Design & Construct in accordance with UAV-GC 2005

B

A Plenty of breeding opportunity for the kingfisher thanks to the transformation of the existing steep bank.
B The work on location

PREPARATION PHASE

Water quality and respect for the protected habitat areas were the main considerations in the planning and design of the floodplain and side trench. It also needed to be insured that the groundwater would not seep through the dike and cause problems for areas protected by the dike. Improved optimisation of fish migration and water control were also part of this phase.

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PLANNING 2011 - 2015

- Excavations and dredging, and adjustments to small civil engineering works
- (September 2012 - March 2013)
- Ecological and hydrological monitoring (October 2011 - December 2015)
- Redesign Put van Schoonhoven (July 2015 - December 2015)
- Market the minerals (phased) (September 2012 - December 2015)
- Optimisations - extra scouring (2015)

Ben Peeters, technical manager, design at Boskalis: *"Boskalis has been able to convincingly demonstrate that the seep trench system will work according to requirements and that, through monitoring, optimisations in hydrological and ecological developments can be realised. It was especially on these points that we scored well in terms of MEAT, in addition to having the lower tender price."*

REALISATION

- Develop a seep-fed water system
- Dredge the old river channel De Hank and connecting parts, and transport the spoil for use, in part, in the works (former sand extraction pit Put van Schoonhoven) and process remaining spoil outside the project
- Excavate and connect new part (six kilometres) of the seep trench with a periodically flooding river bank and an inspection access path
- Design and construct facilities in the new area for two intersections with existing Gasunie pipelines and for two crossings for access to the enclosed parcel of land for maintenance access and livestock
- Excavate shallow spawning grounds topped with sand
- Make the existing civil engineering works passable for the fish
- Install adjustable water barriers that are passable for fish
- Shoal, and ecologically redesign Put van Schoonhoven, including the processable spoil from De Hank. A portion of the spoil from De Hank falls in the environmental class above the intervention value (>NT, where NT = unusable) and this must be delivered to an authorised treatment facility
- Create kingcup grassland and pools
- Transform existing steep bank into suitable breeding area for the kingfisher
- Repair/finish level ground area
- Additional activities as required

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