

# Management of public forests on Natura 2000 sites in South East Belgium



Wallonie



Service public  
de **Wallonie**

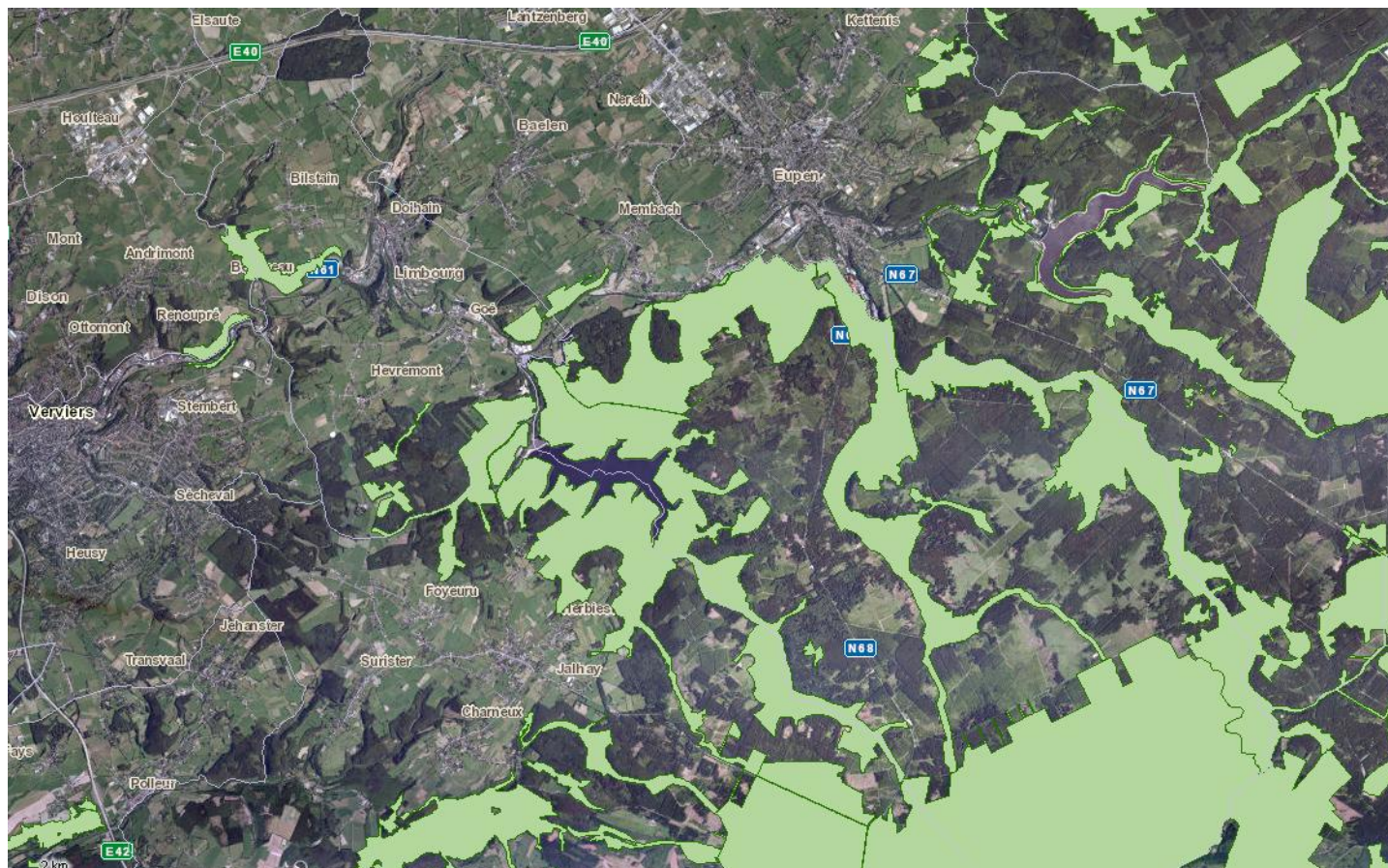
## State of Natura 2000 sites in Wallonia (South Belgium)

- **Natura 2000 sites cover 220.943 ha in Wallonia**
- **163.000 ha (74 %) of Natura 2000 sites in Wallonia are occupied by forests**
- **From those 163.000 ha, around 63 % lie in public forests which are managed by the regional Forestry Department DNF (Département Nature et Forêts)**

# NATURA 2000 SITES IN THE AREA OF LIEGE



# HERTOGENWALD STATE FOREST (14.000 HA) SEVERAL COMMUNITY FORESTS (JALHAY, LIMBOURG, EUPEN, RAEREN, ...)



## **PRACTICAL FOREST MANAGEMENT MEASURES IMPLEMENTED IN NATURA 2000 SITES MANAGED BY DNF**

- **(1) Combine thinning operations and the maintenance of deadwood trees and trees of high biological value**
- **(2) Identify and establish forest reserves**
- **(3) Enhance natural regeneration of forest habitats (e. g. Luzulo-Fagetum)**
- **(4) Clearcut Norway spruce stands in river valleys and on peat soils, control further spruce regeneration**
- **(5) Diversify forest edge vegetation**
- **(6) Adapt the timing of silvicultural and logging operations to avoid interference with the reproductive season of birds**

## (1) COMBINE THINNING OPERATIONS AND THE MAINTENANCE OF DEADWOOD TREES AND TREES OF HIGH BIOLOGICAL VALUE

- **During the thinning operations, deadwood trees and trees of biological interest are marked and registered**



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- **Systematical registration of the girth (diameter) and the tree species to know the volume by hectare**
- **Objectives: at least 2 deadwood trees by hectare and at least 1 « biological » tree par 2 ha**

*« Biological tree » = decaying tree, tree with cavities, large tree, tree with key micro-habitats*





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## **Lessons learnt/good practice tips:**

- **Easy to handle as performed during the routine thinning operation (team work by 3-4 forest guards)**
- **Former management measures left sometimes quite « clean » forests where fixed objectives cannot be reached in 1 thinning rotation (6 years)**
- **In the beginning, low acceptance by forest loggers and lumberjacks**
- **A favorable conservation status is combined with the commercial management of forests in Natura 2000 sites**

## (2) IDENTIFY AND ESTABLISH FOREST RESERVES

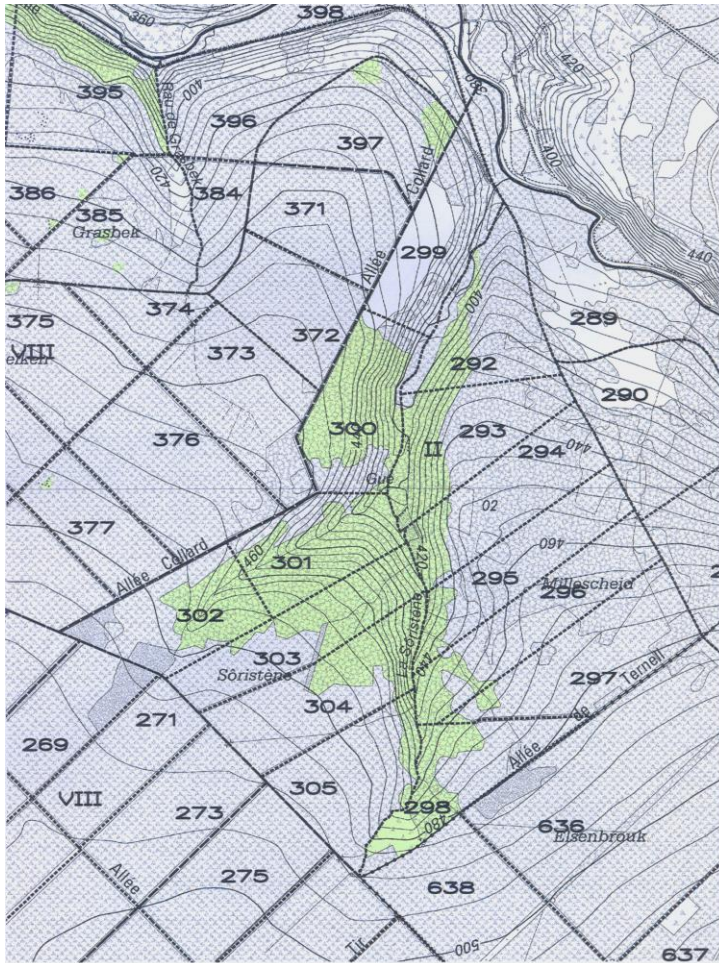
- **Take into account rare, sensitive or representative forest ecosystems**
- **Protect key biotopes such as small water courses, mires, sources, fens, peat wetlands, forest ponds**
- **Regional Forest Law (2008): at least 3 % of the broadleaved forests for each forest owner have to be declared « forest reserves ». These reserves are preferably installed in Natura 2000 sites as subsidies are granted for all surfaces exceeding the legally binding percentage.**

## (2) IDENTIFY AND ESTABLISH FOREST RESERVES



Vaccinio-Betuletum pubescentis at Bongard, Hertogenwald state forest

## (2) SORISTENE FOREST RESERVE (51 HA) WITHIN THE HERTOGENWALD STATE FOREST



## (2) IDENTIFY AND ESTABLISH FOREST RESERVES

### Lessons learnt/good practice tips:

- **Forest reserves are often established on unsuitable production sites: steep slopes, wet soils or rocky soils where logging or skidding operations are expensive and/or difficult**
- **There is thus no significant interference with the commercial function of the forest**

### (3) ENHANCE NATURAL REGENERATION OF FOREST HABITATS (E. G. LUZULO-FAGETUM)



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- **Realise strong thinning schemes to improve light conditions on the forest floor**
- **Average thinning yield: 35 m<sup>3</sup>/ha/thinning ( $\Delta G = \sim 5 \text{ m}^2/\text{ha}$ ).**
- **Basal area objective for the natural regeneration of beech forests:  $G = 19 \text{ m}^2/\text{ha}$ .**
- **Diversify the forest structure by a patchwork of small clearings, underbrush, tall trees.**



### **(3) ENHANCE NATURAL REGENERATION OF FOREST HABITATS (E. G. LUZULO-FAGETUM)**

#### **Opportunity:**

- **In the Ardennes and during the last decade, forest tree fructifications (beech, oak) occur more frequently**

#### **Lesson learnt :**

- **On poor soils, excessive game density (red deer) jeopardizes natural regeneration of indigenous broadleaved forests – there is a sharp need of regulation by hunting (!)**

## (4) CLEARCUT NORWAY SPRUCE STANDS IN RIVER VALLEYS AND ON PEAT SOILS - CONTROL SPRUCE REGENERATION ON THESE SITES



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- **Establish ecological corridors between key areas in forests**
- **Improve the quality of water courses by better luminosity and a natural riparian tree vegetation**
- **Restaure mires and peat bogs (LIFE projects) on soils which are unsuitable for *Picea abies* (windfalls, insect attacks)**



## **(4) CLEARCUT NORWAY SPRUCE STANDS IN RIVER VALLEYS AND ON PEAT SOILS - CONTROL SPRUCE REGENERATION ON THESE SITES**

### **Opportunities and lessons learnt:**

- Naturally occurring tree and shrub species are well suited to local soils and ecosystems**
- Excessive deer densities slow down natural regeneration of broadleaved trees in valleys**
- Spruce removal is in favour of habitats and species for which Natura 2000 sites were designated: Black stork (*Ciconia nigra*), Grey headed woodpecker (*Picus canus*), Grey shrike (*Lanius excubitor*), etc.**
- High heritage value of open landscapes in forest areas (positive effects on recreation and on visitors) – example: restauration of peat bogs around the Hautes Fagnes plateau**

## (5) DIVERSIFY FOREST EDGE VEGETATION



**Firebreak at Porfays, Hertogenwald state forest**

## **(5) DIVERSIFY FOREST EDGE VEGETATION IN NATURA 2000 SITES**

### **Lessons learnt:**

- **Internal forest edges provide storing opportunities for timber and logs**
- **Internal forest edges provide habitats for birds and insects and natural grazing areas for deer – this reduces the grazing/browsing pressure on forest ecosystems**
- **Forest edges along forest tracks prevent excessive shading and humidity – reduction of track maintenance costs.**

## (6) ADAPT THE TIMING OF SILVICULTURAL AND LOGGING OPERATIONS TO AVOID INTERFERENCE WITH THE REPRODUCTIVE SEASON OF BIRDS

- **logging in broadleaved forests is not allowed from April 1st to June 30th (July 31st in selected areas)**
  - **opportunity: logging allowed in coniferous forests**
- **no logging around occupied black stork (*Ciconia nigra*) nests**
- **no forest tending operations in young stands during the bird nesting period**
  - **opportunity: alternative works during that period (forest road maintenance, tree planting, etc.)**

## CONCLUSIONS

- **In Natura 2000 forest sites, a favorable conservation status can be easily maintained in combination with the commercial management of forests.**
- **In public forests of Wallonia, the Natura 2000 status is strictly compatible with multifunctional forest management. Natura 2000 goes along with well-managed human activities such as forestry, tourism and hunting.**

