Nature Conservation Project Upper Treene Landscape

- Large Scale Nature Conservation Project

- Nature Conservation Project Upper Treene Landscape
  - The Landscape of the Upper Treene
  - Maintenance and Development Plan
  - Protection of Land
  - Measures for Maintenance and Protection
  - Realisation of the Project

- Nature Conservation Association Upper Treene Landscape

Large Scale Nature Conservation Project

- In general: Nature conservation is task of the federal states

- Large scale nature conservation project is a federal assistance program of the Federal Republic of Germany with the help of the federal states (this is in case of the Upper Treene Landscape: Schleswig-Holstein)

- Aims:
  National important landscapes with their characteristically plant and animal communities shall be protected as part of the natural heritage of Germany.

- Preconditions:
  Large scale, natural or nearly natural parts of landscape have typical biotopes with typical species of great importance not only for the region. Wild living species of national and international importance shall be protected and supported within their characteristically biotopes.

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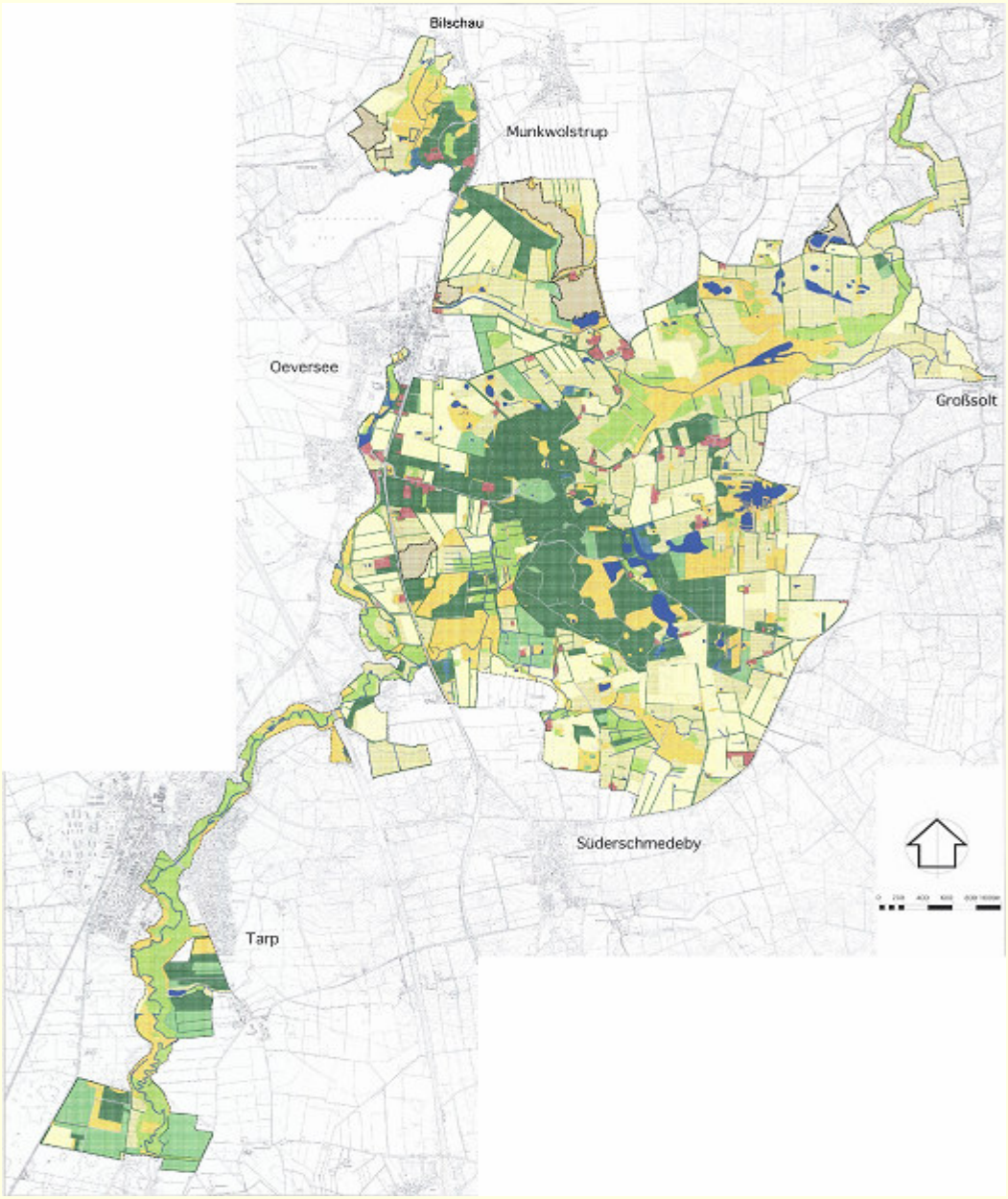
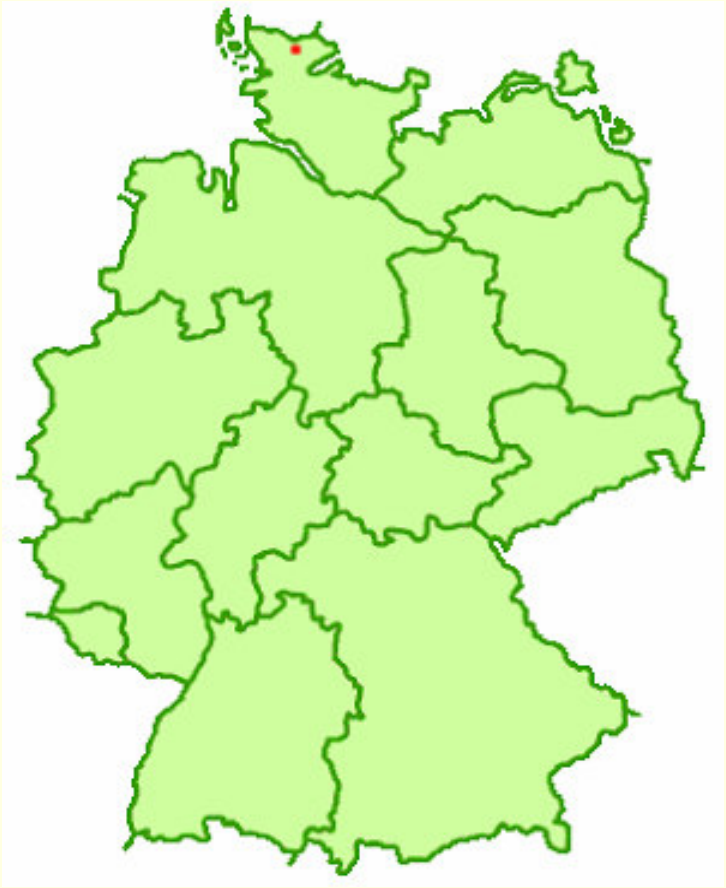
Träger des Naturschutzgroßprojektes



Location of the Upper Treene Landscape



Lake Treßsee, a subglacial basin in front of the glacier stop

the spring of the river Treene, with its siltation zone, wet and moist grassland and heathlands on dunes

The Treene in its small valley laying in the weichselian landscape

moist or wet grasslands (used or abandoned); beech woods and coniferious forests at the slopes

The central wood “Frörup Holz” sits on a group of push end moraines

beech and oak woods, forests with conifers; integrated mires and heathlands as well as dry or moist grasslands; reduced water run-off

Wood on a end moraine; agricultural used land;

gravel exploitation

Maintenance and Development Plan "Upper Treene Landscape"

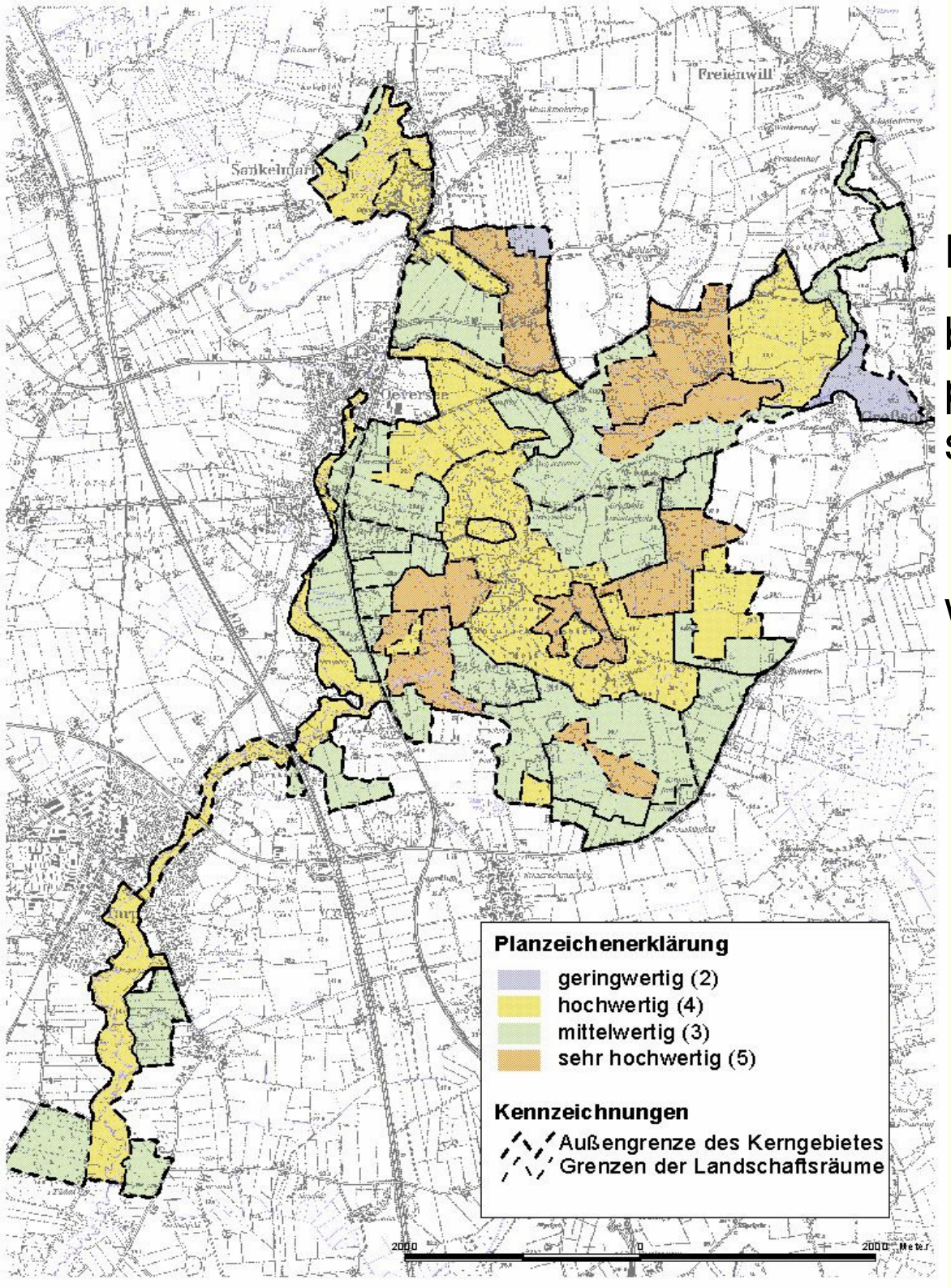
- Documentation, e.g.:
  - Biotic parts
    - Flora: vegetation types, small scale structures, vegetation composition in transects
    - Fauna: mamals: otter, water shrew, bats birds; reptils; amphibians; fishs and lampreys; limnic macrozoobenthos; dragon flies; butterflies; ground beetles; xylobiontic beetles; bees
  - Mapping of the structures in the river (e.g. vegetation, pottwholes, structures of gravel or sand, roots of elders, fixed banks)
  - Edaphic characterisation of the river lowland and of some mires
  - Description of the hydrological situation, simulation of water surfaces before and after increasing the water level
- Ecological evaluation
- Definition of maintenance and development aims
- Suggestion of maintenance and development measures

Biotopes in the Upper Treene Landscape which are legally protected in the Federal State Schleswig-Holstein

Biotopes	Area [ha]	Area [%]
Bog	62.5	3.3
Swamp	40.8	2.1
Swamp wood	20.5	1.1
Reed	44.7	2.3
Meadows with rush and sedge	28.6	1.5
Biotopes with sources	0.3	0.0
Silting zone with floating plants	4.3	0.2
Bog forest	5.6	0.3
Swamp forest	1.2	0.1
Heathland	5.1	0.3
Dunes in inland	30.4	1.6
Steep slopes in inland	25.0	1.3
Dry grassland	9.8	0.5
Not used biotopes	91.1	4.7
Total	**370.6**	**19.3**
Moist grassland with federal protection	175.1	9.1

Biotopes listed in the European Flora-Fauna-Habitat-Directive found in the Upper Treene Landscape

Vegetation type	FFH	Area [ha]	Area [%]
Dunes in inland with dry heathland	2310	18.2	0.9
Dunes in inland with open grasslands	2330	6.7	0.3
Tall forb ruderal habitas on wet soils	6430	21.5	1.1
High bogs and transition bogs	7120	62.4	3.3
Acidophilous beech woods	9110	79.4	4.1
Beech woods with *Galium odoratum*	9130	1.8	0.1
Total		190.2	9.9



Obere Treene Landschaft
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Ecological Evaluation of the core area

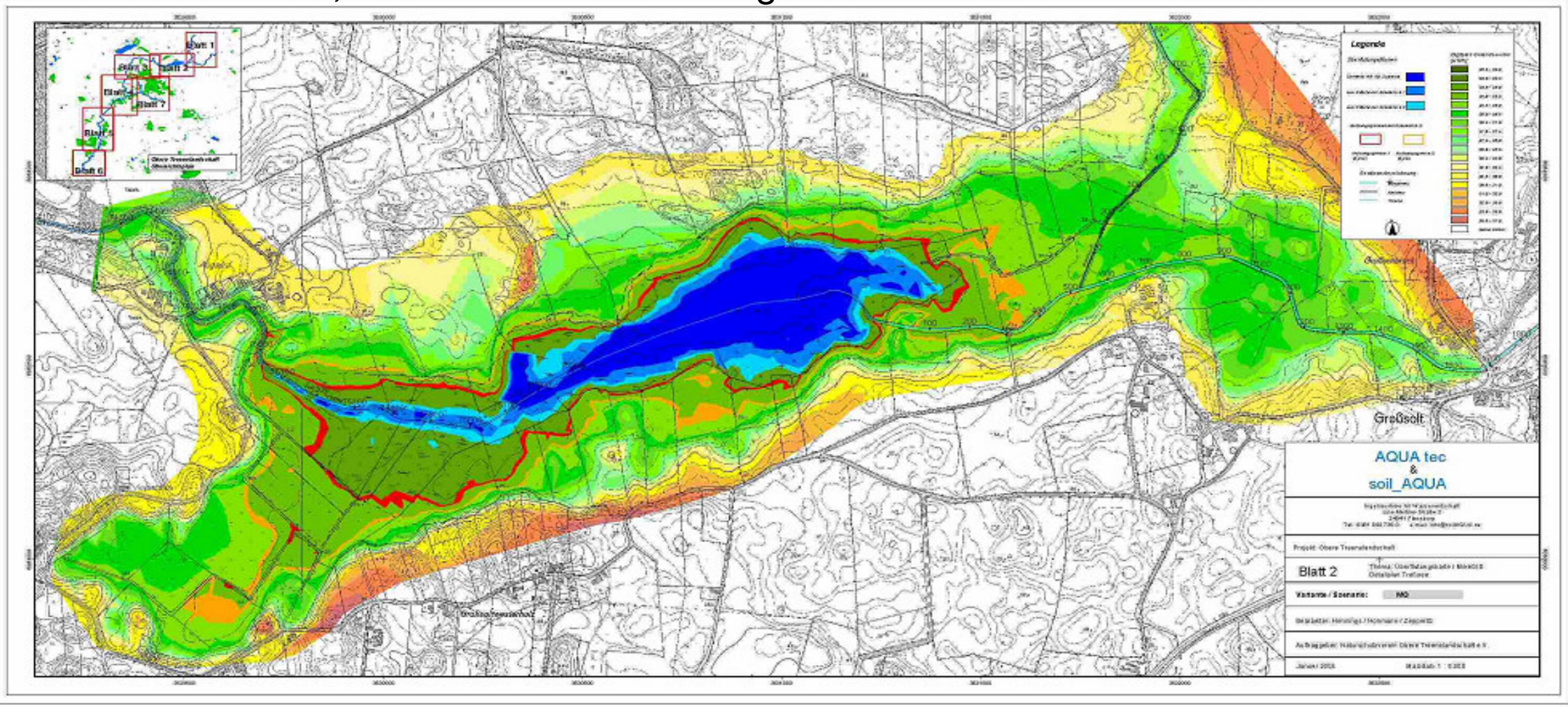
based on the presence of vegetation types, plant species, animal species, soil quality, structures in landscape and in rivers, pp.

with the five categories:

orange: very high quality
yellow: high quality
green: average quality
blue: low quality
not present: very low quality

Average Water Level in Summer

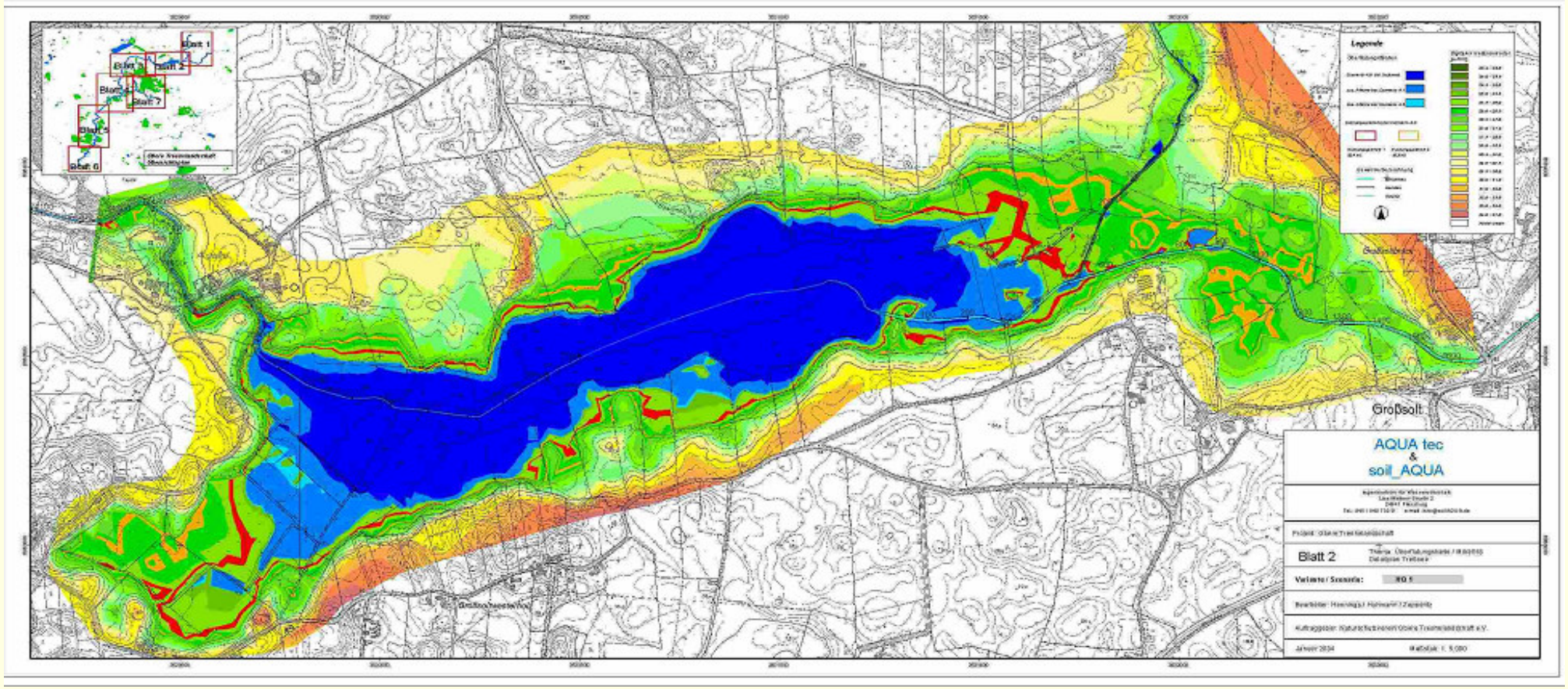
current situation, situation after increasing the water level



Survey of the rivers and their valleys (terrestrial method, laser scan); digital elevation mapping; long time registration of the water surface with water gages; program MIKE 11: simulation of the real water surfaces, simulation of water surfaces after increasing the water level

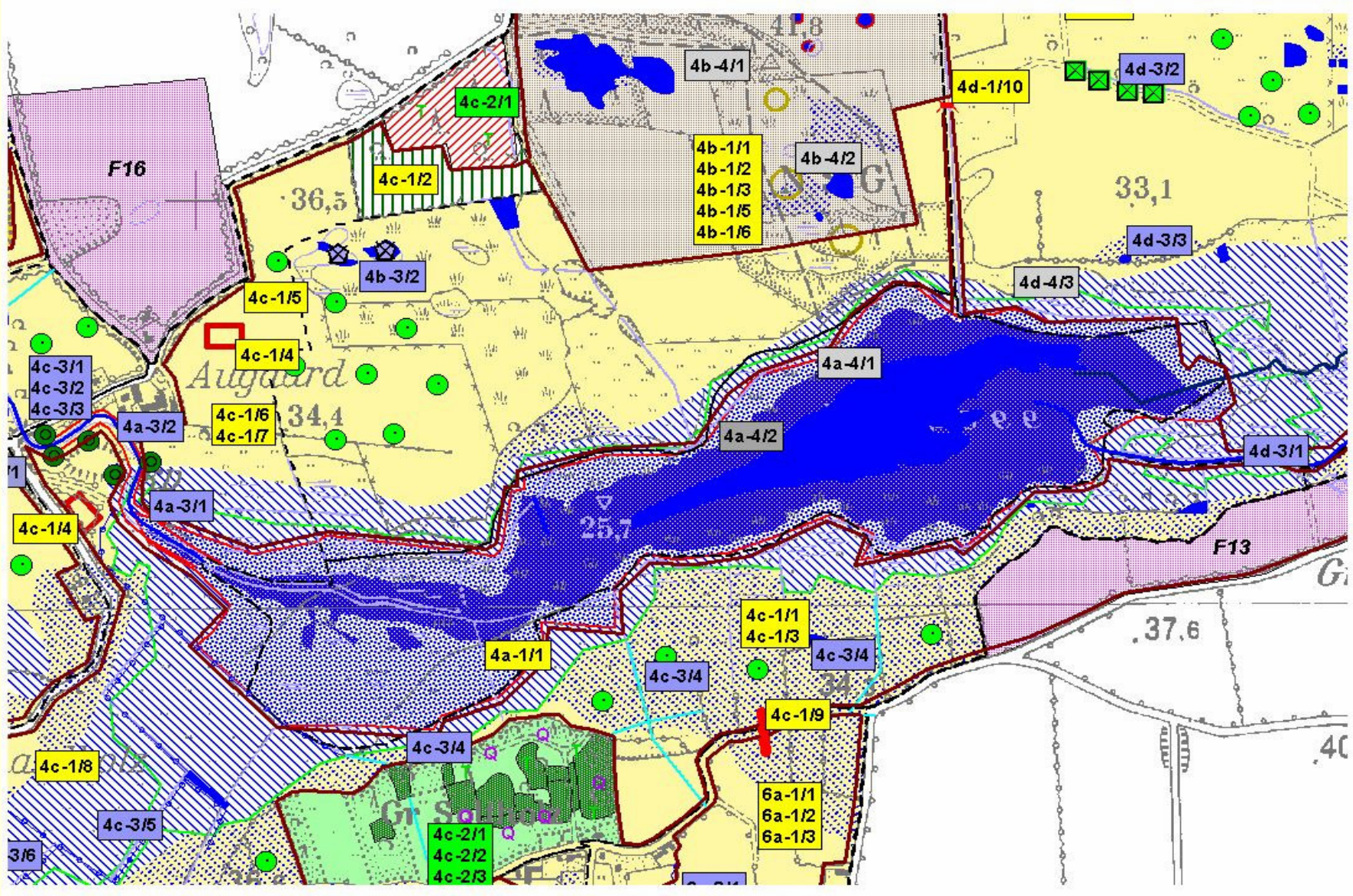
Average Annual High Water Level

current situation, situation after increasing the water level



Developed Aims for the Upper Treene Landscape

- Restoring of a nearly natural hydrological situation in soil and landscape
- Developing of nearly natural woods without use
- Developing of large scale semi-open or open pasture landscapes
- Maintenance of species rich wet meadows



Map with suggested Measures

Restoring of a nearly natural hydrological situation

Destroyed drainage

Dammed up ditches

Developing of nearly natural woods

Old woods with Fagus sylvatica,
Quercus robur and Ilex aquifolia

Young woods with decidious trees, but with few structures

Elder woods with conifers and with the neophyt
Prunus serotina

Developing of semi-open or open pasture landscapes

Cattle of robust races are all over the year outside, the land is leased to the keeper of the animals

An itinerant herd n of sheep and goat is responsible for heathland, mires and grasslands

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Maintenance of species-rich wet meadows

Dactylorhiza majalis, Caltha palustris, Comarum palustris, Carex echinata, C. panicea

Pedicularis palustris, Juncus filiformis

Regional Nature Conservation Association Upper Treene Landscape

- Aims of the association:
  - Promotion of nature conservation
  - Promotion of the regional tourism with is connected to nature
  - Promotion of the economic potentiality which bases on the regional landscape with its typically nature
  - Connecting of different interests concerning the listed aims

- Realisation of the association aims:
  - Developing of concepts for maintenance nature elements of high valence and with protected plant and animal species
  - Creation and conservation of structures for recreation and tourism
  - Developing of concepts for marketing of regional products
  - Public relations for regional nature and rural conservation

- Members:
  - 125 private persons; several communities, administrative districts,

Large Scale Nature Conservation Project Upper Treene Landscape

- Weichselian landscape in transition to the Saalian sander landscape
- Core area with 2000 ha
- Duration of the project: 2000 -2010
- Financial support: ca. 10 million Euro (75 % Federal Republic of Germany, 15 % Federal State Schleswig-Holstein, 10 % the private nature foundation Kurt und Erika Schrobach-Stiftung instead of the regional nature association)
- Responsible: Nature Conservation Association Upper Treene Landscape
- The aquired land will become property of the private foundation

Story of Success?

1st reason: Philosophy of the nature association:
Nature conservation with the region and voluntarily (bottom-up) and not by law or task ordered by the state. So, the project has not the right to dispose over land from private owners or to overflow the land of other owners. In the core area the federal state renounces of his right to buy land next to rivers or in area with nature protection - that is extraordinary!

2nd reason: Agricultural situation in the last years:
In the core area a lot of fields have sandy (dry or moist) or organic (moist or wet) soils. And especially the pastures but also a lot of the arable fields are very small (< 2 ha). So the farmers are interested in fields with better conditions. They sell or exchange the fields (consolidation of land on an area of 7000 ha).

Result: At the beginning of the project the private and the federal nature foundation possessed nearly 600 ha in the core area. During the project ca. 300 ha land were bought - an indicator for the success of the project.

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Plant species of the Red-List found in the Upper Treene Landscape

Biotopes	Species [n]	RL-Species [n]	RL-Species/ Sum RL-Species [%]	RL-Species/ Species [%]
Waters	45	9	11	20
Arable Grasslands	9	-	-	-
Moist grasslands	43	4	5	9
Dry grasslands	39	5	6	13
Wet grassland	28	9	11	32
High bogs	35	16	20	46
Low bogs	81	21	26	26
Ruderal vegetation	33	3	4	9
Xerothermic grasslands, heathlands	65	11	14	17
Woods	89	2	3	2
Total	467	80	100	17