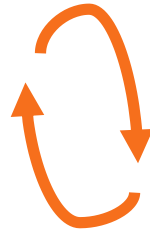




Eberswalde University
for Sustainable
Development

Governance, Administration and Management of Biosphere Reserves and Protected Areas

Prof. Dr. Erik Aschenbrand





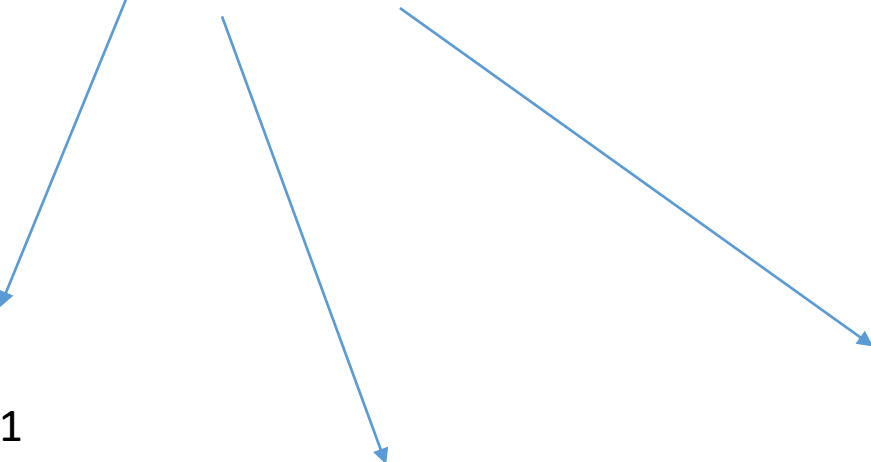
EU Nature Policy



International Level (European Union)



National Level



BR 1

BR 2

BR 3

CAP : Common Agricultural Policy

History: after WW2 – what was needed most?

Food + Economic growth



Only those who have covered basic needs and then still have money left over can consume.



Cheap food as basis for economic growth

CAP : Common Agricultural Policy

CAP: Contract between society and agriculture



Objective: Good incomes as the basis for quality of life in rural areas and production of affordable food as the basis for food security and economic growth



Contribution to (or even foundation of) the *Wirtschaftswunder* (economic miracle)



Later: Milk lakes and butter mountains → all goals achieved



CAP : Common Agricultural Policy

CAP: Contract between society and agriculture



Objective: Good incomes as the basis for quality of life in rural areas and production of affordable food as the basis for food security and economic growth



Contribution to or even foundation of the *Wirtschaftswunder* (economic miracle)



Later: Milk lakes and butter mountains → all goals achieved



New (awareness of) problems with the ecological impact of agriculture



New negotiation necessary: what services should agriculture deliver at what prices?

Treaties

- Ramsar
- UNESCO MAB
- UNESCO World Heritage
- Cites
- Berne Convention
- Convention on Biological Diversity

→ treaties: states legally bind themselves but no direct legal effect

Content needs to be transferred into national law

supranational law → EU N2000

Directives: need to be transferred in national law (sanctions otherwise)

Regulations: immediately enforceable in all member states

Treaties

- Ramsar
- UNESCO MAB
- UNESCO World Heritage
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- Berne Convention
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→ treaties: states legally bind themselves but no direct legal effect

Content needs to be transferred into national law

International – between nations

Supranational – above nations

supranational law → EU N2000

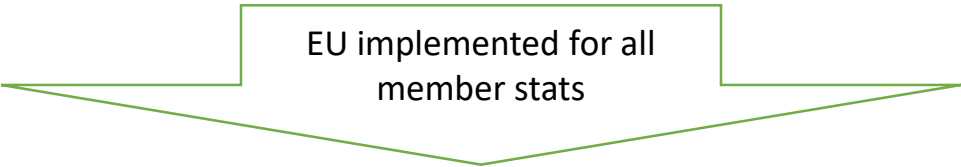
Directives: need to be transferred in national law (sanctions otherwise)

Regulations: immediately enforceable in all member states

Example for a Regulation:

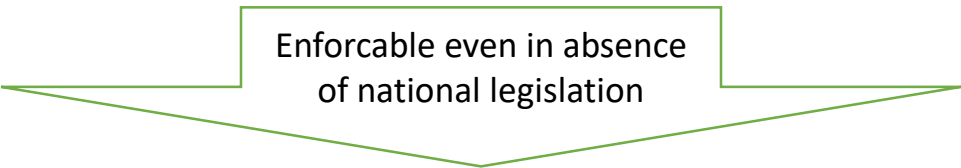
Council Regulation (EC) No 338/97 on the protection of species of wild fauna and flora by regulating trade therein

CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora/Washington Convention)



EU implemented for all member states

Council Regulation (EC) No 338/97 on the protection of species of wild fauna and flora by regulating trade therein



Enforceable even in absence of national legislation

Germany: Bundesartenschutzverordnung

EU Water framework directive

“WHAT IS THE AIM OF THE DIRECTIVE?

It sets out rules to halt deterioration in the status of European Union (EU) water bodies and achieve ‘good status’ for Europe's rivers, lakes and groundwater by 2015.

Specifically, this includes:

- protecting all forms of water (surface^{*}, ground^{*}, inland^{*} and transitional^{*});
- **restoring the ecosystems** in and around these bodies of water;
- reducing pollution in water bodies;
- guaranteeing sustainable water usage by individuals and businesses” (Eur-Lex 2017)

<https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=LEGISSUM:I28002b&from=EN>

Before: Water quality tested with physical+chemical criteria

WFD introduced **ecological criteria**

Wasserhaushaltsgesetz (Law on use of water)

Implementation of WFD in Germany

Watermanagement authorities

- Very important for most BR
- Governance fragmentation

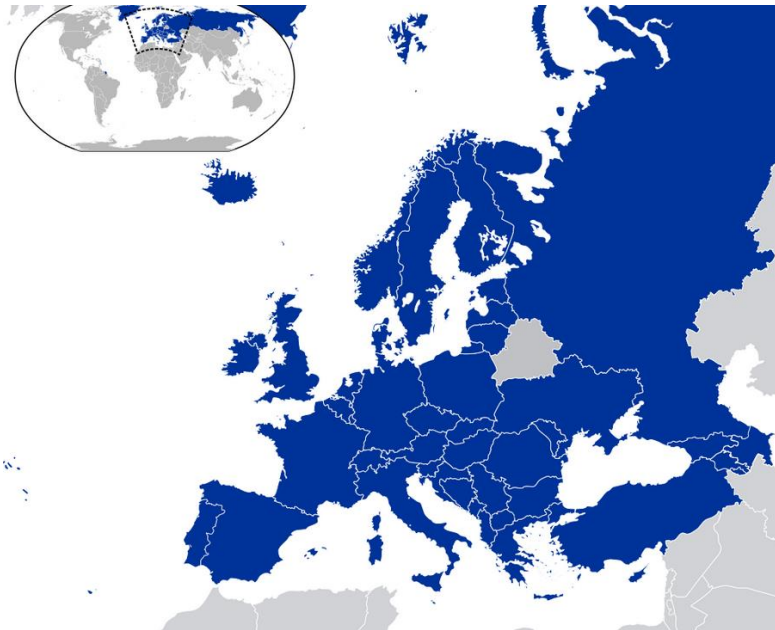


EU Biodiversity Strategy 2020
as part of „New Green Deal“

2021-2030 UN Decade on
Ecosystem Restoration

EU NATURA 2000

Berne Convention on the Conservation of European Wildlife and Natural Habitats



Agreed in 1979 by the Council of Europe

Council of Europe ≠ European Council

Council of Europe is a European international Organization but **no** EU Institution

Emerald network: Video

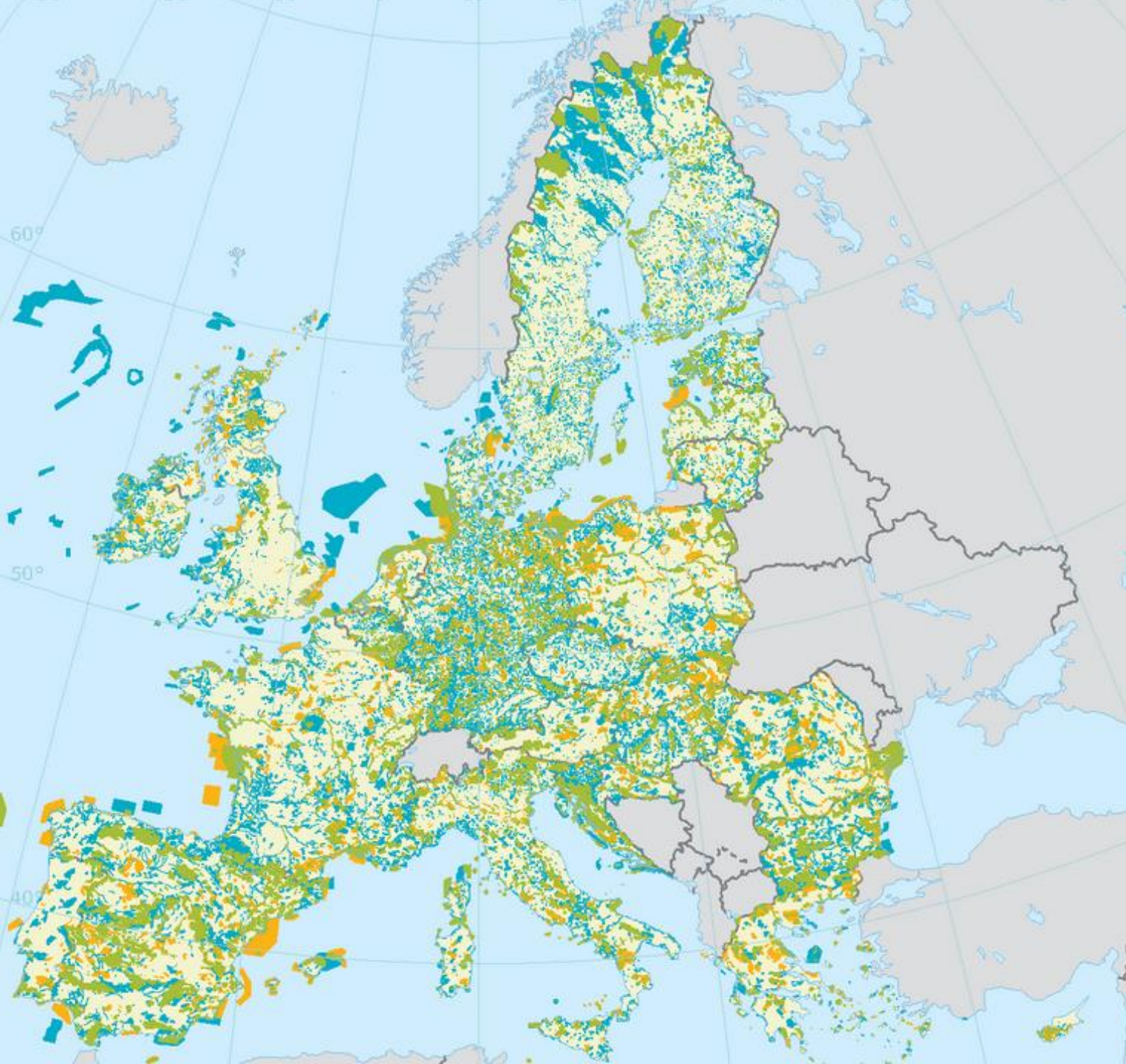
<https://www.coe.int/en/web/bern-convention>

Implementation to European law with **EU Habitats Directive**

EU - Natura 2000

- Birds **directive**
- Habitats **directive**





Natura 2000 Network

- Covering 18% of EU land area
- And 8% of EU marine territory
- Over 27.000 sites (EU Commission 2016)

NATURA 2000

- Sites—or parts of sites—belonging to both Directives
- Habitats Directive sites, pSCI, SCI, SAC
- Birds directive sites (SPA)



EU Birds directive

1979: Bird directive picks up guiding idea of 1971 Ramsar Convention on Wetlands of International Importance especially as Waterfowl Habitat

2009: New directive on the conservation of wild birds

EU Birds directive

Article 4

The species mentioned in Annex I shall be the subject of special conservation measures concerning their habitat in order to ensure their survival and reproduction in their area of distribution.

In this connection, account shall be taken of:

- (a) species in danger of extinction;
- (b) species vulnerable to specific changes in their habitat;
- (c) species considered rare because of small populations or restricted local distribution;
- (d) other species requiring particular attention for reasons of the specific nature of their habitat.

Member States shall classify in particular the most suitable territories in number and size as special protection areas for the conservation of these species in the geographical sea and land area where this Directive applies.

EU Birds directive

- Selection of sites only according to ornithological criteria/no weighting with other criteria → **Important Bird Areas (IBA) as technical reference**



The screenshot displays the BirdLife International Data Zone interface. At the top left is the BirdLife International logo, and to its right is the text "Partnership for nature and people". The main heading "Data Zone" is prominently displayed in the center. A search bar is located in the top right corner. Below the heading is a navigation menu with various options: Species, Sites (IBAs), Country Profiles, Case studies, Tools, Request data, Publications, and Citizen Science. The main content area features a world map where Important Bird Areas (IBAs) are marked with green dots and shaded regions. The map includes labels for various countries and oceans in German, such as "Nord Atlantischer Ozean", "Indischer Ozean", "Südpazifik", and "Südatlantik".



Partnership for
nature and people

Global IBA Criteria

A1. Globally threatened species

Criterion: The site is known or thought regularly to hold significant numbers of a globally threatened species.

Notes: The site qualifies if it is known, estimated or thought to hold a population of a species categorized by the IUCN Red List as Critically Endangered, Endangered or Vulnerable. Specific thresholds are set for species within each of the threat categories that need to be exceeded at a particular IBA. The list of globally threatened species is maintained and updated annually for IUCN by BirdLife International (www.birdlife.org/datazone/species).

A2. Restricted-range species

Criterion: The site is known or thought to hold a significant population of at least two range-restricted species.

Notes: Restricted-range bird species are those having a global range size less than or equal to 50,000 km². 'Significant population': it is recommended that site-level populations of at least two restricted-range species should be equal to or exceed 1% of their global population. This criterion can be applied to species both within their breeding and non-breeding ranges.

A3. Biome-restricted species

Criterion: The site is known or thought to hold a significant component of the group of species whose distributions are largely or wholly confined to one biome-realm

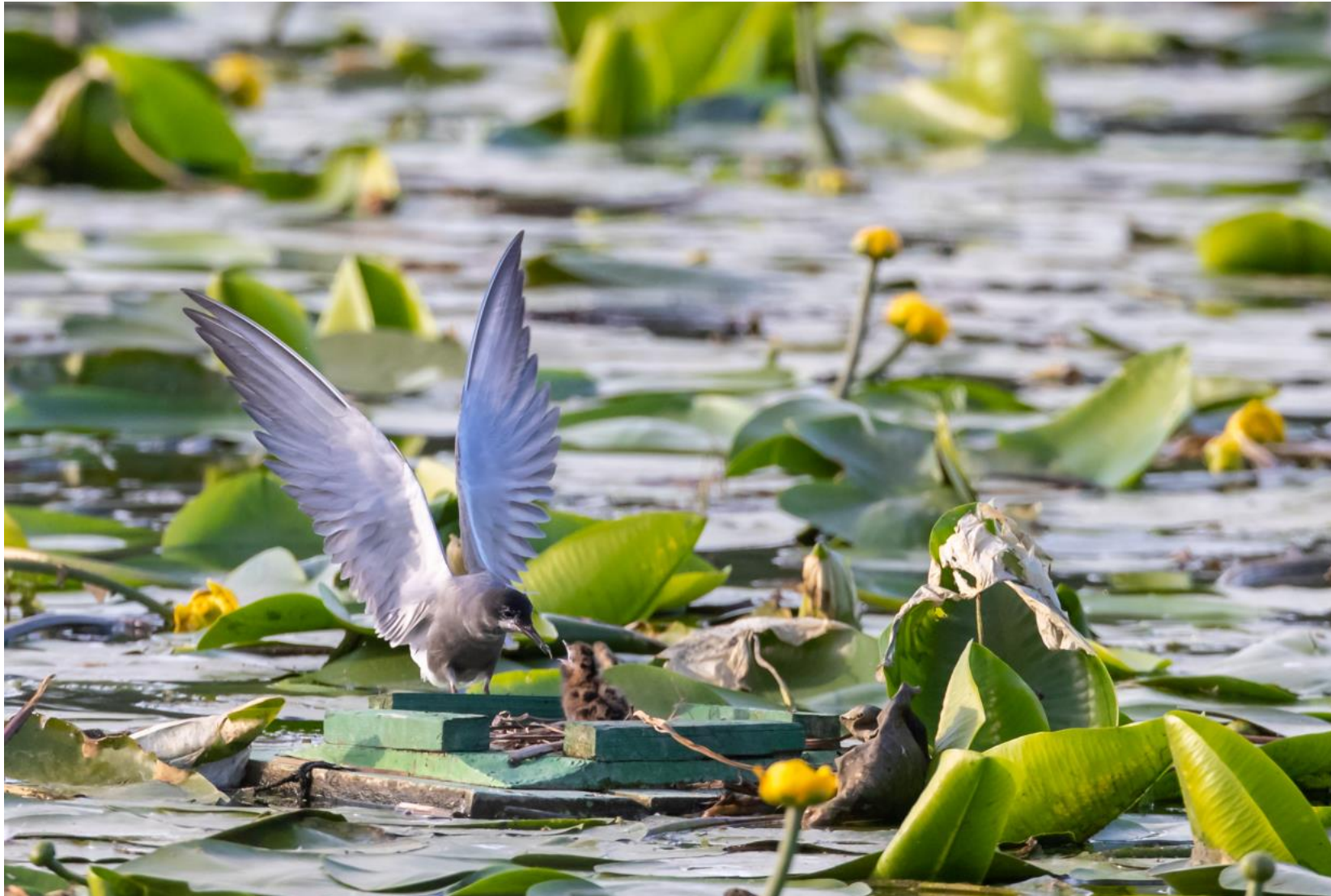
NGOs



Partnership for
nature and **people**



EU Birds directive



Black Tern (*Chlidonias niger*): Annex I
EU Birds Directive

SPA Untere Havel Sachsen Anhalt /
Schollener See

Ramsar Untere Havel und Gülper See

Biosphere Reserve Middle Elbe

EU Birds directive



Black Tern: Annex I EU Birds Directive

SPA Untere Havel Sachsen Anhalt / Schollener See

Ramsar Untere Havel und Gülper See

Biosphere Reserve Middle Elbe

EU Birds directive



Whiskered Tern (*Chlidonias hybridus*): Annex I EU Birds Directive

SPA Untere Havel Sachsen Anhalt / Schollener See

Ramsar Untere Havel und Gülper See

Biosphere Reserve Middle Elbe

EU Birds directive



Osprey (*Pandion haliaetus*) : Annex I
EU Birds Directive

SPA Untere Havel Sachsen Anhalt /
Schollener See

Ramsar Untere Havel und Gülper See

Biosphere Reserve Middle Elbe

EU Birds directive

- Once a SPA is in place it is subject to Habitats Directive regulations (e.g. regarding projects/activities)

EU Habitats directive

EU Response to Berne Convention

- conservation of a wide range of rare, threatened or endemic animal and plant species.
- some 200 rare and characteristic habitat types

EU Habitats directive

Site of community interest (SCI) → Special area of conservation (SAC)

“Once a site of Community importance has been adopted in accordance with the procedure laid down in paragraph 2 , the Member State concerned shall designate that site as a special area of conservation as soon as possible and within six years at most...”

EU Habitats directive

Article 6

1. For special areas of conservation, Member States shall establish the necessary conservation measures involving, if need be, appropriate management plans specifically designed for the sites or integrated into other development plans, and appropriate statutory, administrative or contractual measures which correspond to the ecological requirements of the natural habitat types in Annex I and the species in Annex II present on the sites.

→ Management plans, definition of management objectives

EU Habitats directive

→ Management plans, definition of management objectives → lots of detailed publicly available information

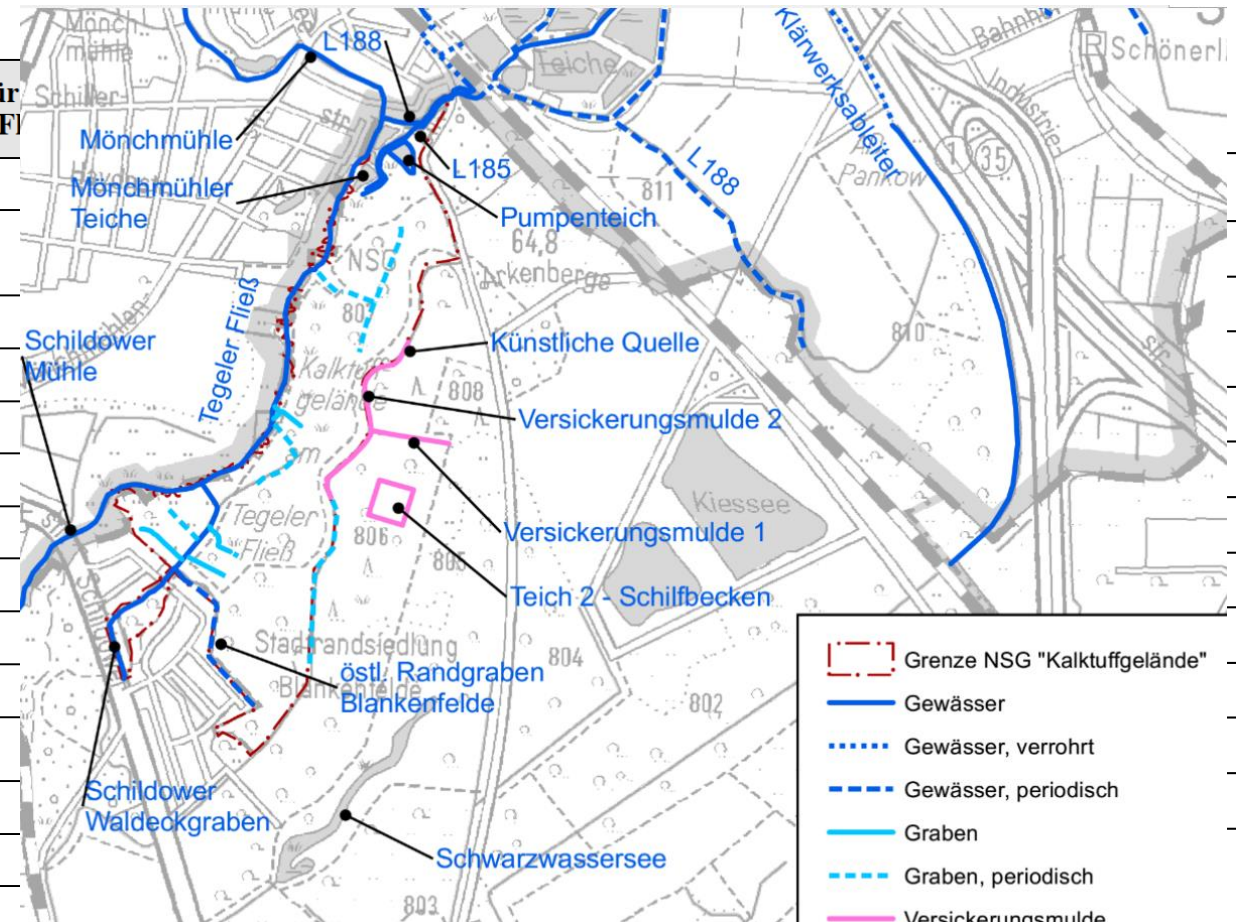
Lebensraumtyp / Art	Vorkommen im / Relevanz für NSG Kalktuffgelände am Tegeler Fließ
3260 Fließgewässer mit flutender Wasservegetation	X
6120* Trockene, kalkreiche Sandrasen (Blauschillergrasrasen)	X
6210 Halbtrockenrasen sandig-lehmiger basenreicher Böden	
6410 Pfeifengraswiesen	X
6430 Feuchte Hochstaudenfluren	X
6510 Magere Flachland-Mähwiesen	X
7220* Kalktuffquellen	X
7230 Kalkreiche Niedermoore	X
9190 Alte bodensaure Eichenwälder auf Sandebenen	
91E0* Erlen-Eschen- und Weichholzaunenwälder	X
Arten nach Anhang I FFH- Richtlinie	
Biber (<i>Castor fiber</i>)	(X)
Fischotter (<i>Lutra lutra</i>)	X

Arten nach Anhang I Vogelschutz-Richtlinie	
Eisvogel (<i>Alcedo atthis</i>)	X
Rohrweihe (<i>Circus aeruginosus</i>)	
Wachtelkönig (<i>Crex crex</i>)	
Kleinspecht (<i>Dendrocopos minor</i>)	X
Mittelspecht (<i>Dendrocopos medius</i>)	
Schwarzspecht (<i>Dryocopus martius</i>)	
Kranich (<i>Grus grus</i>)	
Neuntöter (<i>Lanius collurio</i>)	X
Schlagschwirl (<i>Locustella fluviatilis</i>)	
Heidelerche (<i>Lullula arborea</i>)	
Schwarzmilan (<i>Milvus migrans</i>)	

EU Habitats directive

→ Management plans, definition of management objectives → lots of detailed publicly available information

Lebensraumtyp / Art	Vorkommen im / Relevanz für Kalktuffgelände am Tegeler Fließ
3260 Fließgewässer mit flutender Wasservegetation	X
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6510 Magere Flachland-Mähwiesen	X
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7230 Kalkreiche Niedermoore	X
9190 Alte bodensaure Eichenwälder auf Sandebenen	
91E0* Erlen-Eschen- und Weichholzaunenwälder	X
Arten nach Anhang I FFH- Richtlinie	
Biber (<i>Castor fiber</i>)	(X)
Fischotter (<i>Lutra lutra</i>)	X



X
X
X
X
X
X

EU Habitats directive

Article 6

2. Member States shall take appropriate steps to avoid, in the special areas of conservation, the deterioration of natural habitats and the habitats of species as well as disturbance of the species for which the areas have been designated, in so far as such disturbance could be significant in relation to the objectives of this Directive.

→ non-deterioration obligation

EU Habitats directive

Article 6

3. Any plan or project not directly connected with or necessary to the management of the site but **likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment** of its implications for the site in view of the site's conservation objectives. In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public.

→ Regulation of plans and projects in N2000 Sites

EU Habitats directive

Article 6

4. If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or **project must nevertheless be carried out for imperative reasons of overriding public interest**, including those of a social or economic nature, the Member State shall take **all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected**. It shall inform the Commission of the compensatory measures adopted.

→ Compensation aiming at coherence of N2000, need to inform Commission.

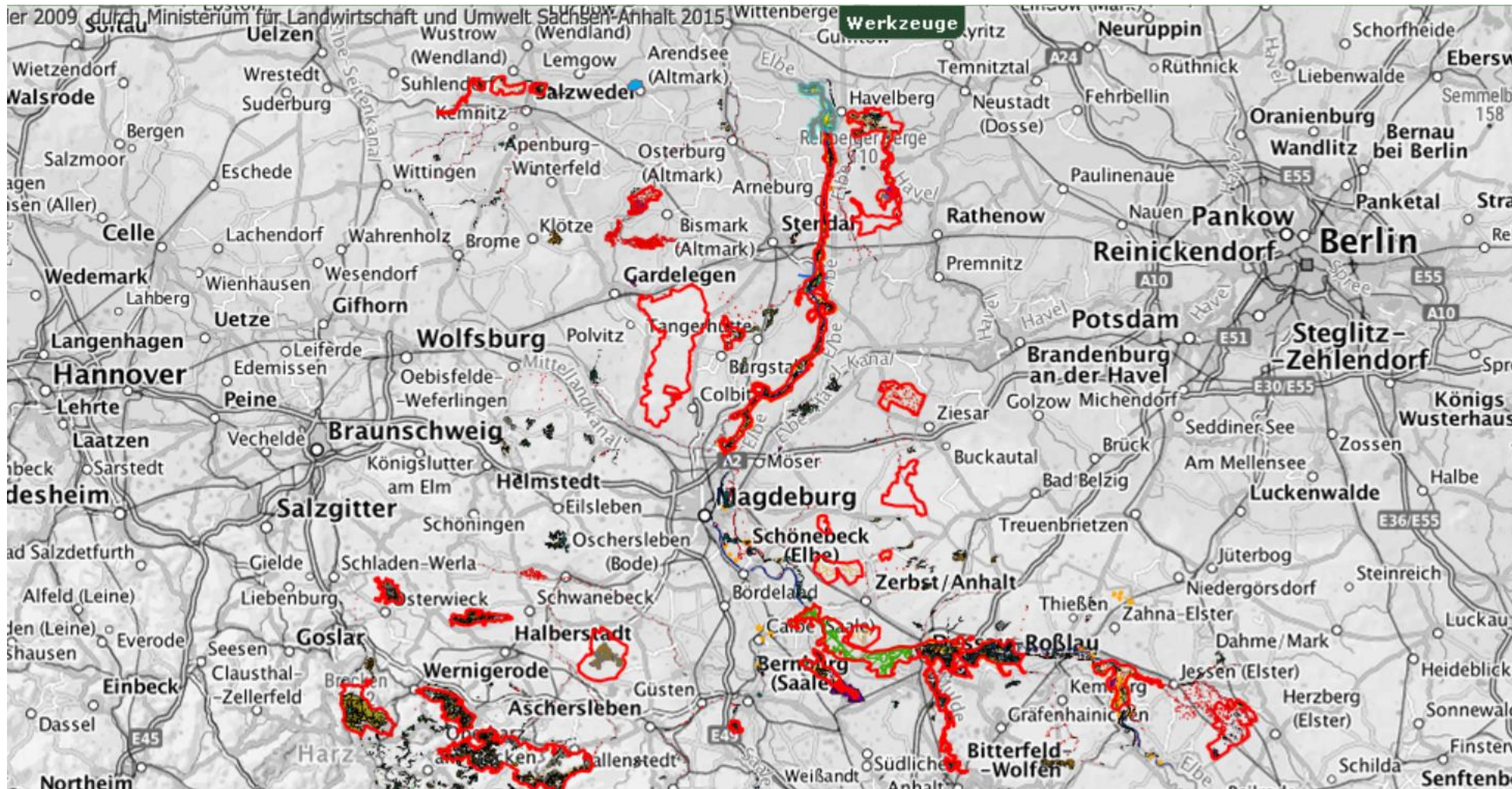
EU Habitats directive

Article 6

Still 4. Where the site concerned hosts a priority natural habitat type and/or a priority species, the only considerations which may be raised are those relating to **human health or public safety, to beneficial consequences of primary importance for the environment** or, further to an opinion from the Commission, to other imperative reasons of overriding public interest

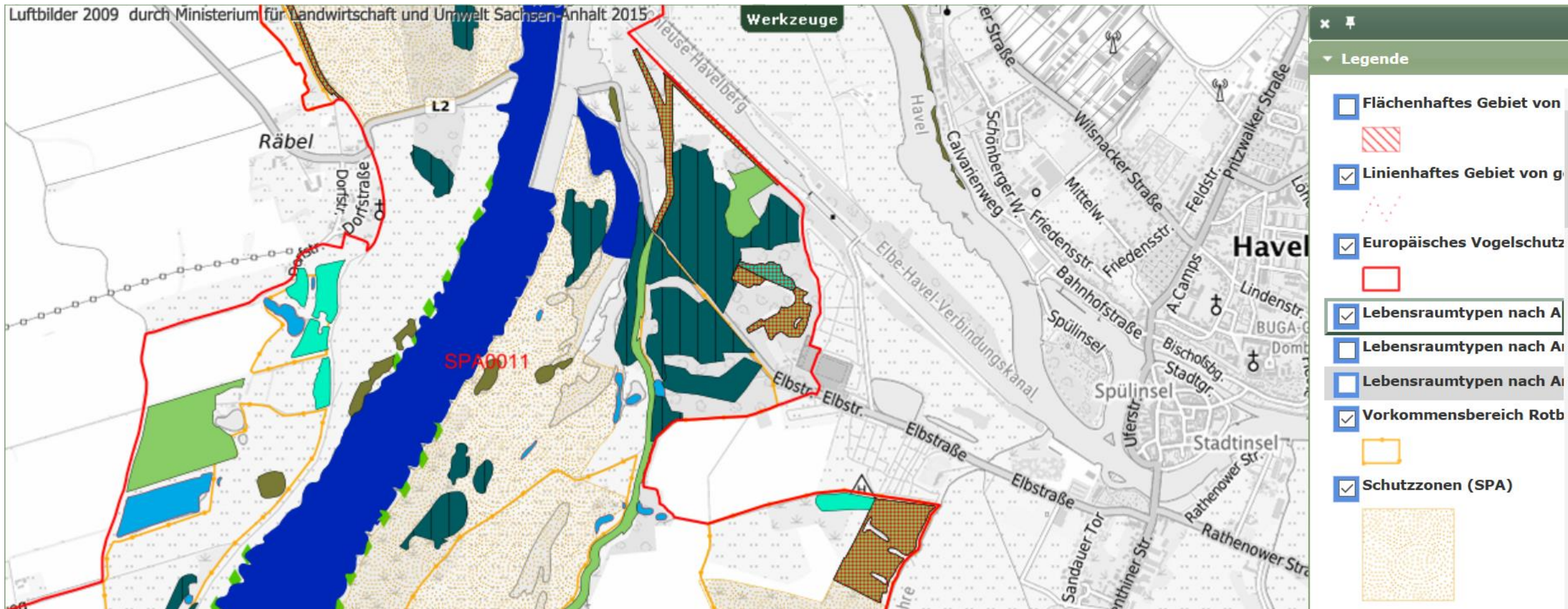
→ Compensation aiming at coherence of N2000, need to inform Commission.

Natura 2000 in BR Middle Elbe

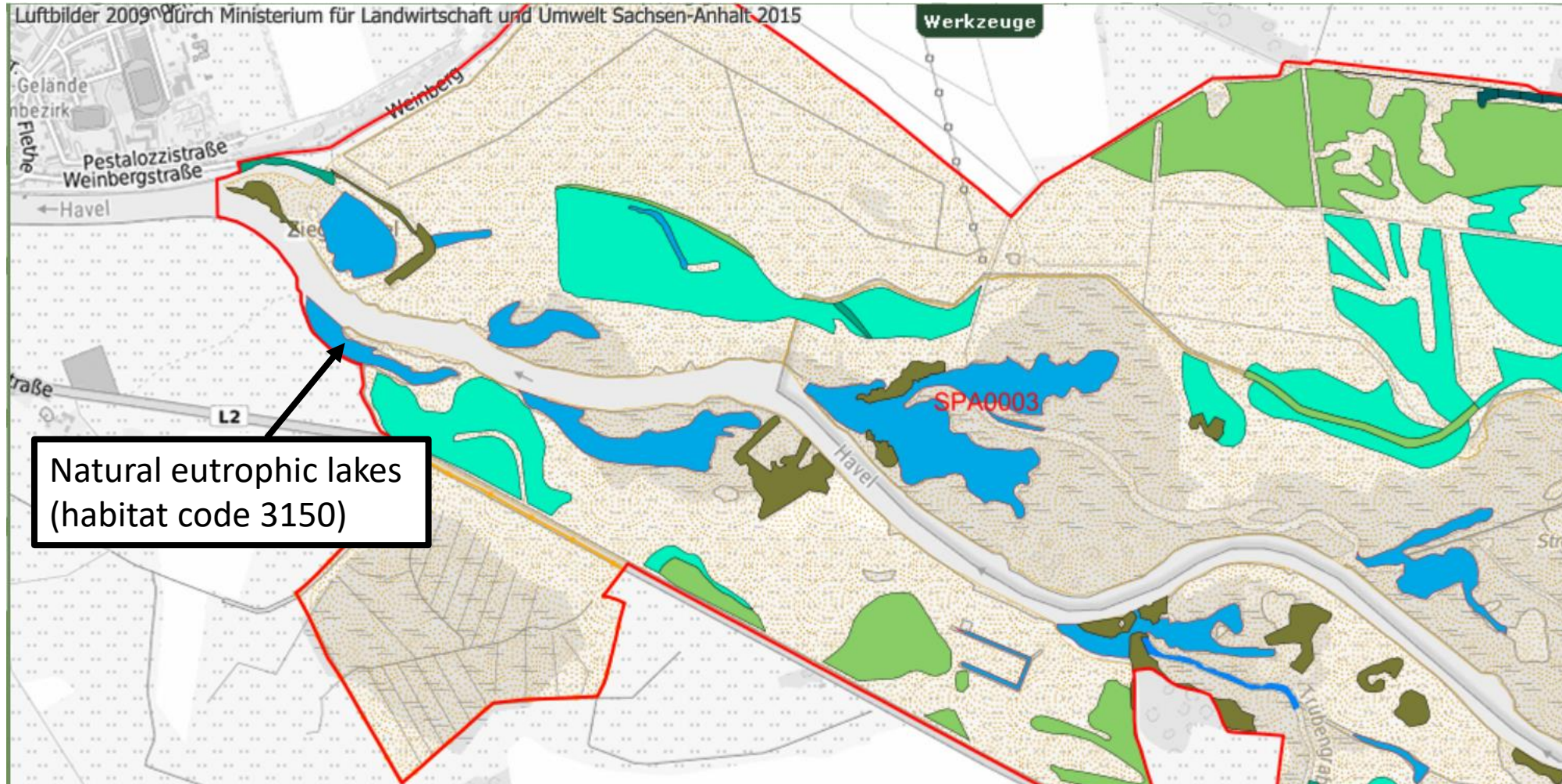


- Most of the states N2000 sites in BR
- BR administration is not responsible authority for N2000 assessment
- Gives opinion in assessment process

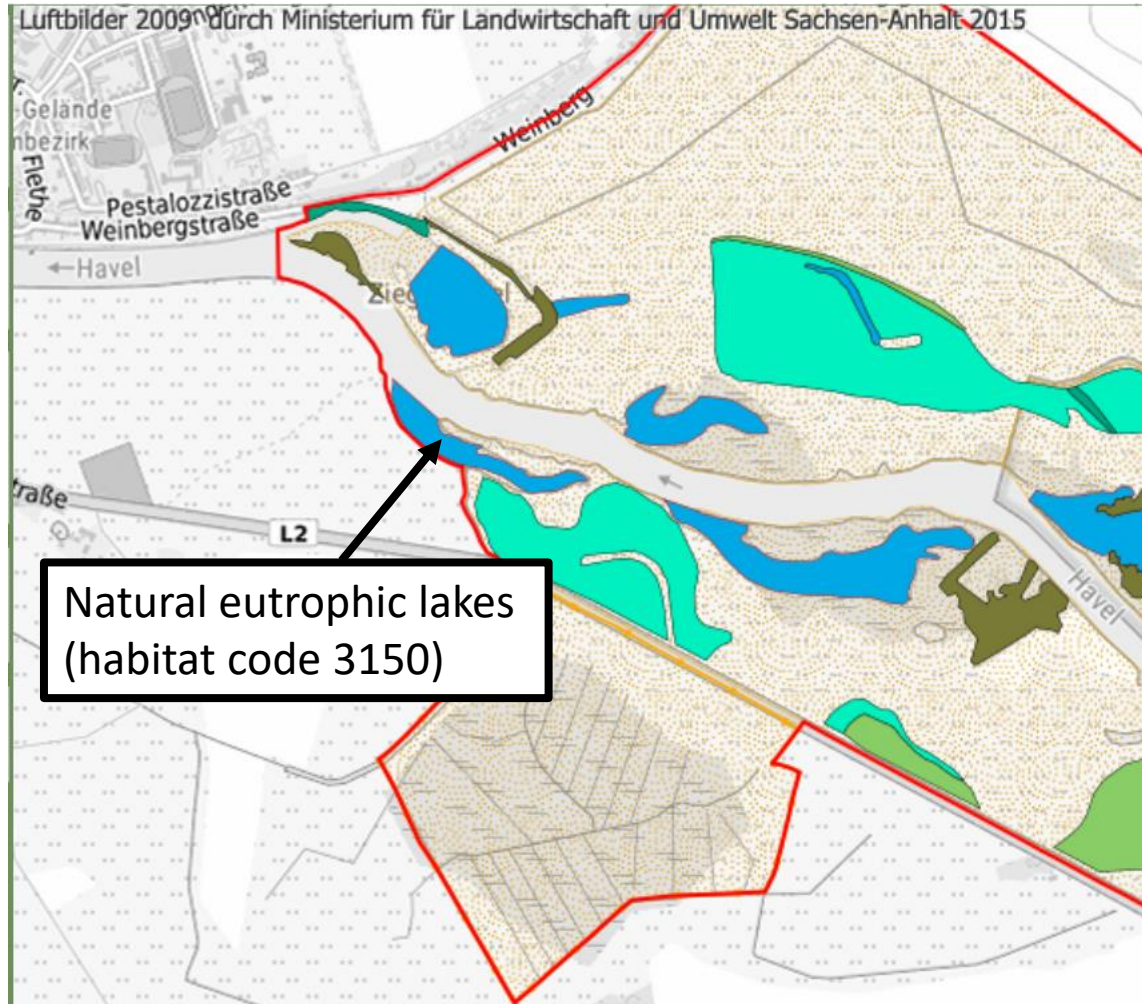
Natura 2000 at Elbe river near Havelberg



Natura 2000 and river restoration



Natura 2000 and river restoration



NATURA 2000 Code: 3150

Definition:

“Natural eutrophic lakes and ponds including their shoreline vegetation with floating and submerged aquatic vegetation; e.g. with duckweed communities (*Lemnetea*), pondweed communities (*Potamogetonetea pectinati*), Water-soldier (*Stratiotes aloides*) or Bladderworts (*Utricularia* spp.).

The European Commission has clarified that - depending on the definition of the term 'natural' - this habitat type may be primary or secondary (e.g. ponds) if its occurrences are subject to (semi-) natural development.

Non-environmental standing waters and hypertrophic waters are not to be included. Ox-bows as well as partial ox-bows with no throughflow are to be included (even if artificially created)”.

Federal Agency for Nature Conservation (2020). Natura 2000 code 3150. <https://www.bfn.de/en/lrt/natura-2000-code-3150.html>

EU Habitats directive

Annex I

Natural Habitat Types of community interest whose conservation requires the designation of special areas of conservation.

Habitats

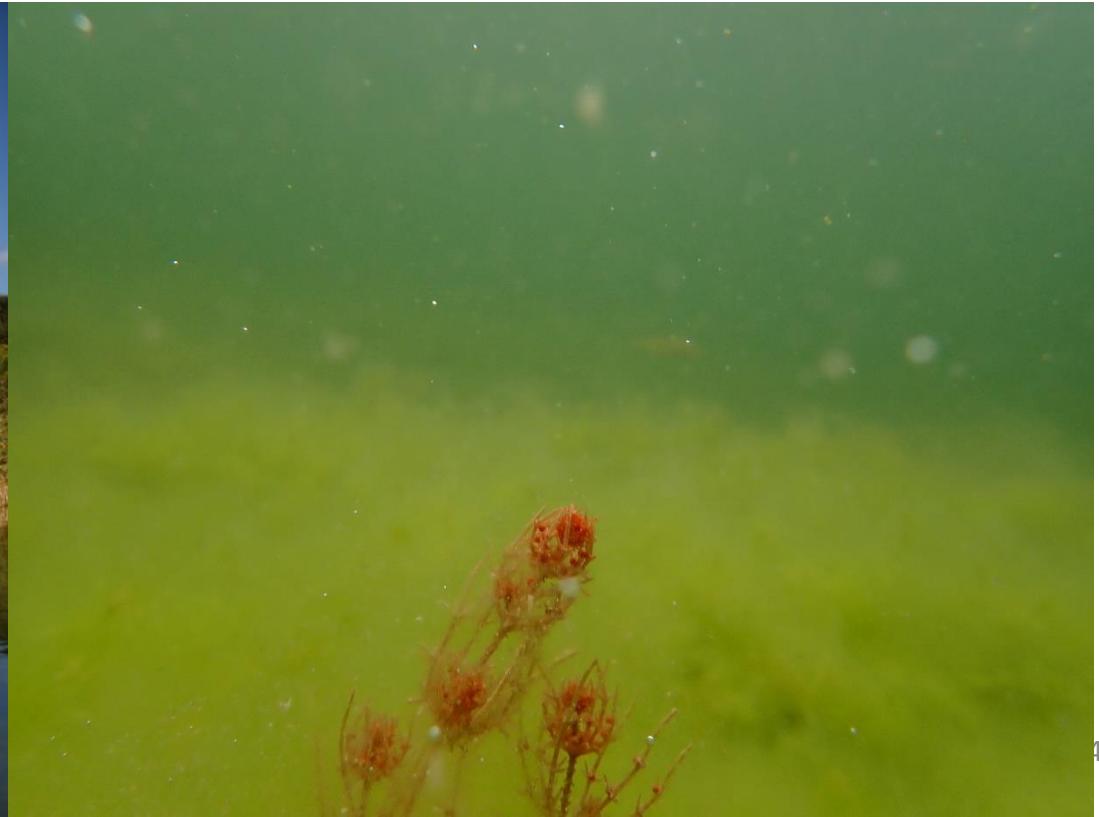
- Natura2000 habitats in germany: <https://www.bfn.de/en/activities/natura-2000/habitat-types-and-species/natura-2000-habitats-in-germany.html>
- https://lvwa.themenbrowser.de/UMN_LVWA/php/geoclient.php?name=natura2000bestand

EU Habitats directive

Habitat code 3140:
Hard oligo-mesotrophic
waters with benthic
vegetation of Chara spp
<https://eunis.eea.europa.eu/habitats/10066>

Annex I

Natural Habitat Types of community interest whose conservation requires the designation of special areas of conservation.



EU Habitats directive

Annex II

Animal and plant species of community interest whose conservation requires the designation of special areas of conservation (SAC).

“core areas of their habitat are designated as sites of Community importance (SCIs) and included in the Natura 2000 network. These sites must be managed in accordance with the ecological needs of the species” (European Commission 2020).

Beaver, Otter, Lynx, Wolf, Brown Bear, Wisent,...



Rosalia alpina

EU Habitats directive

annex II species: fire bellied toad



Source: IUCN Redlist:
<https://www.iucnredlist.org/species/2865/9489517>

POPULATION TREND

 Decreasing

NUMBER OF MATURE INDIVIDUALS

Population in detail

HABITAT AND ECOLOGY

Forest, Grassland,
Wetlands (inland),
Artificial/Terrestrial,
Artificial/Aquatic &
Marine

GEOGRAPHIC RANGE



EU Habitats directive

Annex III

Criteria for selecting sites (SCI) and designating (SAC)

STAGE 1 : Assessment at national level of the relative importance of sites for each natural habitat type in Annex I and each species in Annex II (including priority natural habitat types and priority species)

STAGE 2 : Assessment of the Community importance of the sites included on the national lists

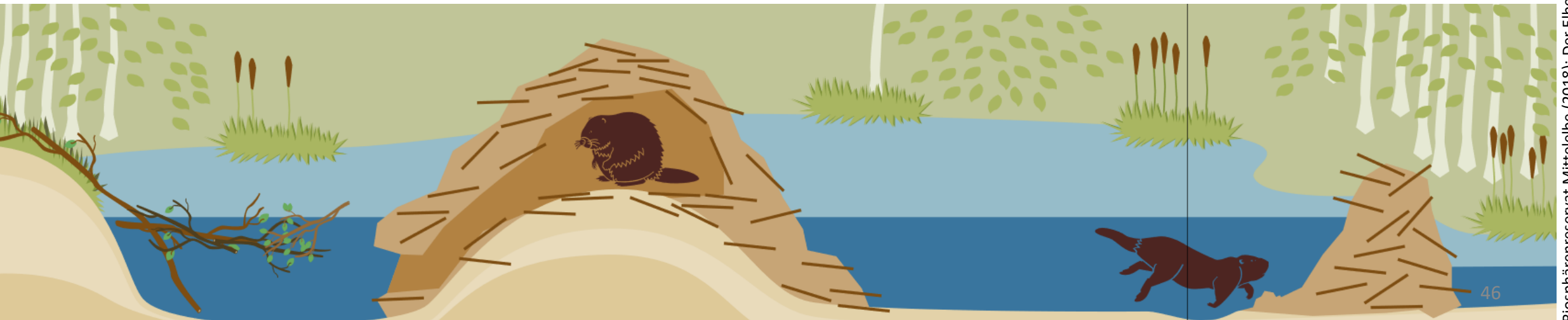
Annexes IV and V: species protection not just inside Natura2000 sites
but everywhere

EU Habitats directive

Annex IV

Animal and plant species of community interest in need of strict protection

Wolf, Beaver, ...



Annex V

Animal and Plant species of community interest whose taking in the wild and exploitation may be subject to management measures

Example:

Graellsia isabellae
(spanish moon moth)

Current status in the french alps

https://www.researchgate.net/publication/338897714_Actias_isabellae_Graells_1849_dans_les_Alpes_francaises_espece_patrimoniale_ou_invasive_Lepidoptera_Saturniidae_Revue_Francaise_d'Entomologie_Generale_1_4_253-274

Didier Descouens (2011): *Graellsia isabellae*. Musee de toulouse. Source: https://upload.wikimedia.org/wikipedia/commons/8/80/Graellsia_isabellae_MHNT_male_dos.jpg



EU Habitats directive

Annex V

Animal and Plant species of community interest whose taking in the wild and exploitation may be subject to management measures

Freshwater pearl mussel



Joel Berglund (2007): freshwater pearl mussel.
https://commons.wikimedia.org/wiki/File:Group_of_Margaritifera_margaritifera.jpg

Inflamation,
infection



Arnica



Medpex
Versandapotheke
2020: Arnica
https://www.medpex.de/arnica-montana-d-200-globuli-p11280379?ai=350&gclid=EAlaIQobChMIr5fa4d2w6gIVSrDtCh0o7wInEAYYASABEgJMRvD_BwE

Thomas Mathis (2005):
Arnica Montana.
https://commons.wikimedia.org/wiki/File:Nardetu_m_Bestand.JPG

EU Habitats directive

Annex VI

Prohibited methods and means of capture and killing and modes of transport

e.g. no fishing with poison or explosives



Barbasco?

Energy, Climate change, Environment

Environment

[Home](#) > [Topics](#) > [Nature and biodiversity](#) > [Nature restoration law](#)

Nature restoration law

The Commission has proposed a new law to restore ecosystems for people, the climate and the planet.

Objectives

The proposal aims to restore ecosystems, habitats and species across the EU's land and sea areas in order to enable the long-term and sustained recovery of biodiverse and resilient nature contribute to achieving the EU's climate mitigation and climate adaptation objectives meet international commitments.

https://environment.ec.europa.eu/topics/nature-and-biodiversity/nature-restoration-law_en

Targets

The proposal combines an overarching restoration objective for the long-term recovery of nature in the EU's land and sea areas with **binding restoration targets for specific habitats and species. These measures should cover at least 20% of the EU's land and sea areas by 2030**, and ultimately all ecosystems in need of restoration by 2050.

The proposal contains the following specific targets:

targets based on existing legislation (for wetlands, forests, grasslands, river and lakes, heath & scrub, rocky habitats and dunes) - improving and re-establishing biodiverse habitats on a large scale, and bringing back species populations by improving and enlarging their habitats

pollinating insects – reversing the decline of pollinator populations by 2030, and achieving an increasing trend for pollinator populations, with a methodology for regular monitoring of pollinators

forest ecosystems – achieving an increasing trend for standing and lying deadwood, uneven aged forests, forest connectivity, abundance of common forest birds and stock of organic carbon

urban ecosystems – no net loss of green urban space by 2030, and an increase in the total area covered by green urban space by 2040 and 2050

agricultural ecosystems – increasing grassland butterflies and farmland birds, the stock of organic carbon in cropland mineral soils, and the share of agricultural land with high-diversity landscape features; restoring drained peatlands under agricultural use

marine ecosystems – restoring marine habitats such as seagrass beds or sediment bottoms that deliver significant benefits, including for climate change mitigation, and restoring the habitats of iconic marine species such as dolphins and porpoises, sharks and seabirds.

river connectivity – identifying and removing barriers that prevent the connectivity of surface waters, so that at least 25 000 km of rivers are restored to a free-flowing state by 2030

https://environment.ec.europa.eu/topics/nature-and-biodiversity/nature-restoration-law_en

“The rivers and lakes in the EU-28 have been assessed to comprise about 1.3 million km of total river length, 84,000 km² of lake surface, 297,000 km² of riparian land and 367,000 km² of potentially flooded lands.”

Trinomics for EU DG Environment (2023) **Impact assessment study to support the development of legally binding EU nature restoration targets.** <https://op.europa.eu/en/publication-detail/-/publication/309f0fa2-2f4a-11ee-9e98-01aa75ed71a1/language-en>

Implementation

EU countries are expected to submit National Restoration Plans to the Commission within two years of the Regulation coming into force, showing how they will deliver on the targets. They will also be required to monitor and report on their progress. The European Environment Agency will draw up regular technical reports on progress towards the targets. The Commission, in turn, will report to the European Parliament and to the Council on the implementation of the Nature Restoration Law.

https://environment.ec.europa.eu/topics/nature-and-biodiversity/nature-restoration-law_en

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NEWS > SUSTAINABILITY

Rogue Austrian minister burns bridges to save EU nature law

<https://www.politico.eu/article/rogue-austria-environment-minister-leonore-gewessler-burns-bridges-save-eu-nature-restoration-law/>

Austrian minister defies coalition ally to back EU nature restoration law

By Reuters

June 16, 2024 8:55 PM GMT+2 · Updated 9 months ago



of Polls Policy news Events



[nature-restoration-law/](#)

<https://www.reuters.com/world/europe/austrian-minister-defies-coalition-ally-back-eu-nature-restoration-law-2024-06-16/>

[-burns-bridges-save-eu-](#)

Nature Restoration Regulation

Supporting the restoration of ecosystems for people, the climate and the planet

The [Nature Restoration Regulation](#) is the first continent-wide, comprehensive law of its kind. It is a key element of the [EU Biodiversity Strategy](#), which sets binding targets to restore degraded ecosystems, in particular those with the most potential to capture and store carbon and to prevent and reduce the



Why do we need the restoration regulation?

“an unprecedented legislative effort that establishes specific ecological goals in order to combat biodiversity loss and ecosystem degradation” (Stoffers et al. 2024).

“So far, the **Birds Directive** (BD; 2009/147/EC) and the **Habitats Directive** (HD; 1992/43/EEC) (Nature Directives), as well as the **Water Framework Directive** (WFD; 2000/60/EC), have established biodiversity targets at the European level.

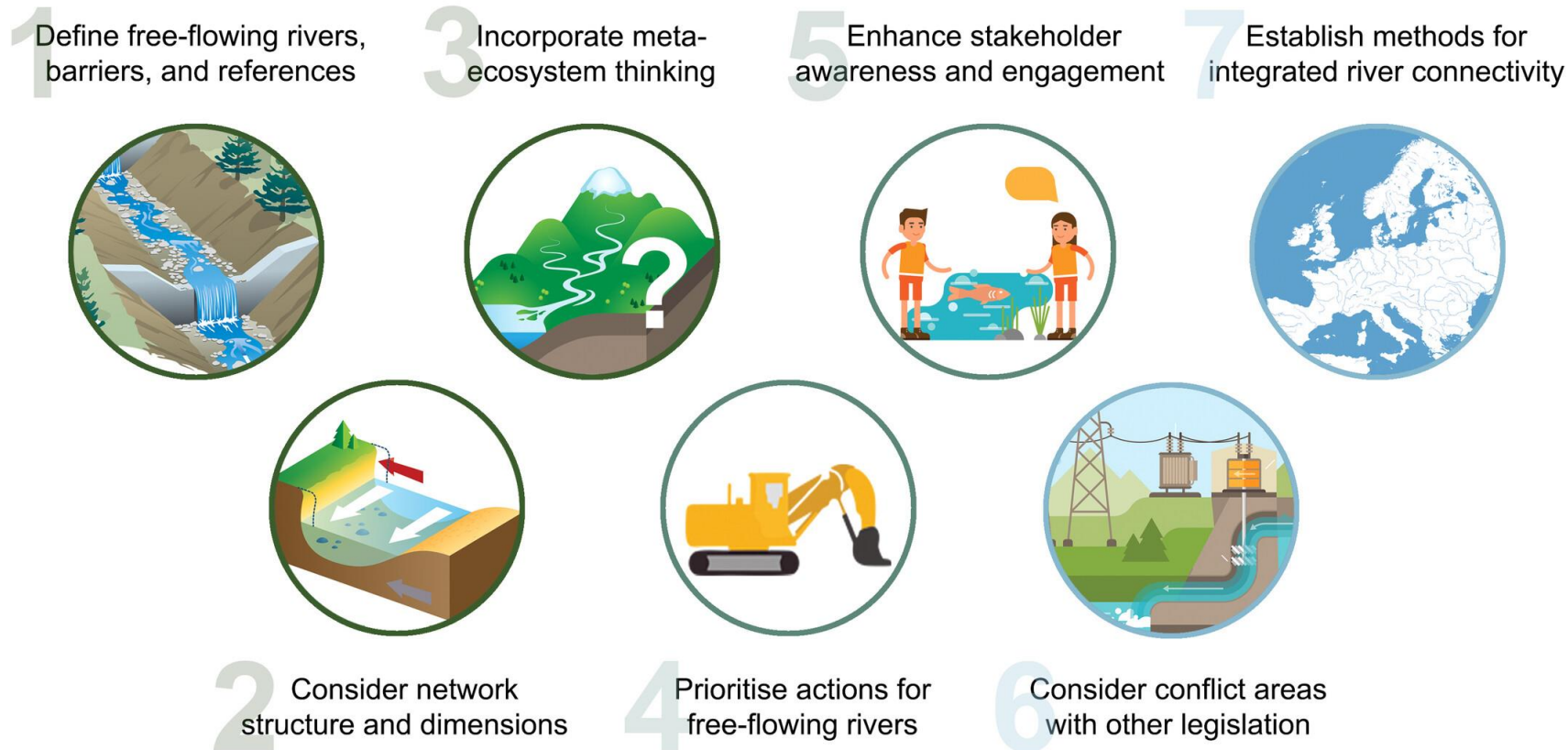
However, because the **Nature Directives lack legal deadlines for achieving their objectives**, they remain a weak motivator for immediate action. Moreover, within the Habitats Directive, there is a lack of clear motivation for biodiversity conservation or restoration concerning Annex I habitats and the protection of habitats for Annex II species located outside Natura 2000 areas.

The WFD, on the other hand, **has a legal deadline in 2027** (goal to be achieved by 2015 and latest 2027), although, it is unclear whether relying solely on water management authorities and on efforts to improve the aquatic environment will be enough to meet the WFD goals of ensuring good ecological status/potential for all surface water bodies by that time.

According to the most recent water status report (European Commission, [2021](#)), only 38% of European surface waters are in good chemical status, and only 40% are in good ecological status. When it comes to the conservation status of lake and river habitats in Annex I of the Habitats Directive, 78% of assessments indicate a poor status, and more than 22% of assessments indicate deteriorating trends compared to previous reports, with only 4% detecting improvements (EEA, [2020](#)) (Table [1](#)).”

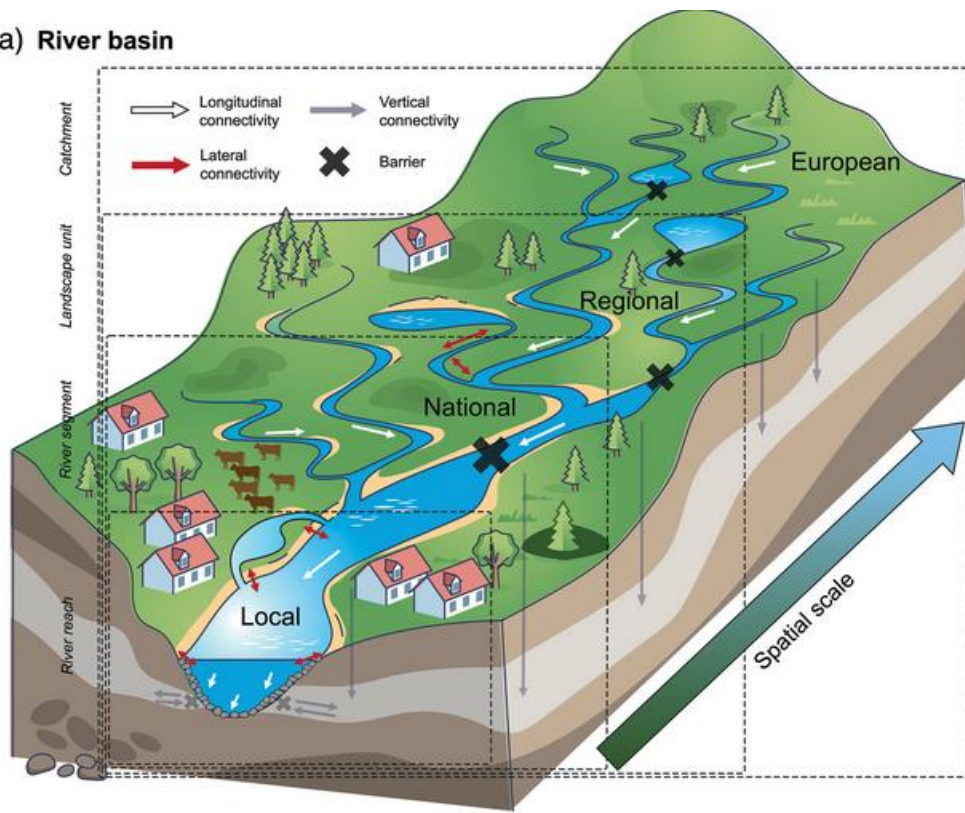
Seven challenges for effective implementation of the European Nature Restoration Law that targets establishing an additional 25,000 km of free-flowing rivers by 2030 (Stoffers et al. 2024).

SEVEN CHALLENGES TO RESTORE FREE-FLOWING RIVERS



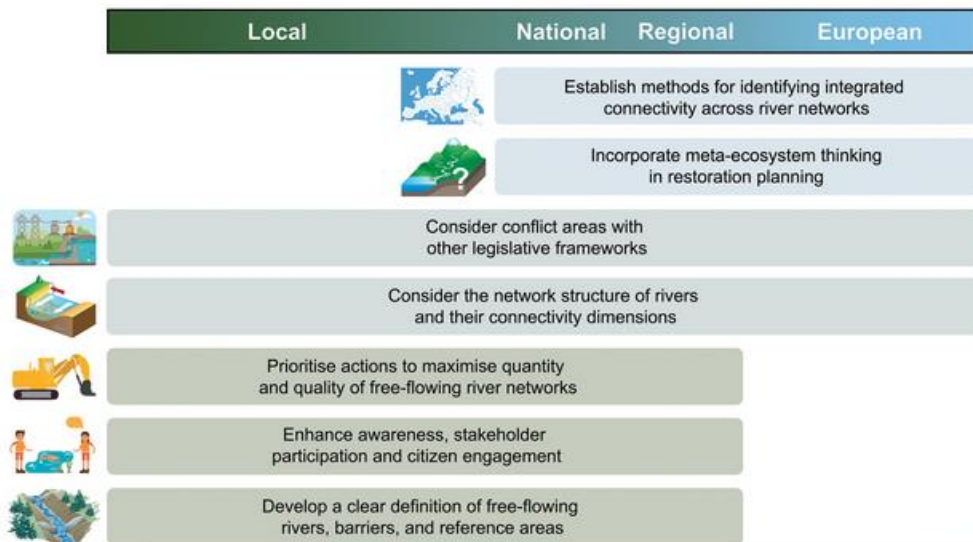
“Since centuries, European rivers have been fragmented by more than a million physical barriers, altering flow and sediment regimes, and interfering with the movement of organisms” (Stoffers et al. 2024)

(a) River basin



Seven challenges for effective implementation of the European Nature Restoration Law that targets establishing an additional 25,000 km of free-flowing rivers by 2030 (Stoffers et al. 2024).

(b) Challenges for restoring free-flowing rivers



Stoffers et al. (2024): Reviving Europe's rivers: Seven challenges in the implementation of the Nature Restoration Law to restore free-flowing rivers.

Wires Water. <https://wires.onlinelibrary.wiley.com/doi/full/10.1002/wat2.1717>