

The Black Forest

[6009km² interconnected nature reserves]

[blue-green transformation
reimagining spinning mill area in ettlingen
summer semester 2025
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international urban planning + design
institute for urban and landscape design
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joschka kannen, johannes hermann]

NATURE RESERVES MAPPING

🕒 M.1.20000

■ Naturpark – Nature Park

§ 27 BNatSchG

Large-scale areas with significant recreational or regional development value, mostly designated as landscape or nature protection areas.

■ Landschaftsschutzgebiet – Landscape Protection Area

§ 26 Bundesnaturschutzgesetz (BNatSchG)

Protected areas for preserving the landscape character, recreational value, and ecological functions. Construction and land use restrictions; interventions require approval.

■ Naturschutzgebiet – Nature Reserve

§ 23 BNatSchG

Areas of outstanding value for biodiversity, biotopes, or geological features. Strict protection; use only permitted under specific management plans.

■ Waldschutzgebiet – Forest Protection Area

§ 32 Landeswaldgesetz Baden-Württemberg (LWaldG)

Forest areas with special protection status to safeguard ecological, climatic, and social functions. Usage restrictions; must be considered in urban land-use planning.

■ Waldbiotop – Forest Biotope

§ 30 BNatSchG, § 33 NatSchG BW.

Highly protected forest habitats, e.g. ancient oak forests, ravine forests (Schluchtwälder). Alterations are prohibited; interventions generally not permitted.

■ Offenlandbiotop – Open Land Biotope

§ 30 BNatSchG, § 33 NatSchG BW

Highly protected habitats in open landscapes such as species-rich meadows and wetlands. Alterations are prohibited; of high conservation relevance.

■ (Natura 2000) FFH-Gebiet – SPA Site

Directive FFH-Richtlinie 92/43/EEC, § 32 BNatSchG

Habitats and species listed under the EU Fauna-Flora-Habitat Richtlinie (Special Protection Area Directive). Impact assessments required for planned projects.

■ (Natura 2000) FFH-Mähwiese – SPA Hay Meadow

Part of FFH sites, § 32 BNatSchG

Species-rich meadows listed in Annex I of the Habitats Directive (habitat type 6510). Protected through maintenance agreements; disturbances must be avoided.

■ (Natura 2000) Vogelschutzgebiet – Birds Protection Area

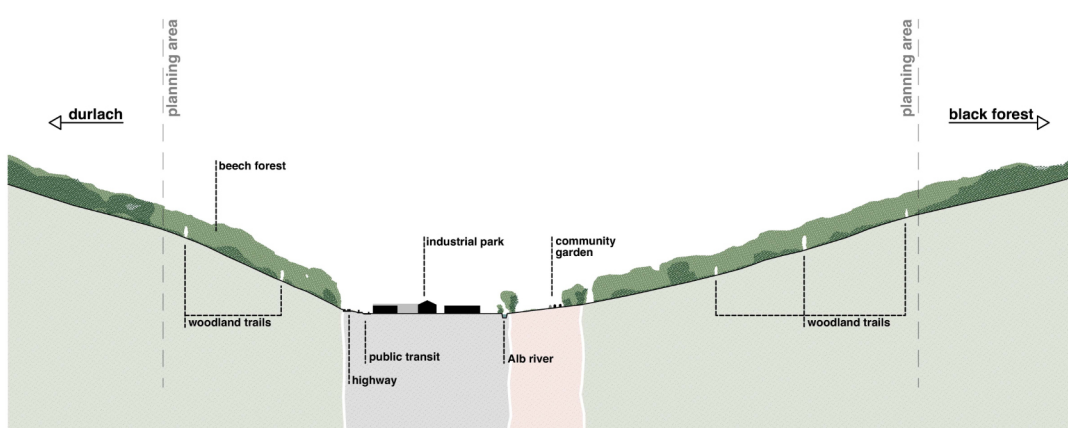
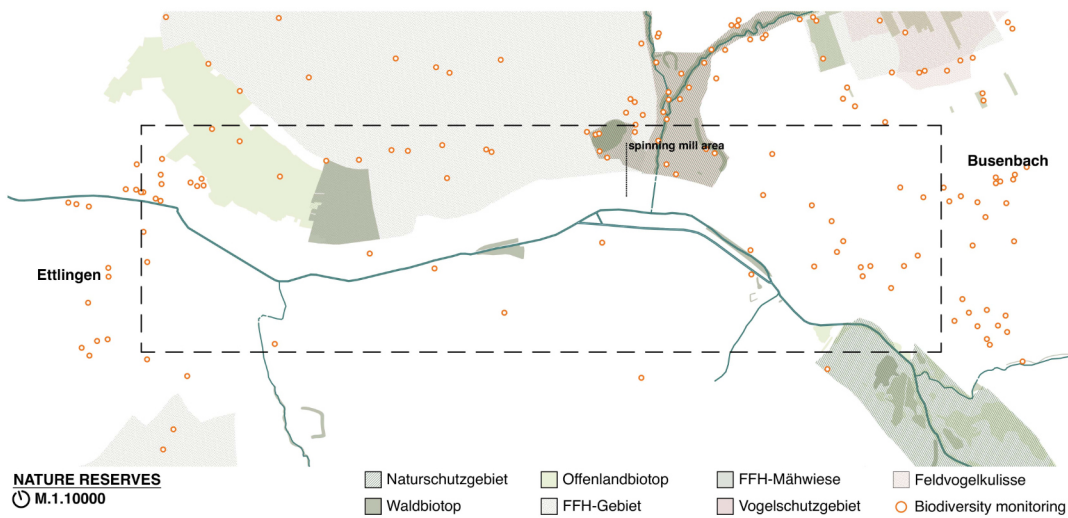
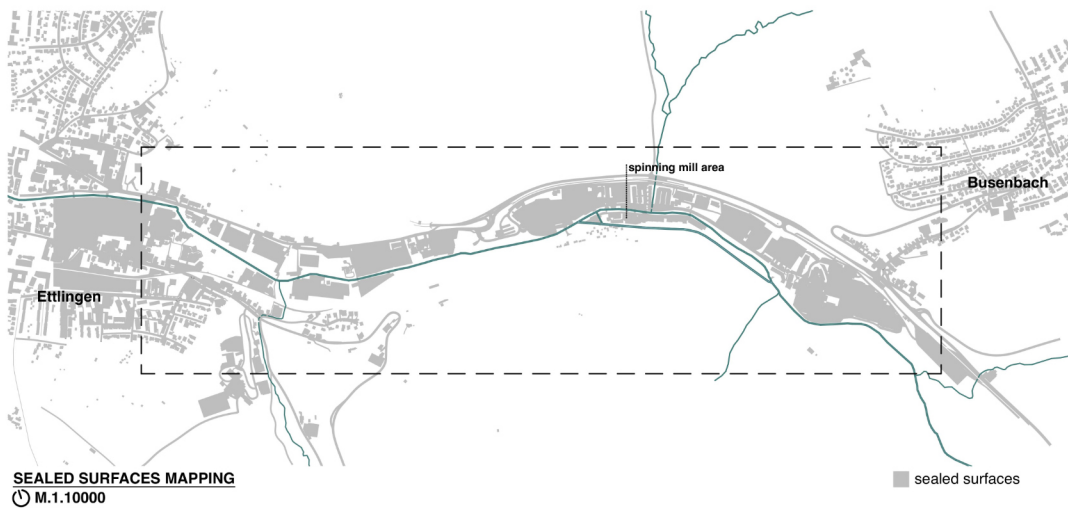
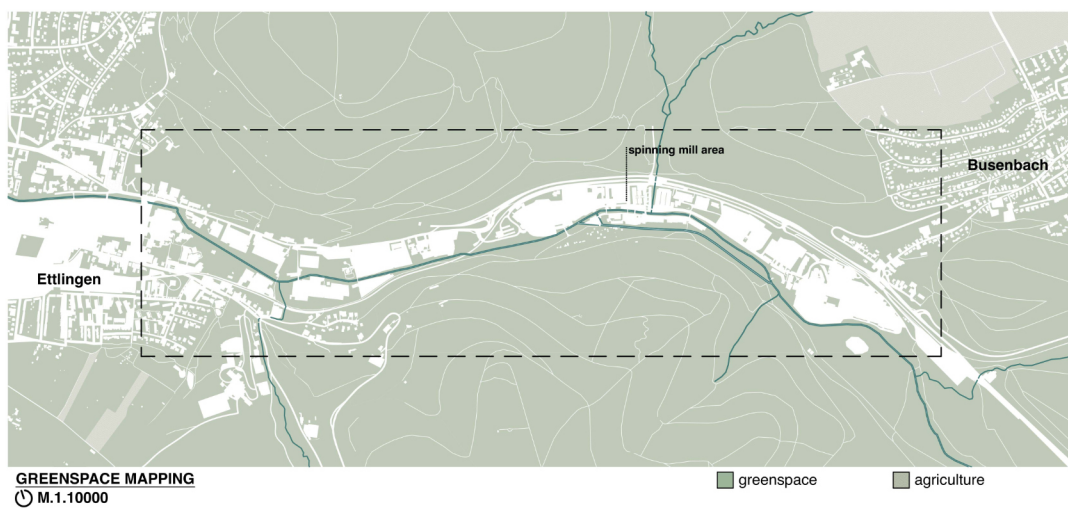
Directive Vogelschutzrichtlinie 2009/147/EC, § 32 BNatSchG

Protected areas for endangered and migratory bird species under the EU Birds Directive. Impact assessments required, especially in cases of disturbance to sensitive species.

■ Feldvogelkultisse – Farmland Bird Species Conservation Zone

Agri-environmental scheme (FAKT), not a protected area in the traditional sense.

Funding zone for endangered farmland bird species (e.g. quail, skylark) in agricultural landscapes. Primarily relevant for agriculture; indirectly important for impact regulation.



y of thinking]



**1. Neither humans nor nature take center stage.
The symbiosis between the two is the top priority.**



2. Humans and nature do not exist side by side, but are part of a complex network of relationships.



3. Decisions and values are based on what is most beneficial for the entire ecological system [humans and nature].



4. The goal is mutual benefit, so that the entire system is strengthened.



**5. In this symbiosis, the human being is the responsible and guiding force.
Therefore, humans must recognize and respect the needs of nature in all its forms, in order to strengthen their very own ecosystem.**

“

[...] In a dialectical or holistic mode of thinking, not only is everything interconnected, but it is the relationships themselves not "man" or "nature" – that take centre stage.

// Klaus Bosselmann – Heinrich Böll Stiftung

50.000

50,000 animal and plant species are currently present in Baden-Württemberg

“

Nature and landscape are not individual areas [biotopes, protected waters and biodiversity], but rather networked ecosystems that include all forms of life, including humans.

// Klaus Bosselmann – Heinrich Böll Stiftung



Their numbers have demonstrably declined over the past decades

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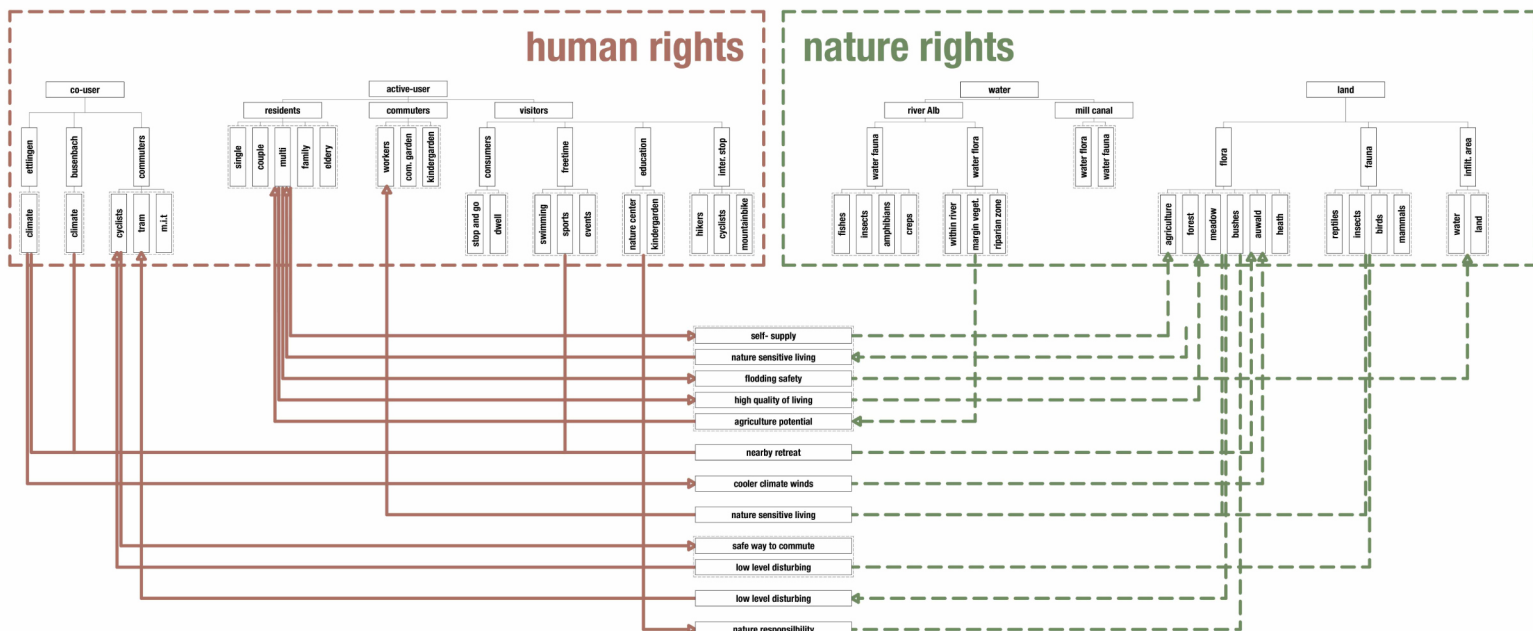
"A high level of biodiversity ensures the stability of ecosystems, healthy soils, clean water, the pollination of crops, and contributes to the recreational value of our landscapes. It is essential for the foundations of human life."

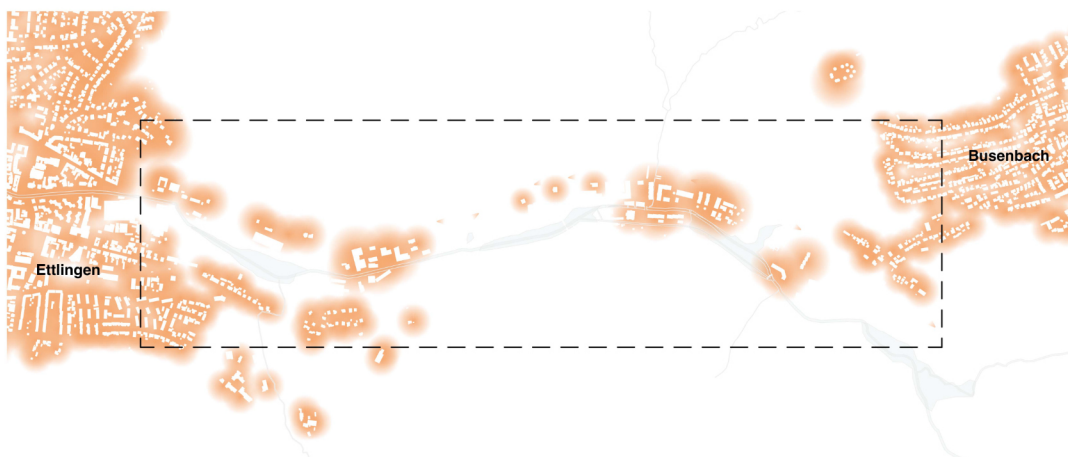
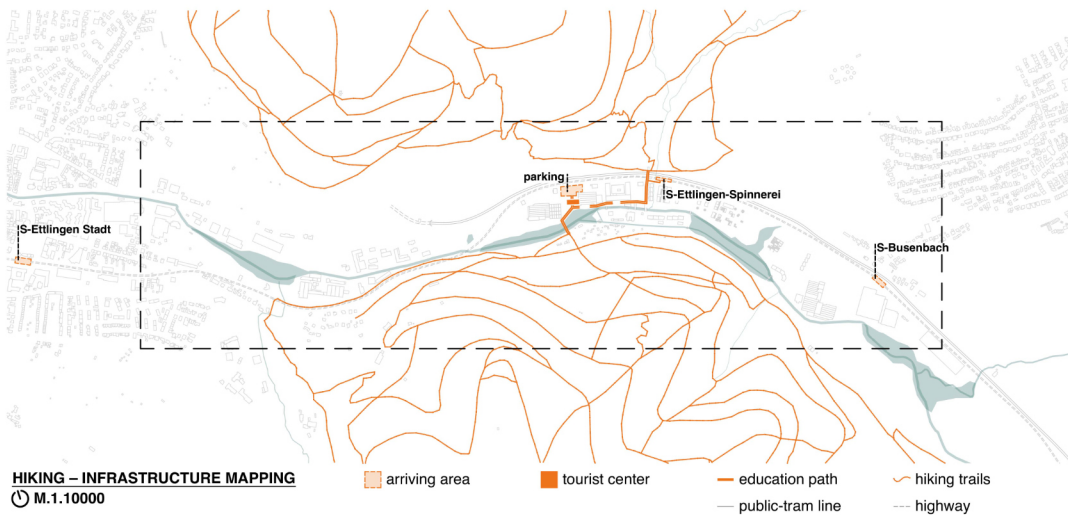
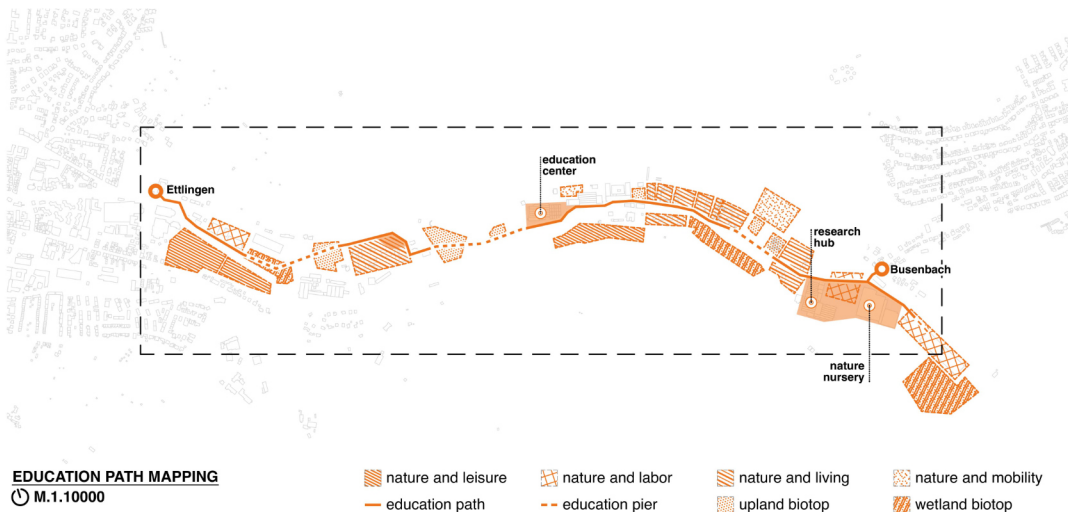
// LUBW (State Institute for Environment Baden-Württemberg)

40%

At present, 40% of animal and plant species are endangered.

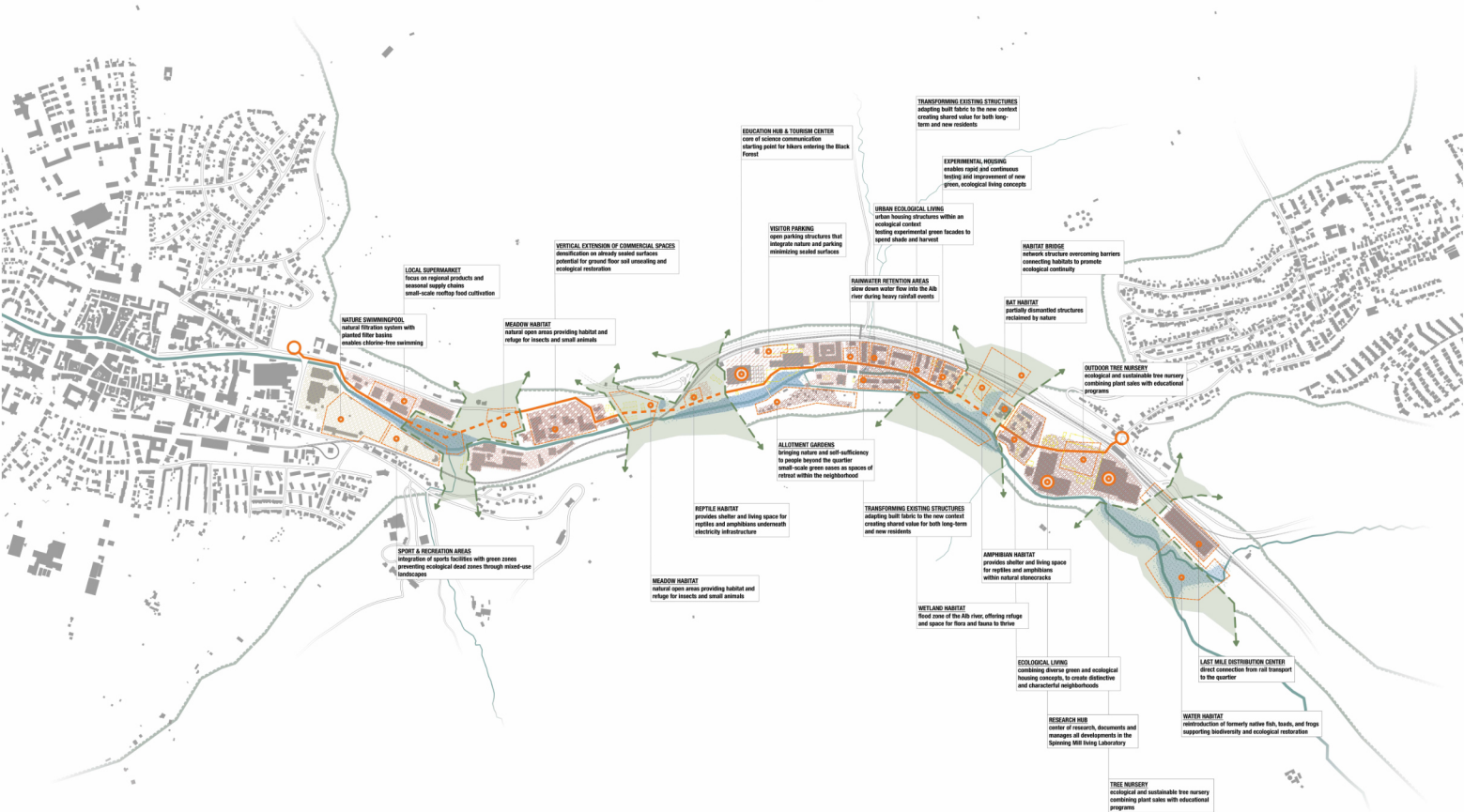
ecological rights





The Spinning Mill Lab Ettlingen

[a holistic approach on ecological rights]



STRATEGIC CONCEPT
M.1.1000

BUTTERFLIES
Large scarlet butterfly
Dark large blue butterfly

AMPHIBIANS
Common frog
European tree frog

REPTILES
Sand lizard
Smooth snake

FISH
Brook lamprey
Bullhead

AVIFAUNA
Starling
Grey wagtail
White-throated dipper
Eurasian eagle-owl
Peregrine falcon

BATS
Common noctule
Serotine bat
Grey long-eared bat
Greater horseshoe bat
Common pipistrelle

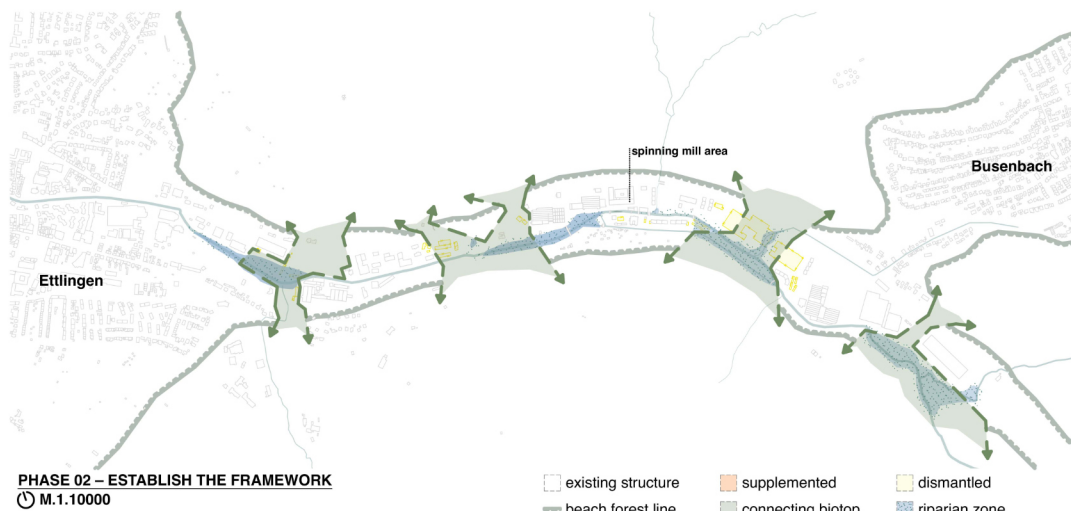
sports and leisure commercial residential mixed use
education path education pier biotope

10.000 addressing easily more than 1000 native species



During the initial phase, the education center and the research hub will be established within existing structures in order to embed the research component into the district from the very beginning. By making use of already available buildings, the project not only conserves resources but also ensures an immediate and practical integration of research activities into the everyday life of the site.

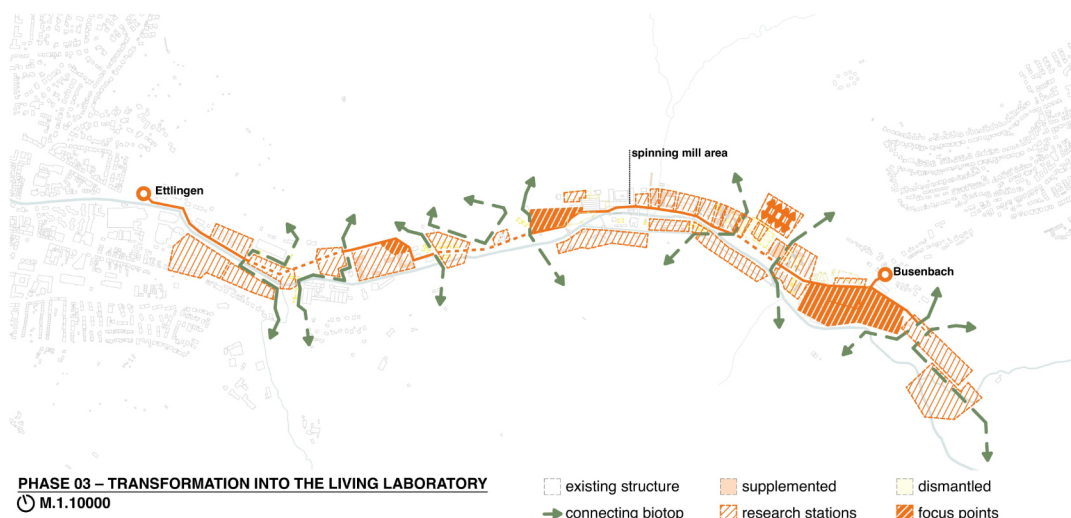
This early implementation allows researchers to observe and accompany the transformation of the district from its very first stages. Both the current conditions and the initial processes of change are systematically documented and analyzed, creating a valuable knowledge base for future development steps.



As a second step, equal opportunities will be established among the various stakeholders. A framework will be created that allows all participants to flourish in accordance with the principle of ecological rights. To make this possible, large structures that are outdated in terms of time and location will be deconstructed. The space thus reclaimed offers the potential for the development of new biotopes. In different forms. These biotopes will serve to transform previously isolated green zones into a

cohesive habitat network.

The riverbed of the Alb will be ecologically restructured and widened, allowing the river dynamic room to respond to seasonal variations and peak water flows. Along its banks, several aquatic and wetland biotopes will be created, enhancing flood resilience while simultaneously increasing ecological value and spatial quality.



In the third phase, the district evolves into a Living Lab, a dynamic environment for experimentation, observation, and co-creation. The Educational Path becomes the central element, connecting all research stations and supporting the exchange of knowledge across the area. From this point on, all further developments are guided by the ethical principles of ecological rights. Every decision must support the ecological system as a whole.

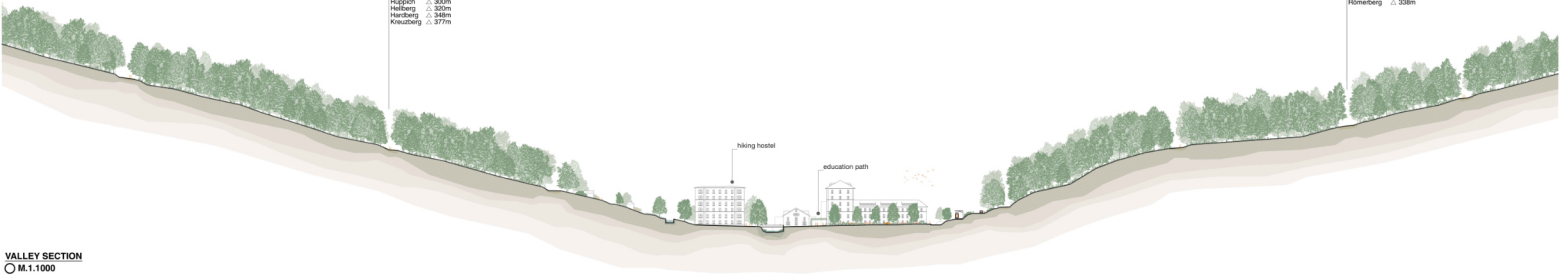
The main goal is to create connections between people, spaces, and nature that benefit all involved. All actions taken in the district are closely monitored by researchers and adjusted over time if needed. This ongoing research process ensures that the development remains flexible, responsible, and in balance with human and nature.

The living Laboratory

[a holistic approach on ecological rights]



MASTERPLAN
M.1:1000



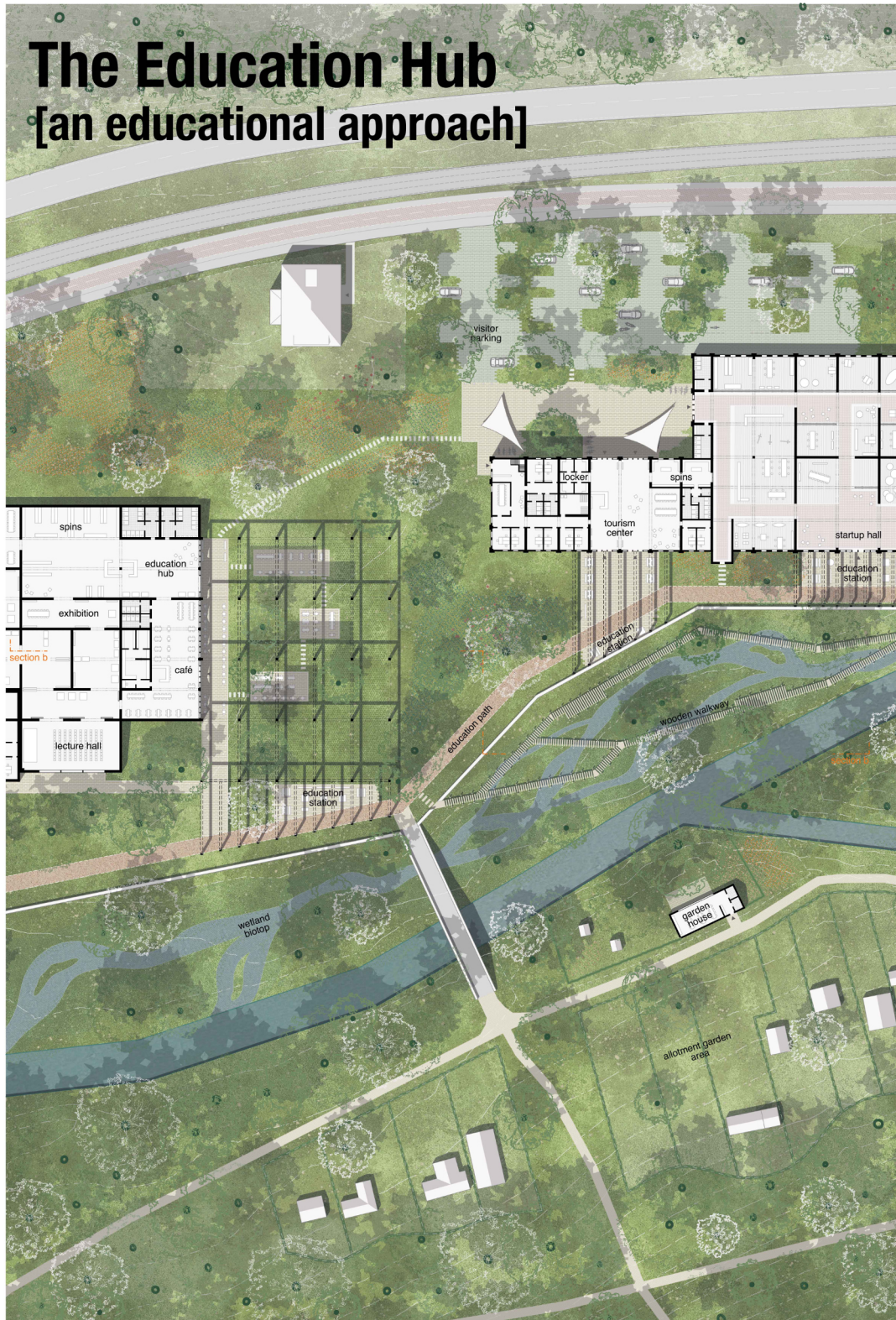
Rüppich Δ 300m
Höllberg Δ 320m
Hartberg Δ 348m
Kreuzberg Δ 377m

Reiterbuckel Δ 292m
Eberberg Δ 277m
Fornberg Δ 318m
Rosenberg Δ 338m

VALLEY SECTION
M.1:1000

The Education Hub

[an educational approach]



ZOOM-IN EDUCATION HUB
 M.1.500



SECTION A - A
 M.1.500

The Black Forest

[an experimental approach]



ZOOM-IN NATURE HABITAT

○ M.1.500



SECTION B - B

○ M.1.500