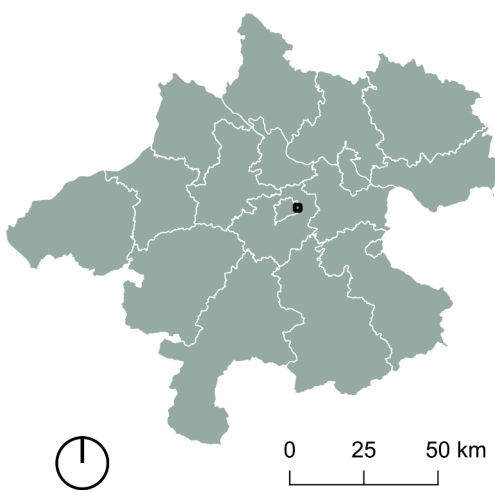


# IMPERVIOUS LANDSCAPES

## LAND USE & SURFACE CONDITIONS

LOCATION



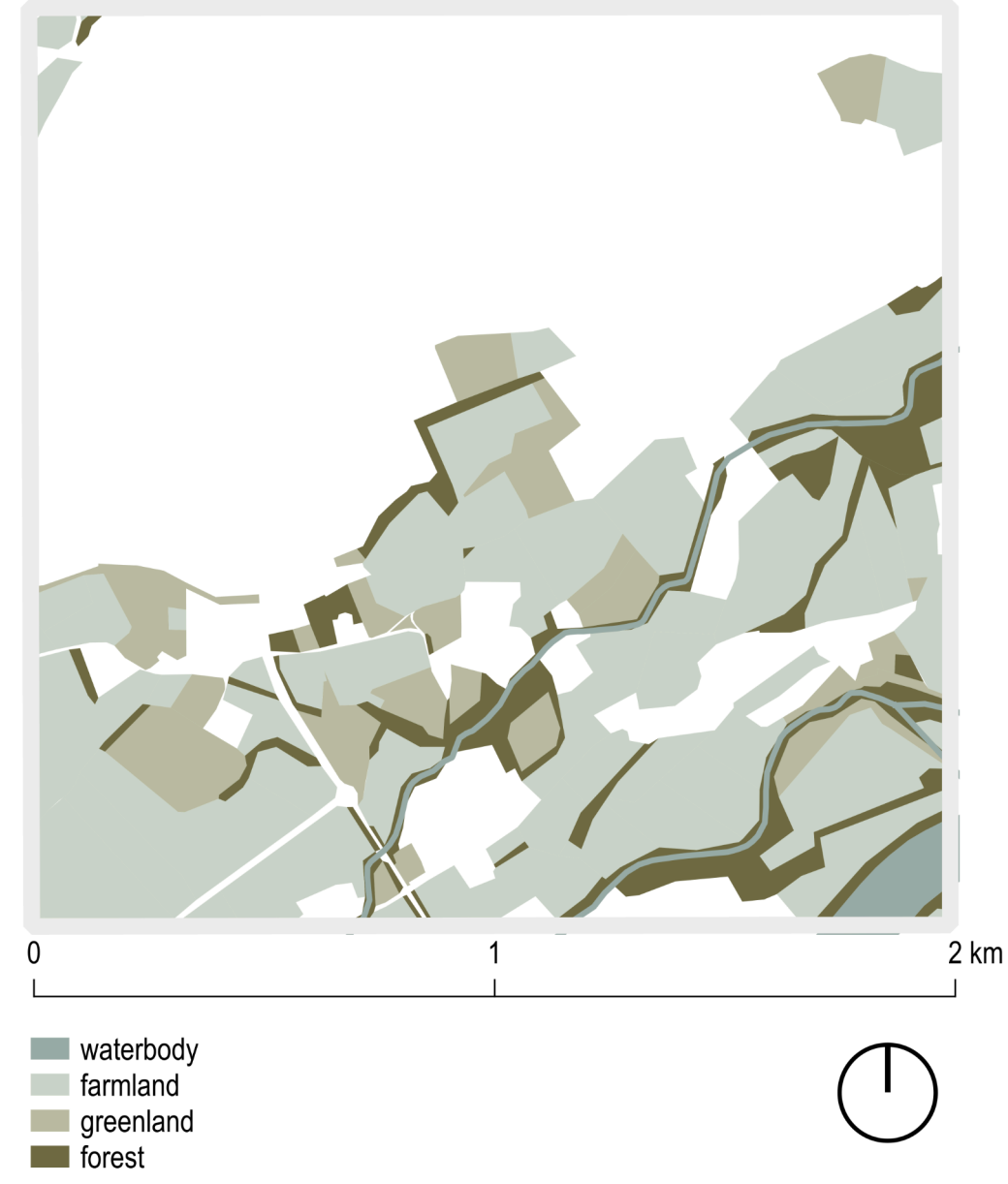
### SITE ANALYSIS

Site 3, located east of Wels, was analyzed to assess land use, impervious surfaces, mobility patterns, soil consumption, and changes in mean temperature over time. The main challenges identified were the high degree of sealing, heavy motorized traffic, and conflicts between residential and industrial areas. This comprehensive evaluation provides a holistic and data-driven understanding of the area, helping to identify opportunities for sustainable transformation.

### LAND USE



### GREEN SPACES



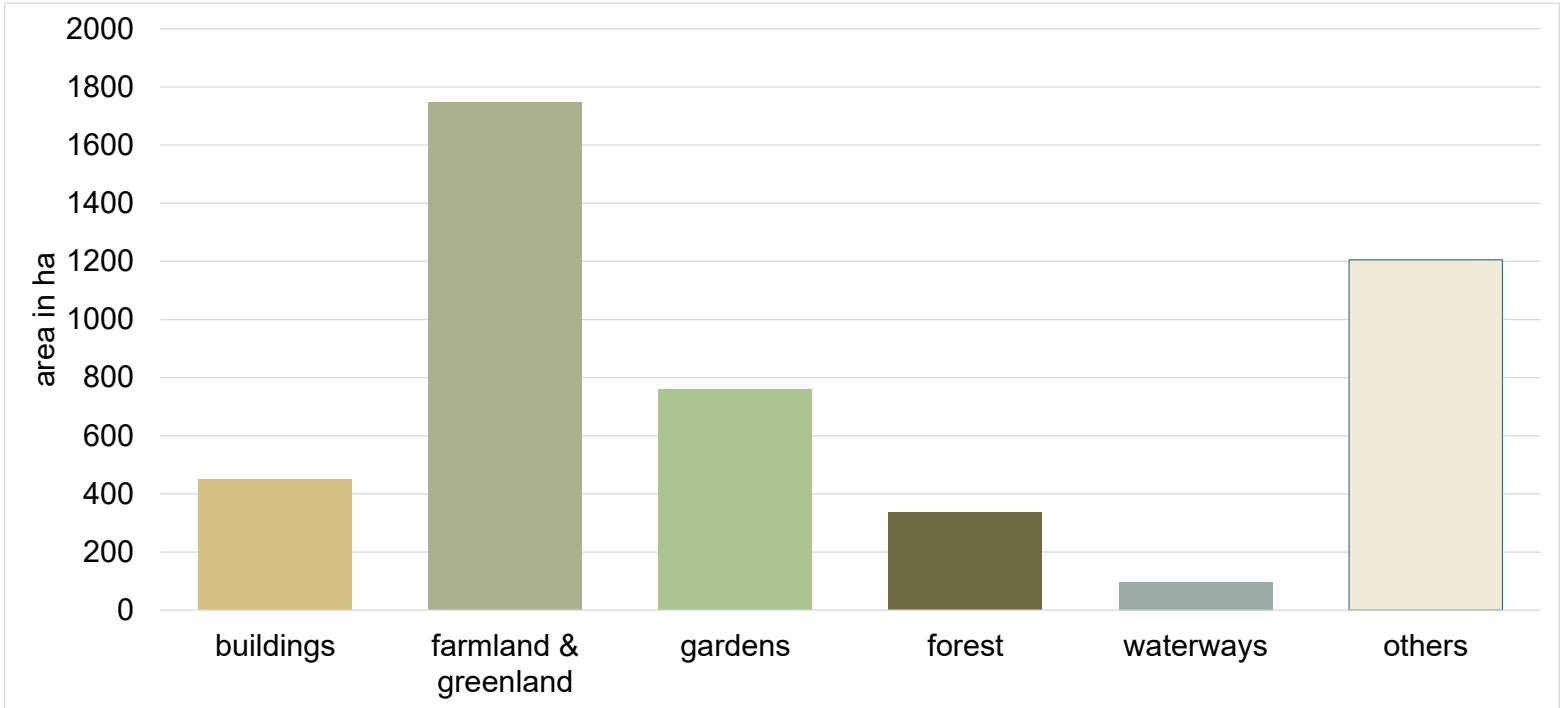
### TRANSPORT INFRASTRUCTURE



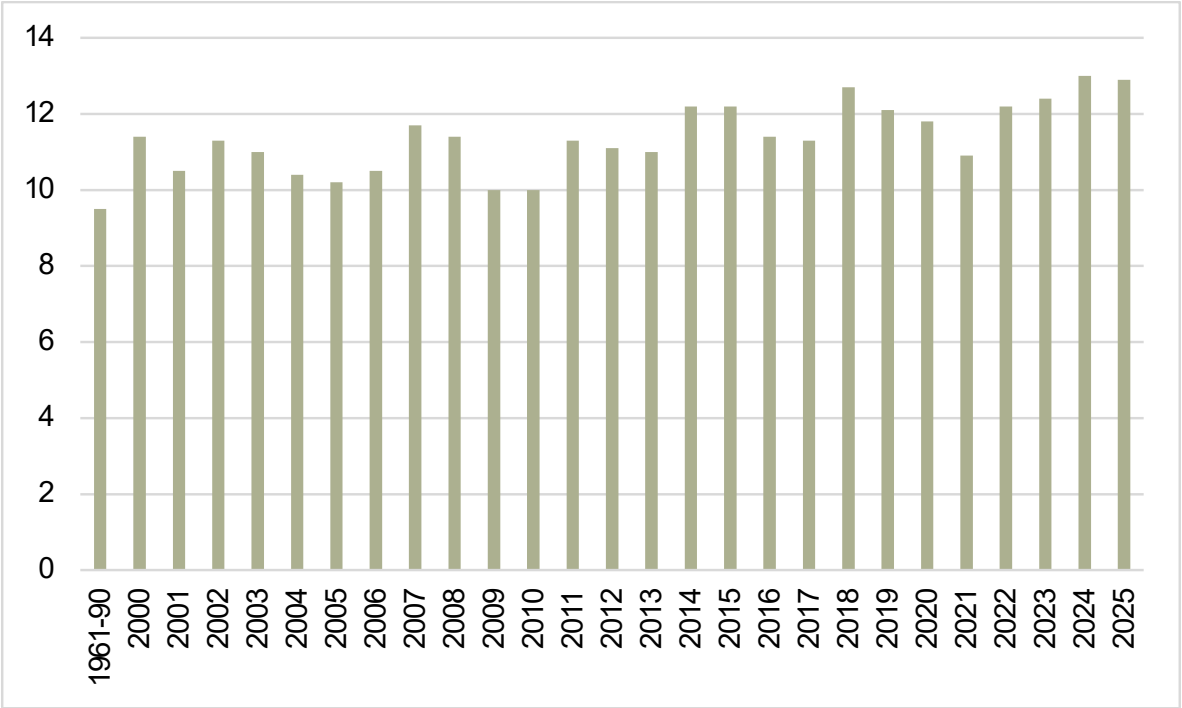
### IMPERVIOUSNESS



### SOIL CONSUMPTION



### MEAN TEMPERATURE



### WHAT IF...?

**we continue to consume more land and increase impervious surfaces:**

Further soil sealing would amplify heat accumulation, reduce infiltration, and accelerate stormwater issues. Over time, this would degrade ecological functions and limit the site's capacity to support biodiversity and human comfort.

**we maintain current development patterns:**

Continuing as before will sustain the existing levels of traffic, environmental stress, and rising temperatures. This trajectory neither mitigates climate impacts nor improves long-term resilience for residents and ecosystems.

**we shift toward desealing and sustainable landscape strategies:**

Reducing sealed surfaces and integrating green corridors can moderate heat, enhance ecological connectivity, and improve water regulation. Such interventions would create a healthier, more resilient environment with higher urban livability.



# ADAPTIVE GROUNDS

## LANDSCAPES IN TRANSITION

### DESEALING

As sealed spaces take up a lot of the urban landscape of Wels, Desealing is the central concept embedded in our designs. It represents a solution for a lot of Wels' Problems.

Deasealing restores the soil's natural infiltration capacity, enabling more effective stormwater management and reducing urban heat accumulation. It enhances ecological function by creating conditions for vegetation growth, improving local biodiversity and overall landscape resilience.

The desealing measures focus on three main areas: Industry, Streets and Parking lots.

### MIXED-USE CLUSTERS

In the process of desealing and redesigning the space, integrating mixed-use clusters connects industry, work, housing, and recreation within close proximity, creating vibrant, efficient urban environments that reduce travel needs and support a balanced daily life.

The resulting short distances strengthen local accessibility, minimize mobility demand, and foster a more sustainable, community-oriented urban rhythm.

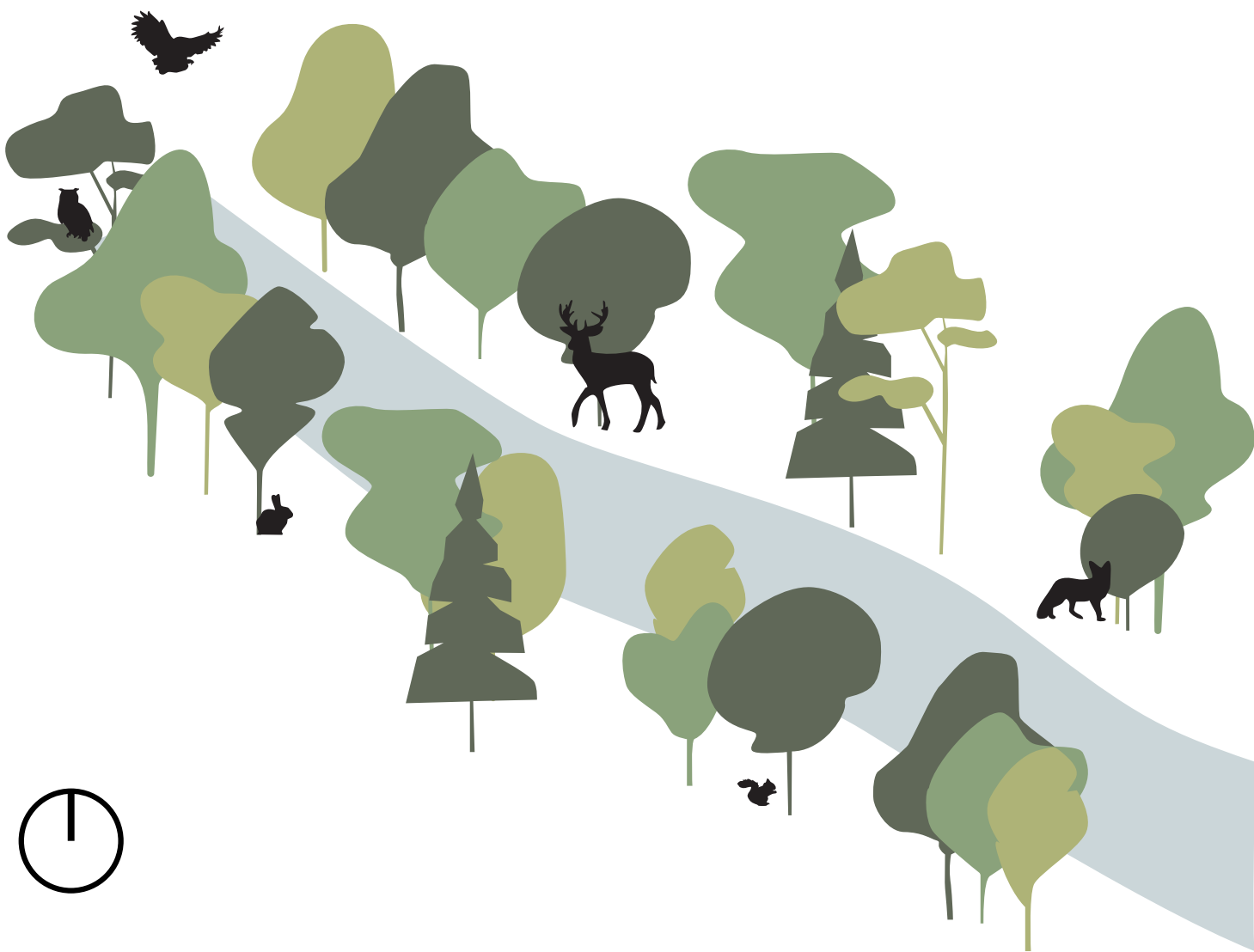
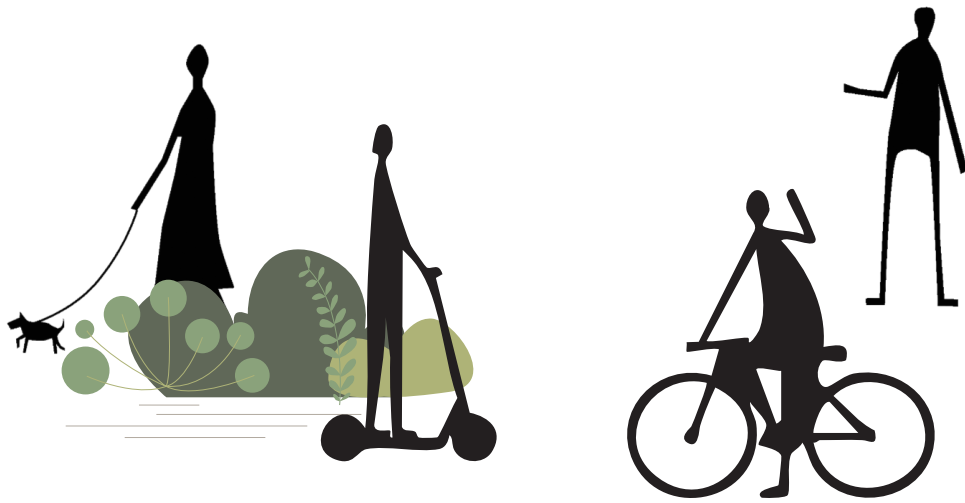
### SUSTAINABLE MOBILITY

#### SAFE MOBILITY NETWORKS FOR PEDESTRIANS AND CYCLISTS

Safe mobility networks for pedestrians and cyclists provide continuous, protected routes that promote active transportation and enhance accessibility, health, and overall urban quality.

#### REDUCTION OF VEHICULAR DOMINANCE

Reducing vehicular dominance reallocates urban space toward sustainable mobility and public life, lowering emissions while improving safety and overall environmental quality.



### SITES

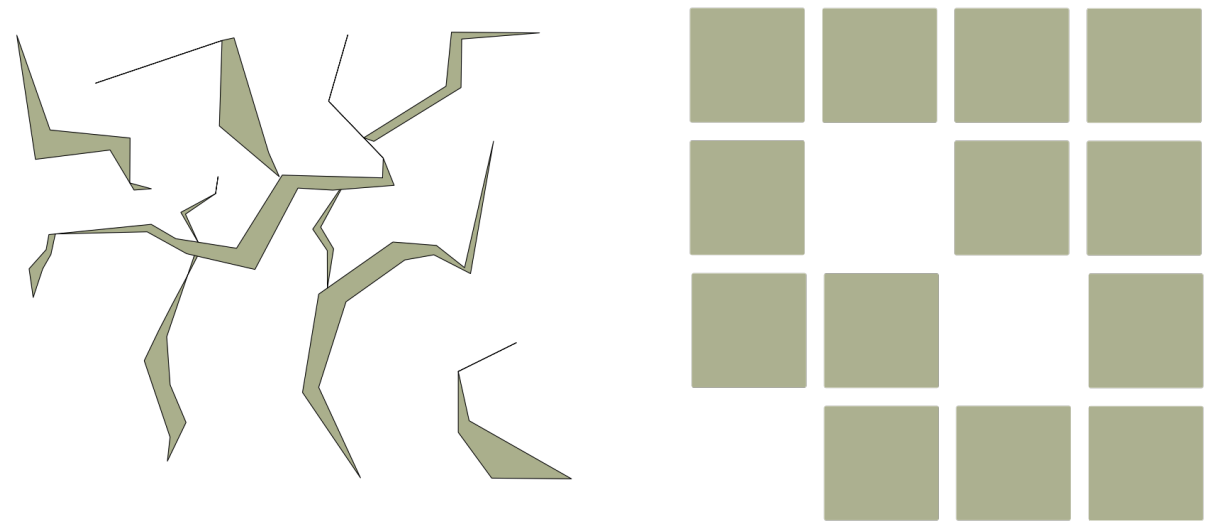


### TYPOLOGIES OF CHANGE

We decided on three sites connected to each other in the project area, which we will use to show possible changes in similar situations. The sites show 3 different situations: industry, parking space and streets. In every design different principles of desealing are applied and another design approach has been taken.

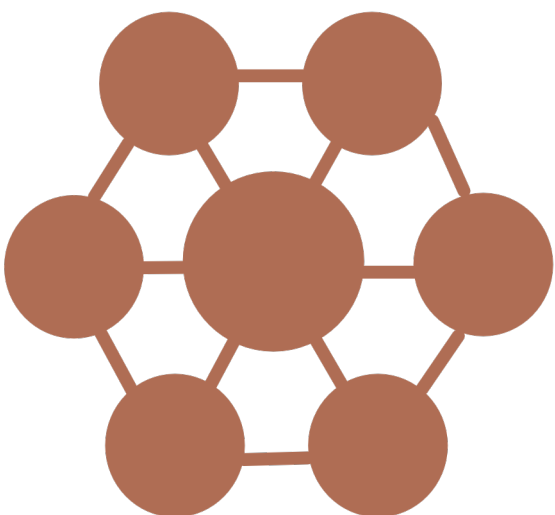
### FRACTURES & RASTERS

Accessible and inaccessible fractures within the existing asphalt are integrated at various transition points and through different design strategies. They aim to restore soil respiration and water retention while gradually introducing vegetation into the area. The grid is composed of 1.5 x 1.5 m planted squares with a variety of grasses, creating additional greenery as well as spaces for informal use.



### CONNECTIVITY

Connectivity as a design principle refers to the physical, social, and visual links that allow people, places, and activities to interact seamlessly while also supporting ecological systems. Well-designed connections—such as walkable streets, transit networks, and public spaces—promote accessibility, inclusivity, and resilient, human-centered environments.



### WATER AS DESIGN DRIVER

Water shapes space and use. Rainwater is not a by-product, but a structuring design element. Topography, paths and vegetation follow the flow of water. Retention becomes spatially tangible and visually apparent in the landscape.

