

MOSCOW STATE of mind

FROM OBJECT TO SUBJECT: a METAMORPHOSIS TOWARDS CONTEXT-SENSITIVE URBAN FUTURES

Critical Environments:
Rights of Nature – A Radical Design Perspective

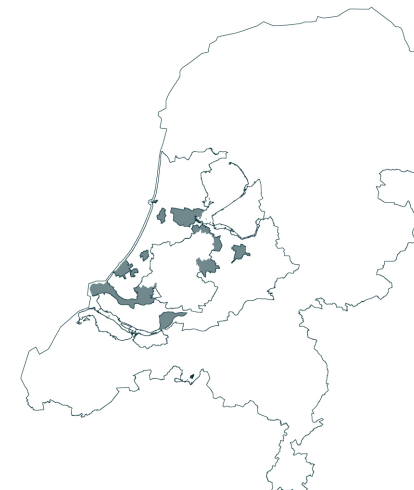
A4 presentation 26.06.2026

part 1. introduction

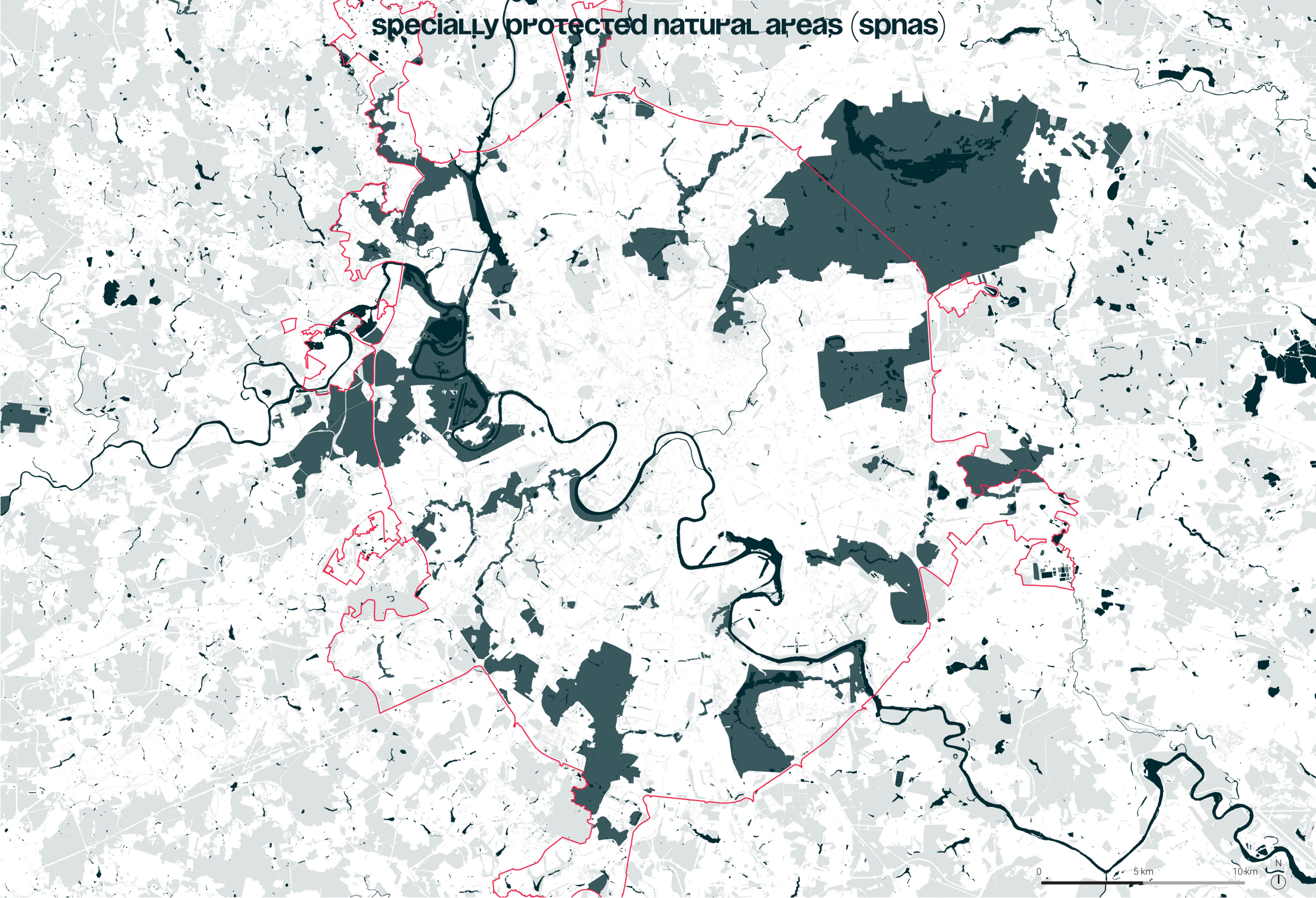
context & scale



Moscow Region vs Netherlands
22 050 020 pop. vs 18 031 000 pop.



Moscow vs Randstad
13 274 285 pop. vs 8 400 000 pop.





Bitsevskiy Forest Park



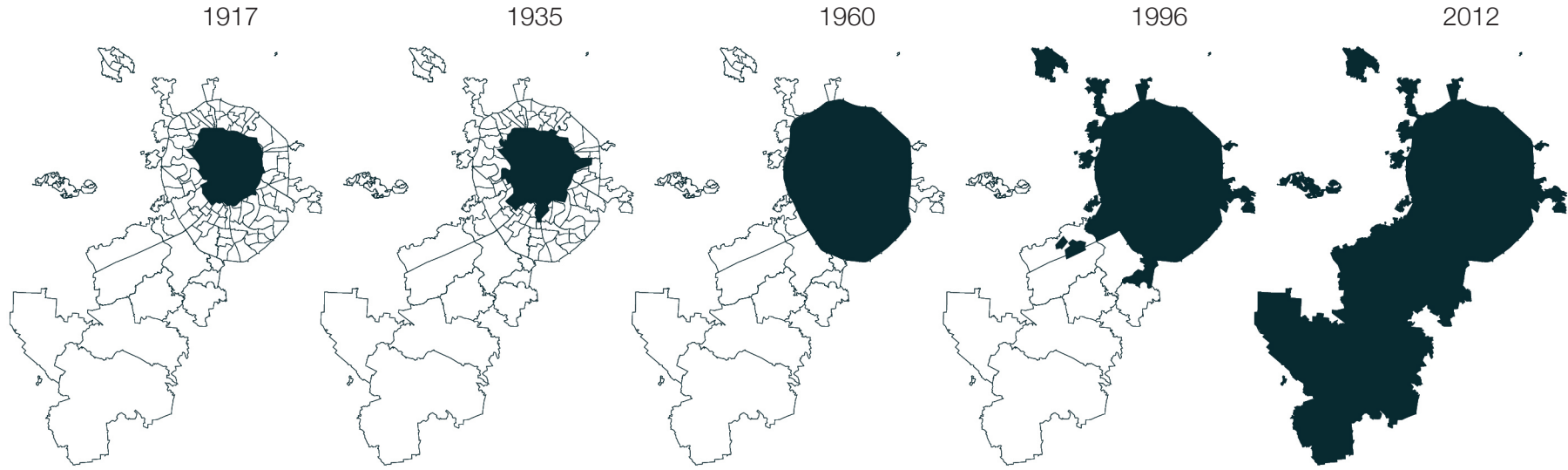
Tsaritsyno Landscape Park



Losiny Ostrov National Park

MOSCOW'S EXPANSION

100 years:
population increased more than 6,5 times
area grown around 11 times
In 2012 with New Moscow area increased by 2,5 times



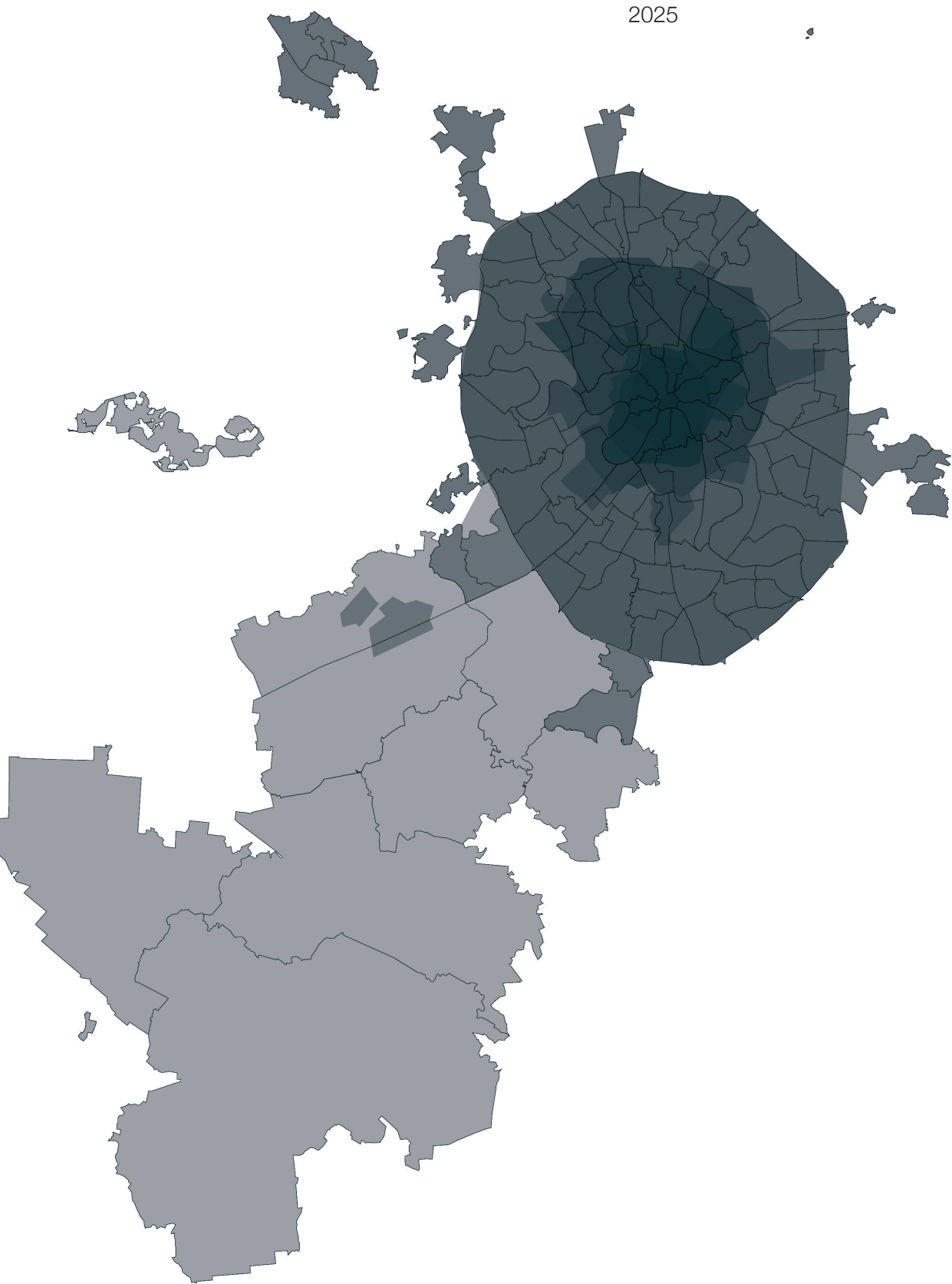
The transfer of the capital from Saint Petersburg back to Moscow, followed by expansion to the north

The adoption of the Genplan and the large-scale reconstruction of the city, including the construction of the first metro line

The Moscow Ring Road (MKAD) becomes the city's boundary

Expansion beyond the MKAD, incorporation of Zelenograd

Annexation of the New Moscow territory (TiNAO)



2025

PROBLEM STATEMENT

Moscow's Specially Protected Natural Areas face a systemic crisis — structurally vulnerable, without long-term vision, and increasingly at risk within the city's evolving urban fabric.



Khoroshevo-Mnevniki residential development, 2017

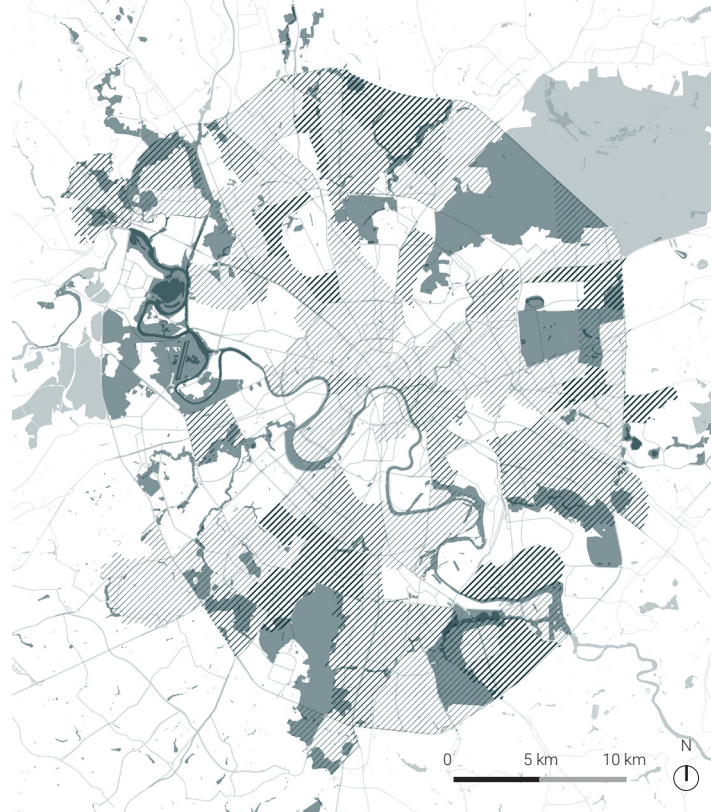


Danilovsky District. ZIL and the Southern Landscape Park (2003 – 2024)

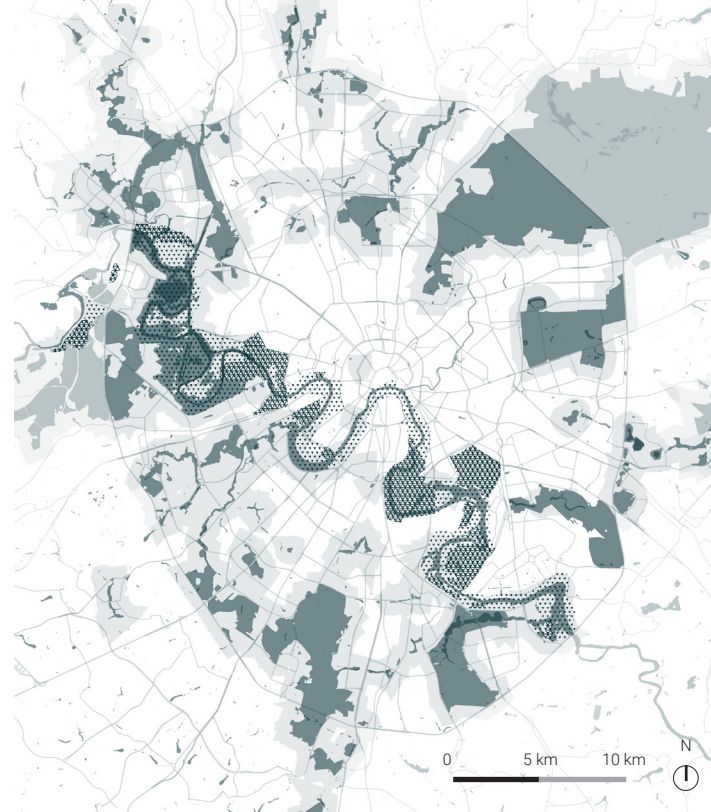


Horoshyovo-Mnyovniki District (2003 – 2024)

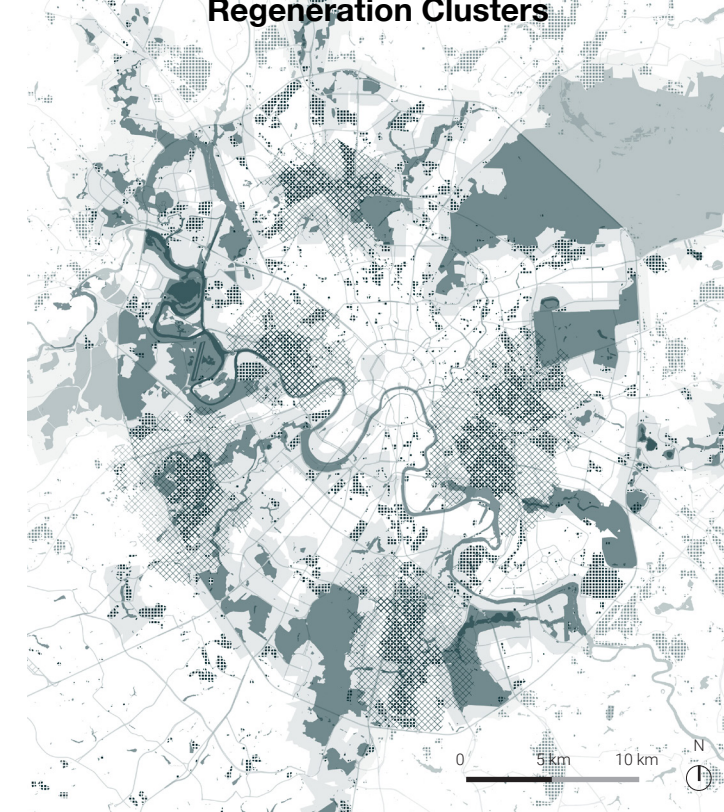
1.1 Population Density of Moscow Districts



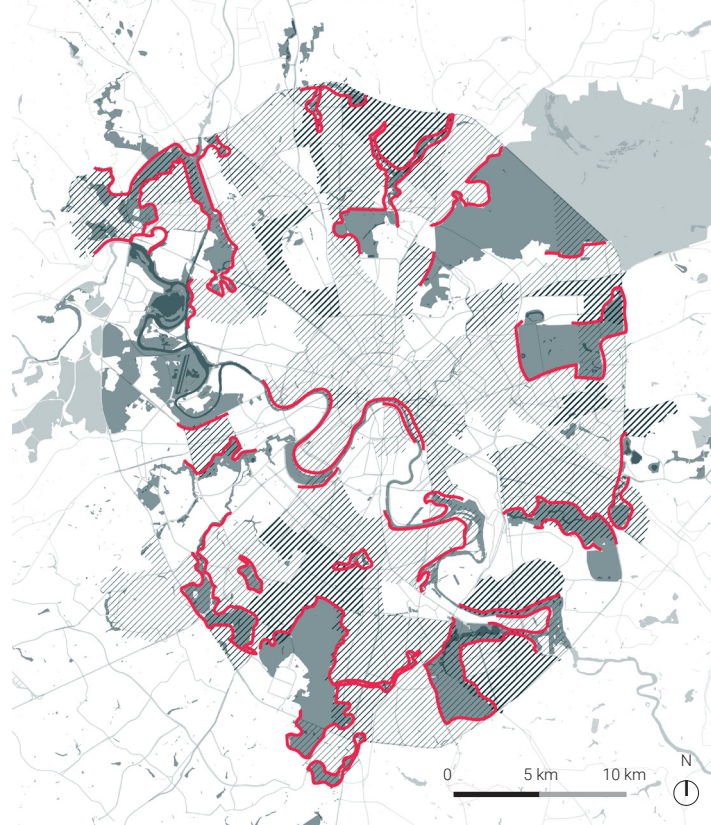
2.1 SPNA and Moskva River Influence Zones



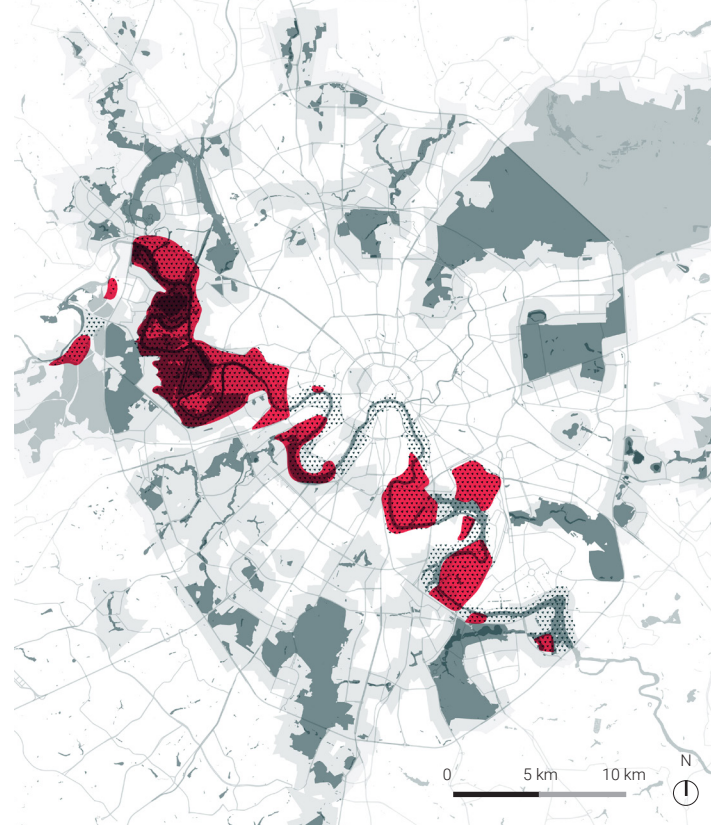
3.1 Industrial and Post-Industrial sites and Future Regeneration Clusters



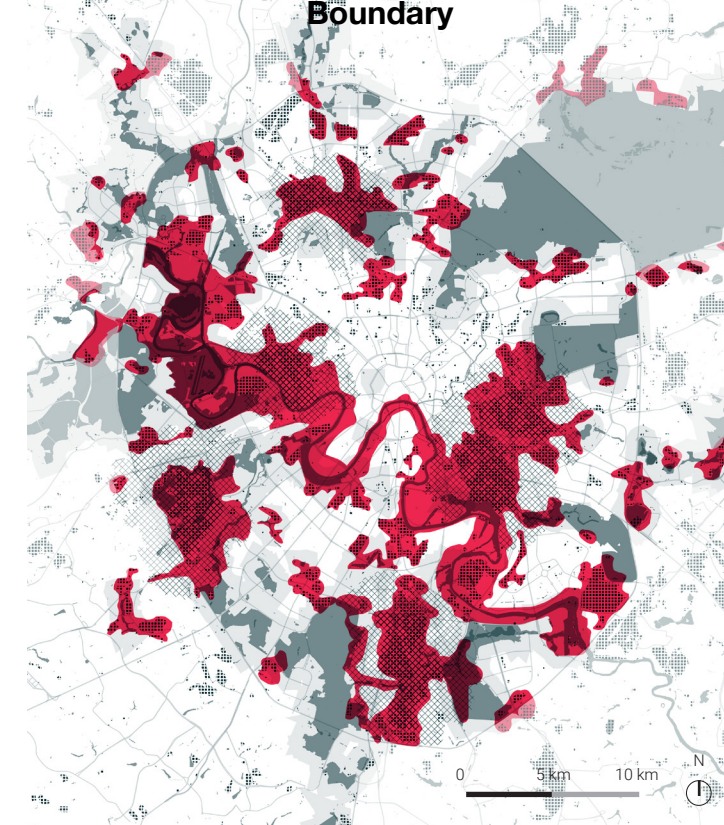
1.2 Most Pressured SPNA Boundaries



2.2 Overlapping Influence Zones

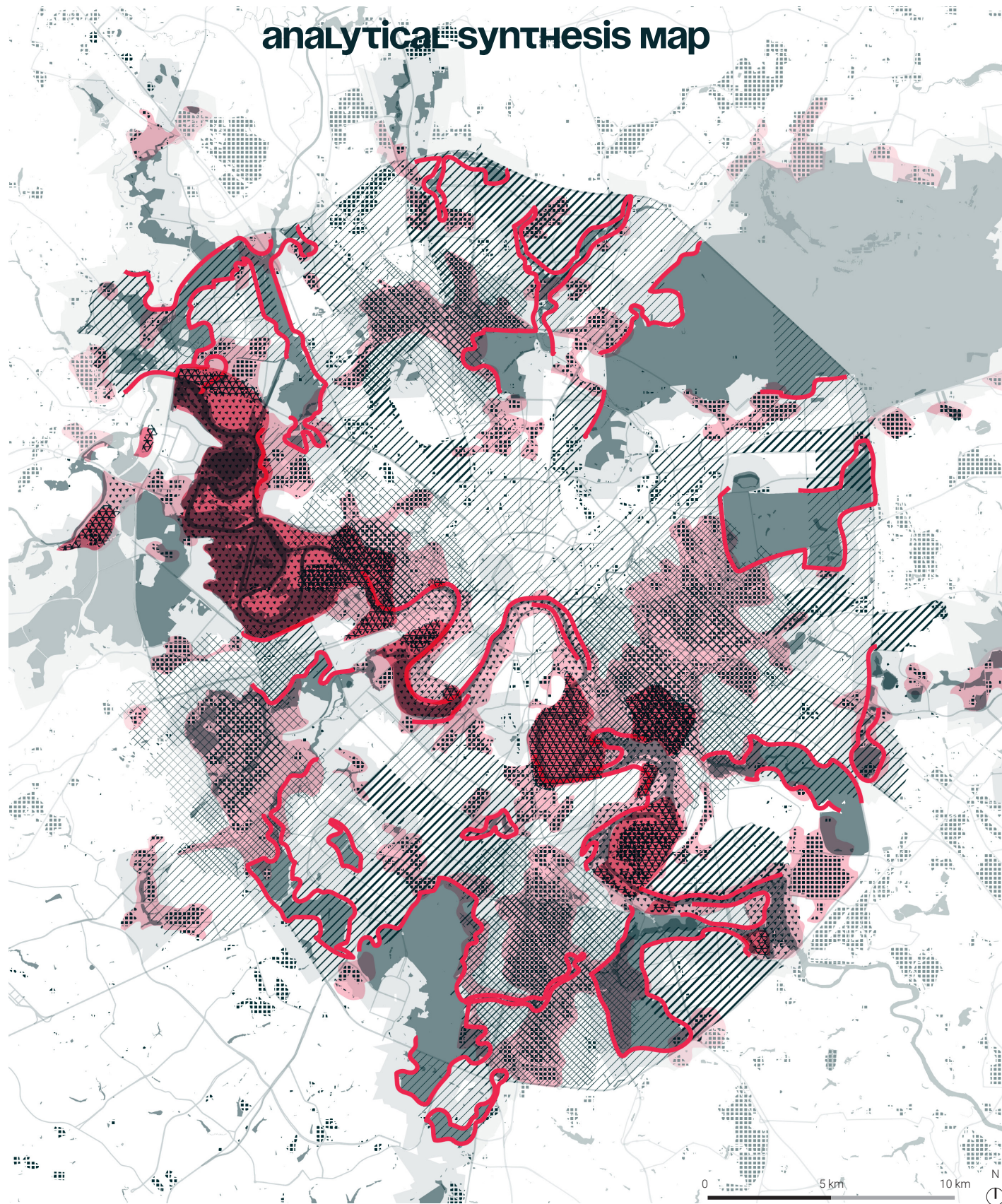


3.2 Regeneration Clusters Adjacent to the SPNA Boundary

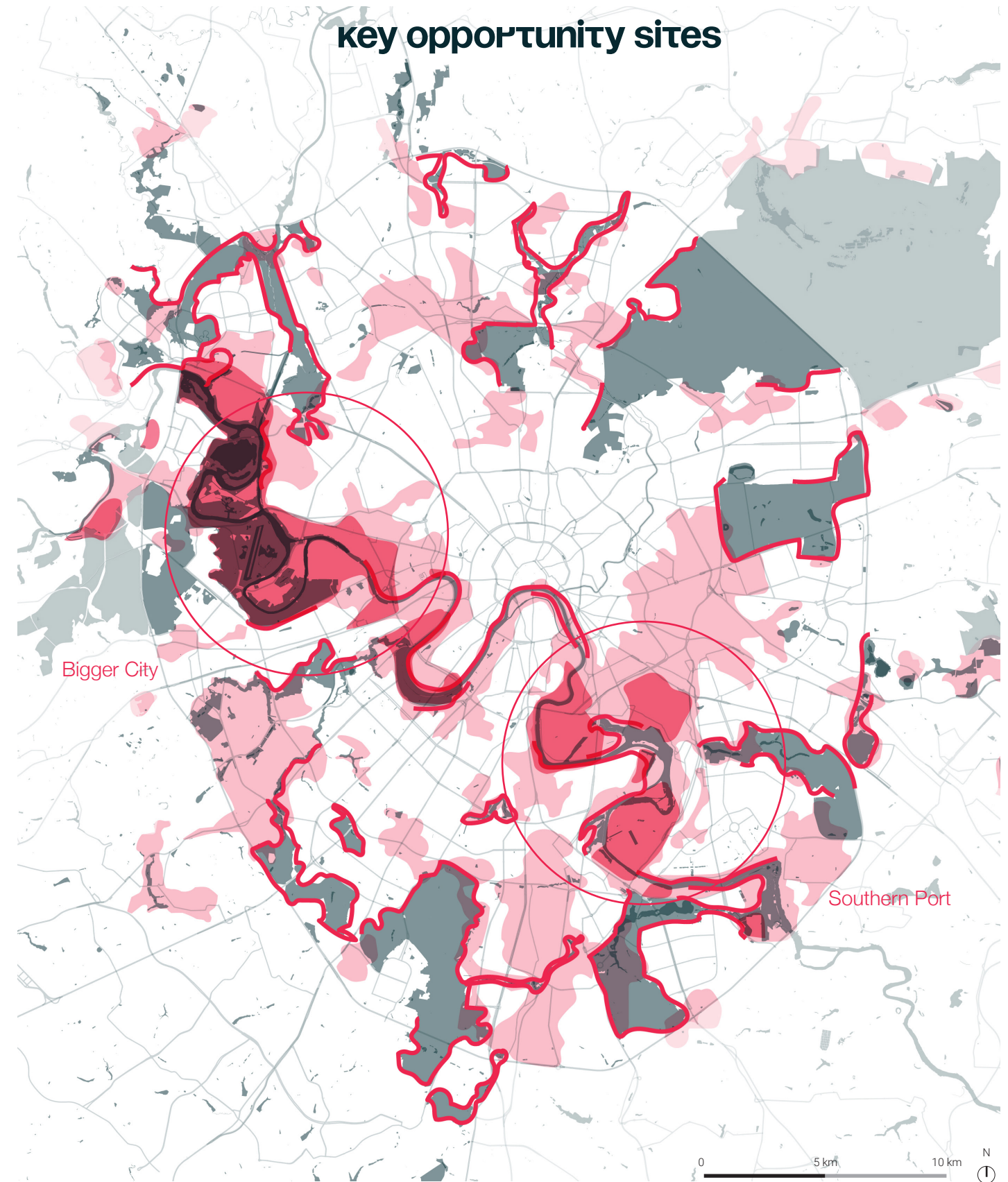


- Conflicts
- SPNA's
- Built Environment
- Roads and Infrastructure
- Water

analytical synthesis map



key opportunity sites

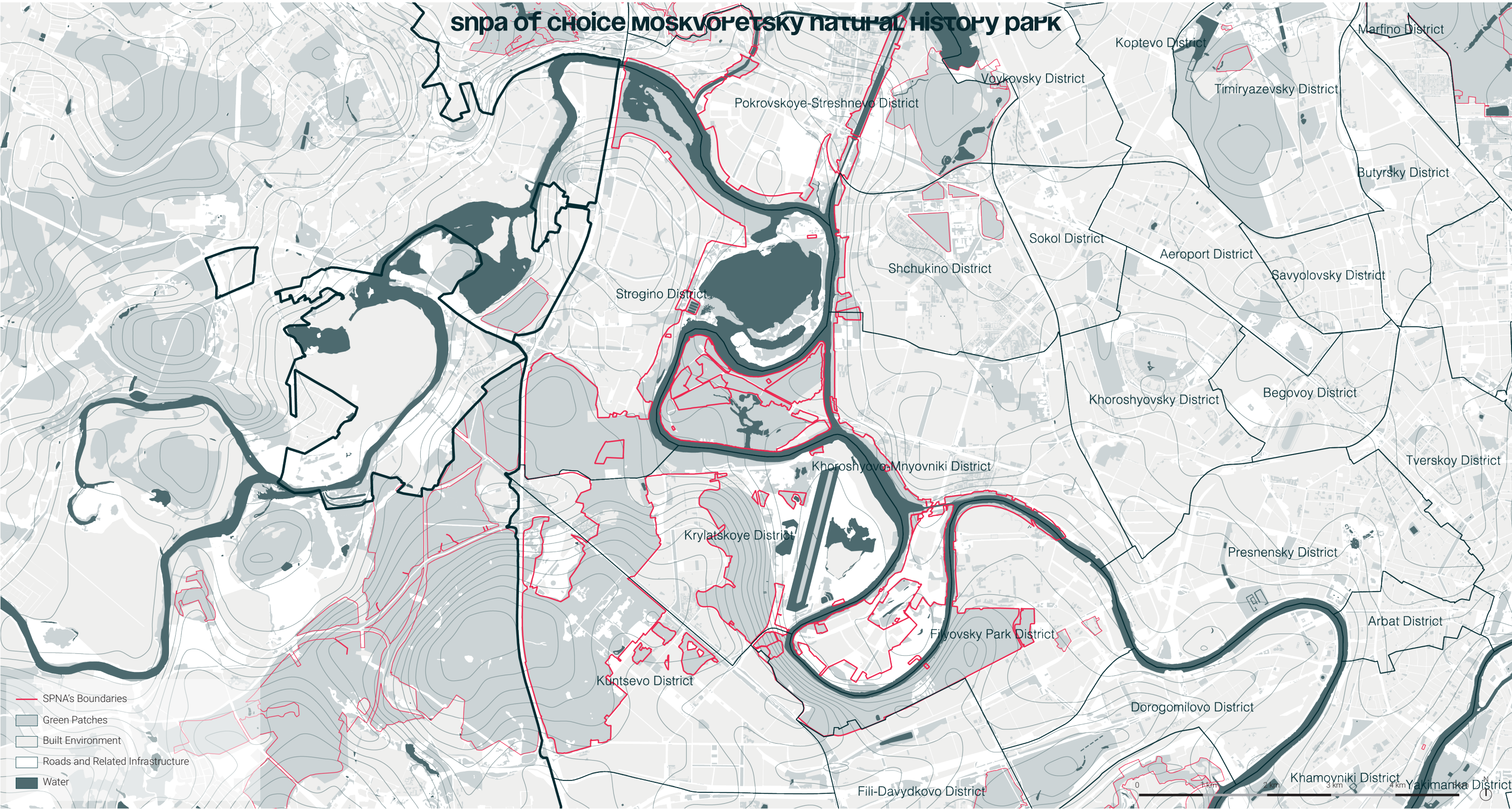


Research question

**How can Moscow's specially protected
natural areas secure long-lasting
commitments in favour of nature?**

part2. analysis

snpa of choice moskovetsky natural history park



functional zoning
analysis



LIMITS and THRESHHOLDS

Ecological Value of Vegetation Patches

Landscape fragmentation affects the viability of ecological communities, particularly in relation to the availability and size of core habitats.

Core Habitat Size (Temperate Forests)

- < 10 ha — highly fragmented
- 10–50 ha — moderately fragmented
- > 50 ha — ecological stability begins to be maintained

Edge Effect

The softness or hardness of an edge influences both the depth of the edge effect and the extent of disturbance within a habitat patch (e.g., increased wind exposure, sunlight penetration, etc.).

Indicative distances:

- 10 m — edge zone
- 20 m — very limited core area
- 50 m — stable core area

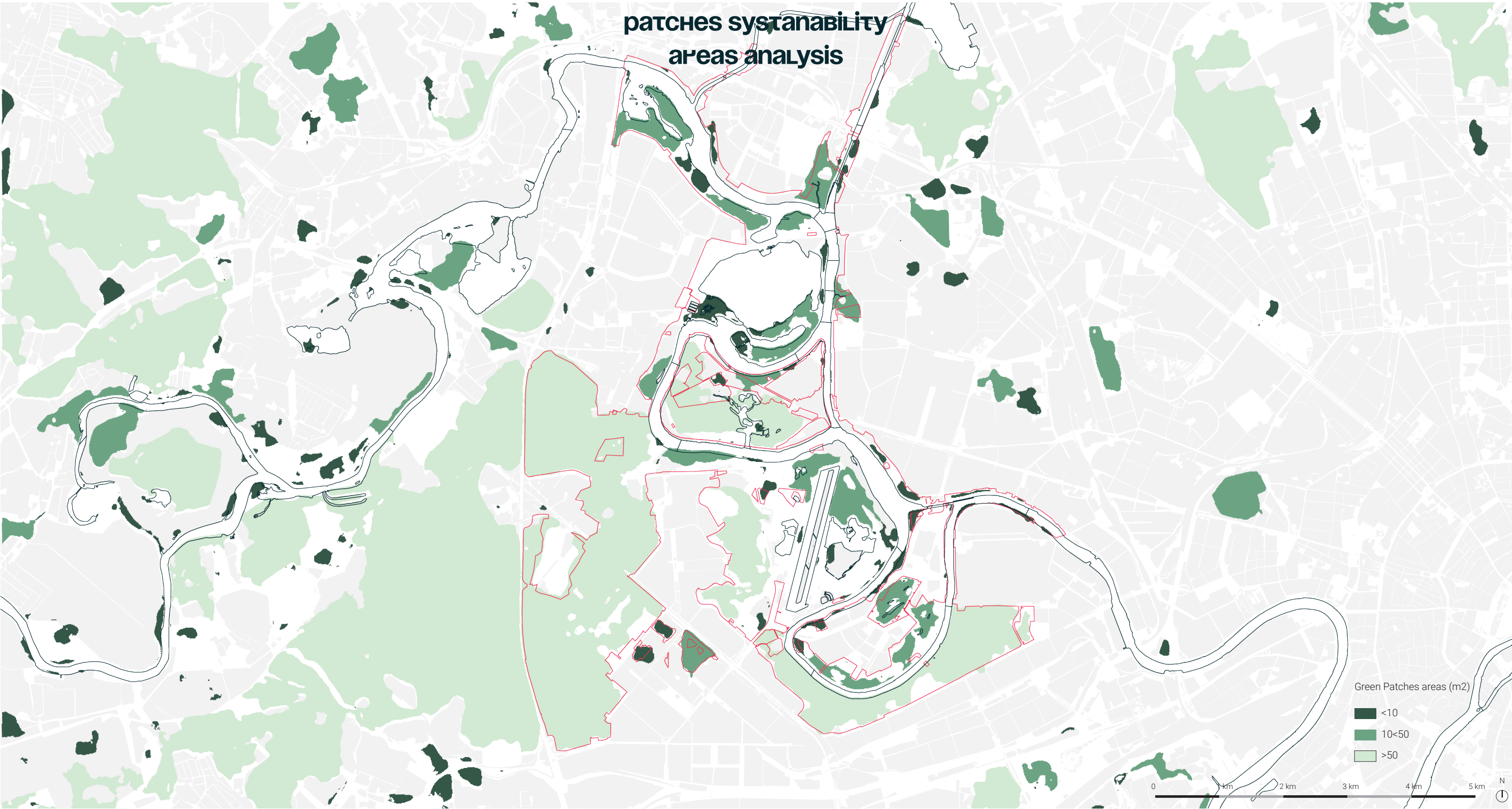
Habitats

Spatial Ecology of Species

Key parameters vary by species and include:

- Home range size
- Minimum viable population area
- Foraging area

(All parameters are species-specific.)

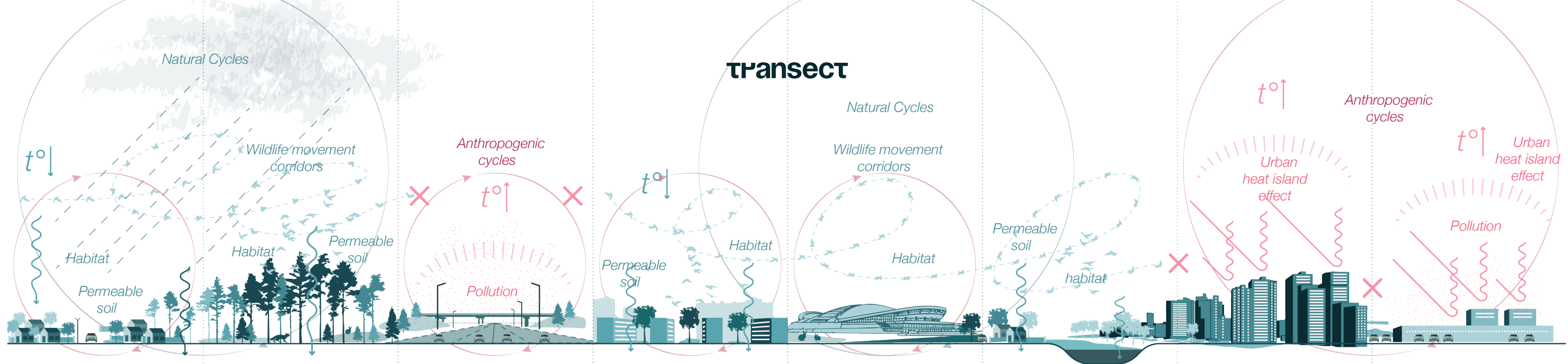


patches sustainability
areas analysis

Green Patches areas (m2)

- <10
- 10<50
- >50





T1 – Low-rise residential within forest

T2 – Forest core

T3 – MKAD highway corridor

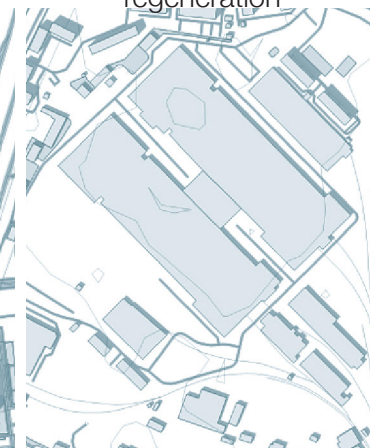
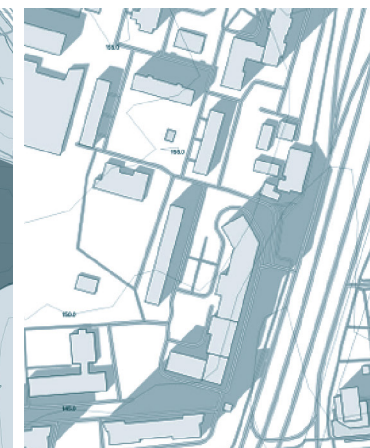
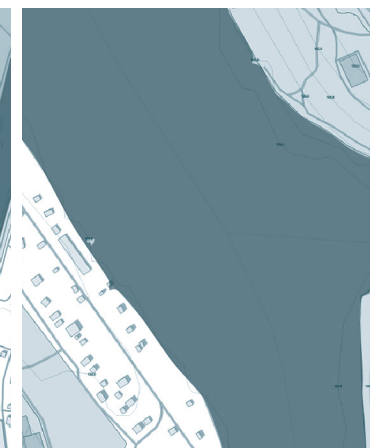
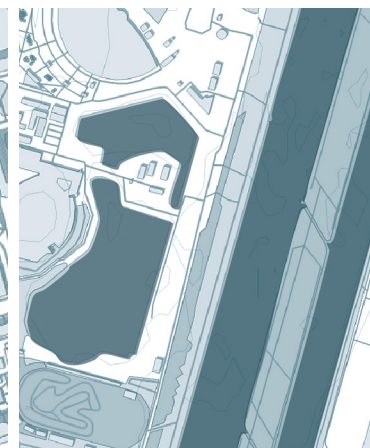
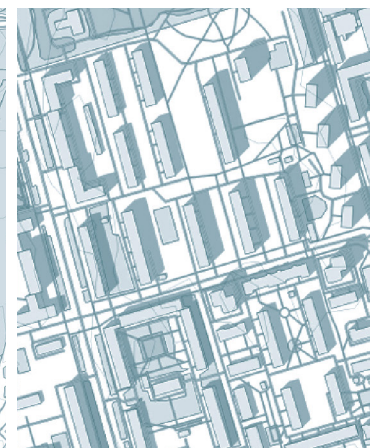
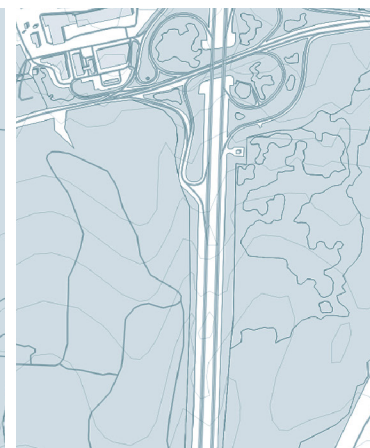
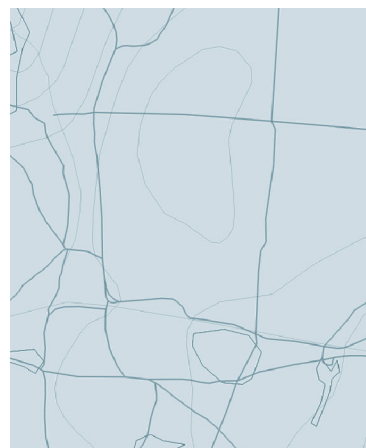
T4 – Residential renovation zone with mature greenery

T5 – Protected area with major sports facilities

T6 – Riverside development and green space

T7 – High-rise riverfront residential

T8 – Industrial zone for Bigger City Project regeneration



part3. project

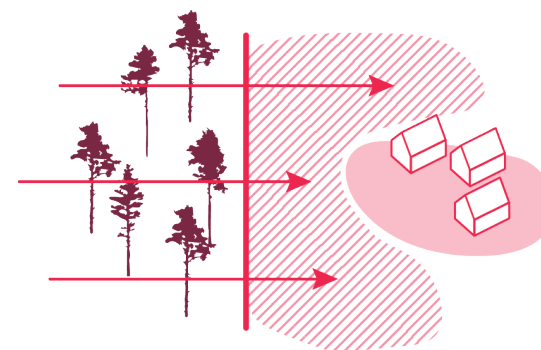
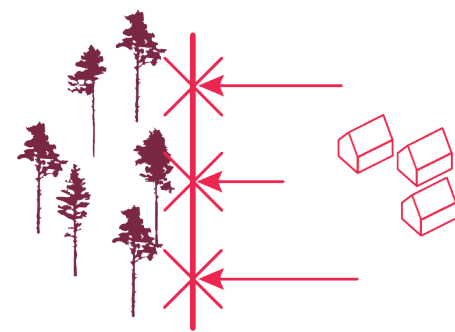
a new boundary: the buffer as a space for dialogue

Current SPNA boundaries are administrative lines — they do not reflect the biophysical reality of the ecosystems they are meant to protect

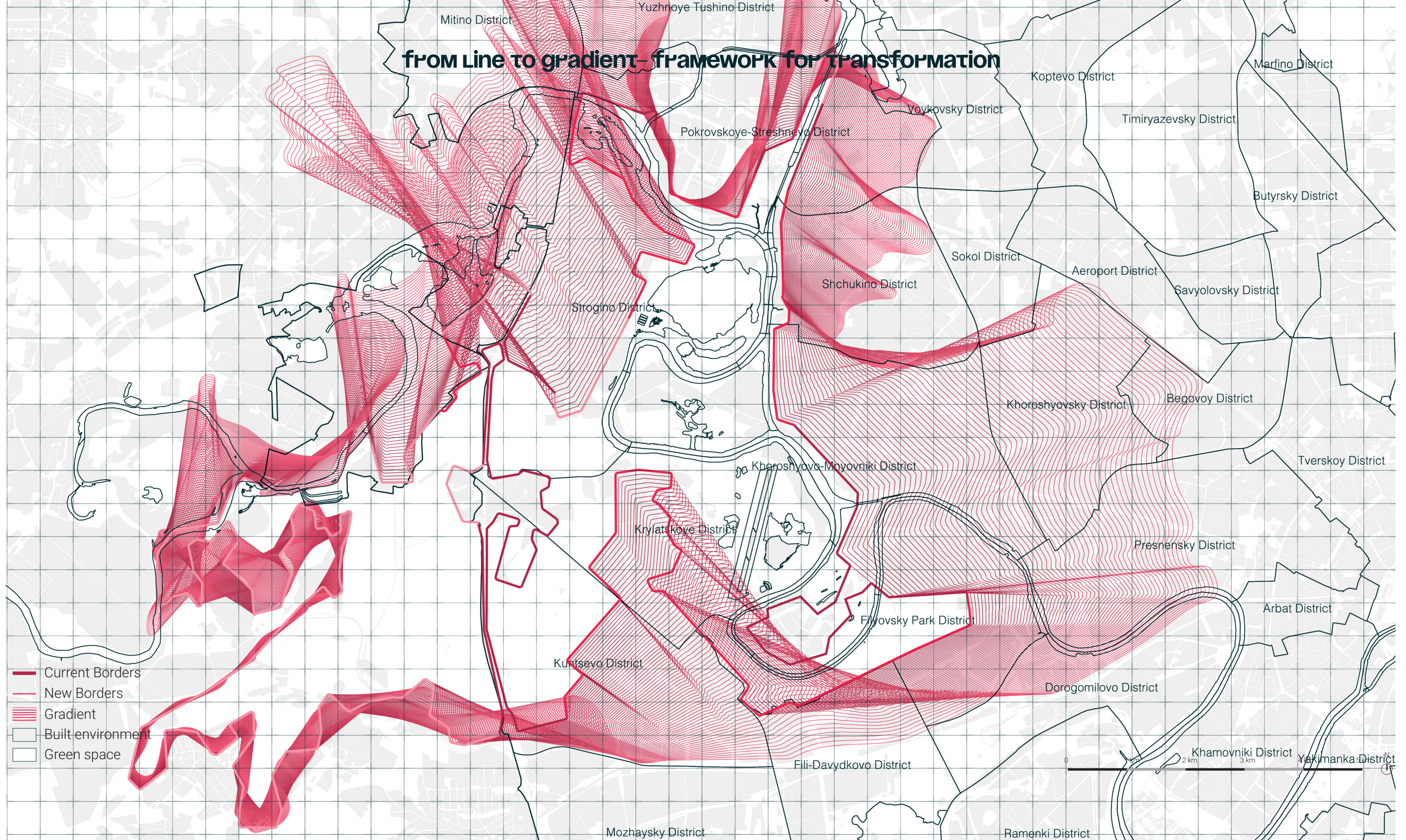
from Line



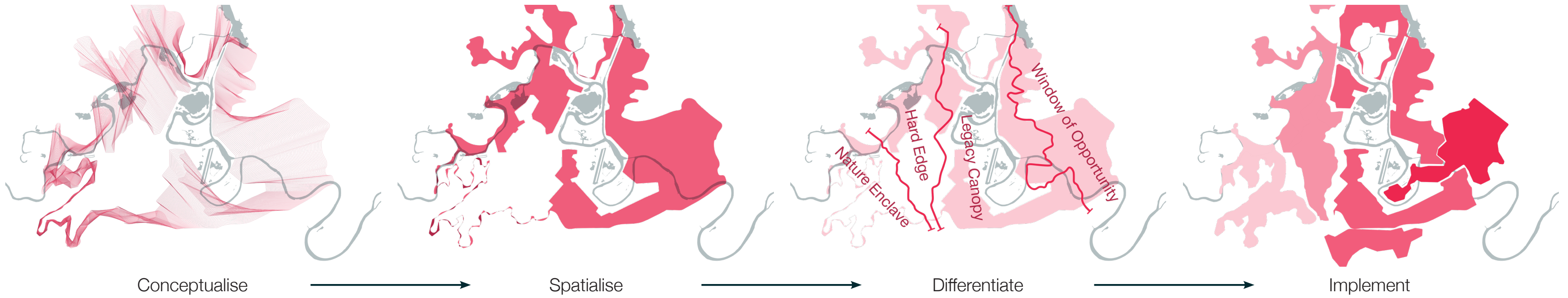
to gradient



from line to gradient - framework for transformation



boundary strategy



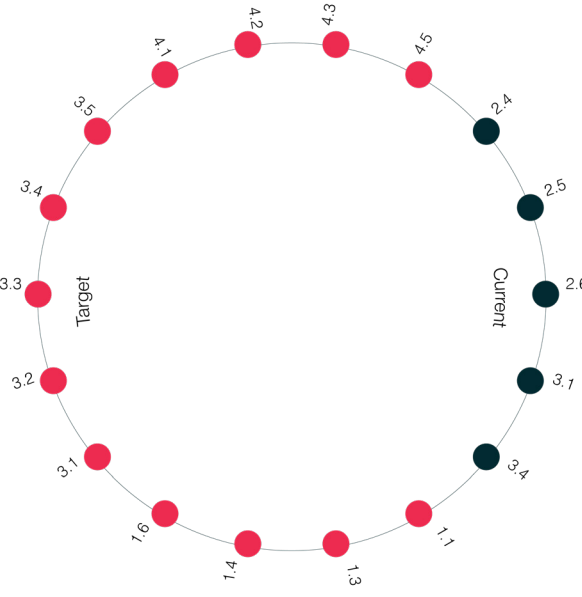
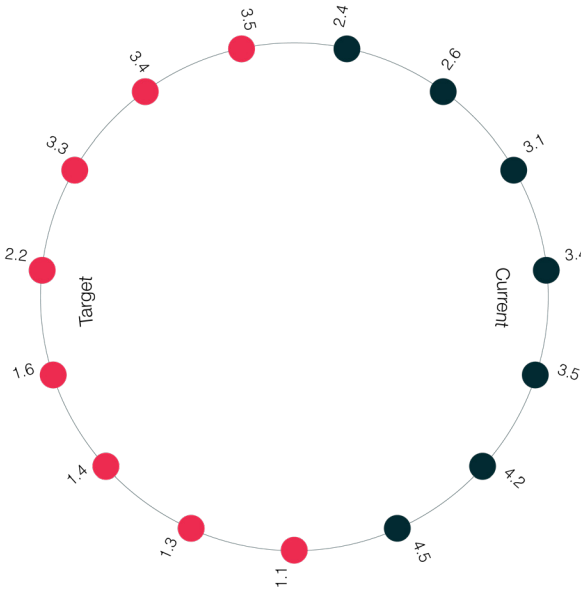
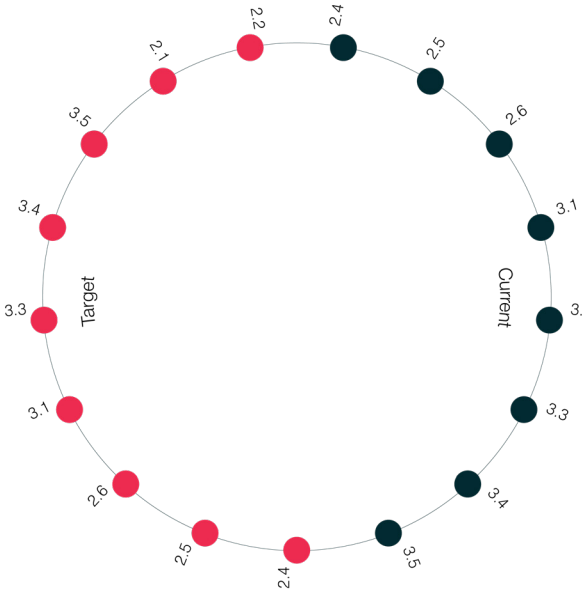
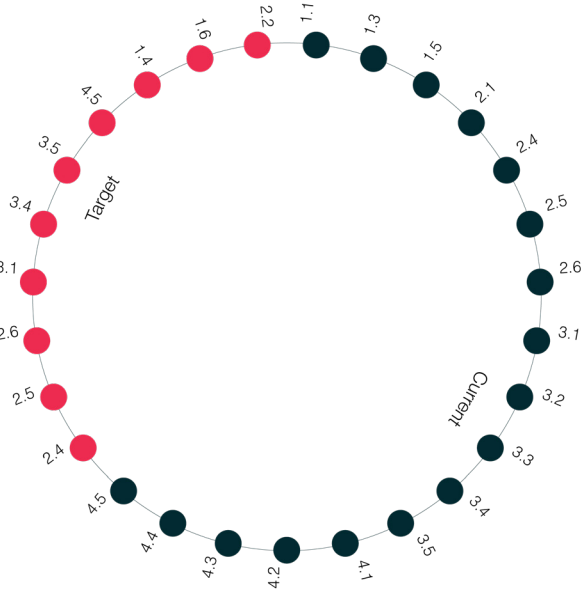
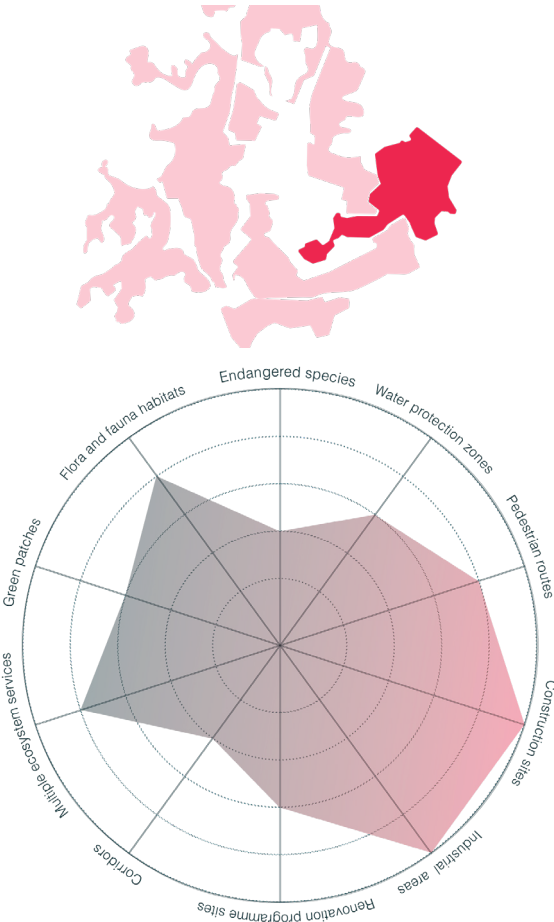
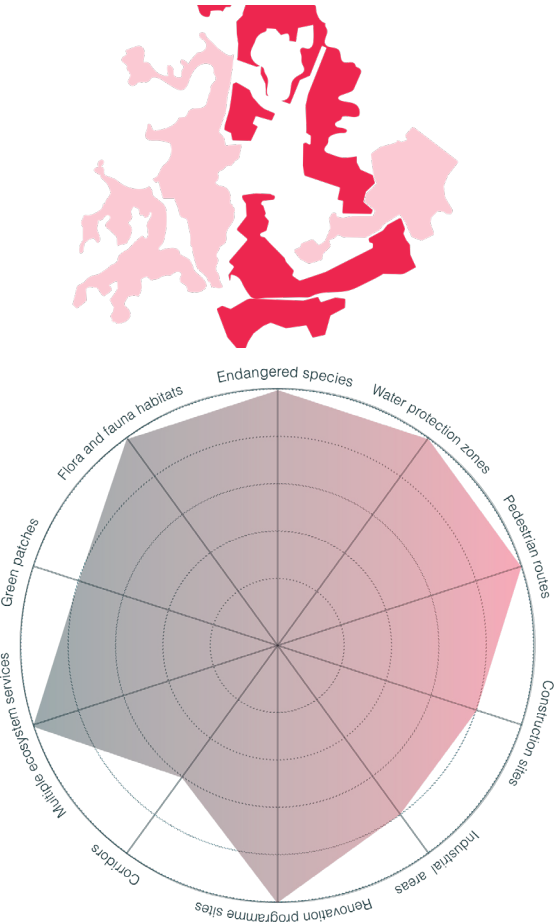
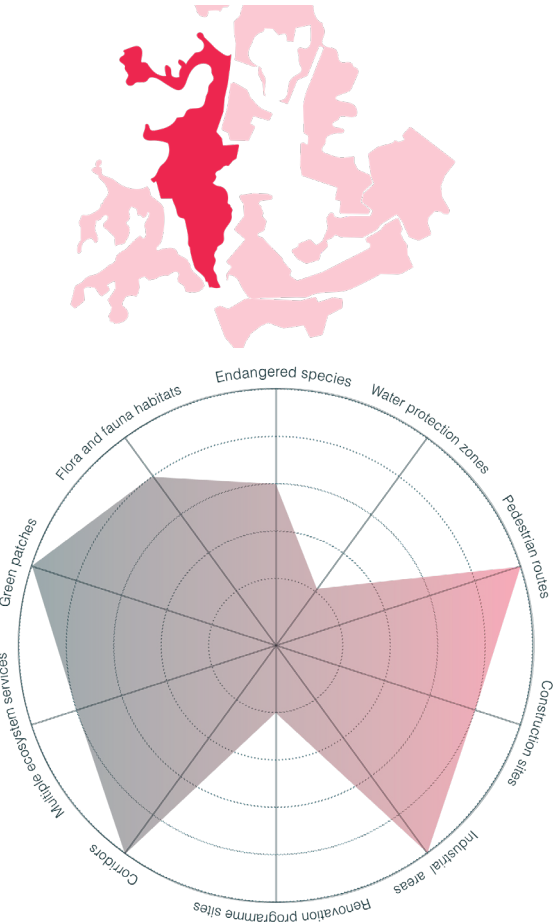
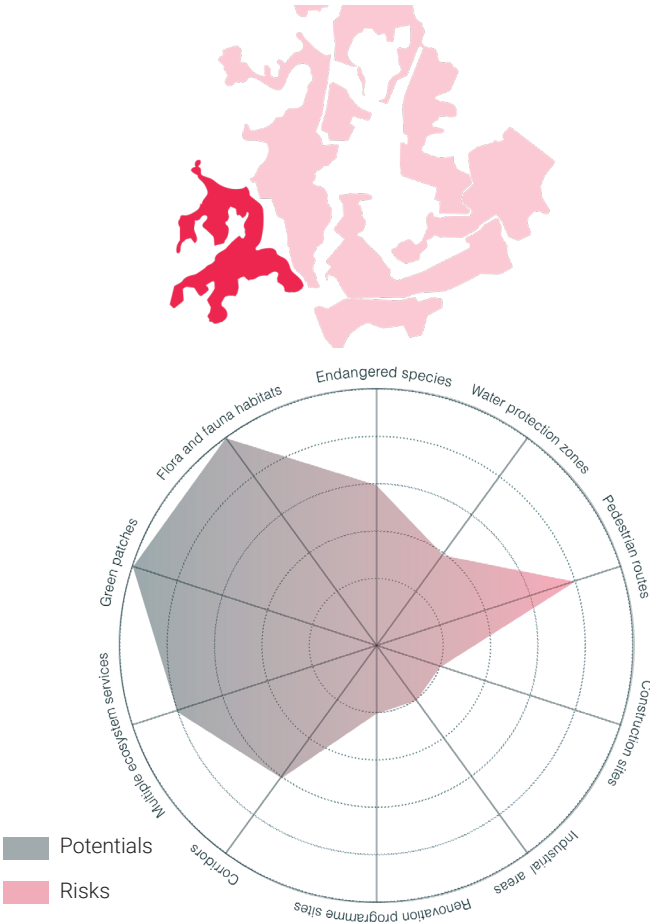
assessment across typologies

Belt Type 1

Belt Type 2

Belt Type 3

Belt Type 4



BELT 3
Legacy canopy





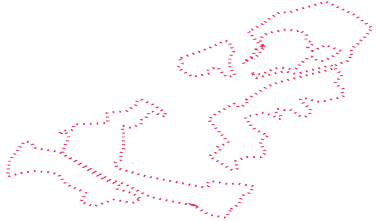
Krylatskiye Holmy Park



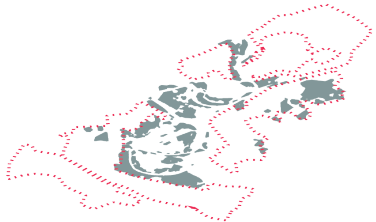
District near Filyovsky Park

MESO SCALE
STRATEGY

Typology boundary



Typology boundary
+
All green patches



Typology boundary
+
All green patches
+
Moscow river



Typology boundary
+
All green patches
+
Moscow river
+
Blocks under the Moscow Renovation
Programme within the focus zone



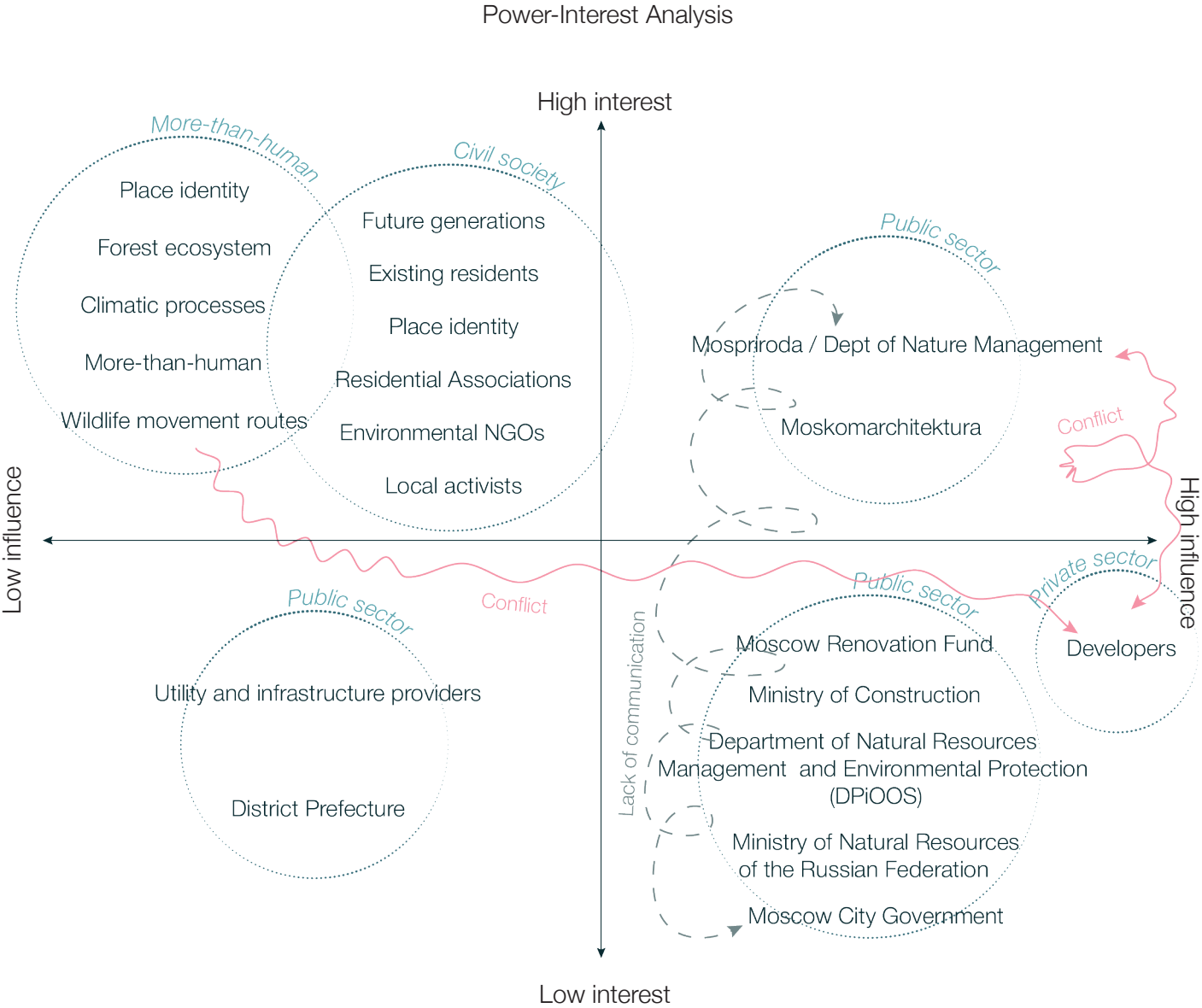
Overarching buffer zone



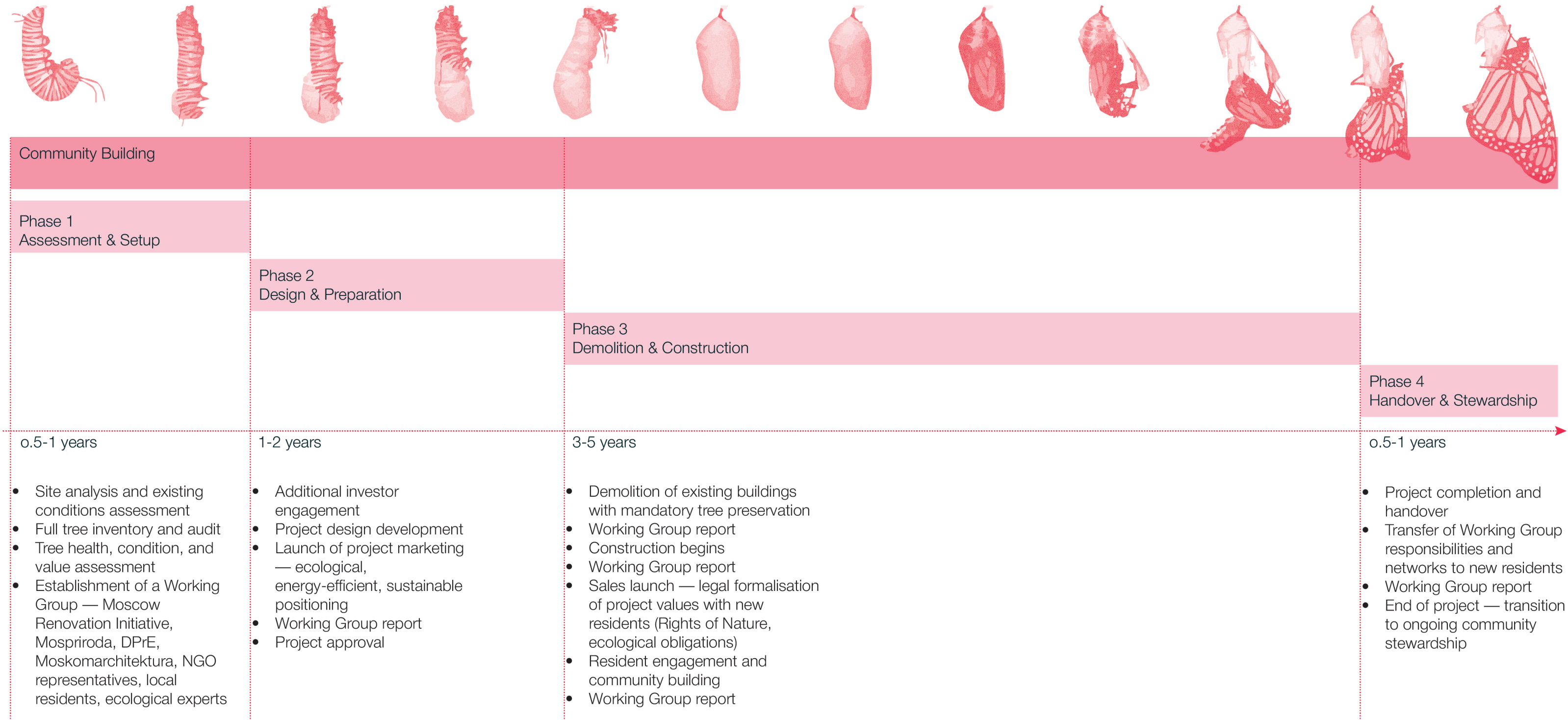
- Green pathes
- Forest core
- Fields
- Wildlife movement routes
- Wildlife movement corridors
- Built environment
- Residential houses under the Moscow Renovation Programme
- Roads highways city infrastructure
- River
- Gradient\ Buffer zone

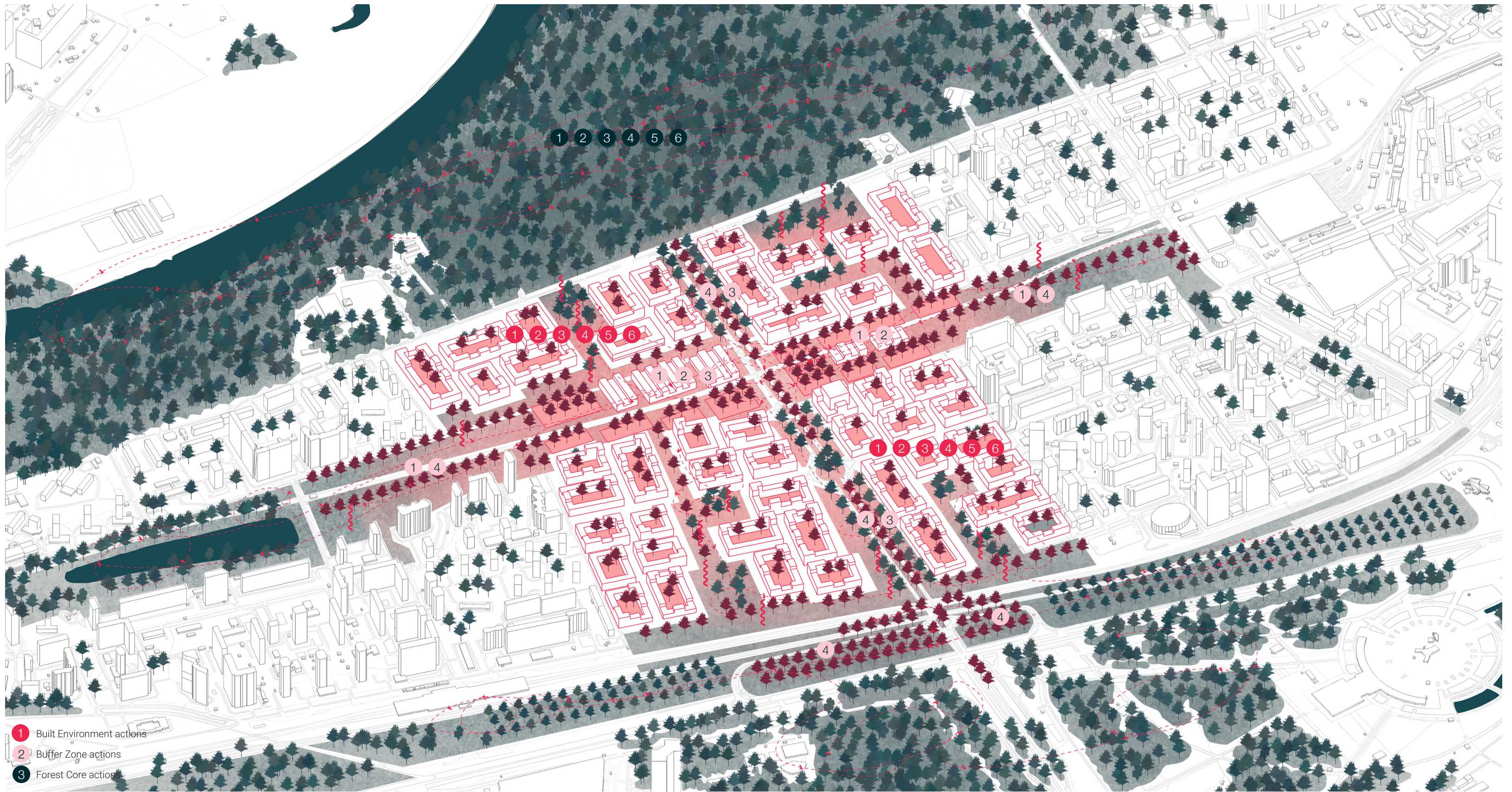


current governance model



proposed Roadmap





- 1 Built Environment actions
- 2 Buffer Zone actions
- 3 Forest Core actions

BUILT environment



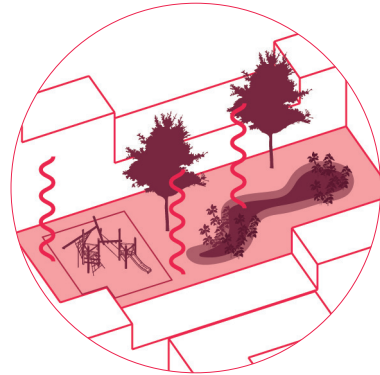
BE.1 Density gradient: lower toward nature, higher toward existing urban fabric



BE.2 Green, energy-efficient housing from the outset — attracting like-minded communities



BE.3 Shared sustainable infrastructure: solar panels, energy storage, heat pumps, waste sorting, EV charging



BE.4 Car-free courtyards with rain gardens and permeable surfaces

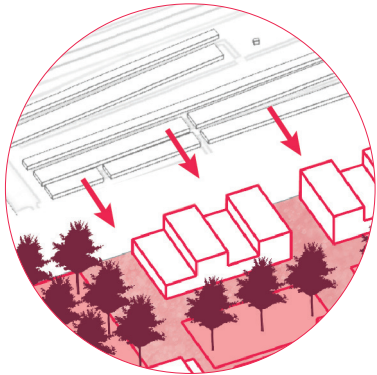


BE.5 Preservation of all existing mature healthy trees

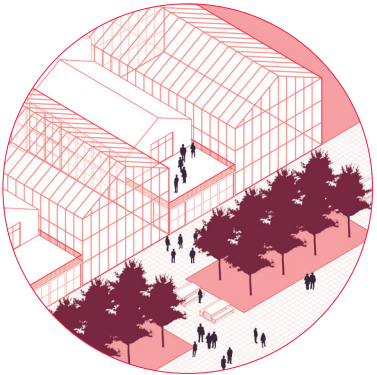


BE.6 De-sealing of impermeable surfaces

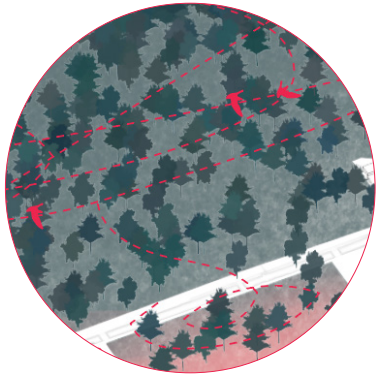
buffer zone



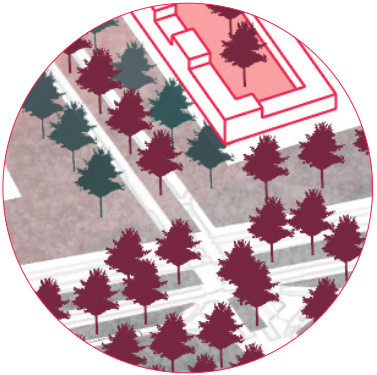
BZ.1 Removing old warehouses and garage cooperatives — opening edges to the city and replacing with public space



BZ.2 New community-oriented spaces: shared greenhouses, workshops, collective ecological practice



BZ.3 Connecting parks into a continuous green network for both people and fauna

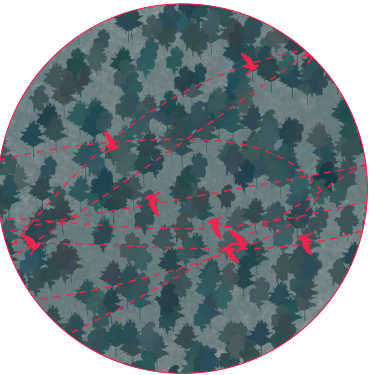


BZ.4 Intensifying street tree planting along major roads — strengthening green network and reducing heat island effect

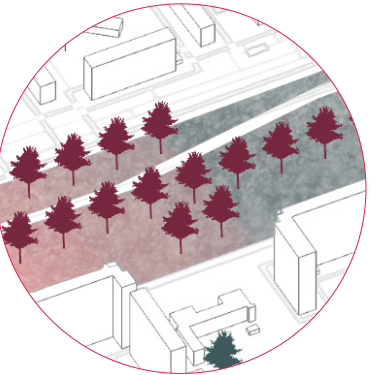
forest core



FC.1 No permanent structures, hard surfaces, or utility infrastructure permitted



FC.2 Conserved as an ecologically intact and self-sustaining system



FC.3 De-sealing of existing hard surfaces — replacing with permeable natural ground cover



FC.4 Removal of all illegal structures and encroachments



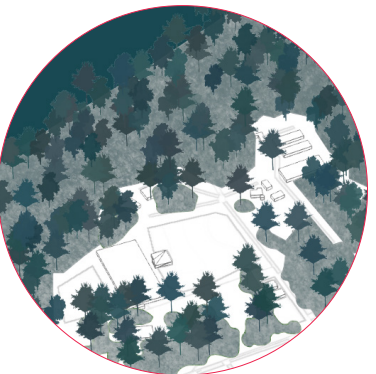
FC.5 Solid perimeter fencing replaced with native hedgerow planting



FC.6 Shift from recreation ideology toward ecological stewardship — nature as a value in itself



FC.7 Fragmented patches connected into a unified ecological structure



FC.8 Audit of all non-compatible uses with phased relocation strategy

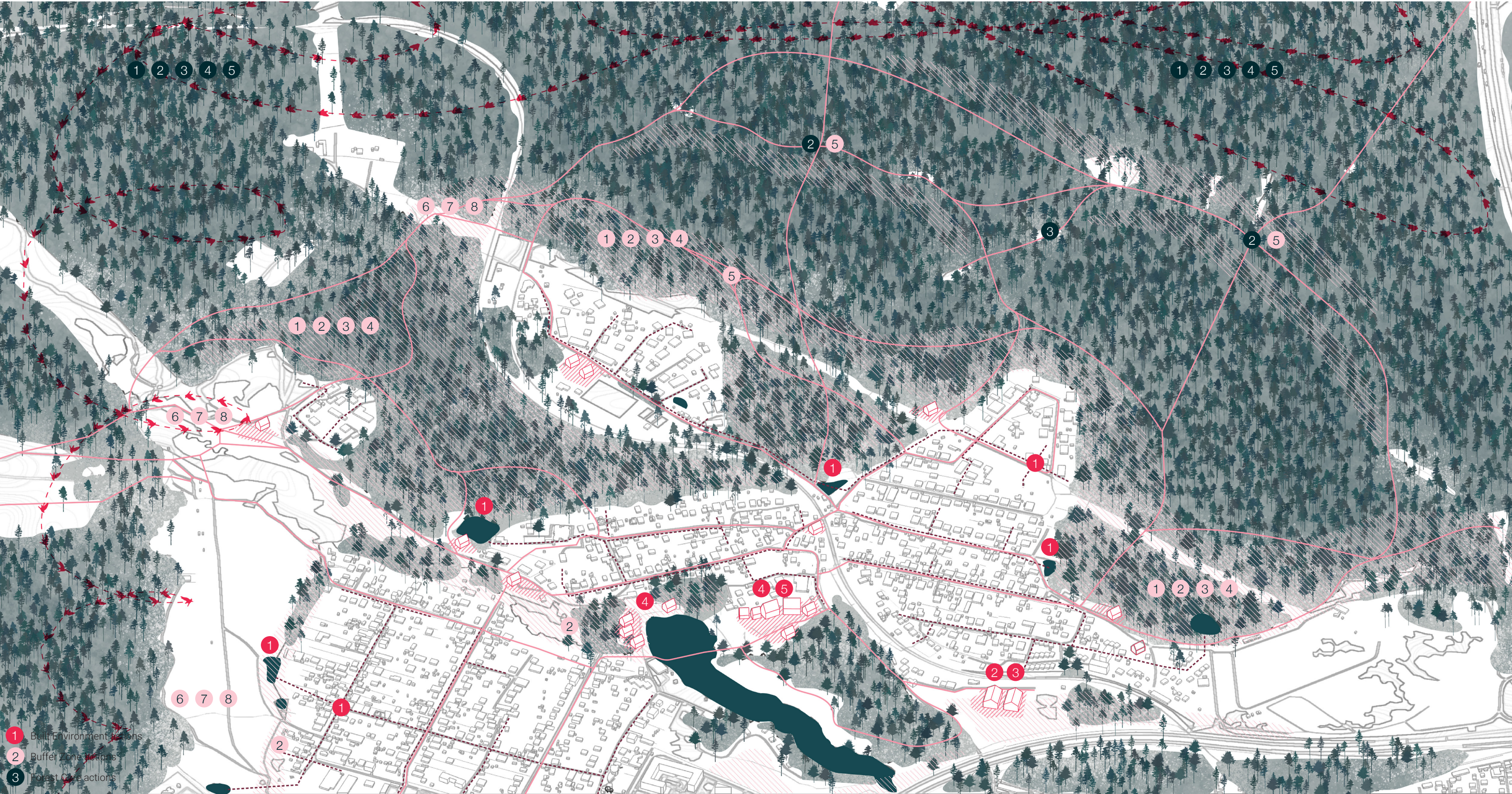


FC.9 Non-compatible recreational and sports infrastructure relocated to buffer zone

BELT 1
nature enCLave



Romashkovsky Forest

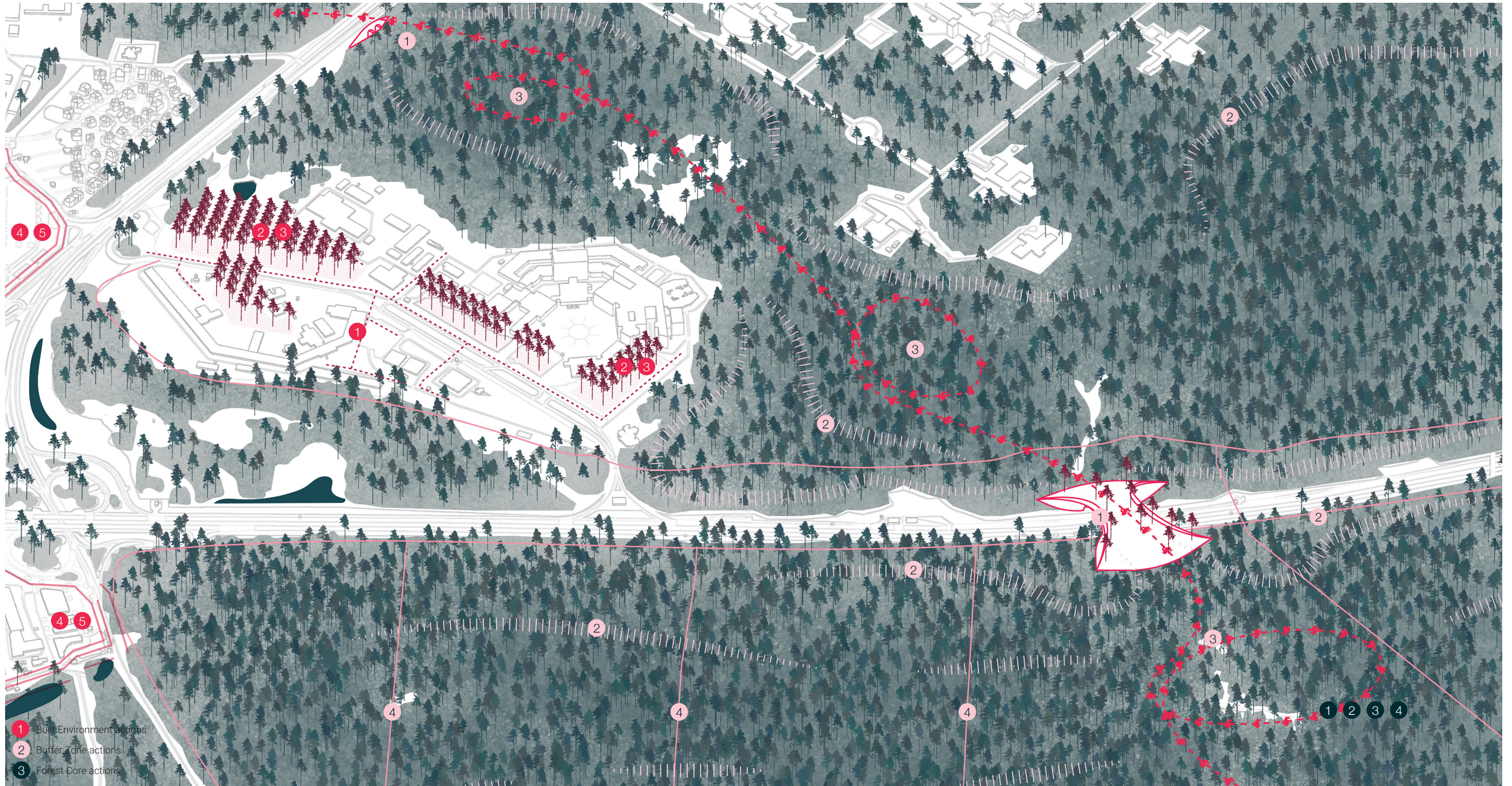


- 1 Built Environment Actions
- 2 Buffer Zone Actions
- 3 Forest Core Actions

BELT 2 hard edge



MKAD



BELT 4
window of opportunity

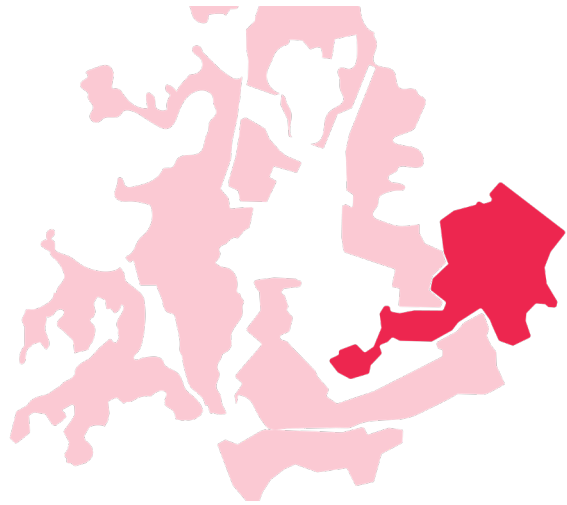
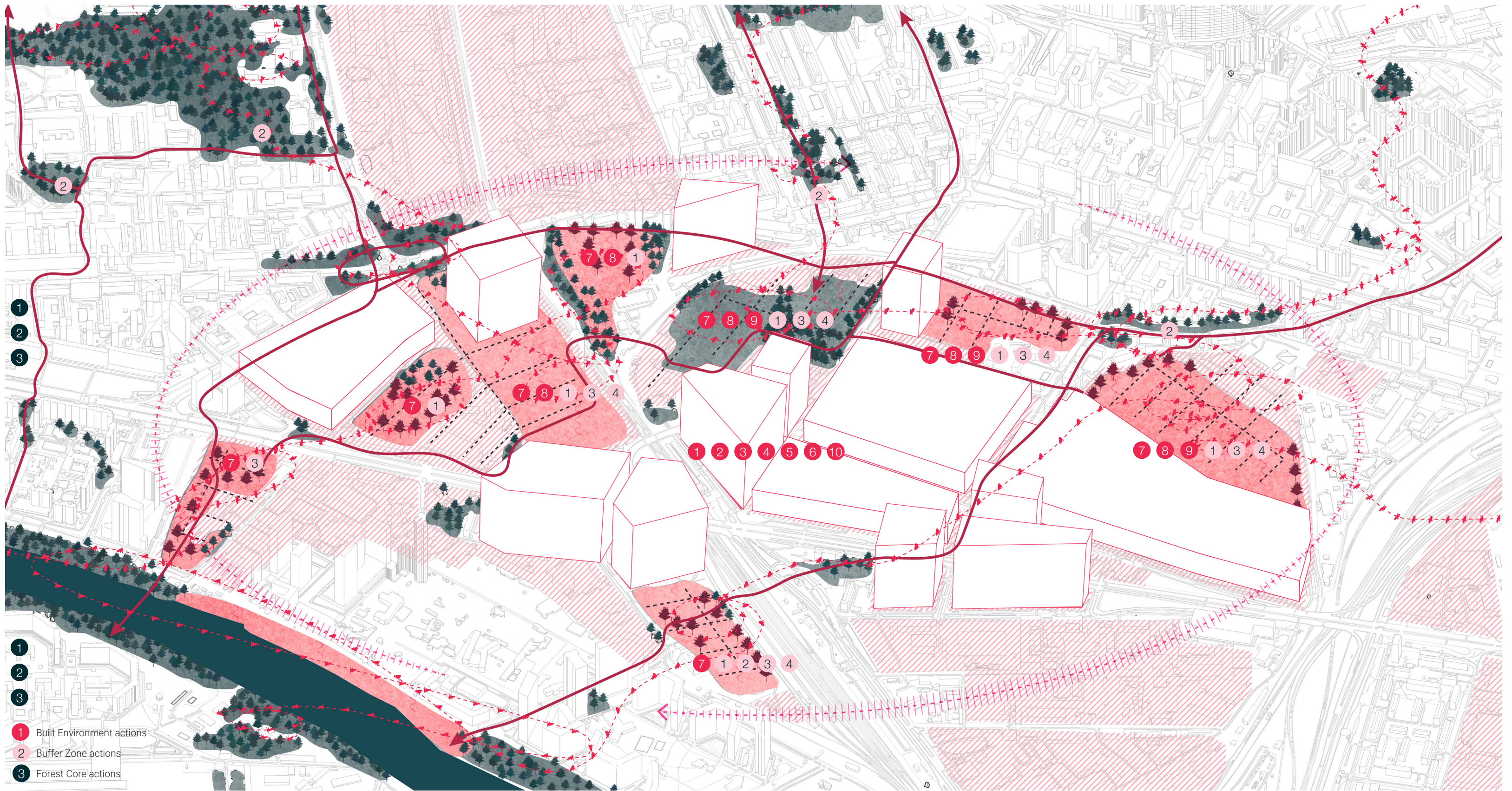
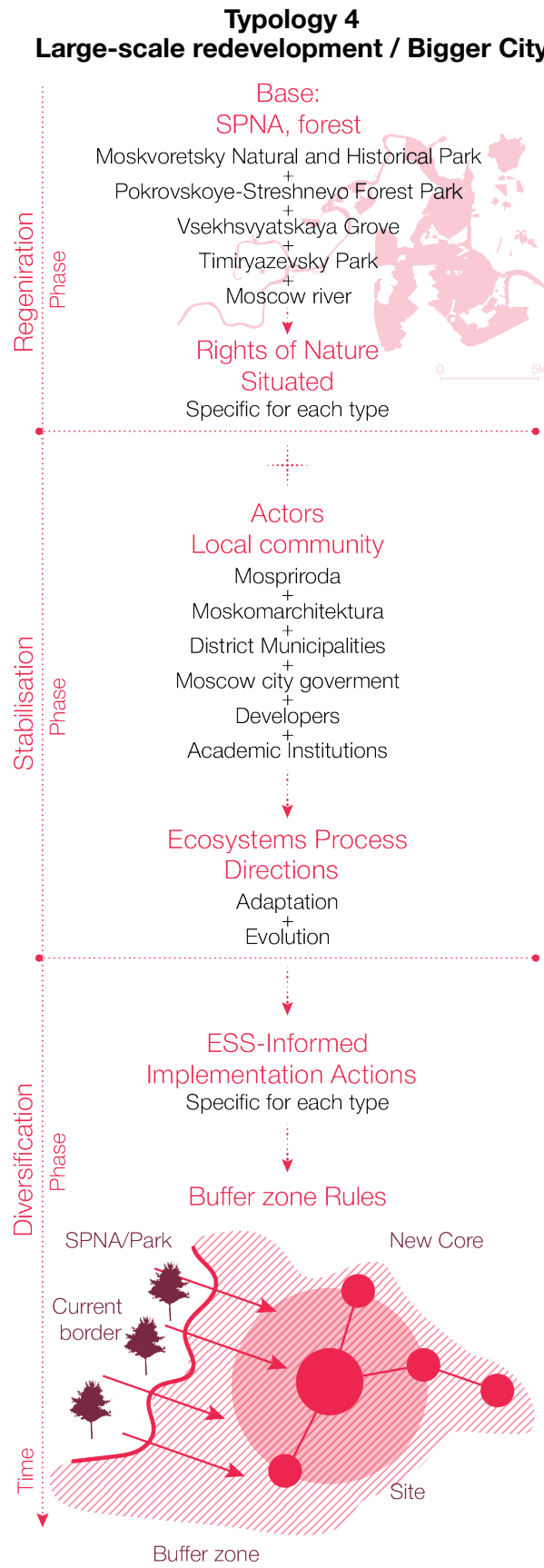
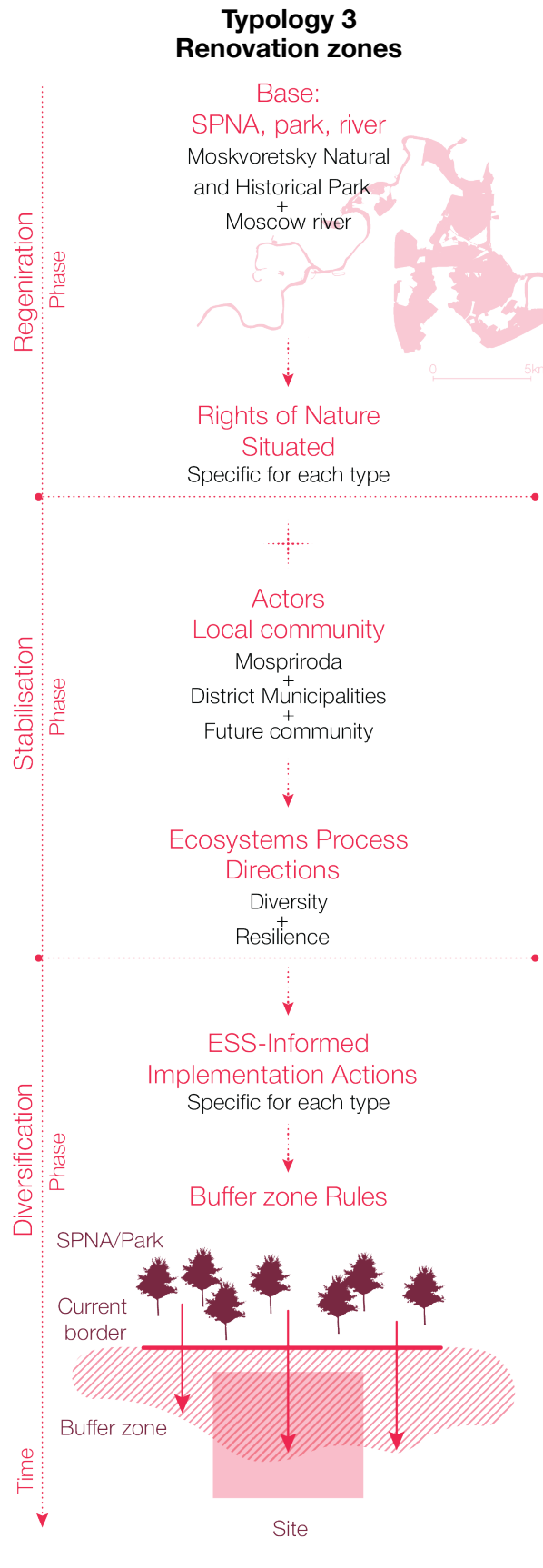
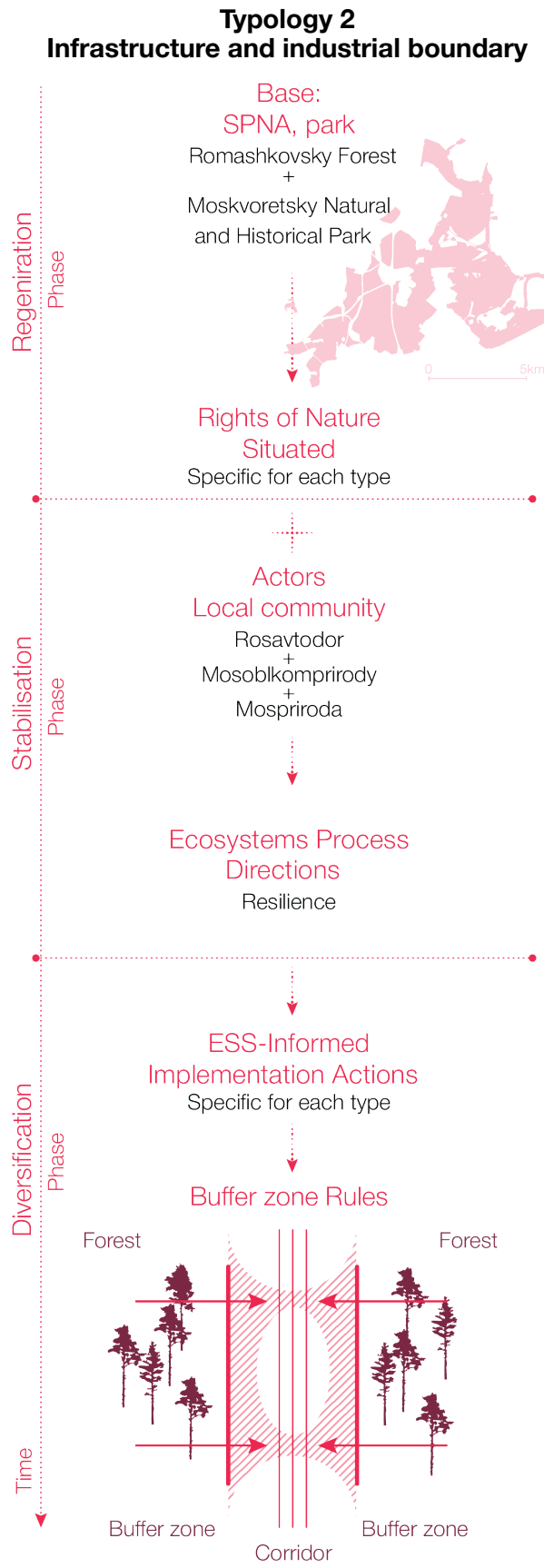
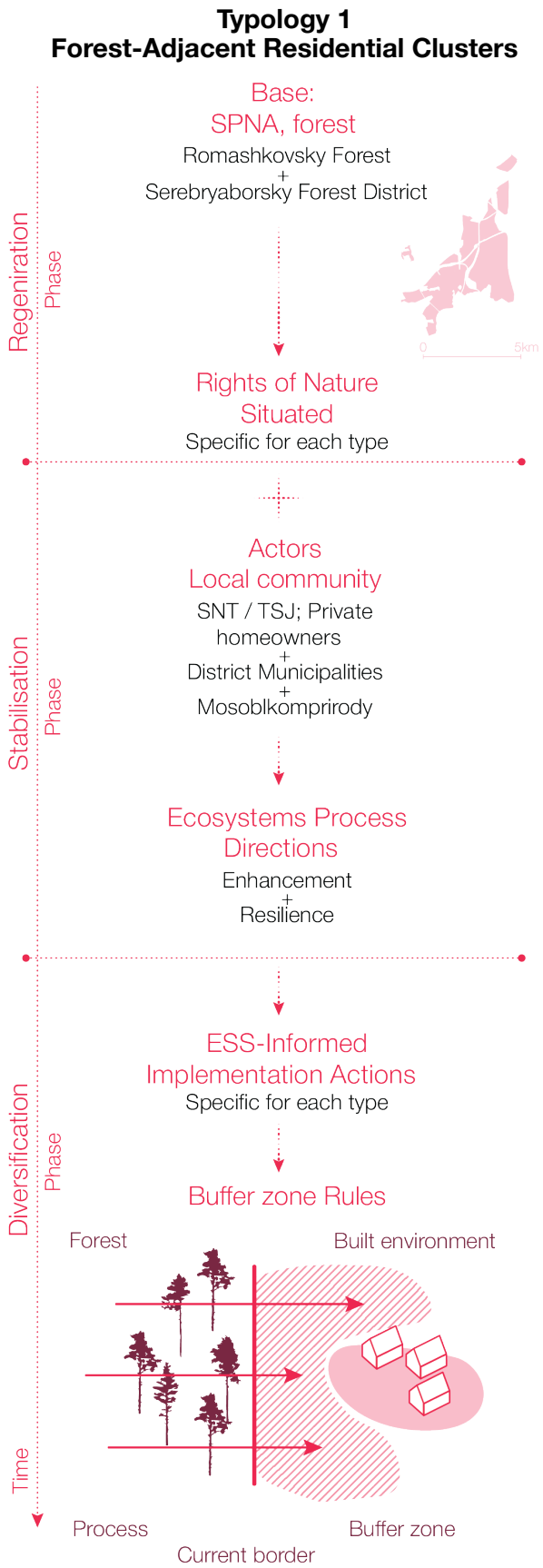


Figure 3.75 Shelepikhinskaya
Embankment





development process for green infrastructure

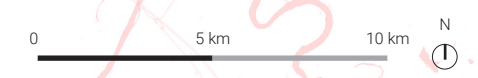
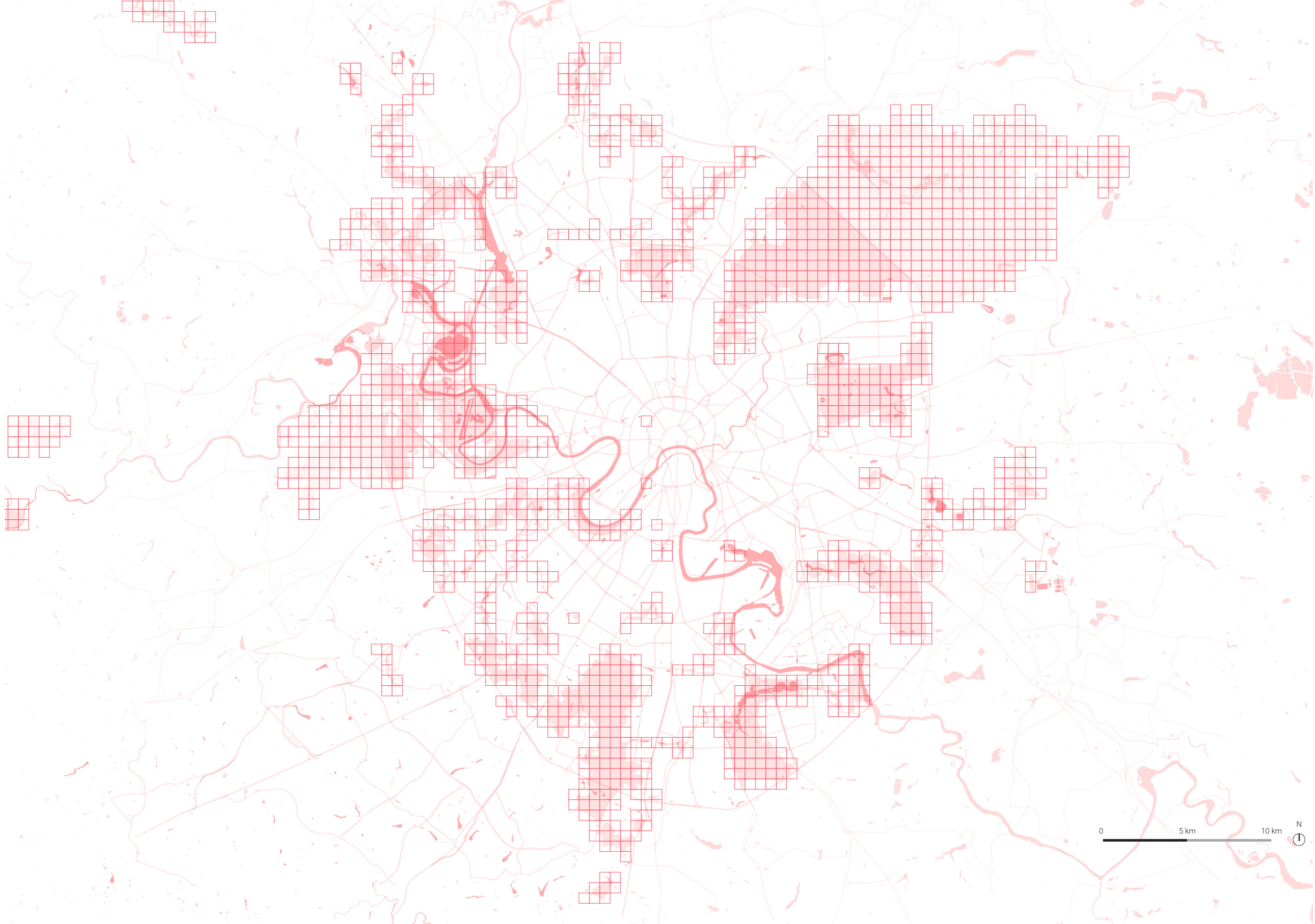


vision map

- Forest Stewardship and Core Protection
- Restoring Green Infrastructure Continuity
- Embedding Green Infrastructure in Urban Transformation
- Creating a New Green Infrastructure Core



part 4. next steps



MOSCOW STATE of mind

FROM OBJECT TO SUBJECT: a METAMORPHOSIS TOWARDS CONTEXT-SENSITIVE URBAN FUTURES

Critical Environments:
Rights of Nature – A Radical Design Perspective

A4 presentation 26.06.2026