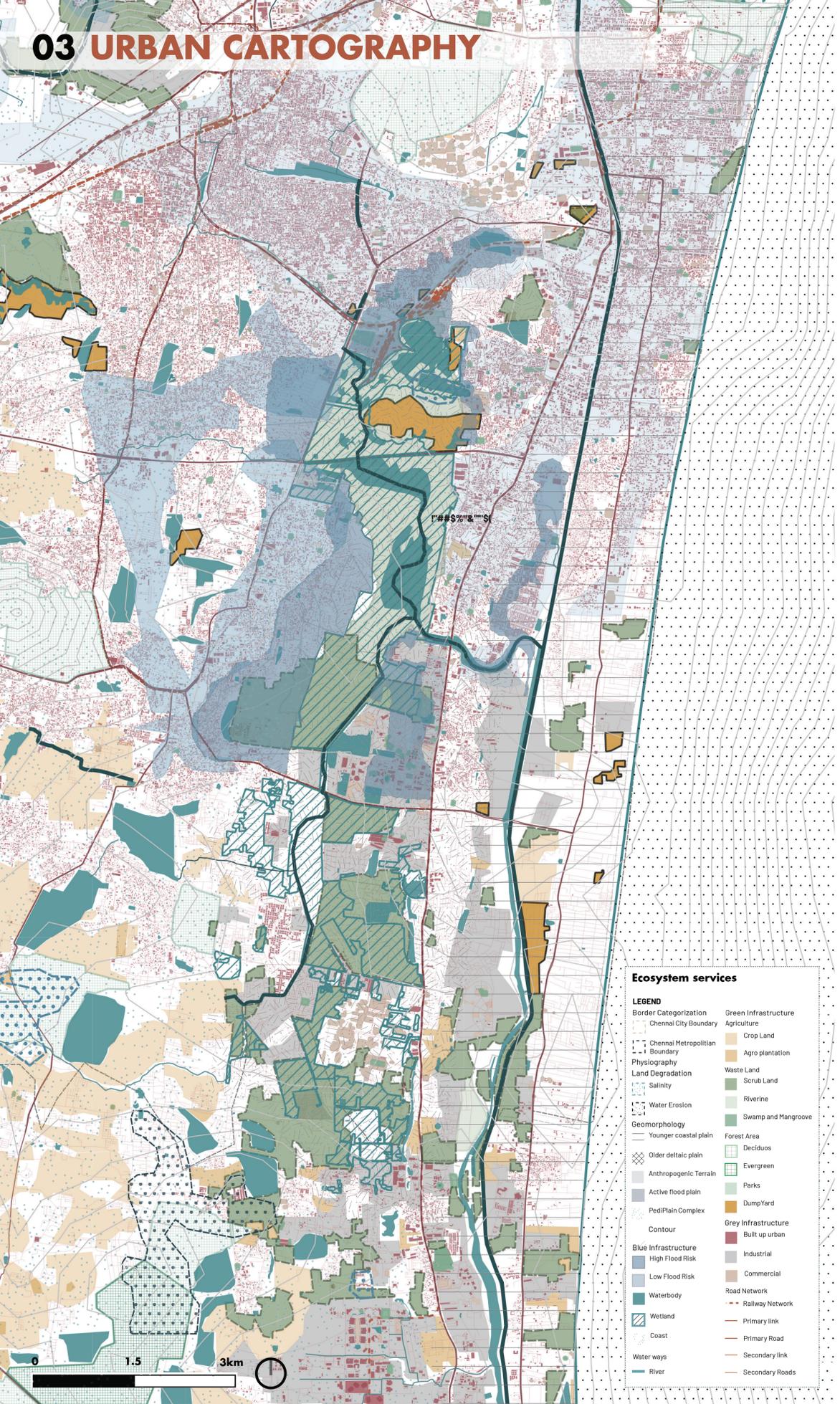


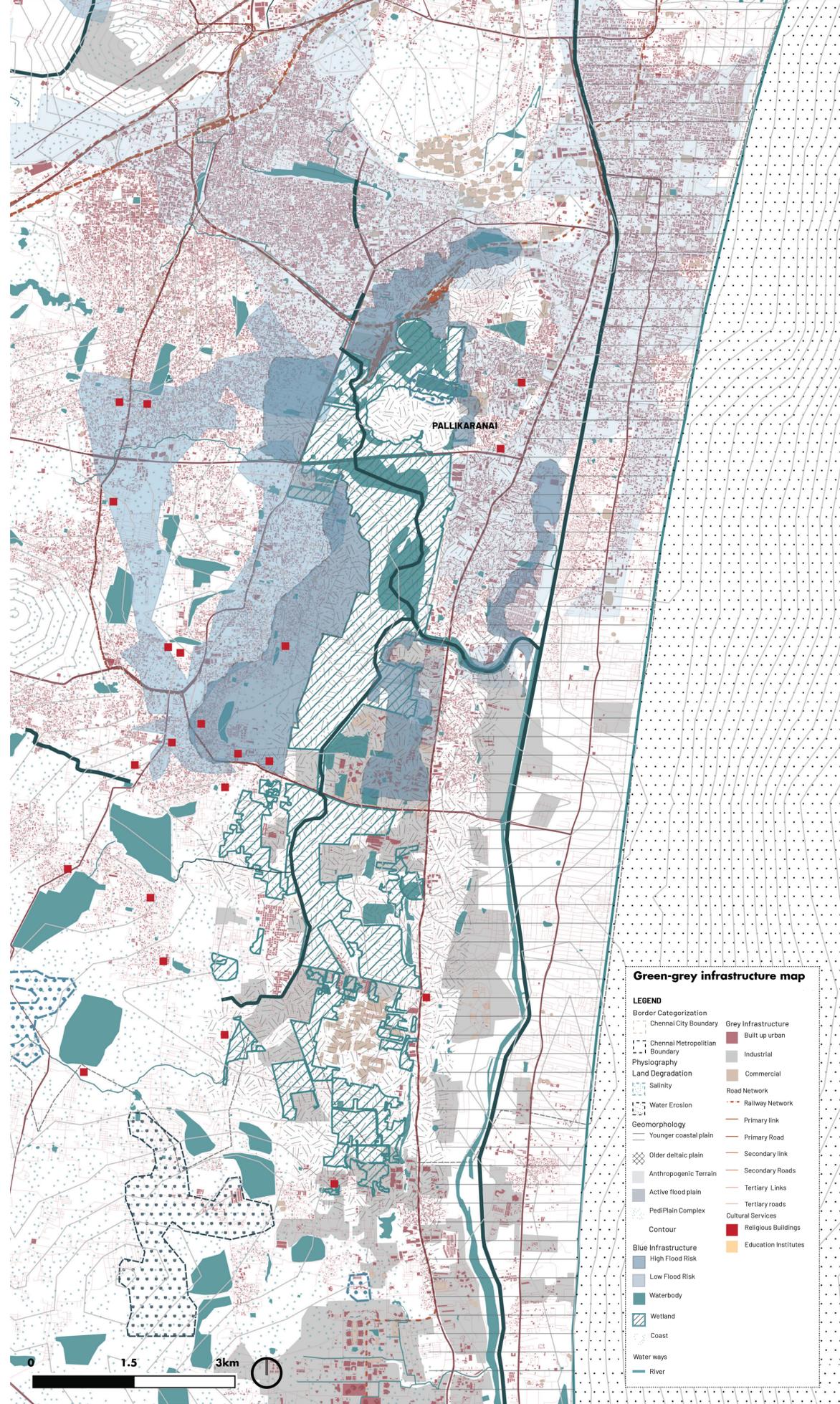
# 03 URBAN CARTOGRAPHY



**Ecosystem services**

**LEGEND**

|                               |                      |
|-------------------------------|----------------------|
| Border Categorization         | Green Infrastructure |
| Chennai City Boundary         | Agriculture          |
| Chennai Metropolitan Boundary | Crop Land            |
| Physiography                  | Agro plantation      |
| Land Degradation              | Waste Land           |
| Salinity                      | Scrub Land           |
| Water Erosion                 | Riverine             |
| Geomorphology                 | Swamp and Mangroove  |
| Younger coastal plain         | Forest Area          |
| Older deltaic plain           | Deciduous            |
| Anthropogenic Terrain         | Evergreen            |
| Active flood plain            | Parks                |
| PedPlain Complex              | Dump/Yard            |
| Contour                       | Grey Infrastructure  |
| Blue Infrastructure           | Built up urban       |
| High Flood Risk               | Industrial           |
| Low Flood Risk                | Commercial           |
| Waterbody                     | Road Network         |
| Wetland                       | Railway Network      |
| Coast                         | Primary link         |
| Water ways                    | Primary Road         |
| River                         | Secondary link       |
|                               | Secondary Roads      |



**Green-grey infrastructure map**

**LEGEND**

|                               |                      |
|-------------------------------|----------------------|
| Border Categorization         | Grey Infrastructure  |
| Chennai City Boundary         | Built up urban       |
| Chennai Metropolitan Boundary | Industrial           |
| Physiography                  | Commercial           |
| Land Degradation              | Road Network         |
| Salinity                      | Railway Network      |
| Water Erosion                 | Primary link         |
| Geomorphology                 | Primary Road         |
| Younger coastal plain         | Secondary link       |
| Older deltaic plain           | Secondary Roads      |
| Anthropogenic Terrain         | Tertiary Links       |
| Active flood plain            | Tertiary roads       |
| PedPlain Complex              | Cultural Services    |
| Contour                       | Religious Buildings  |
| Blue Infrastructure           | Education Institutes |
| High Flood Risk               |                      |
| Low Flood Risk                |                      |
| Waterbody                     |                      |
| Wetland                       |                      |
| Coast                         |                      |
| Water ways                    |                      |
| River                         |                      |

## CHENNAI'S ECOSYSTEM

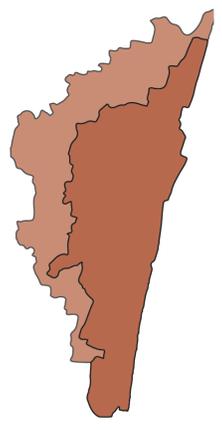
Chennai's landscape, once adorned with traditional fishing hamlets, agricultural villages, and pastoral settlements, was historically encircled by lush littoral forests and wetlands, forming a natural barrier to human settlement. This feature remains evident in South Chennai, dominated by floodplains characterized by recent alluvial soil interspersed with occasional gneiss exposures. Notable features include the expansive Pallikarai Marsh, smaller satellite wetlands, vast pasturelands, and patches of dry forests.

The Pallikarai Wetland, situated in the Kanchipuram District of Tamil Nadu State, southwest of Chennai, is a low-lying area prone to flooding during the northeast monsoon season. The marshland is bisected by the KT link road, forming a dense traffic corridor that disrupts the wetland's continuity. This solid boundary impedes water movement between the marsh's segments, hindering the migration of aquatic species, water birds, reptiles, and amphibians. Consequently, there is a buildup of pathogenic organisms. The northern part functions primarily as a freshwater wetland, while the southern part acts as a saltwater or brackish estuary. Despite these challenges, the marshland hosts a rich biodiversity, including over 60 plant species, 45 fish species, 100 bird species, 7 butterfly species, 20 reptile species, 9 amphibian species, and numerous mollusks and crustaceans. These wetlands serve as vital habitats due to their diverse water ecosystems and the presence of Typha, a tall grass providing shelter and habitat.

### Water Resilience



### Soil Depth



### Depth to Ground water Table

