

# A2 Population density

Usual residents per square kilometre

2021 Census Lower Super Output Areas (LSOA)

- 0-1000
- 1001-2500
- 2501-5000
- 5001-7500
- 7501-10000
- 10001-15000

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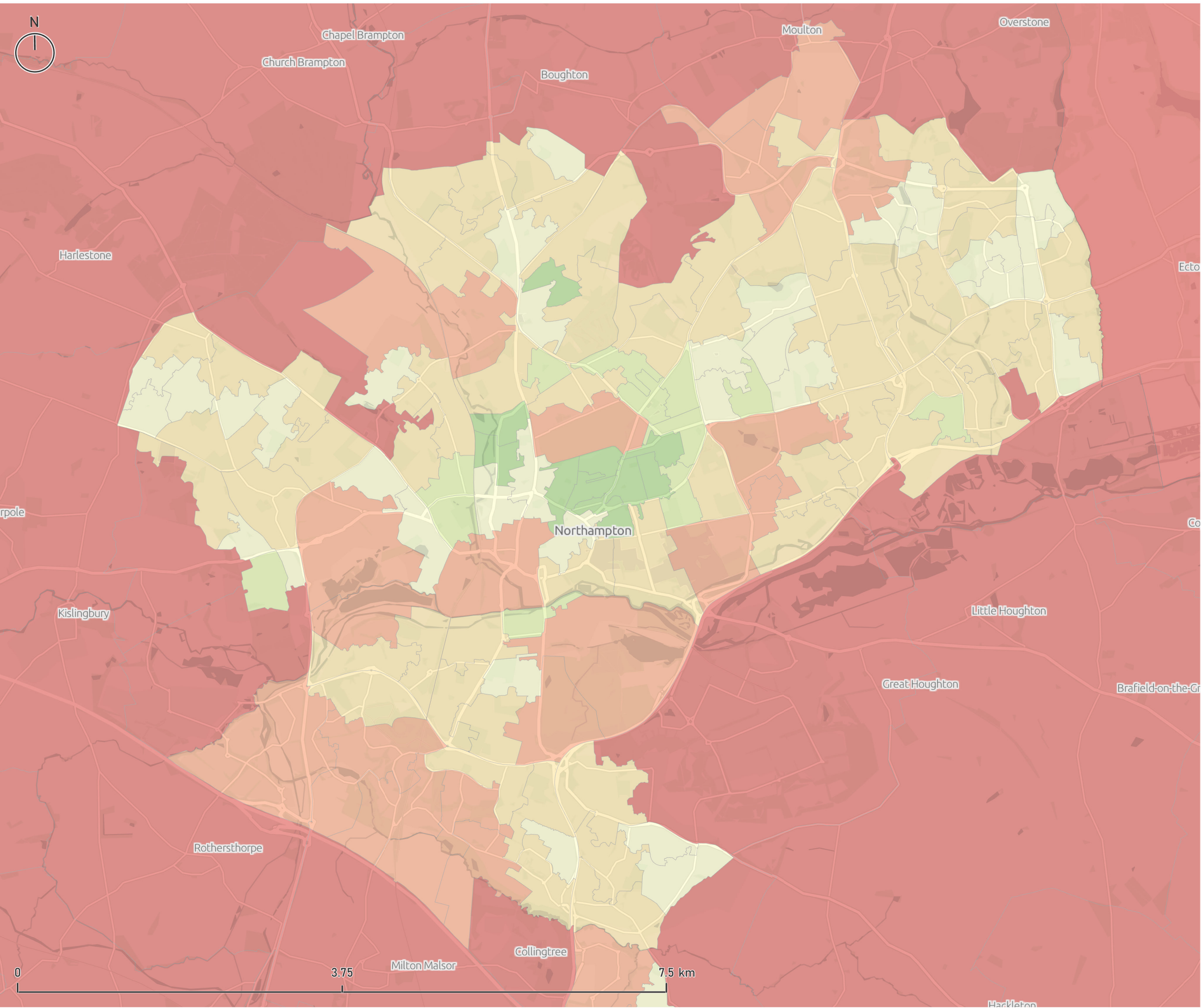
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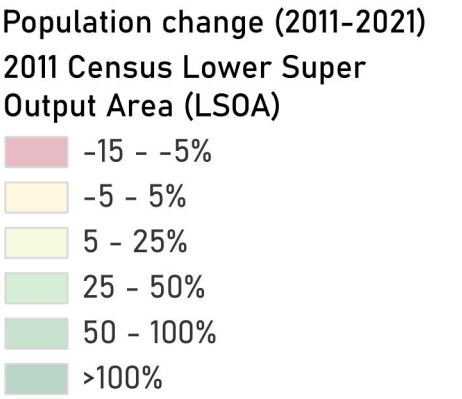
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Northampton

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# A1 Population change



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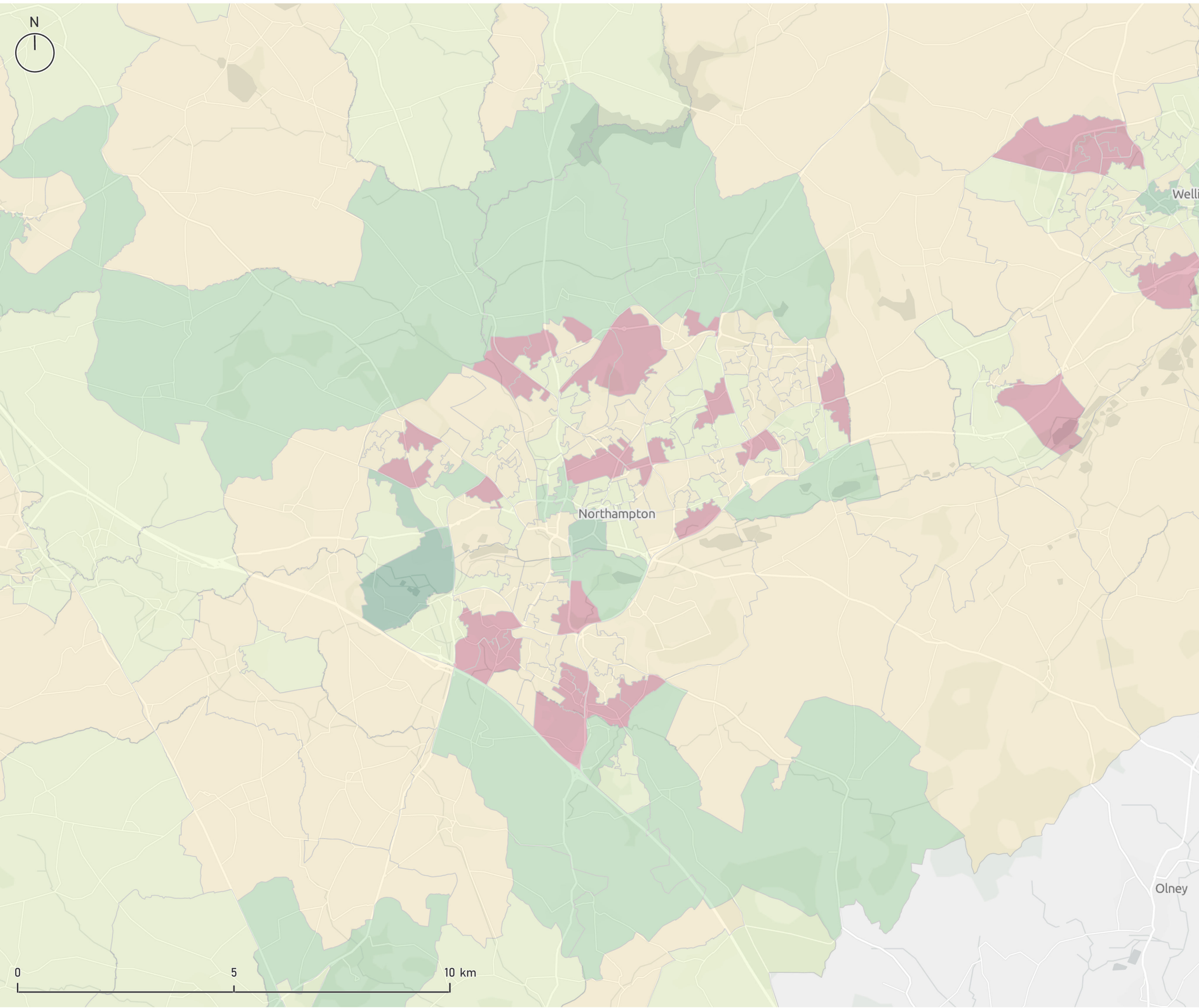
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**A1 Population change**  
wider extent

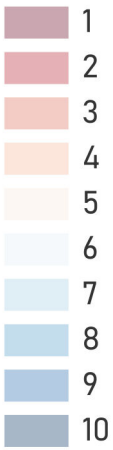
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A3 Indices of multiple deprivation (2019)

IMD Decile (2011 LSOA)



Most deprived

Least deprived

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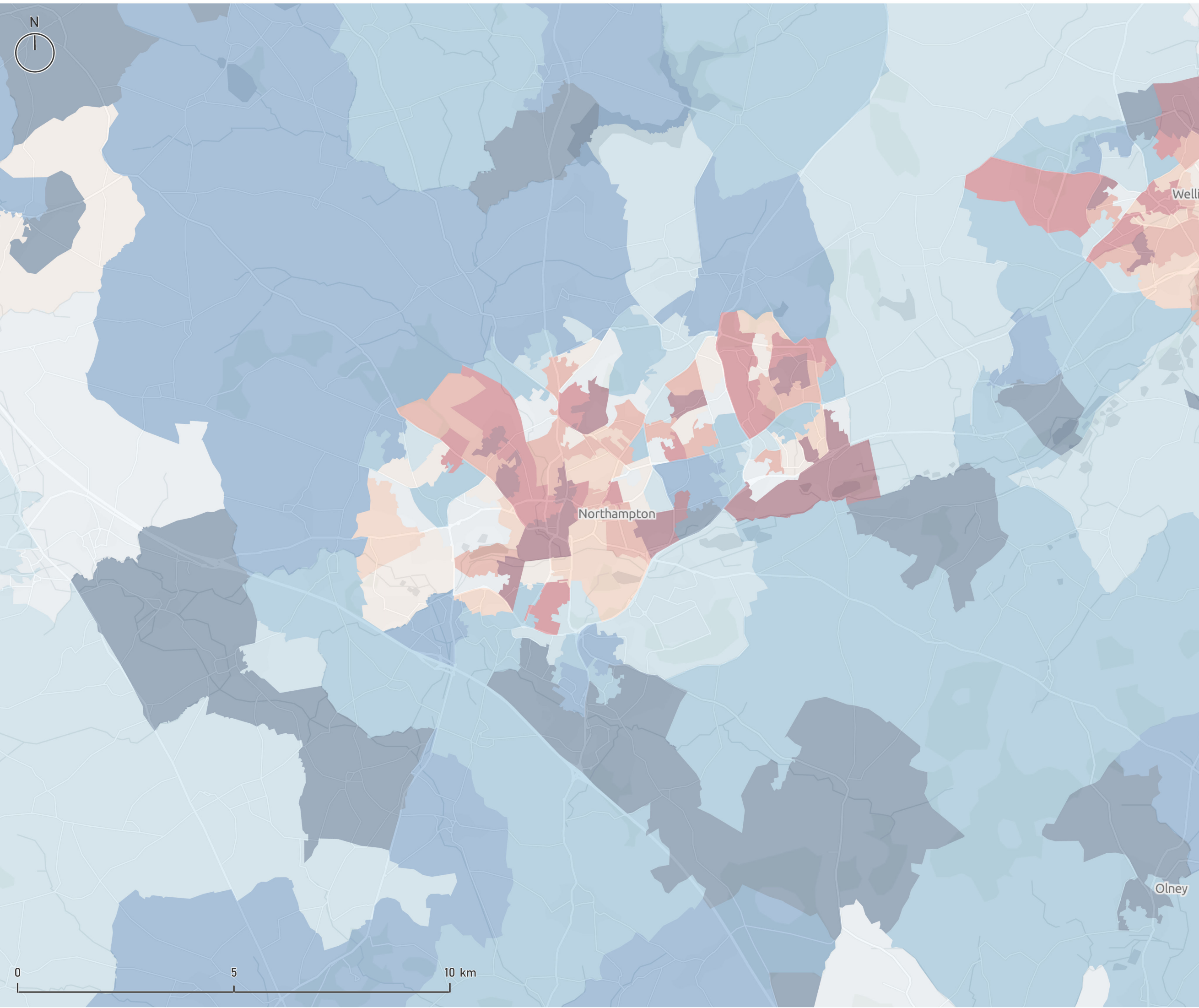
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A3 Indices of multiple deprivation (2019)  
wider extent

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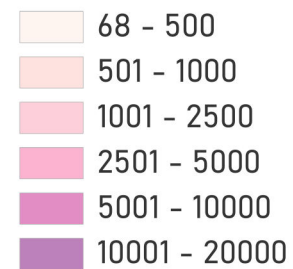








Number of employees (2011 LSOA)



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TITTLE

**A6 Workplace population**  
wider extent

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C6 Town Centre regeneration

- R1 - Northampton Market Square Transformation
- R2 - 24 Guildhall Road
- R3 - Abington Street Public Realm Transformation
- R4 - Four Waterside and Marefair Development
- R5 - 35 - 45 Abington Street (former M&S and BHS buildings)
- R6 - Old Black Lion Pub
- R7 - Marefair Heritage Park
- R8 - Expansion to Northampton Train Station multi-storey car park
- R9 - Market Walk
- R10 - Amplifying Greyfriars

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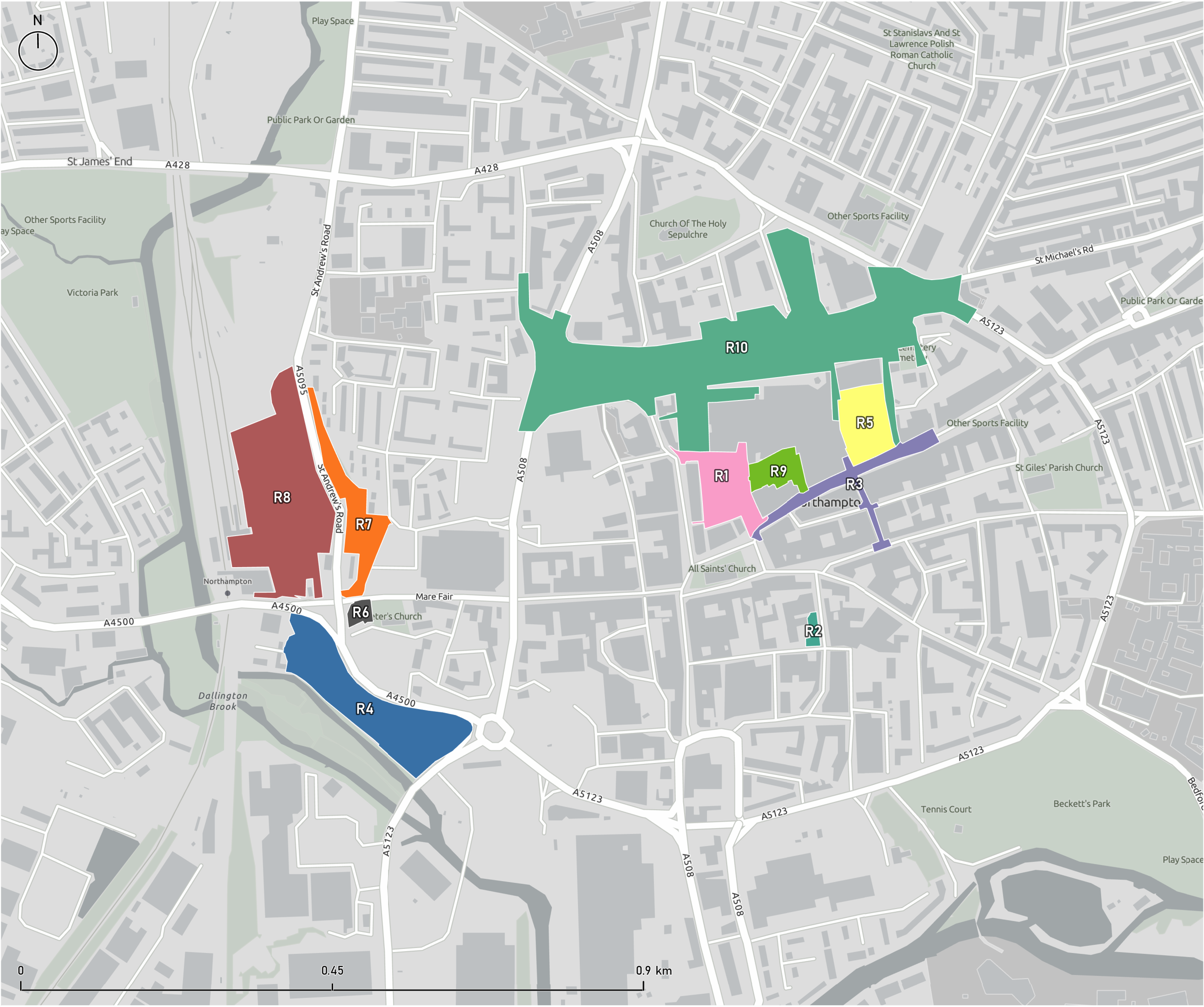
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C6 Town Centre regeneration

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# C4 Developments - Housing & Employments

## Housing developments

Number of dwellings to be completed from Apr 2022

- 100
- 250
- 500
- 750
- 1,000

## West Northamptonshire Joint Core Strategy

Sustainable Urban Extensions (SUEs)

## Northampton Local Plan (Part 2)

Housing allocations

Employment Allocations

Other developments

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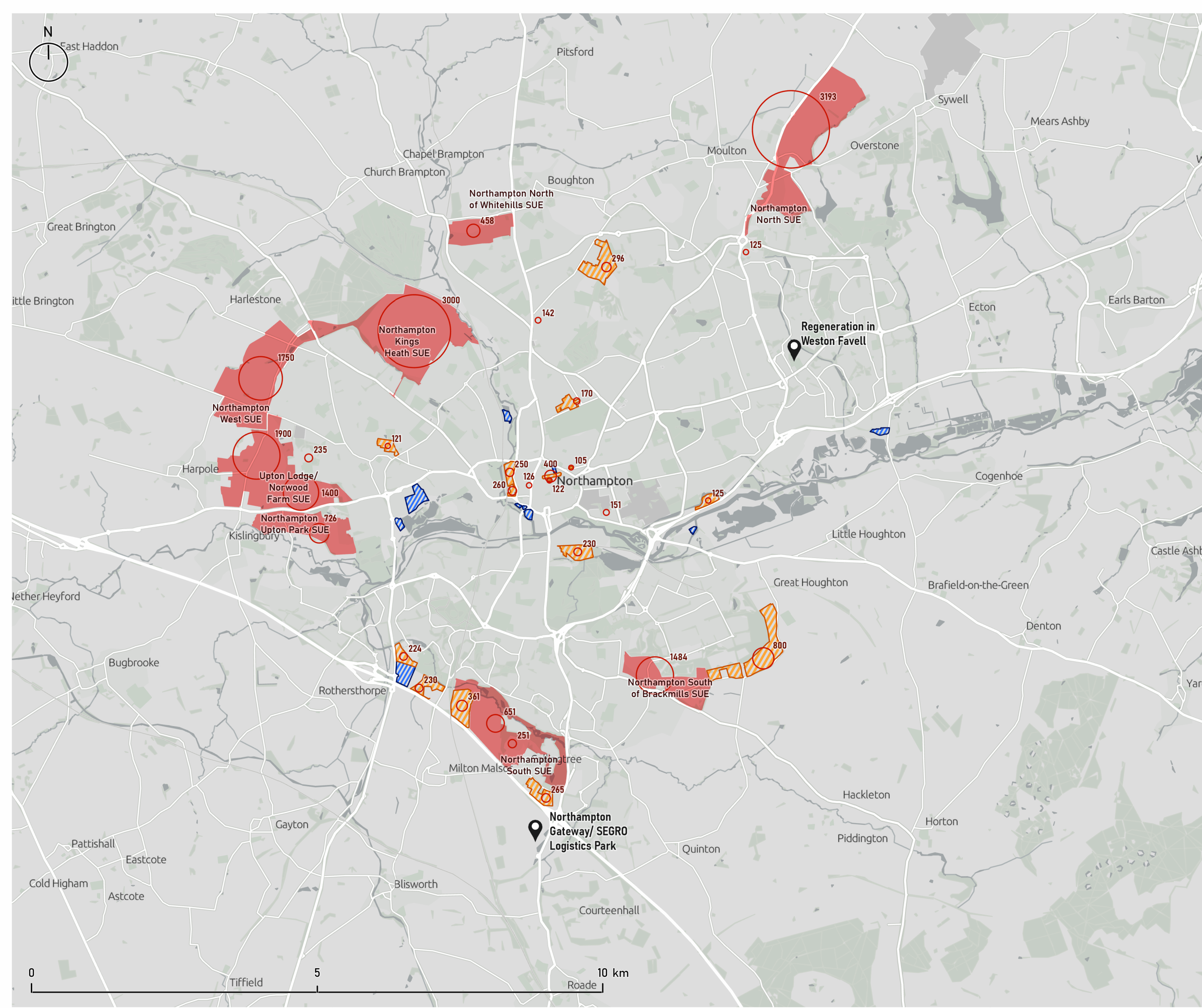
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C4 Developments - Housing & Employments

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# F1a Flow AADT (zoom)

AADF - Annual Average Daily Flow

Private cars only

- < 1250
- 1251 - 2500
- 2501 - 5000
- 5001 - 45000

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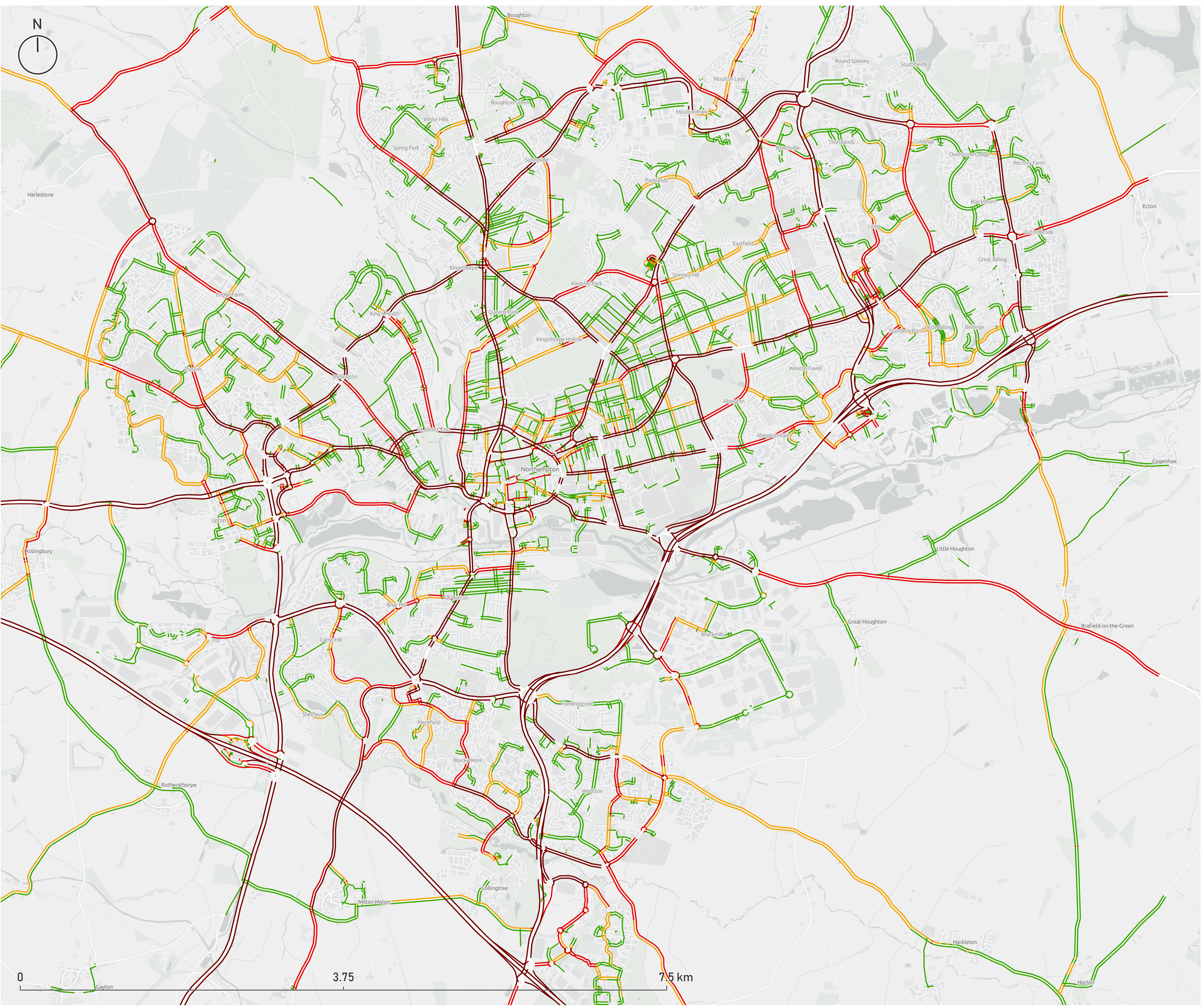
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F1a Flow AADT (zoom)

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B3 - Severance

Water Features

Watercourses

Surface Water

Road Hierarchy

Motorway

A Road

B Road

Railway Track

Dual Carriageway

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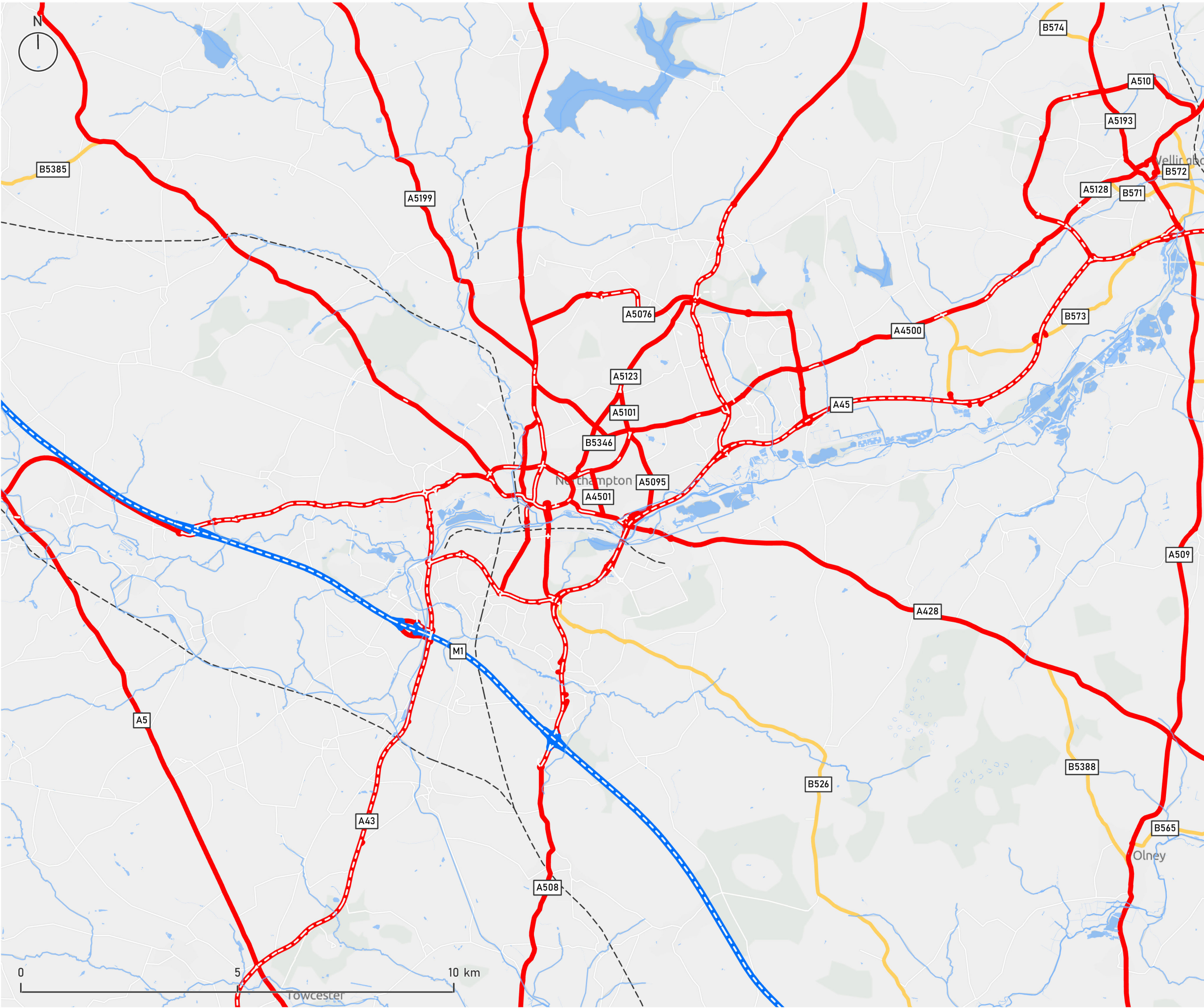
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Severance

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# D1b - Collision Analysis 2018 to 2023

## Casualties - Pedestrians Severity

- ▲ 1. Fatal
- ▲ 2. Serious
- ▲ 3. Slight

## Casualties - Cyclists Severity

- 1. Fatal
- 2. Serious
- 3. Slight

## Casualties heatmap (pedestrians and cyclists)

- Sparse
- Dense

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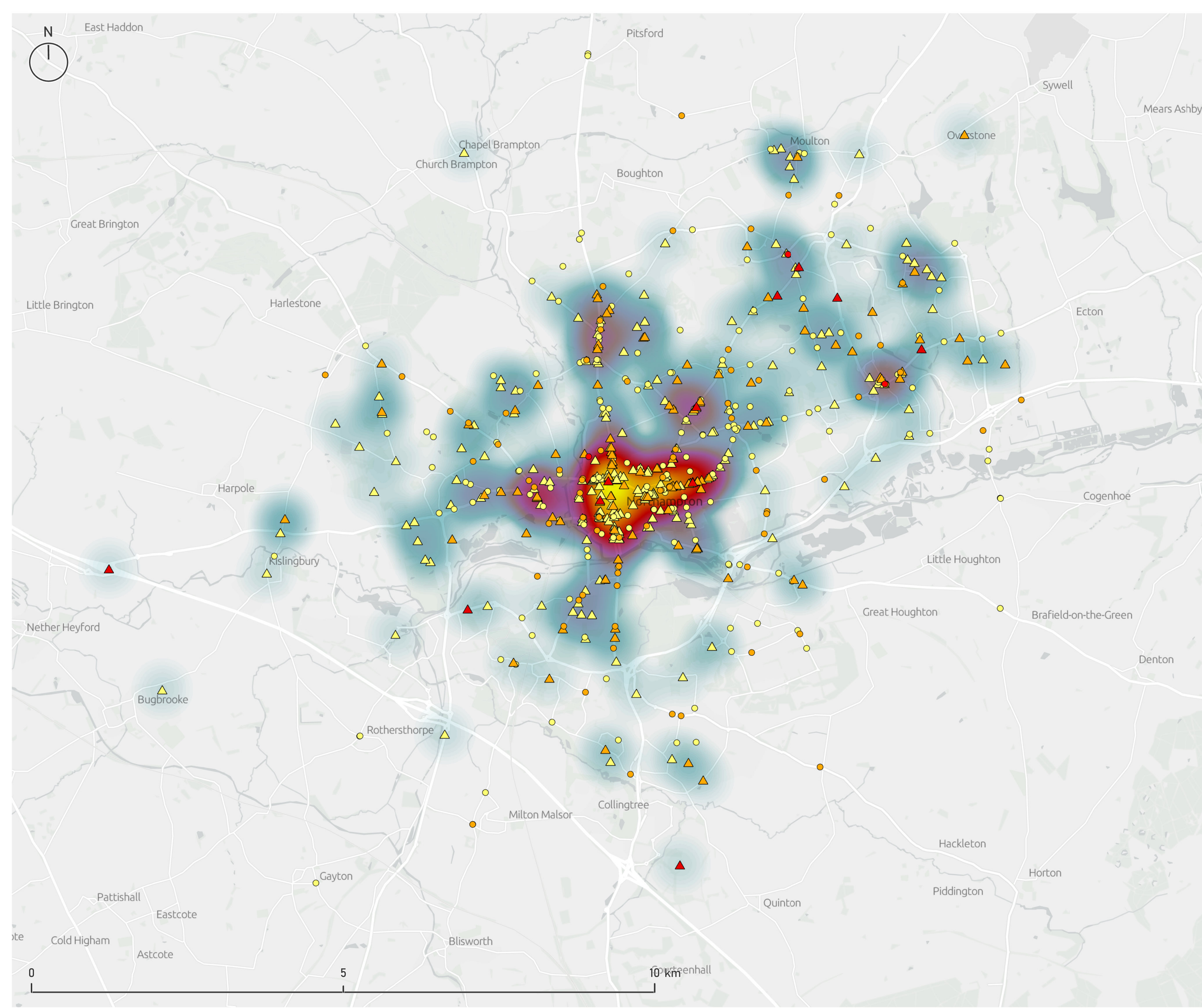
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Northampton District

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# D1b - Collision Analysis 2018 to 2023

## Casualties - Pedestrians Severity

- ▲ 1. Fatal
- ▲ 2. Serious
- ▲ 3. Slight

## Casualties - Cyclists Severity

- 1. Fatal
- 2. Serious
- 3. Slight

## Casualties heatmap (pedestrians and cyclists)

- Sparse
- Dense

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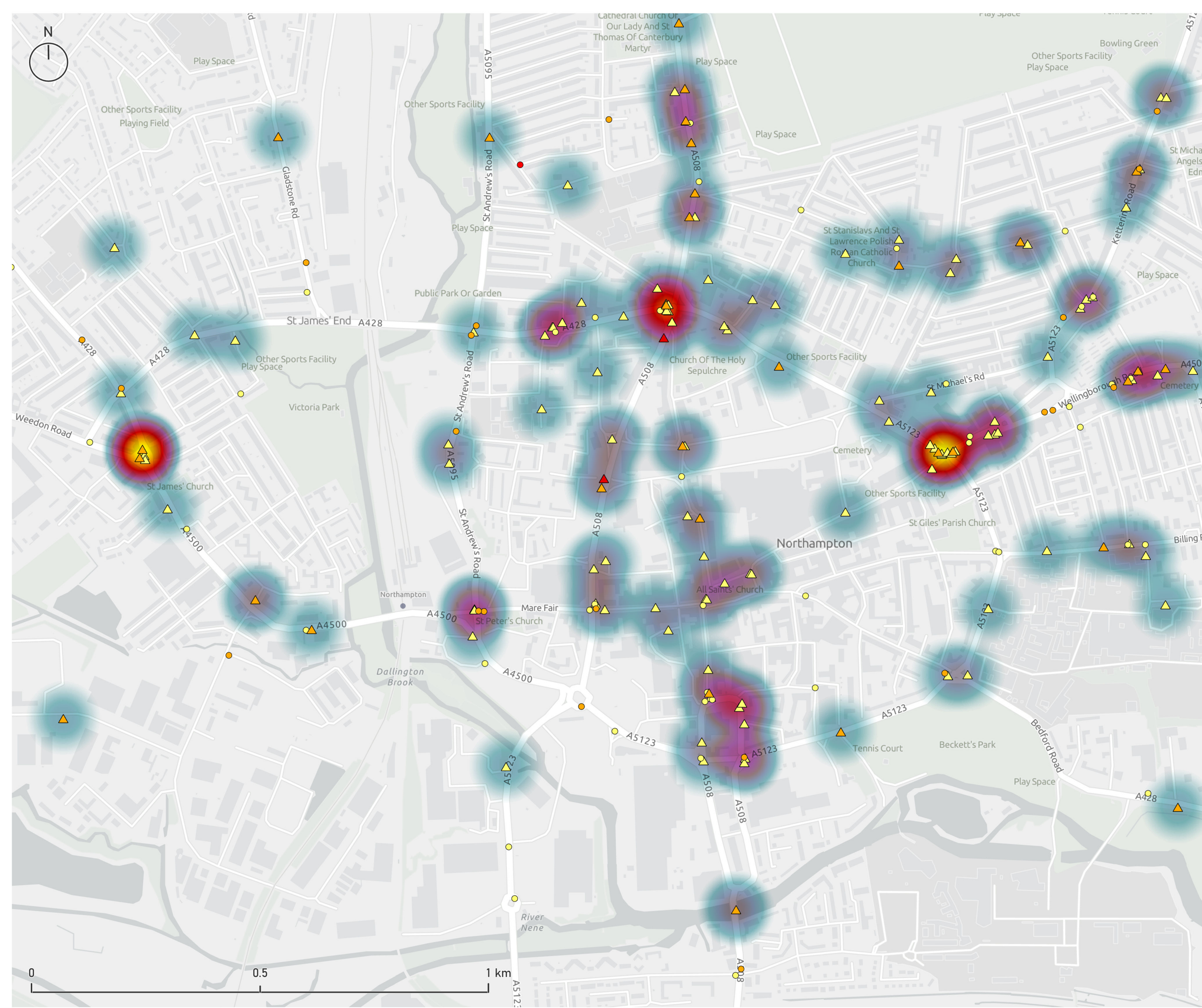
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Northampton Town Centre

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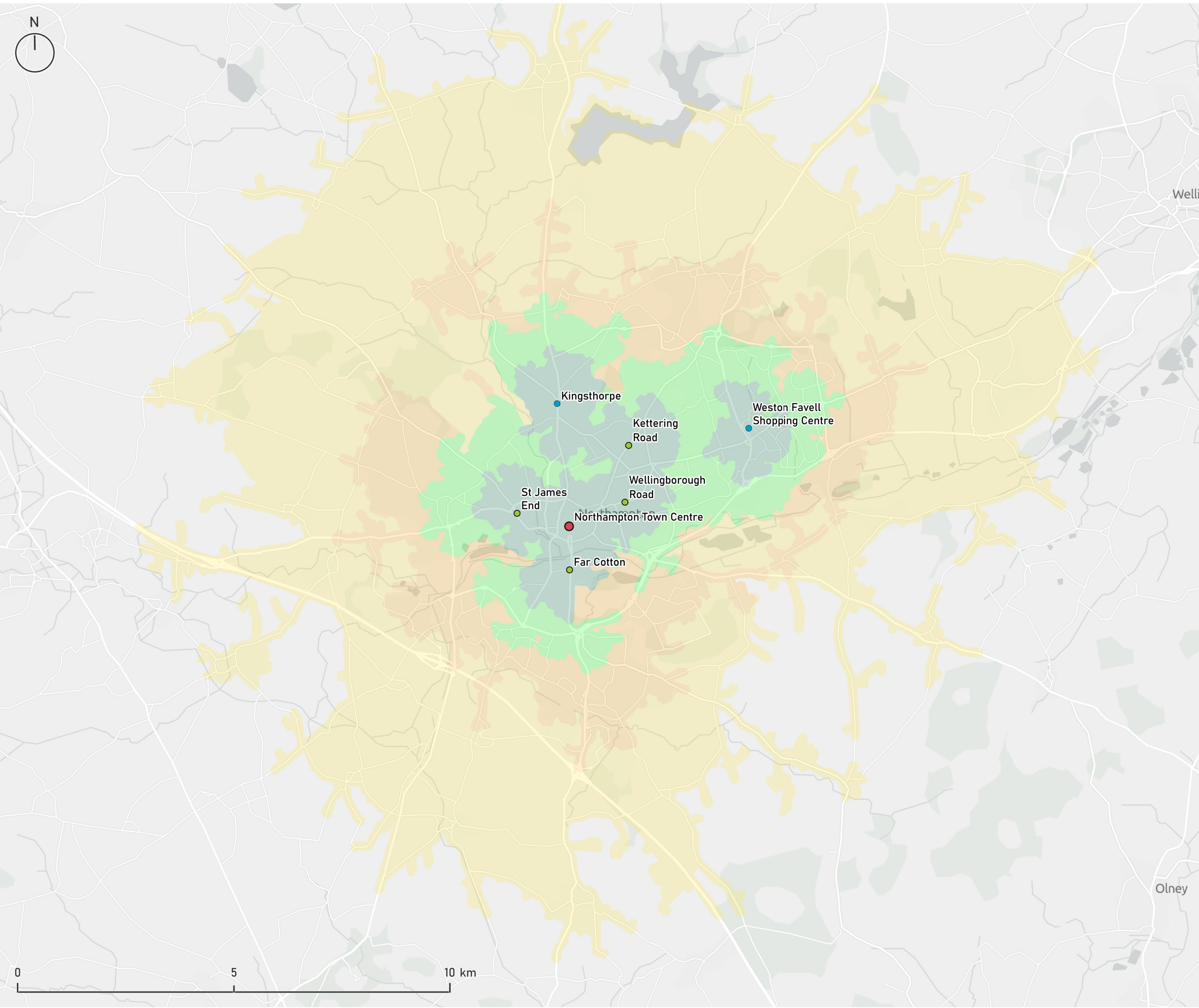
# C2 walking and cycling isochrone

Designated centres in the West Northamptonshire Join Core Strategy Local Plan (policy S2)

- Regional Town Centre
- District Centre
- Local Centre

Walking and cycling isochrones from designated centres

- 15 Minute-walk (1.35km)
- 30 Minute-walk (2.7km)
- 15 Minute-cycle (4.8km)
- 30 Minute-cycle (9.6km)



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C2 walking and cycling isochrone

Wider Extent  
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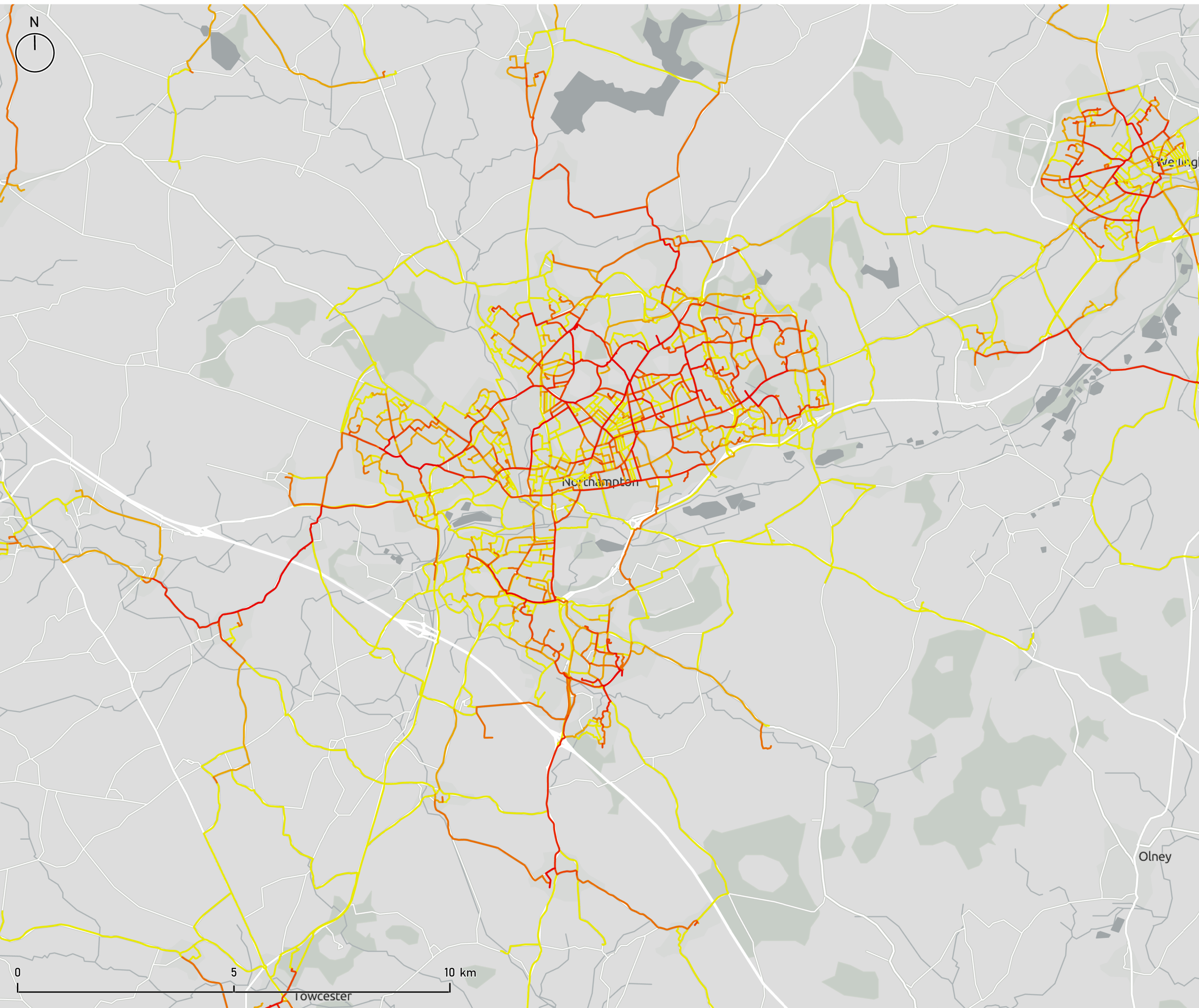












**E13 Propensity to Cycle - School Applied network**

**PCT School layer - Go Dutch Scenario (2011)**

**No. of pupil cycling - assigned via fastest route on road network**

≤ 40

≤ 80

≤ 120

≤ 200

≤ 300

≤ 400

≤ 600

≤ 1250

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The Propensity to Cycle Tool (School travel)- Goodman et al. (2019)

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E13 Propensity to Cycle - School Applied network  
Wider extent

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E11 - Pupil postcode data- shortest path heatmap travelling to school

Schools

Number of Pupil

- 1 - 50
- 51 - 100
- 101 - 250
- 251 - 500
- 501 - 1000
- 1001 - 1500
- 1501 - 2000
- 2001 - 2243

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
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Northampton District


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# E21 Everyday Trip Origins

 8km from Northampton area boundary

 Sustainable Urban Extensions (SUEs)

 Tessellated hexagon cells (0.25 sqkm)

## Origin points in tesellated hexagons

-  Cell contains Census 2021 population weighted centroid
-  Cell contains future housing developments
-  Cell contains both

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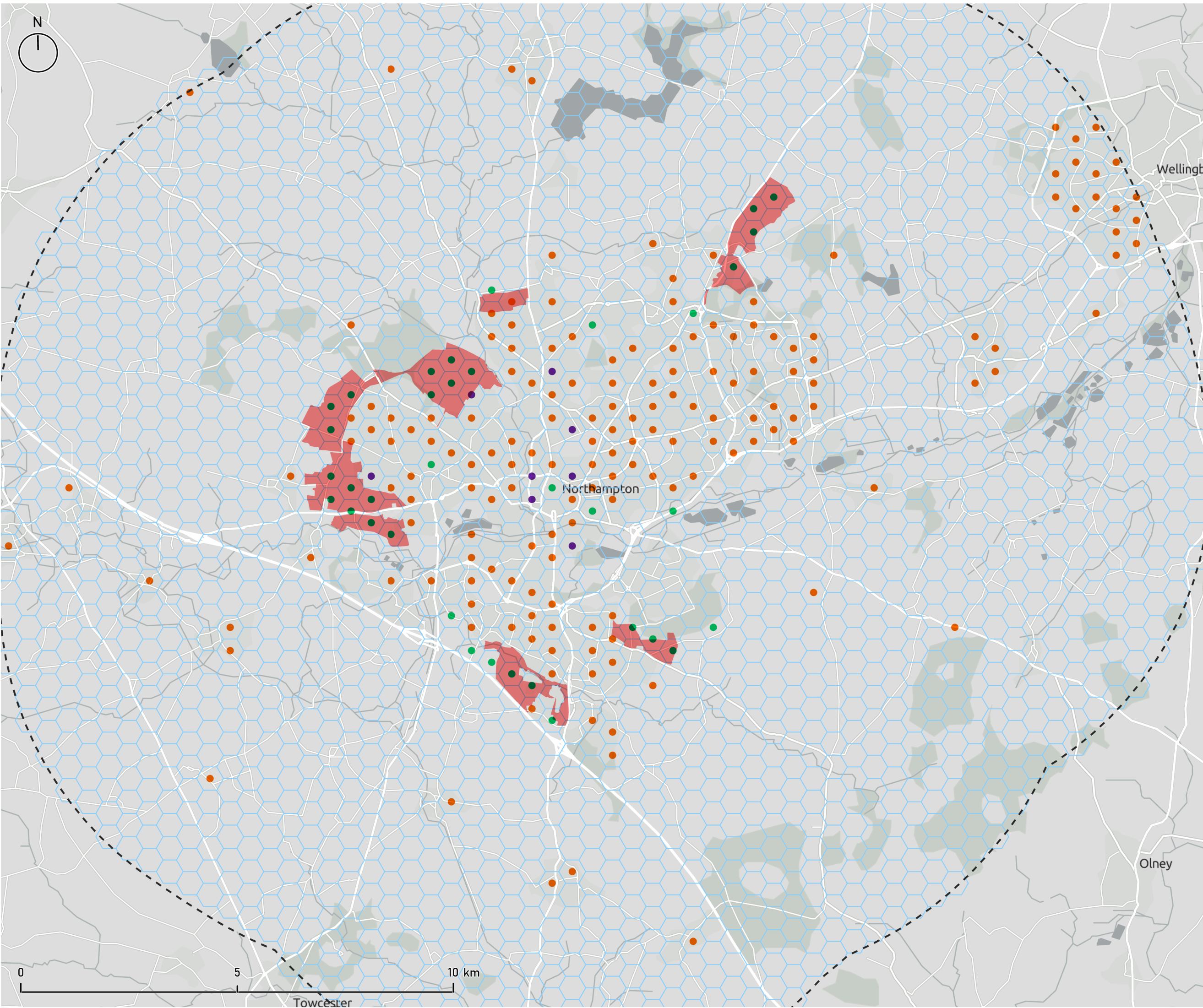
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E21 Everyday Trip Origins

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# E22 Everyday Trip Destinations

 8km from Northampton area boundary





## Class 1 Destinations

-  Bus station
-  Railway Station
-  Future Employment sites





## Class 2 destinations

-  Supermarket
-  CDRC Retail clusters
-  Attractions
-  Leisure Centre
-  Library
-  Bus Stops

## Schools

-  Primary
-  Secondary
-  All-through
-  Colleges/ Universities

## Healthcare

-  Hospital
-  Pharmacy
-  GP Practices
-  Dentist

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Retail centre clusters data form the Consumer Data Research Centre, an ESRC data investment, under project ID CDRC 498-01, ES/L011840/1; ES/L011891/1  
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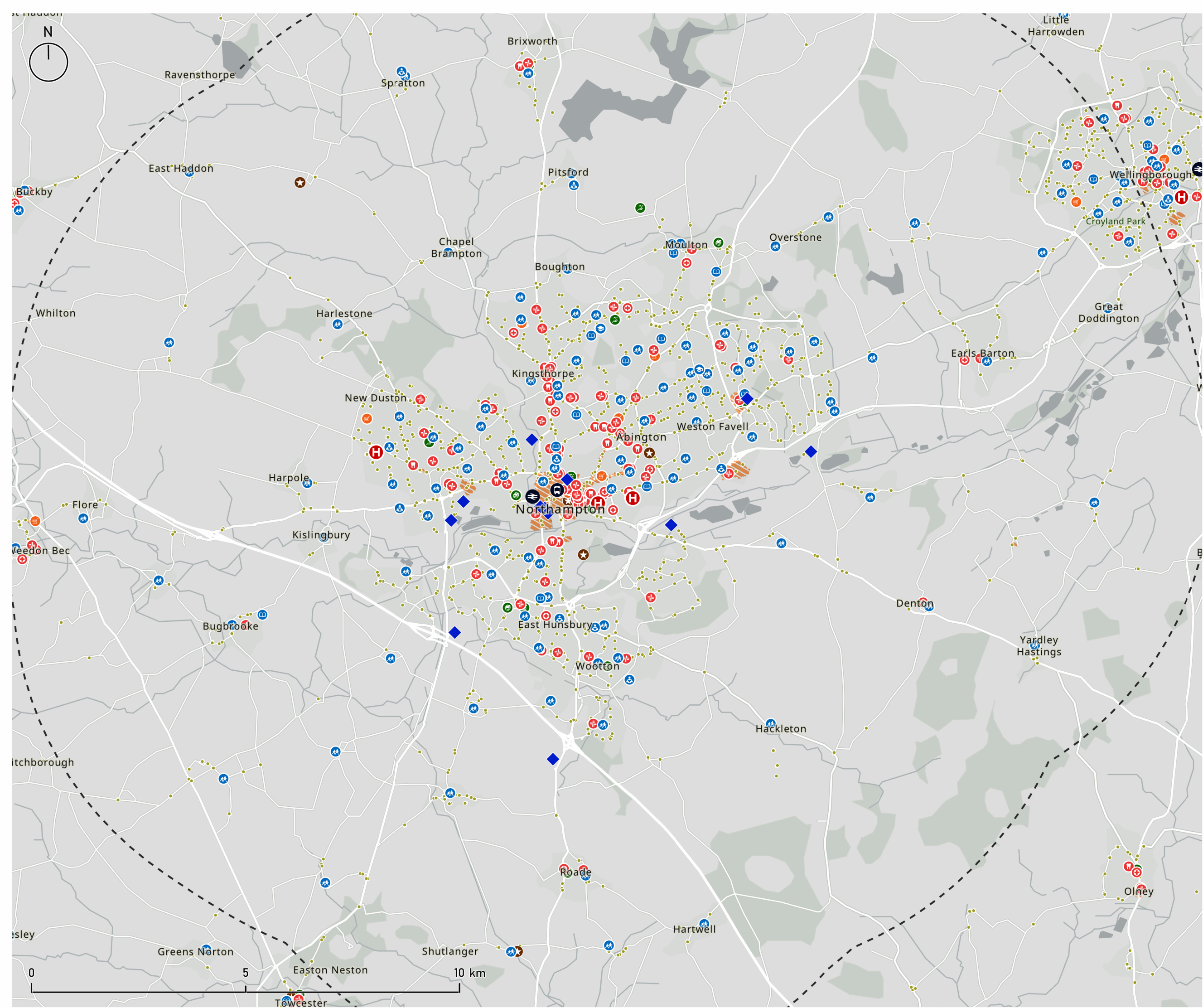
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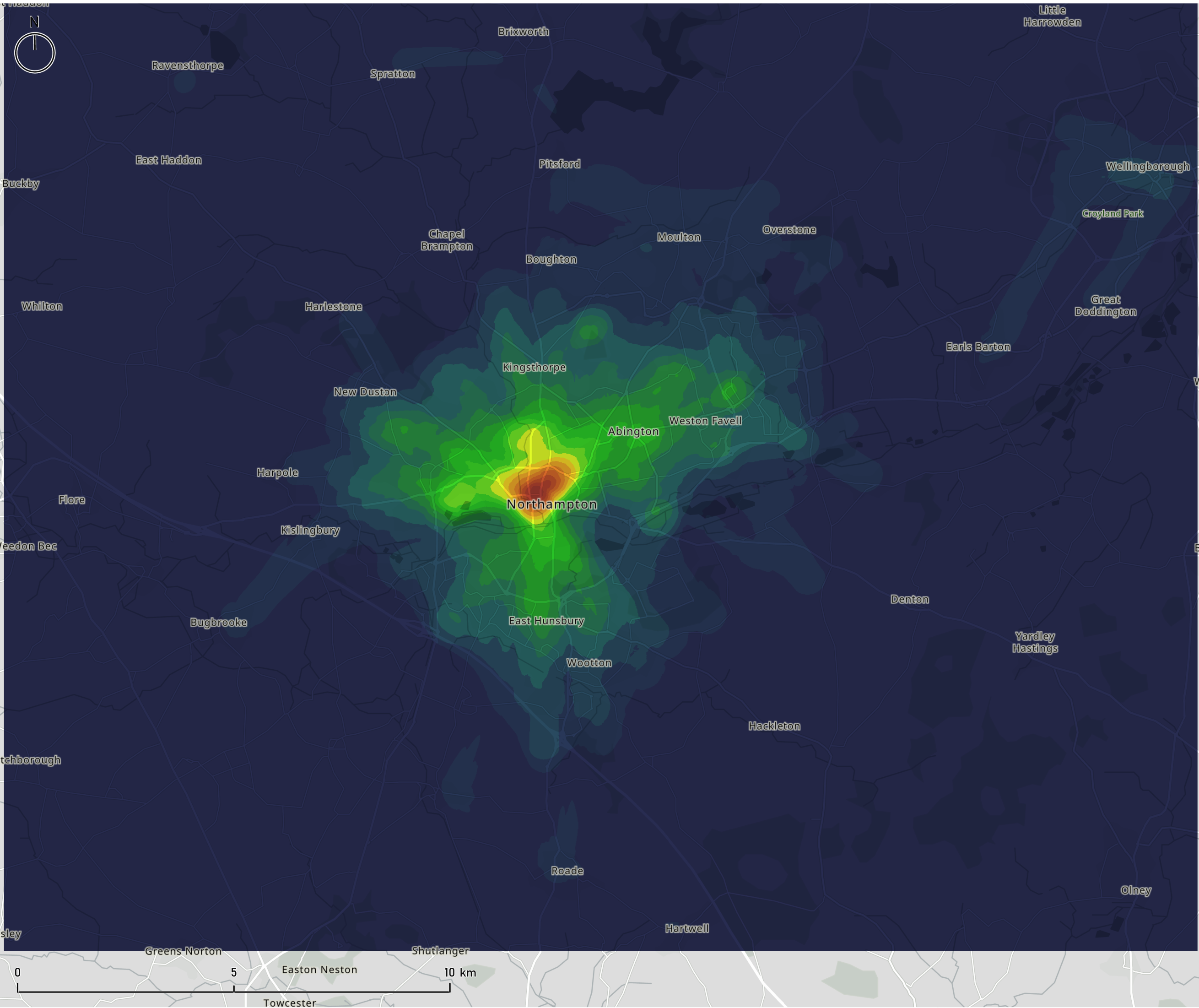
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**E22 Everyday Trip Destinations**  
Wider extent

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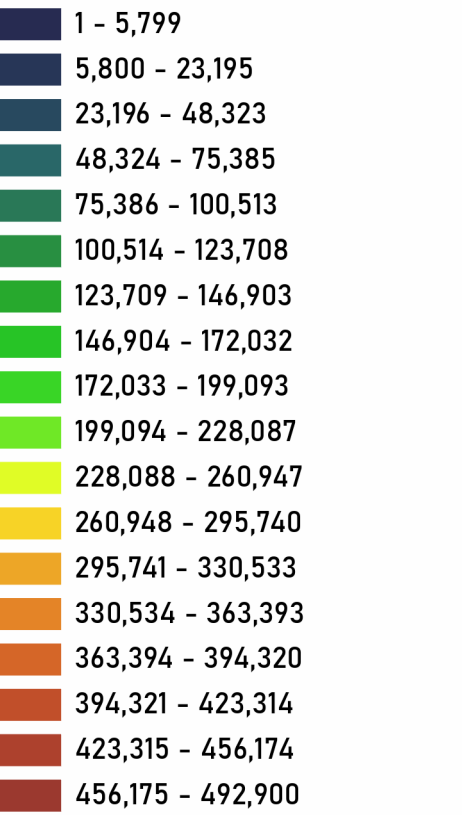







# E24 Everyday Trip Patterns

Cycling (2-5km) -  
Desire line density  
length of desire line in  
400m radius - m/sqkm



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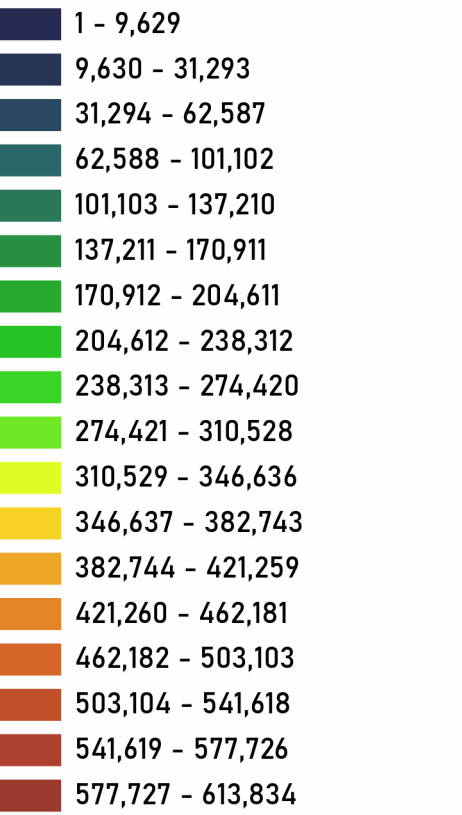
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**E24 Everyday Trip Patterns**  
Cycling (2-5km) - Desire line density

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# E24 Everyday Trip Patterns

Cycling (2-10km) -  
Desire line density  
length of desire line in  
800m radius - m/sqkm



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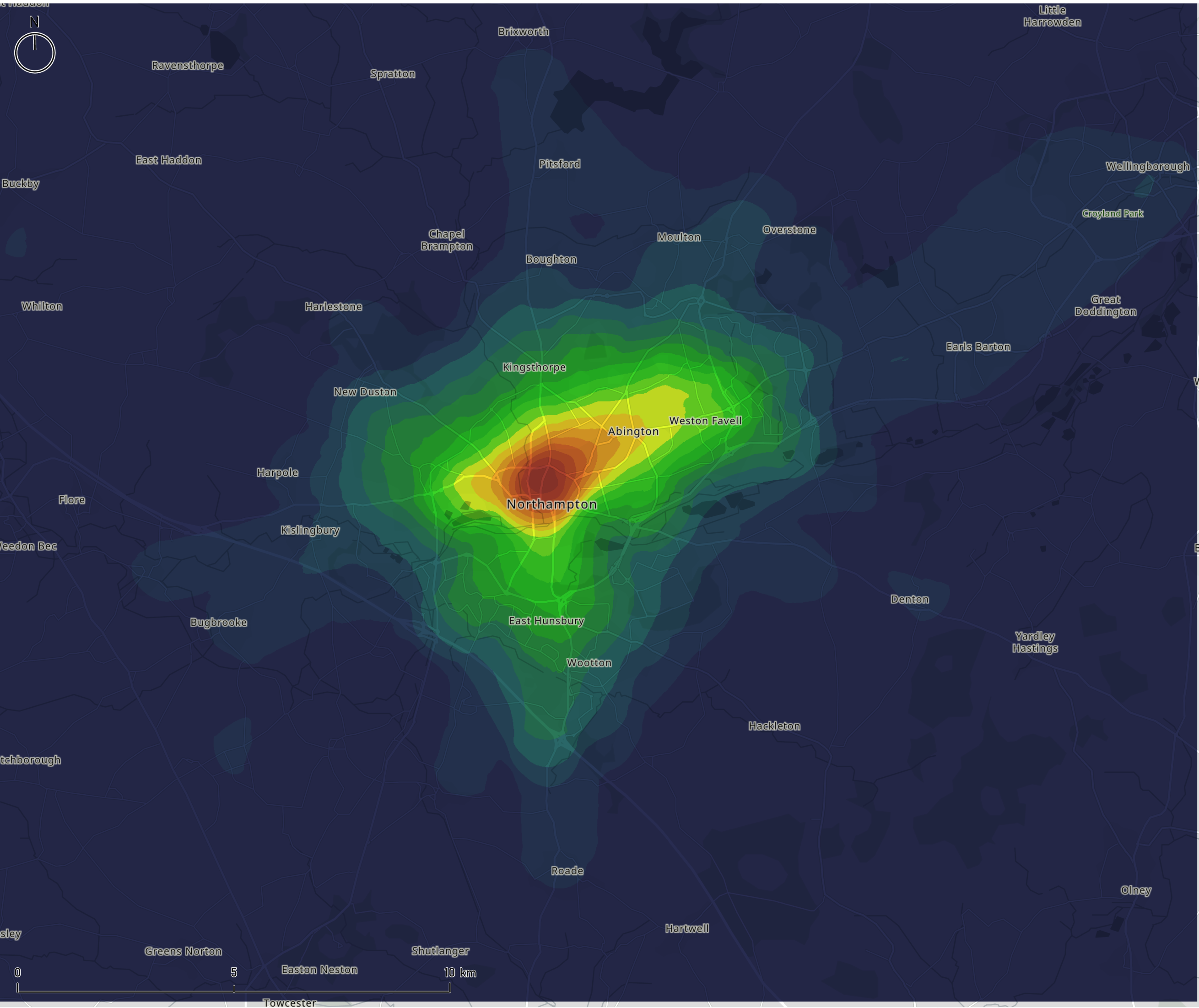
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Cycling (2-10km) - Desire line density

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E41 Strava Metro

Strava Metro in 2023  
Average cycle trip per day



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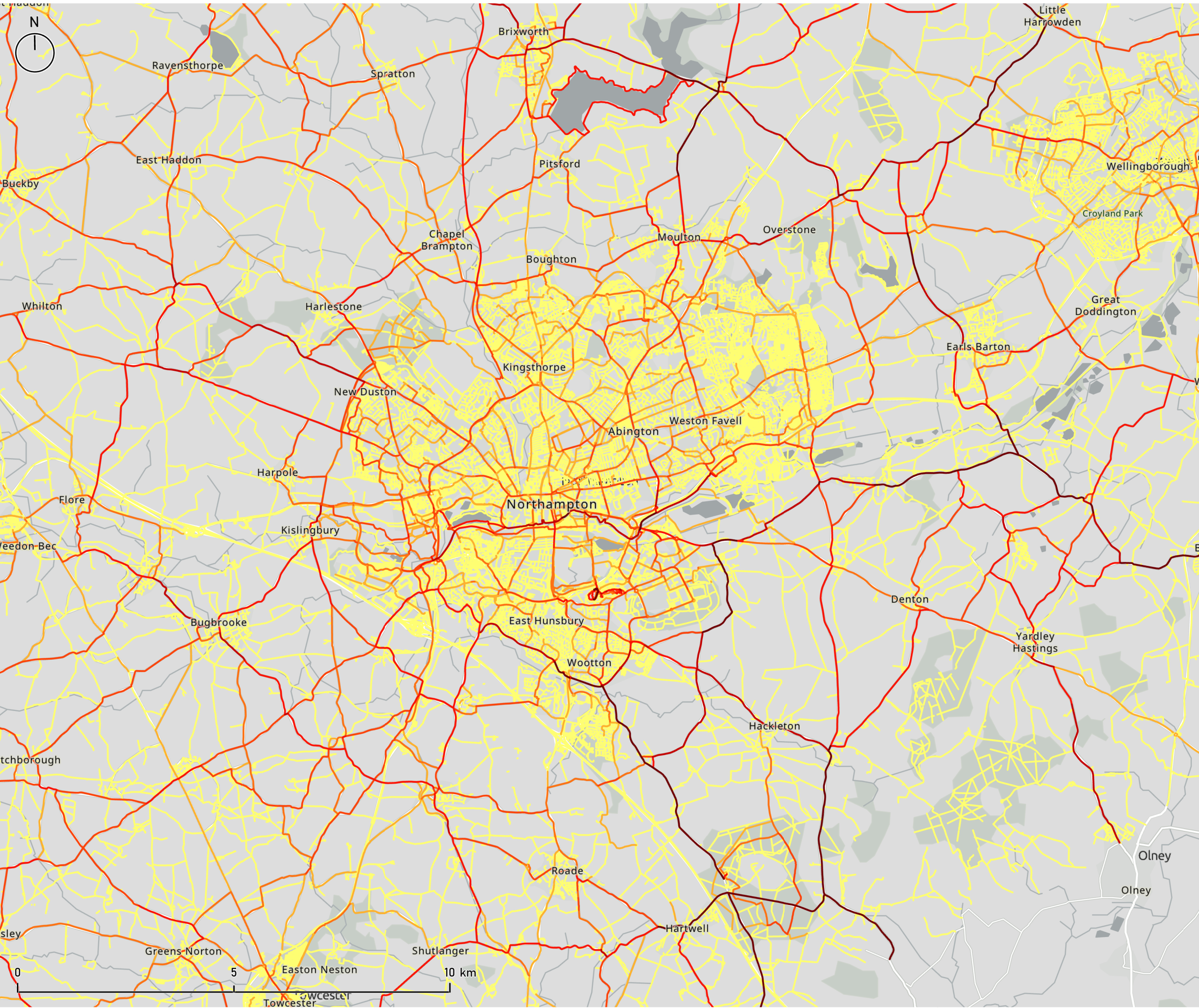
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E41 Strava Metro  
Wider extent

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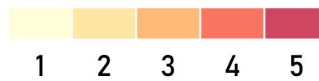




# E99 Combined demand analysis

## Tessellated hexagons - Analysis for cycling (0.2sqkm)

Number of desire Line overlays on hexagons



### Overlying desire lines:

- PCT Ebike scenario - top 10% straight line
- Pupil postcode shortest path - top 10% road section
- Everyday trip - Cycling (2-5km) higher demand areas
- Everyday trip - Cycling (2-10km) higher demand areas
- Strava Metro - Top 10% daily cycle trip road section

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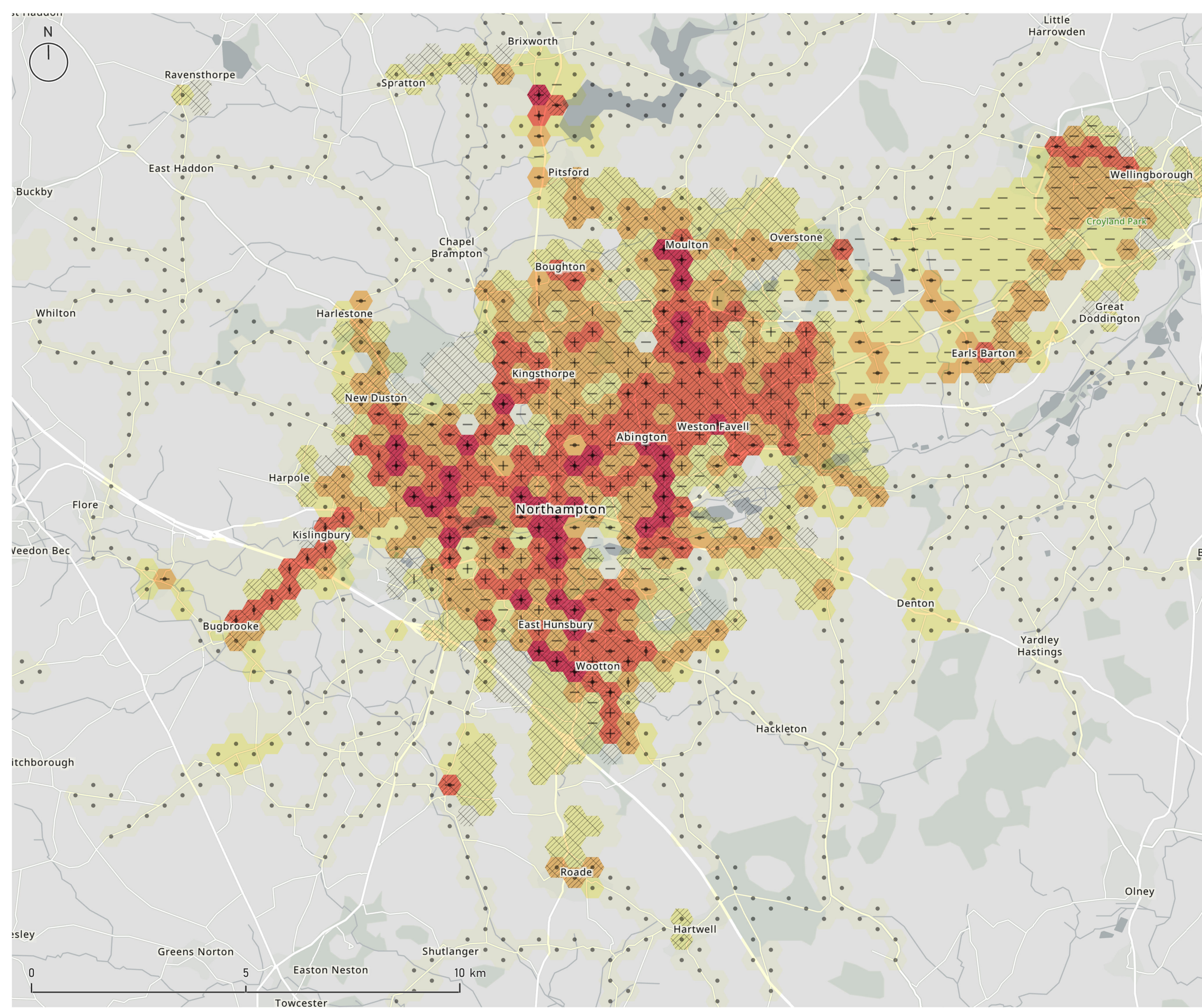
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**E99 Combined demand analysis**  
Overlying desire lines:

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G1 Network development - indicative thinking

Indicative thinking - cycling network

Routes in Town

- Evidence-based straight lines
- Active Travel / ATF schemes

Tessellated hexagons - Analysis for cycling (0.2sqkm)

Number of desire Line overlays on hexagons

- 1
- 2
- 3
- 4
- 5

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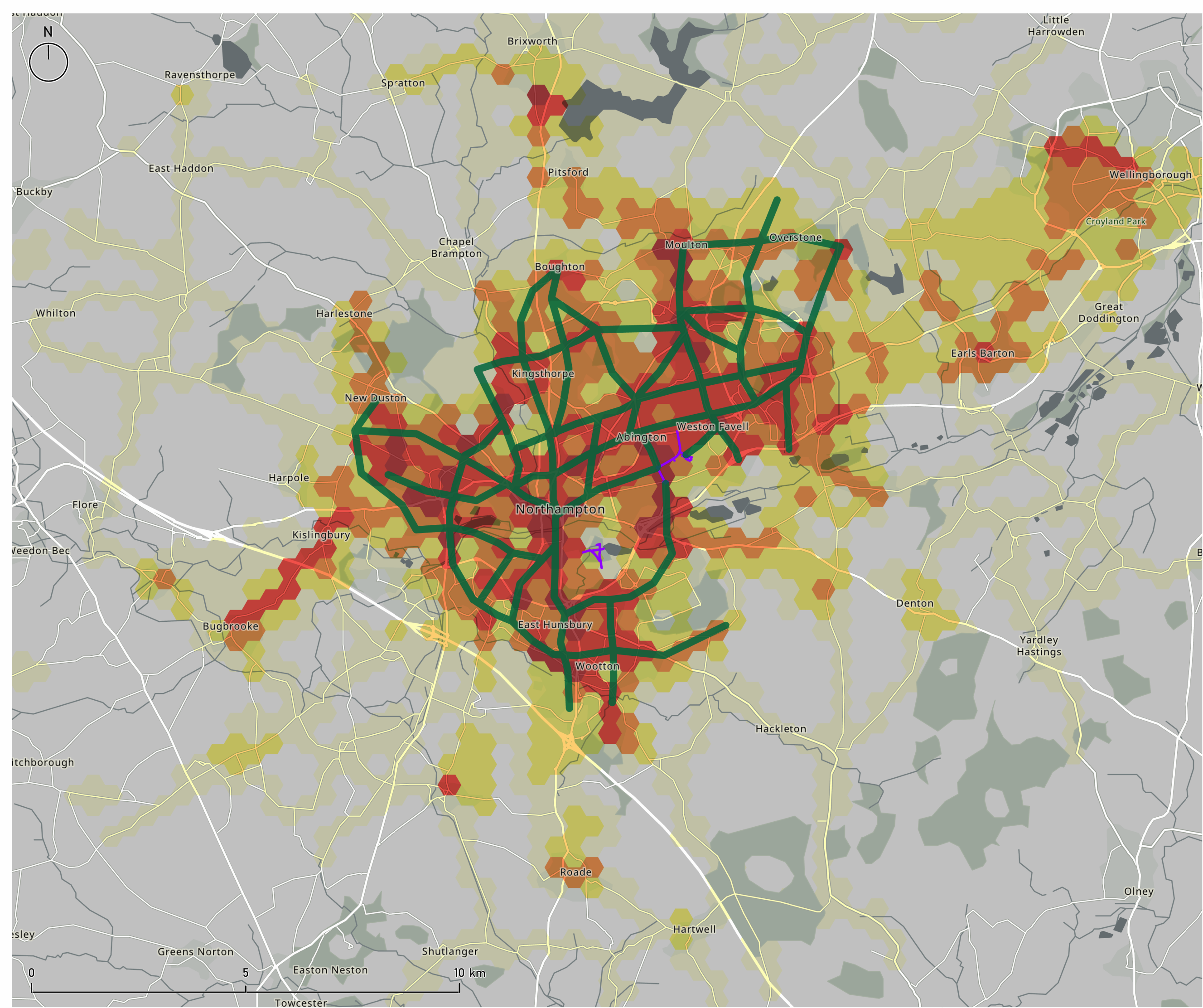
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G1 Network development - indicative thinking

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**G1 Network development - indicative thinking**

**Indicative thinking - cycling network**

**Routes in Town**

Evidence-based straight lines

Additional straight-line

**Route to surrounding settlements**

Routes to surrounding settlements

Aspirational route

Active Travel / ATF schemes

**Tessellated hexagons - Analysis for cycling (0.2sqkm)**

**Number of desire Line overlays on hexagons**

- 1
- 2
- 3
- 4
- 5

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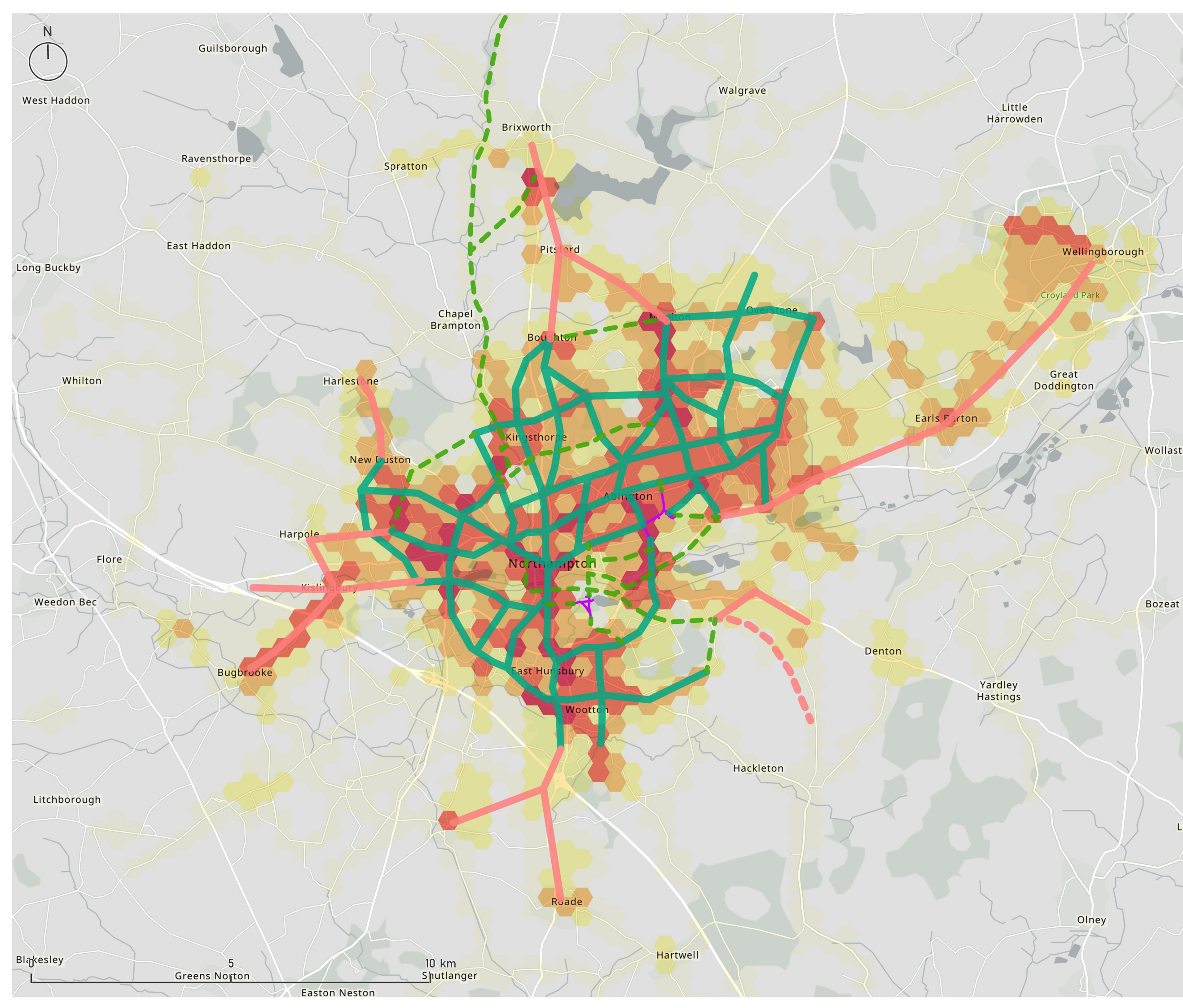
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G1 Network development - indicative  
Indicative thinking - Walking

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# E24 Everyday Trip Patterns

Walking (0-2km) - total length of desire line in 0.025 sqkm hex (in m)



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**E24 Everyday Trip Patterns**  
Walking (0-2km) - total length of desire

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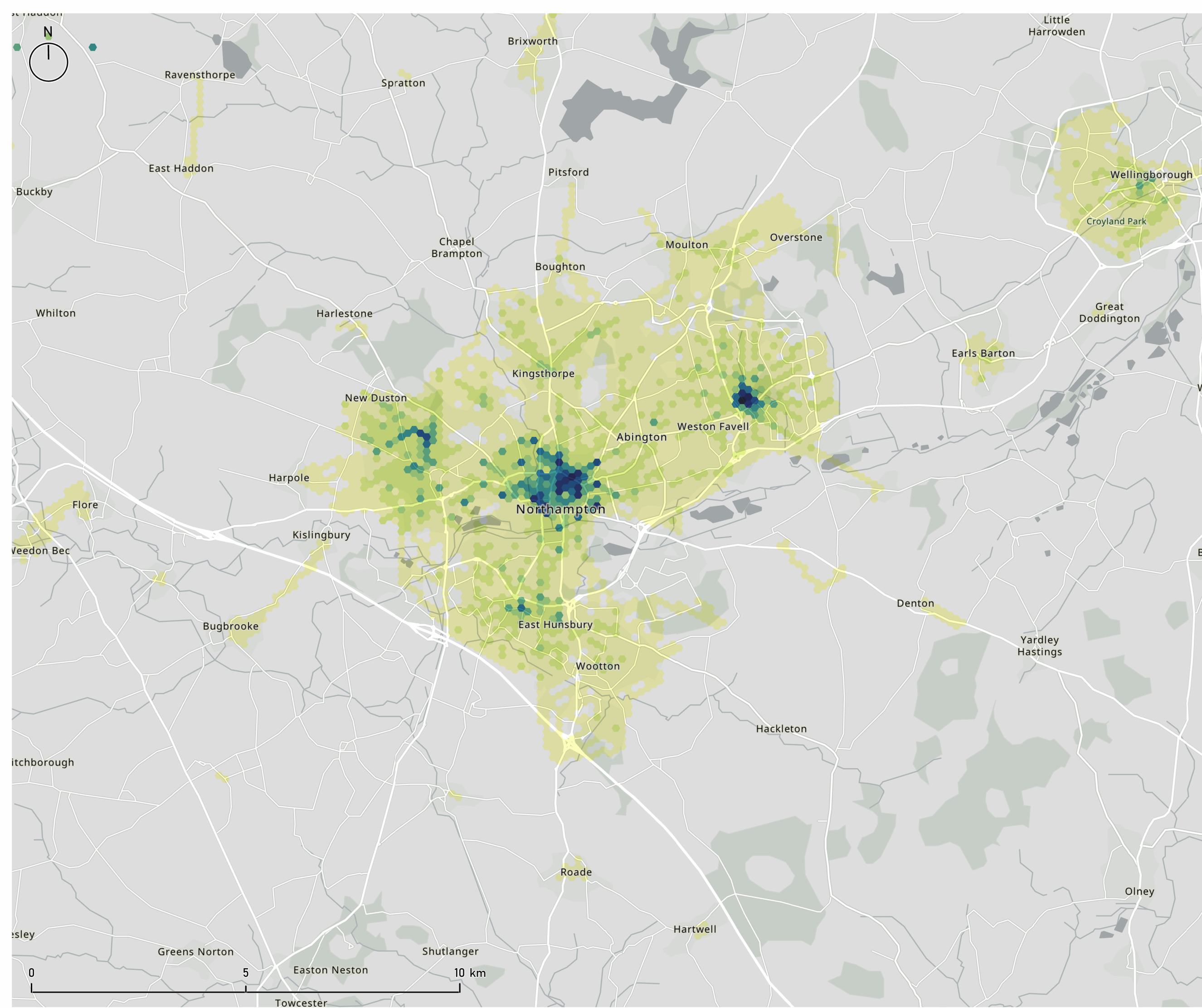
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# G6a Network Development - Walking network & WRAT audit

## Overview

- Core Walking Zones
- Key Walking routes to Core Walking Zones
- Billing Road

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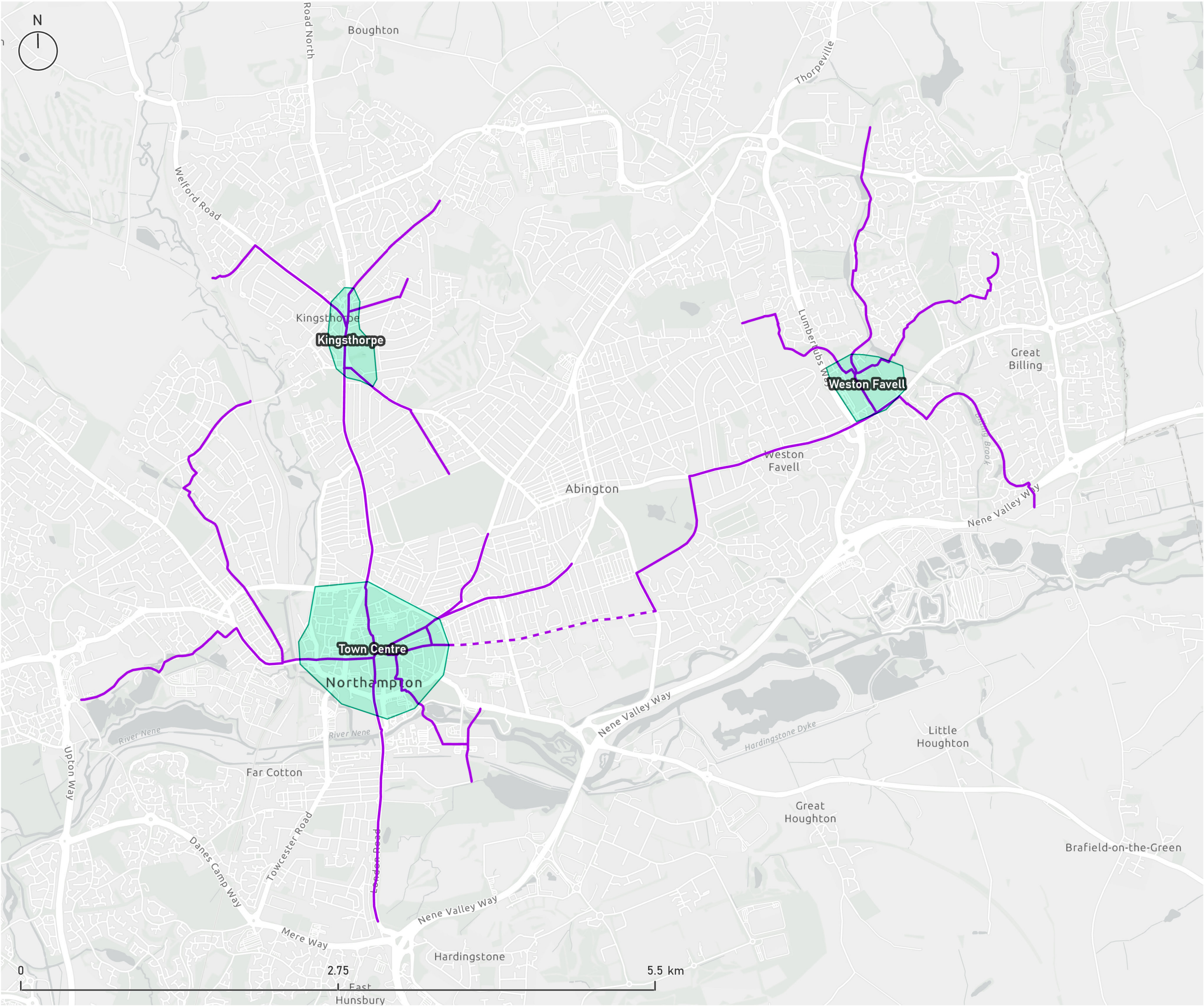
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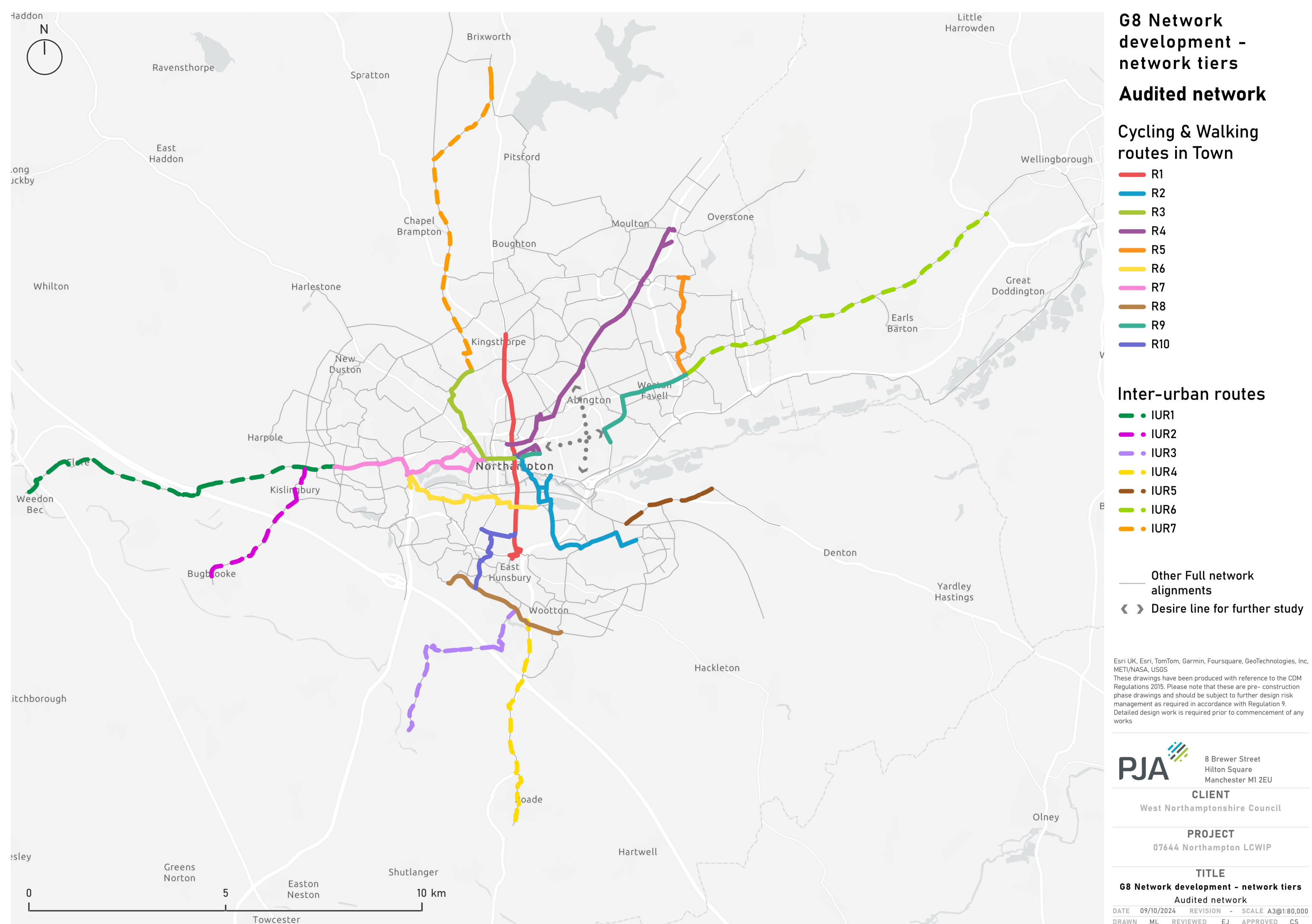
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RST- RAG Rating Overview Map

RST RAG Rating

Safety threshold 2

- Red
- Amber
- Green

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TITLE  
RST Rating

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Raven



G6a Network  
Development - Walking  
network & WRAT audit

Overview

Key Walking routes to  
Core Walking Zones  
WRAT Rating

Adapted WRAT rating

- Red (0 - 4)
- Amber (5 - 7)
- Green (8 - 10)
- - - Billing Road

Esri UK, Esri, TomTom, Garmin, GeoTechnologies, Inc, METI/NASA, USGS  
These drawings have been produced with reference to the CDM Regulations 2015. Please note that these are pre- construction phase drawings and should be subject to further design risk management as required in accordance with Regulation 9. Detailed design work is required prior to commencement of any works

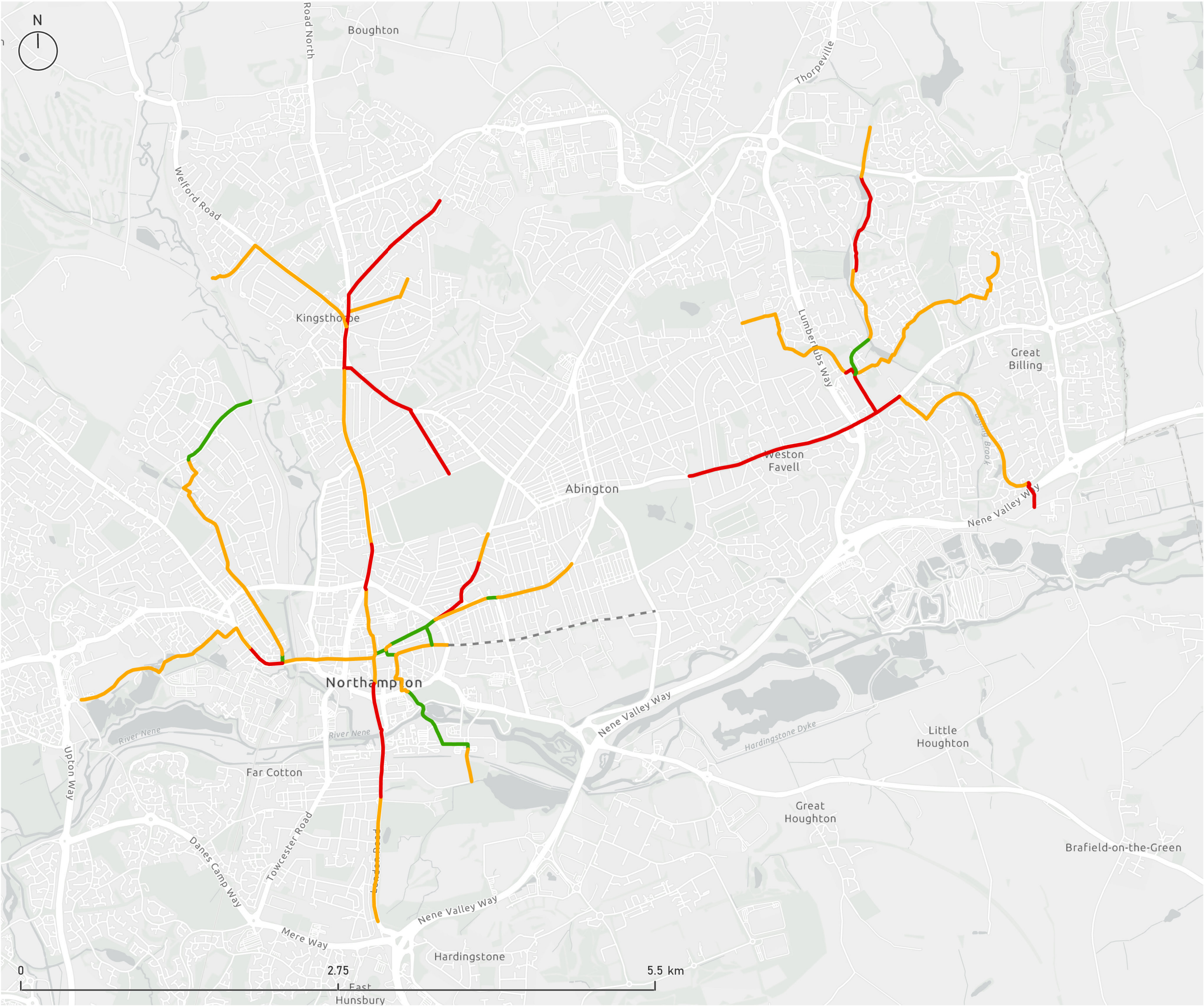
**PJA**  
8 Brewer Street  
Hilton Square  
Manchester M1 2EU

**CLIENT**  
West Northamptonshire Council

**PROJECT**  
07644 Northampton LCWIP

**TITLE**  
G6a Network Development - Walking  
network & WRAT audit

DATE 11/04/2025 REVISION - SCALE A3@1:30,000  
DRAWN ML REVIEWED EJ APPROVED CS





G4 Network development - Full network alignment & indicative typology

Audited routes

Full network alignments

Indicative Level Provisions

On carriageway cycling

Protected cycling Infrastructure

Rural cycling provision

Subject to development/ town centre provisions

Traffic free

Core walking zones

Walking Routes

Proposed ATE Scheme

Existing LCWIP Network

Desire line for further study

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Contains data from OS Zoomstack  
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G4 Network development - Full network alignment & indicative typology

DATE 07/05/2025

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