

20/09/2017

Theme 1 – Parking Standards Assessment

Theme 1



Job Ref 106215

SYSTRA

1.

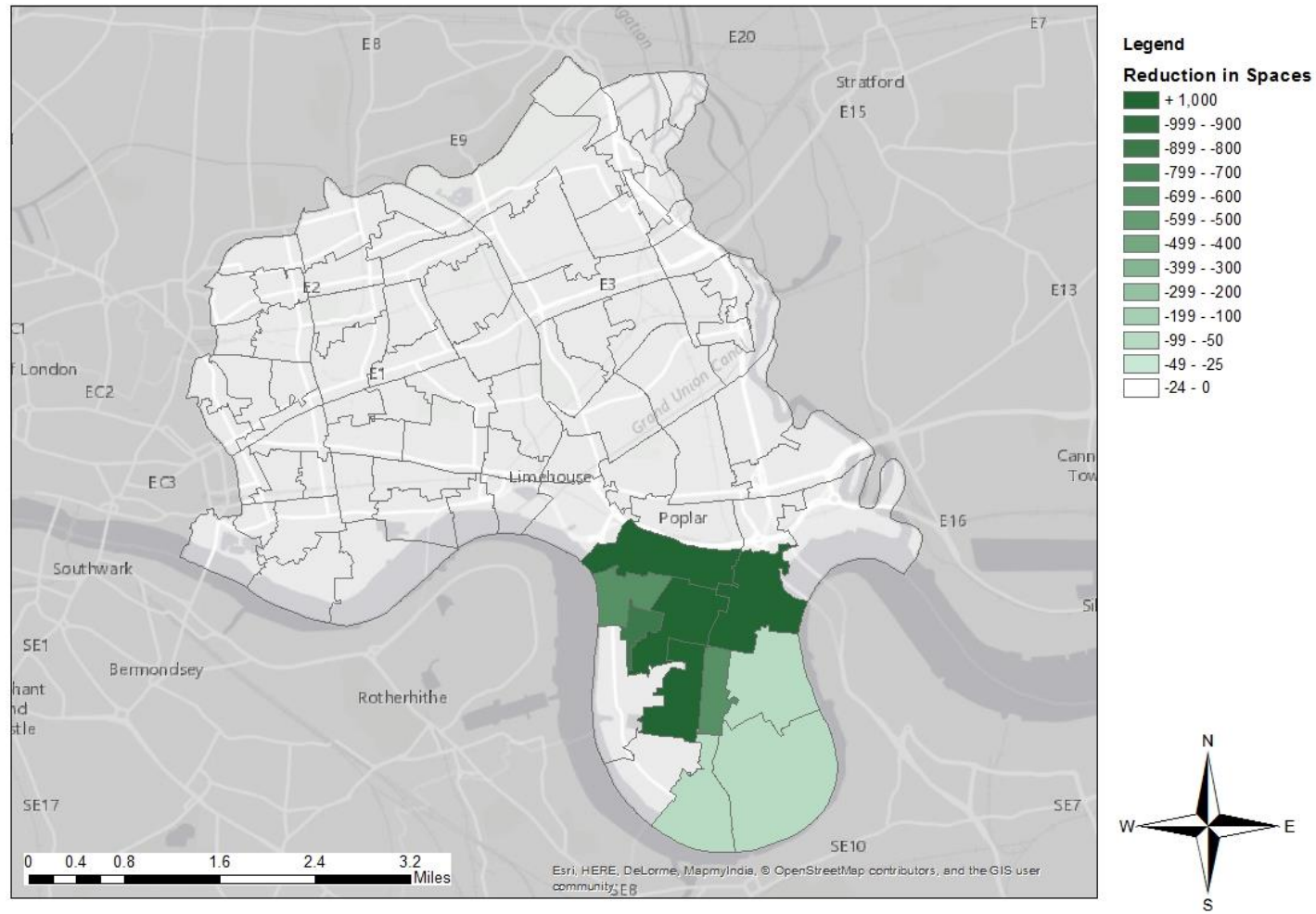


Estimated Reduction in Additional Car Parking Spaces

Estimated Reduction in Parking Spaces

Option 1 Parking Standards:

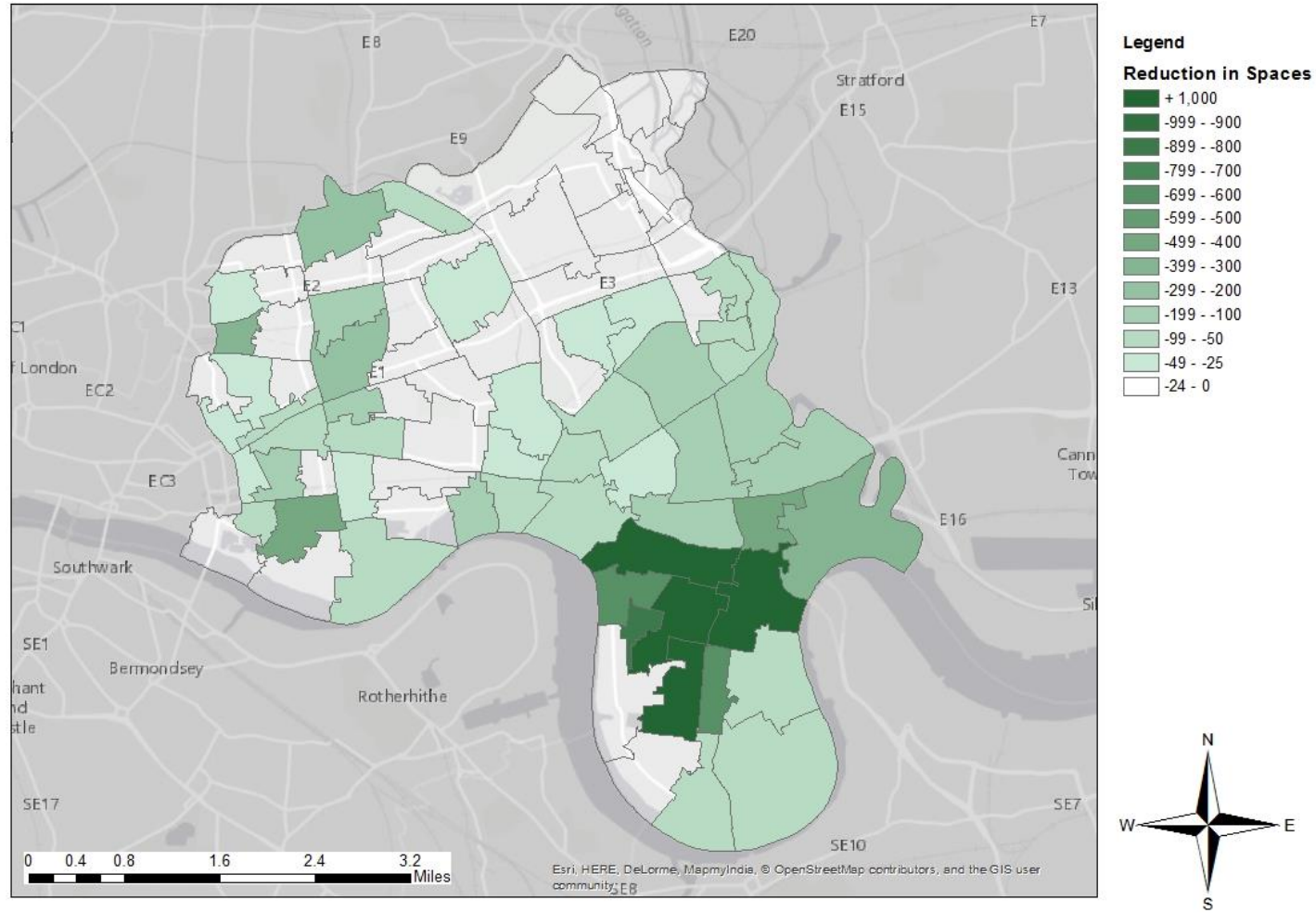
- All reductions occurring in Isle of Dogs only



Estimated Reduction in Parking Spaces

Option 2 Parking Standards:

- Additional reductions across the borough



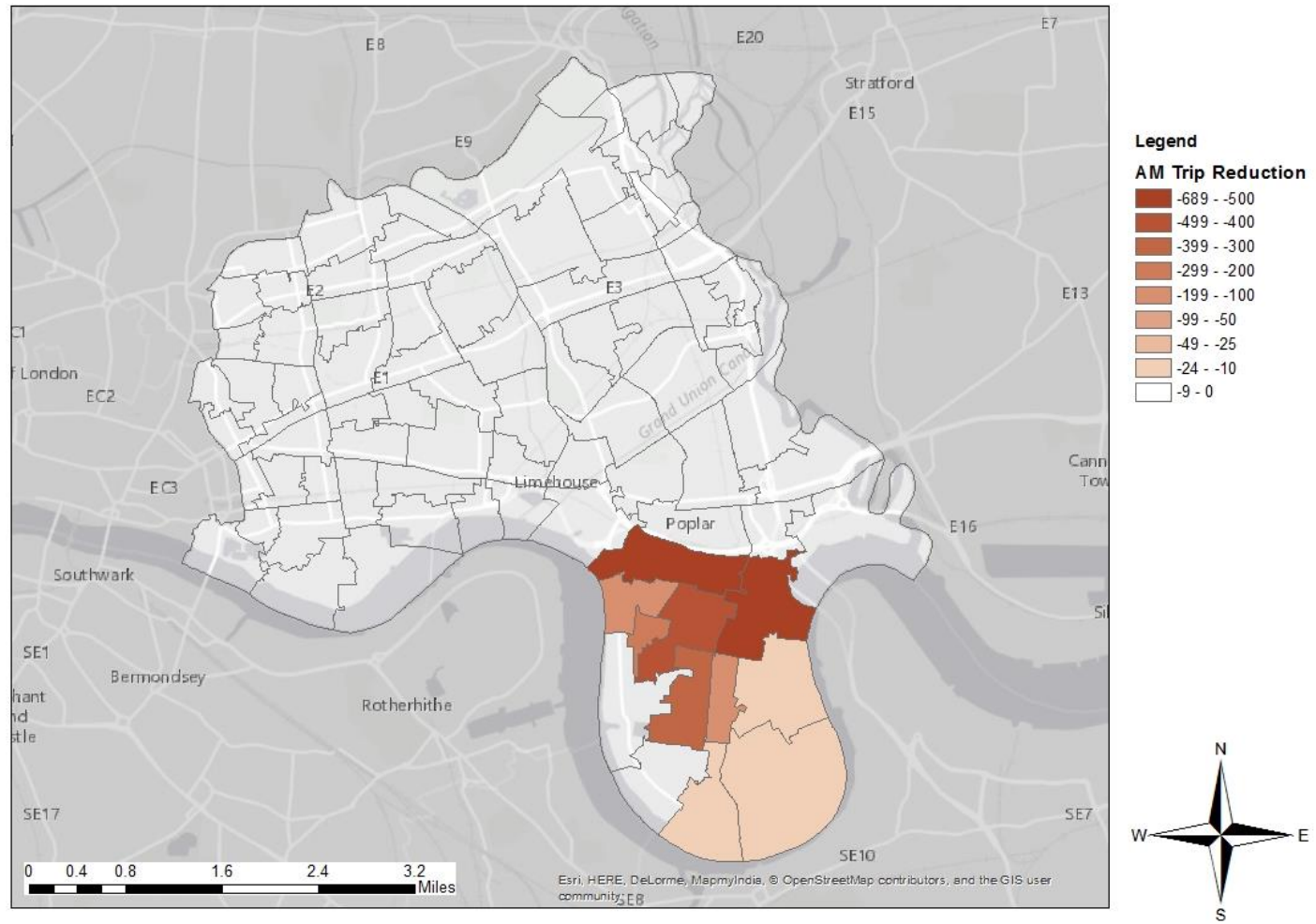
Impact on Trip Generation

PARKING STANDARD	AM TRIP REDUCTION	% OF THBC MODEL ORIGINS	PM TRIP REDUCTION	% OF THBC MODEL DESTINATIONS
Option 1	-1,110	-5%	-610	-3%
Option 2	-1,895	-9%	1,041	-5%

Impact on Trip Generation

Option 1 Parking Standards:

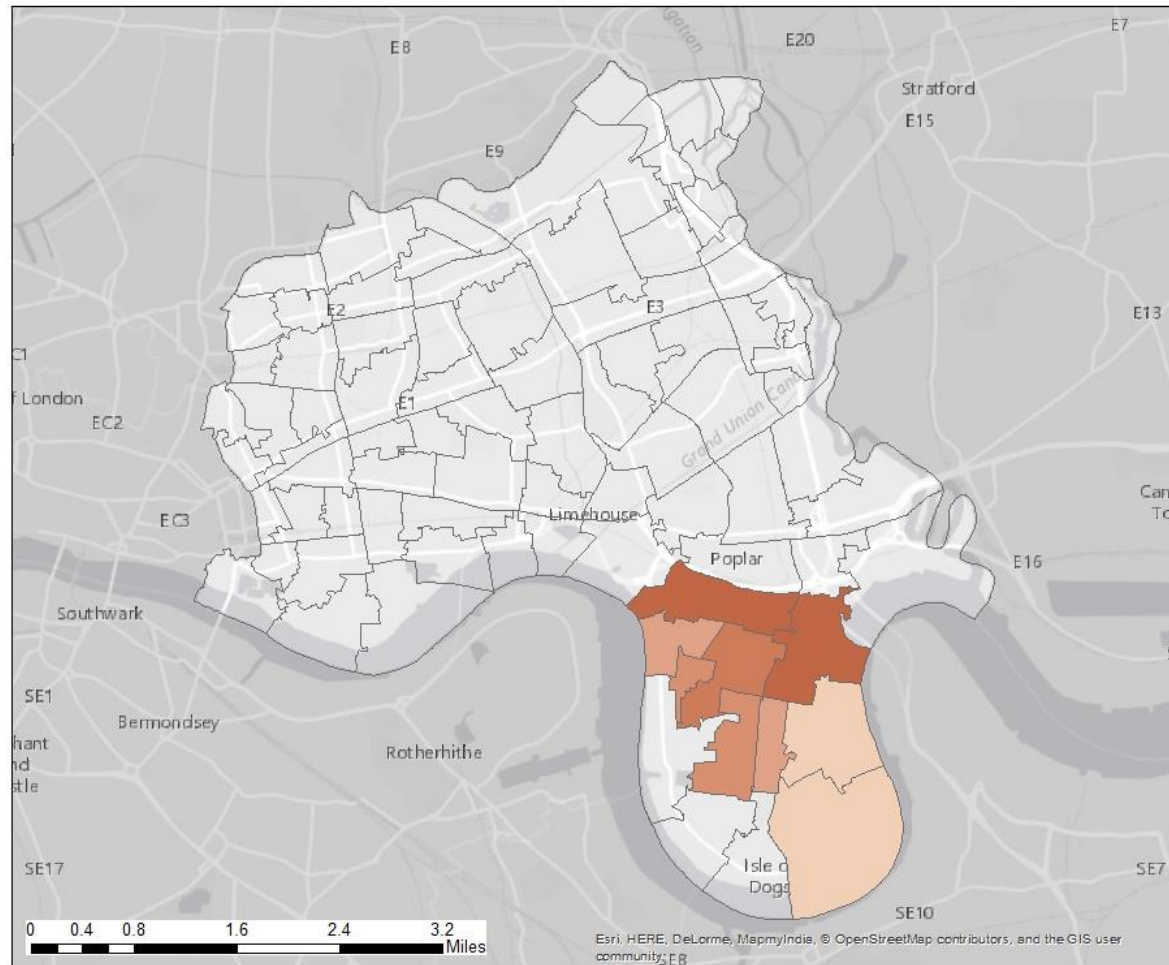
- AM Peak



Impact on Trip Generation

Option 1 Parking Standards:

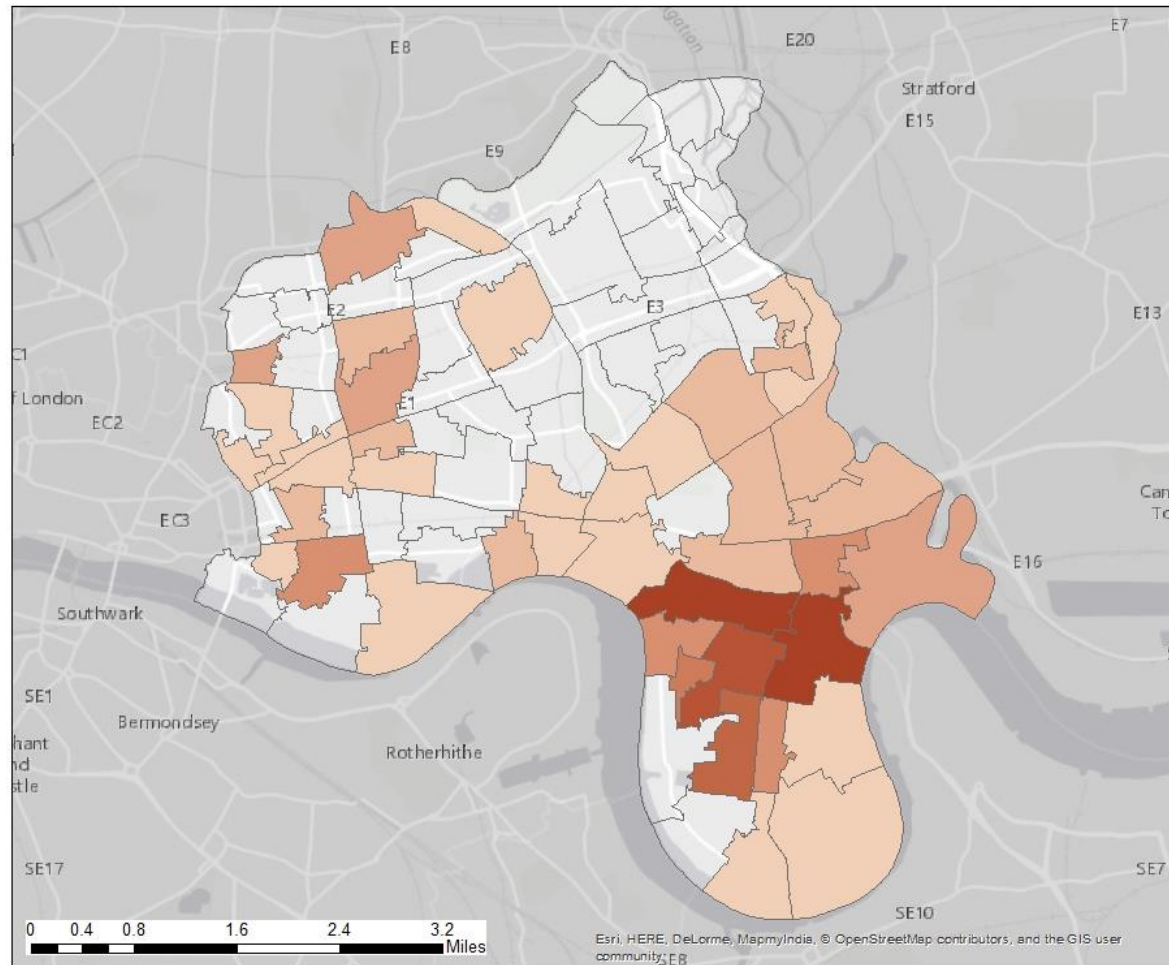
- PM Peak



Impact on Trip Generation

Option 2 Parking Standards:

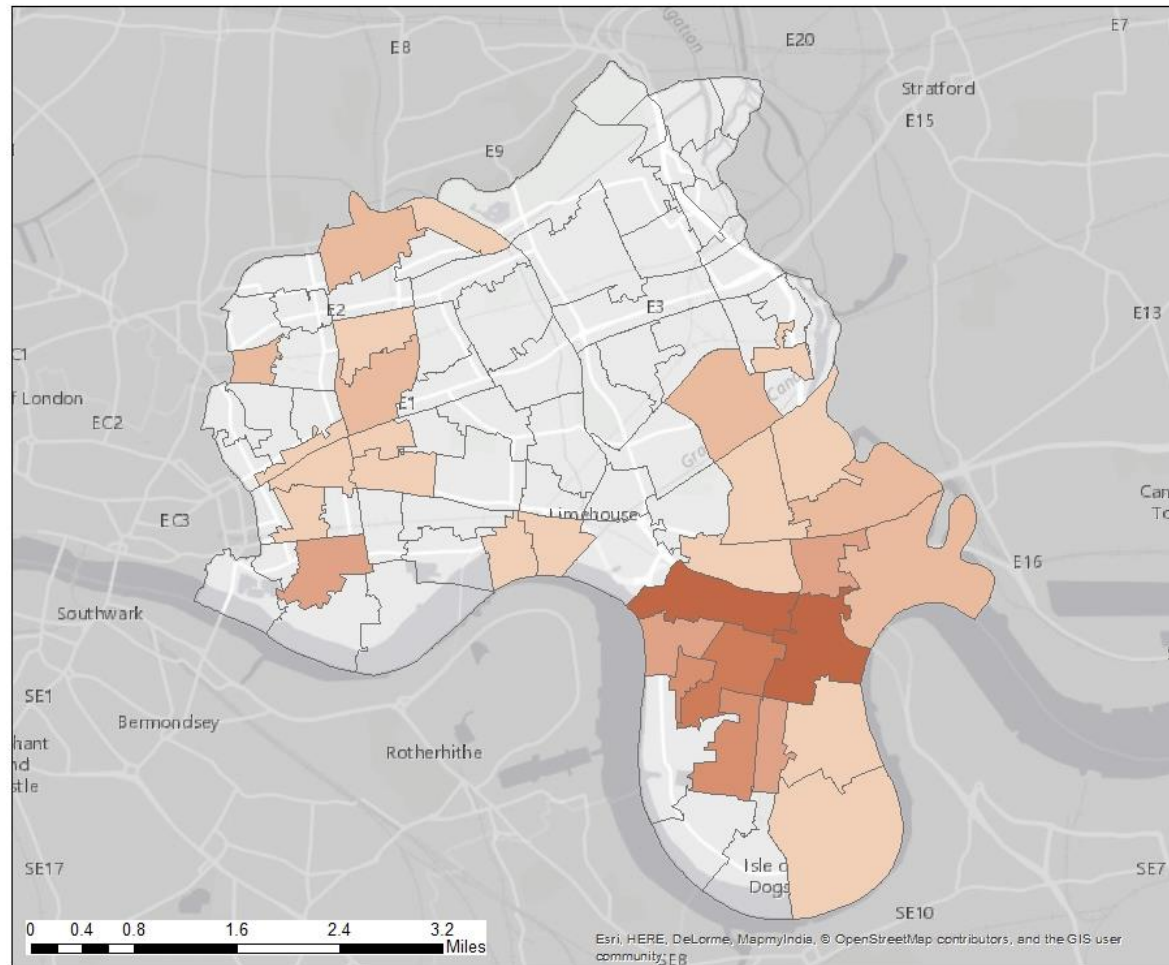
- AM Peak



Impact on Trip Generation

Option 2 Parking Standards:

- PM Peak



2.

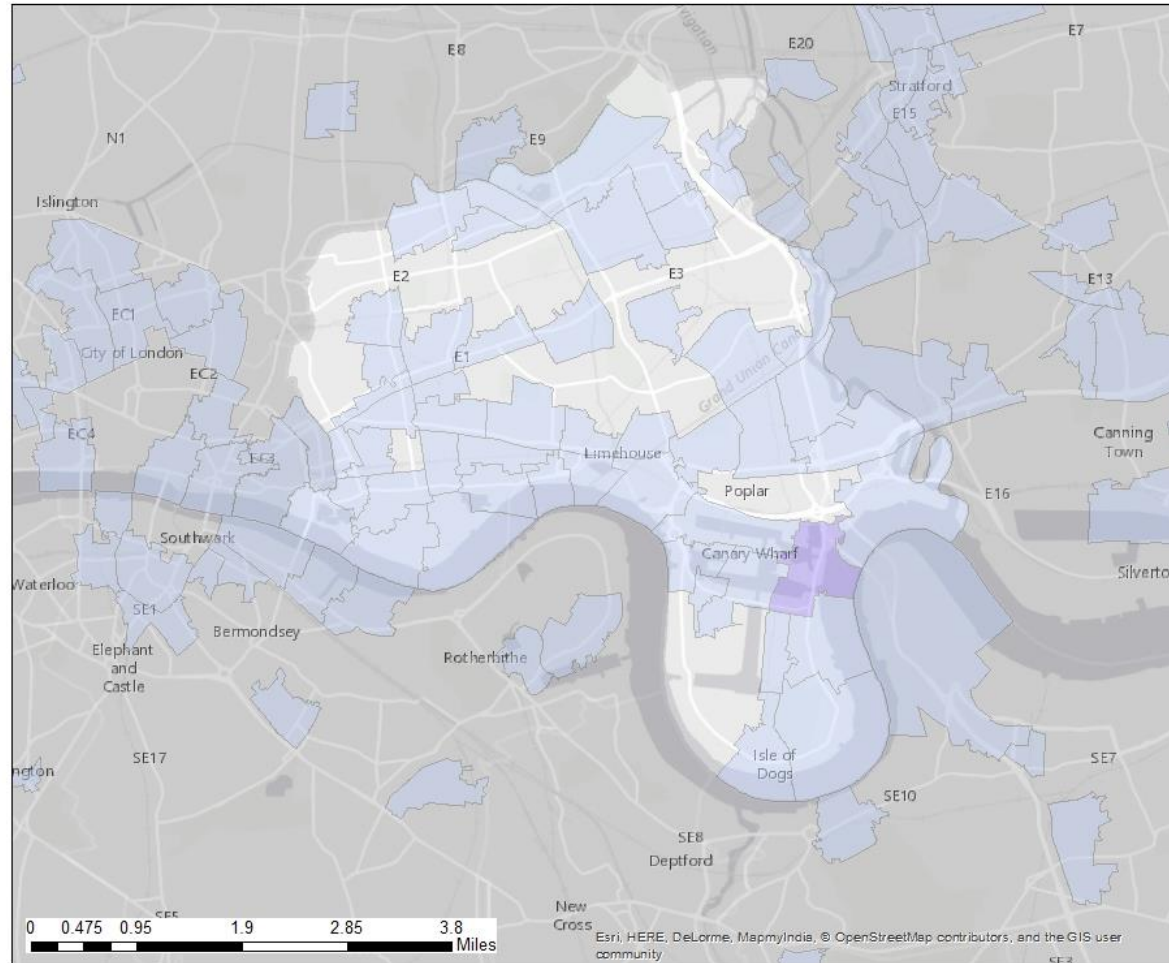


Forecast Demand Changes

Demand Plots – UC1 AM Destination Change

Option 2 Parking Standards:

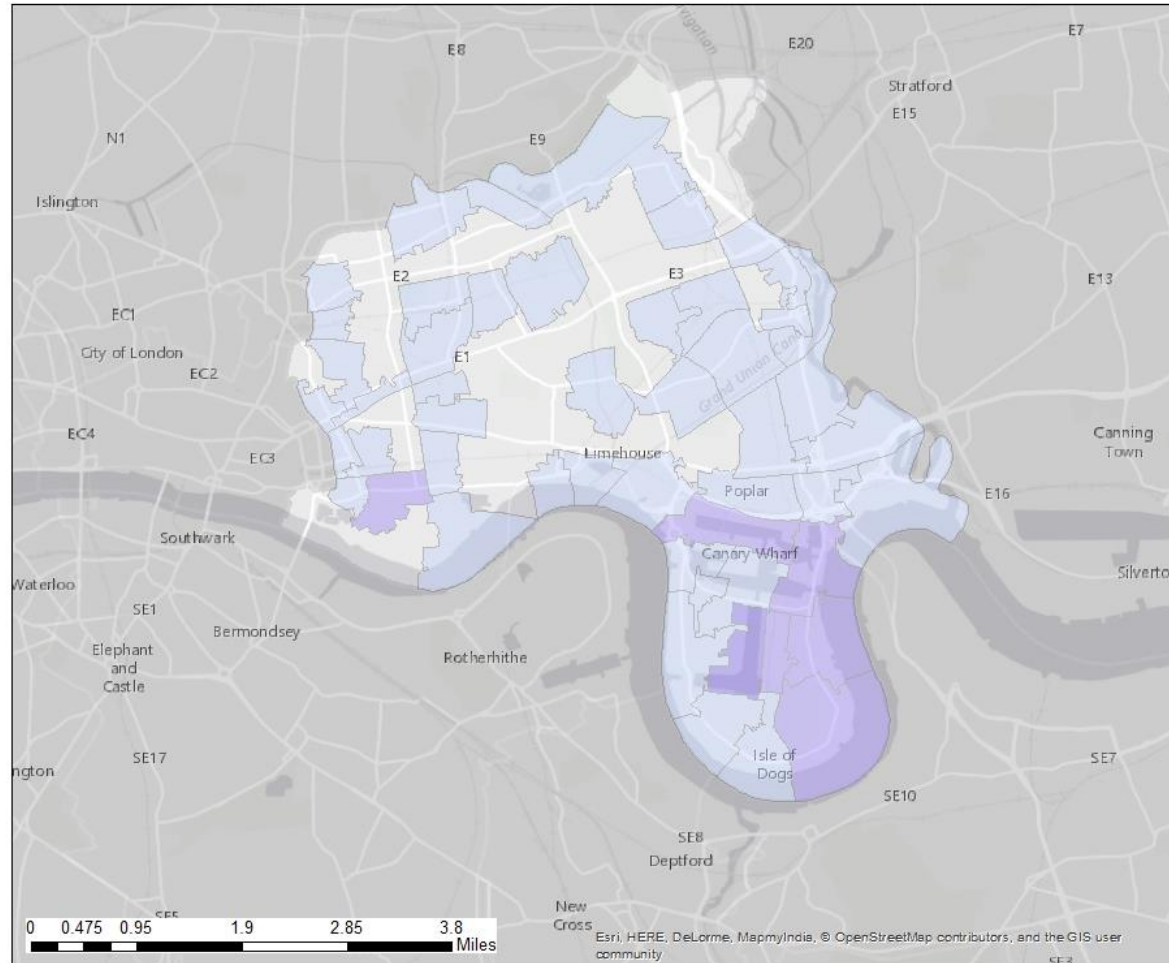
- UC1 and 2 altered
- AM origins
- PM destinations



Demand Plots – UC1 AM Origin Change

Option 2 Parking Standards:

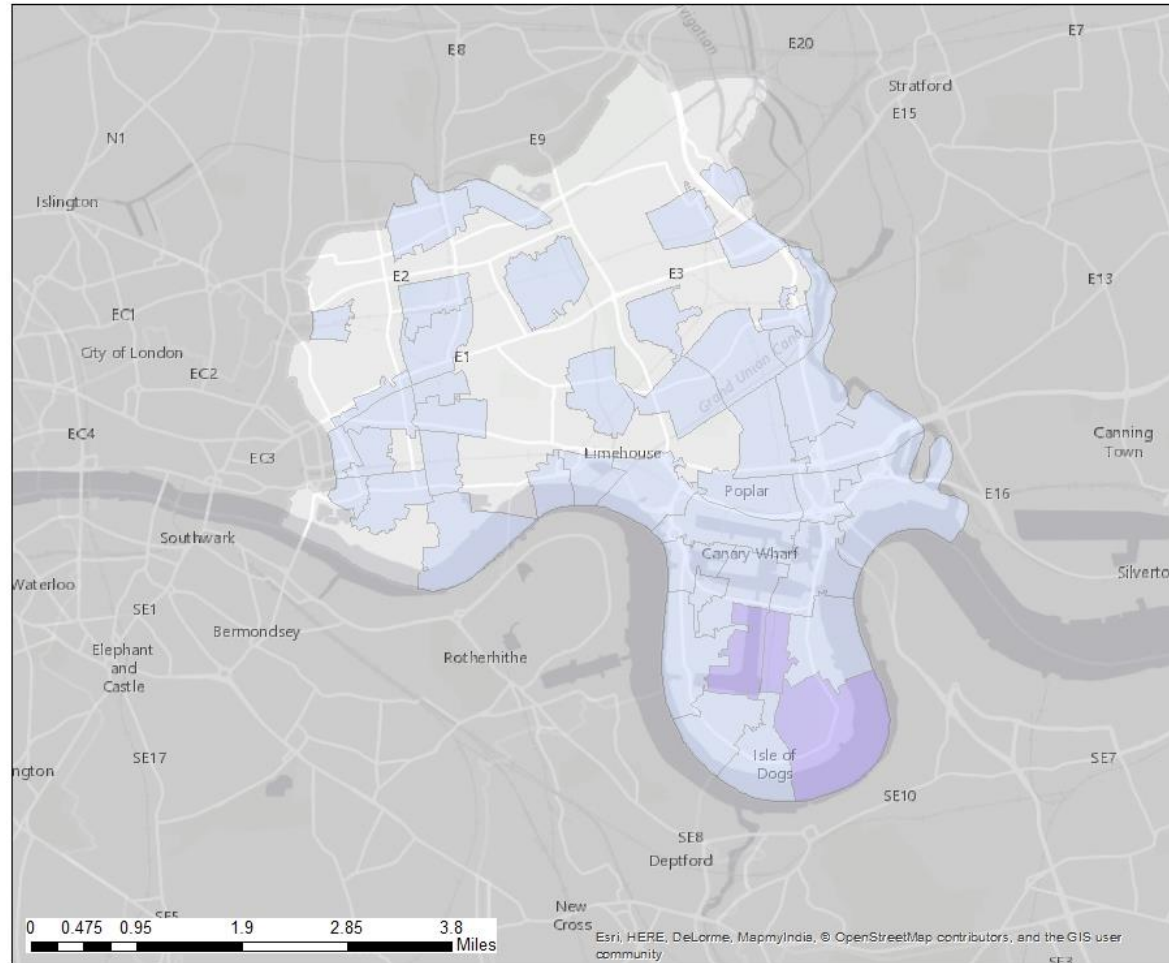
- UC1 and 2 altered
- AM origins
- PM destinations



Demand Plots – UC1 PM Destination Change

Option 2 Parking Standards:

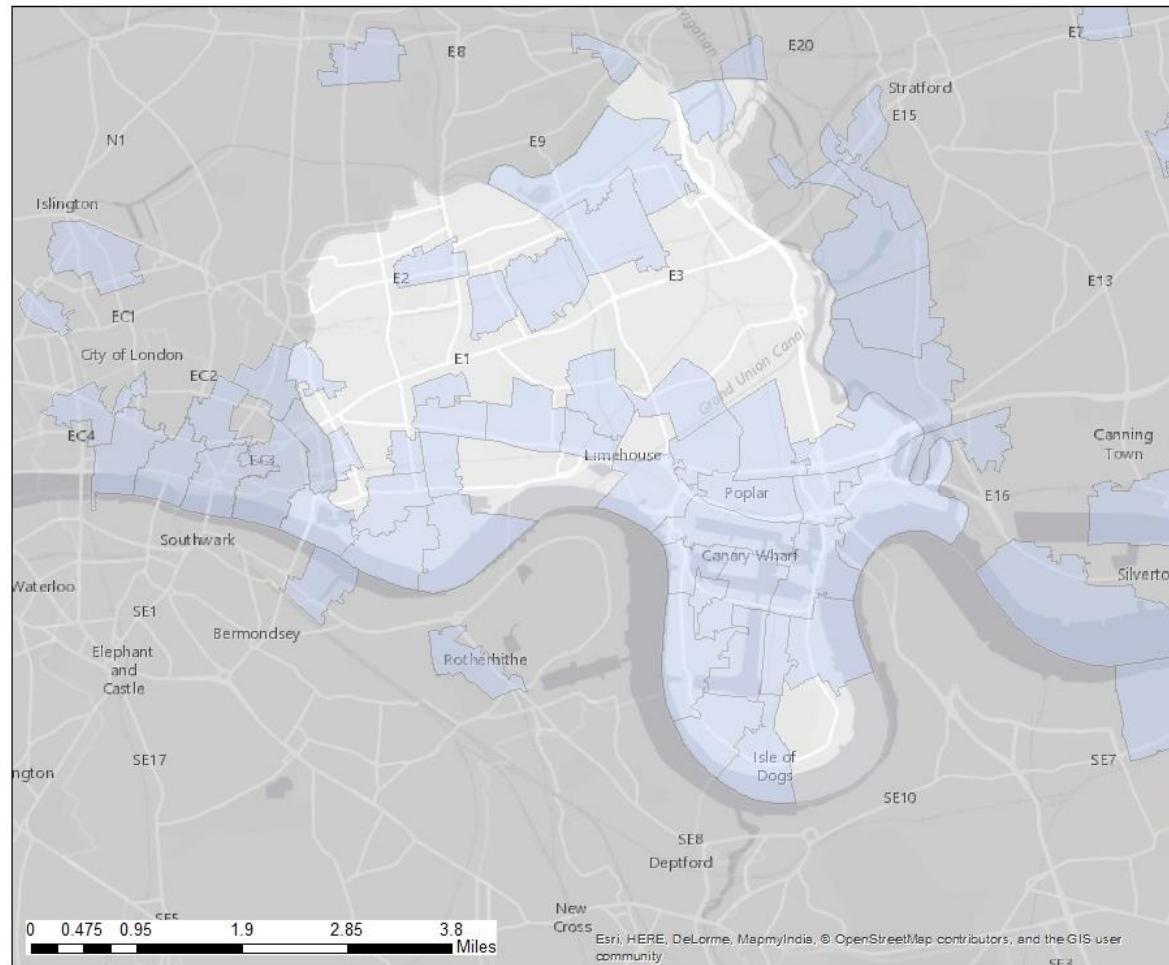
- UC1 and 2 altered
- AM origins
- PM destinations



Demand Plots – UC1 PM Origin Change

Option 2 Parking Standards:

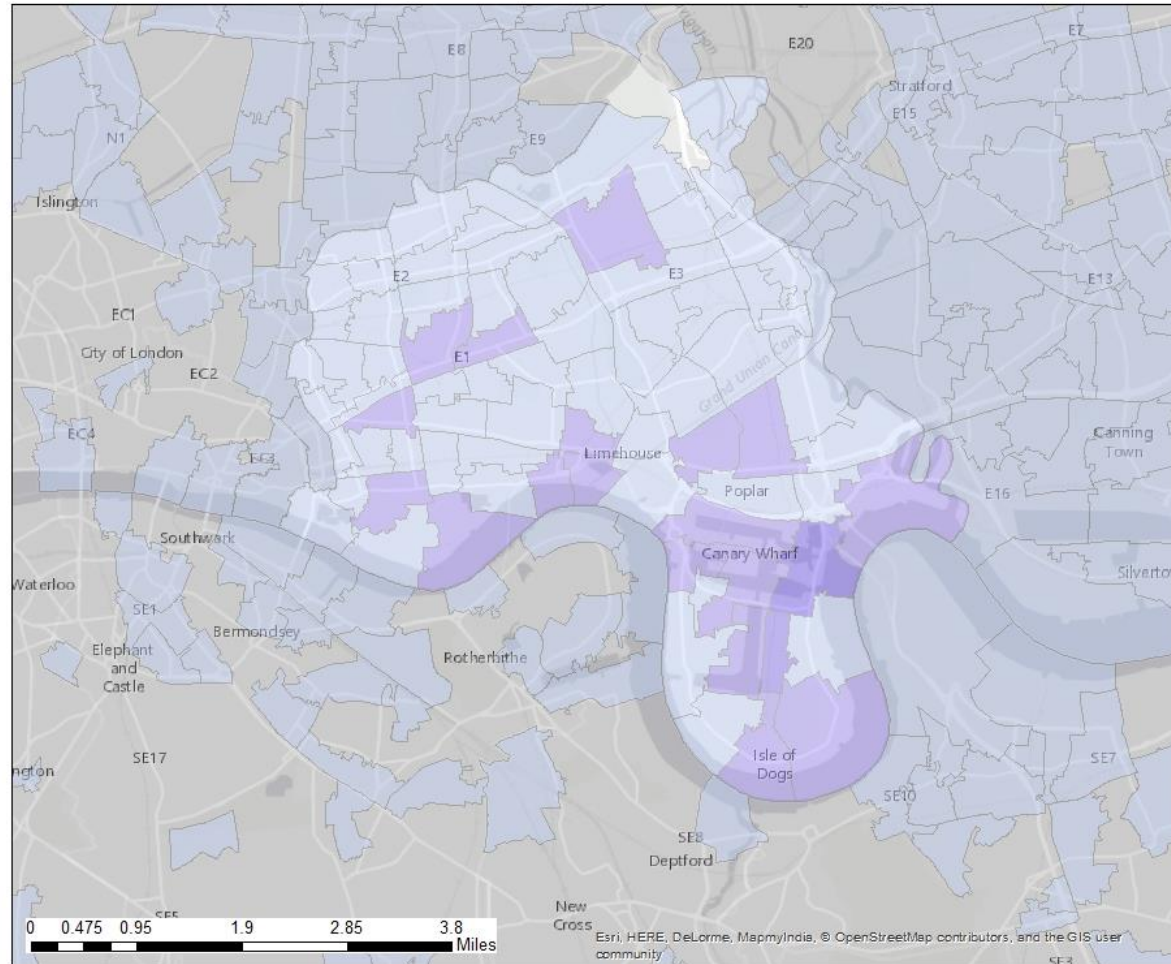
- UC1 and 2 altered
- AM origins
- PM destinations



Demand Plots – UC2 AM Destination Change

Option 2 Parking Standards:

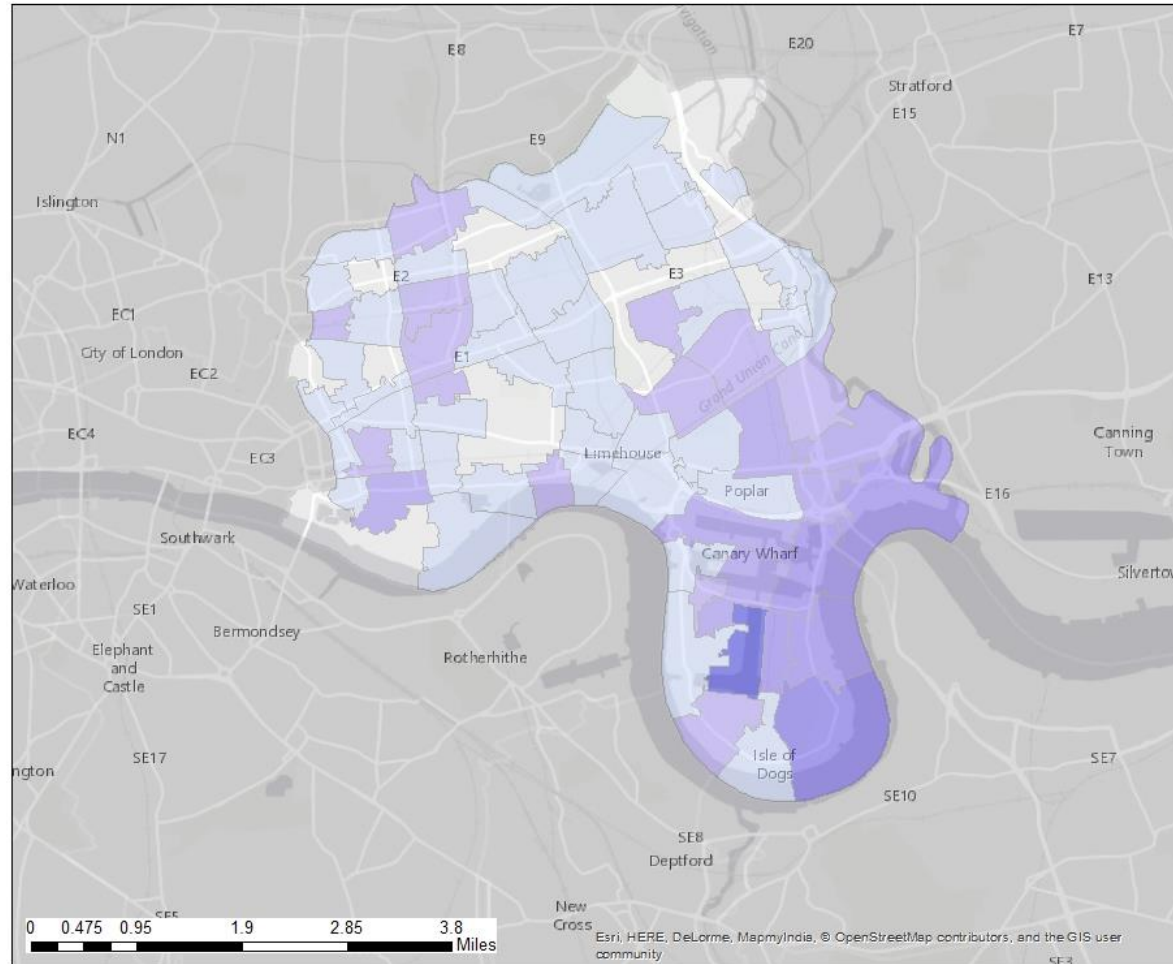
- UC1 and 2 altered
- AM origins
- PM destinations



Demand Plots – UC2 AM Origin Change

Option 2 Parking Standards:

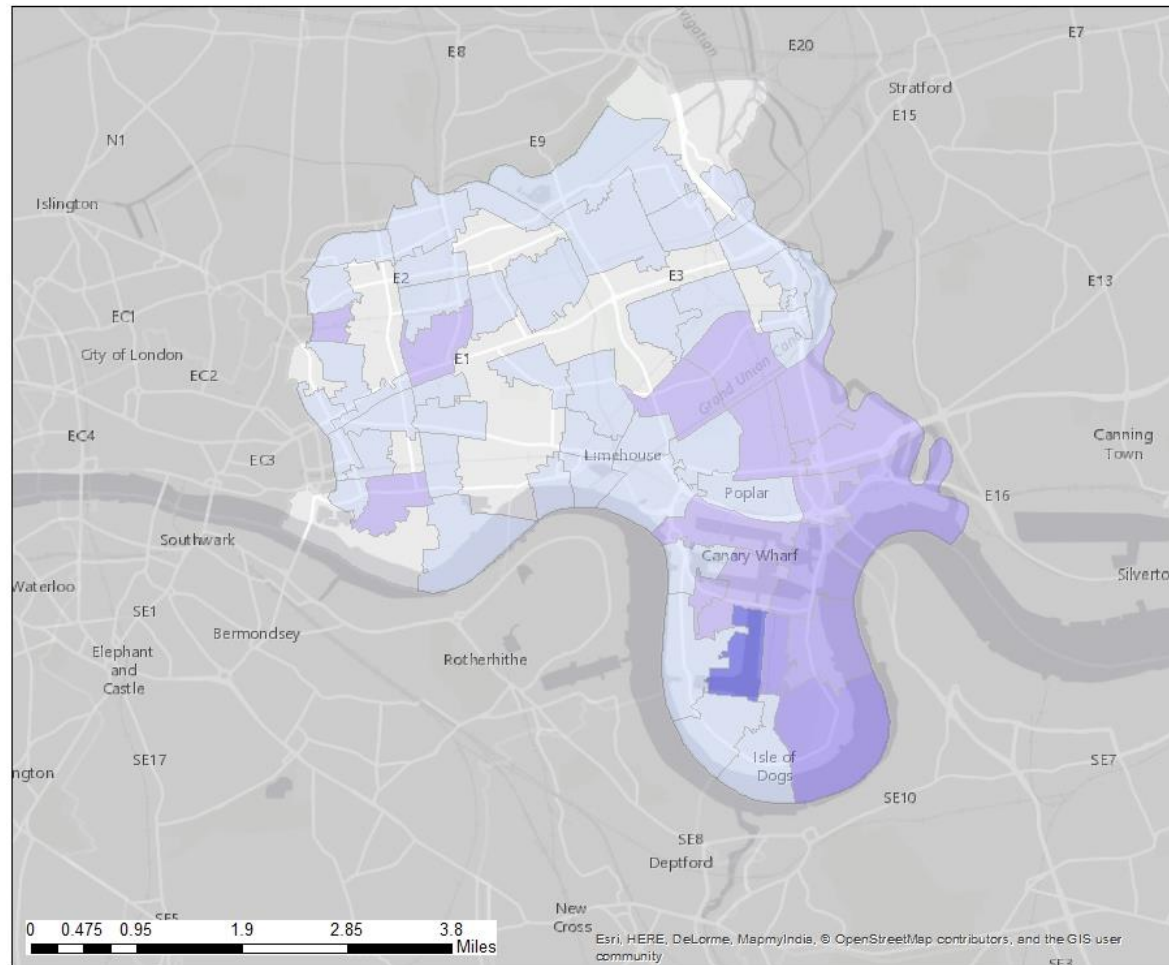
- UC1 and 2 altered
- AM origins
- PM destinations



Demand Plots – UC2 PM Destination Change

Option 2 Parking Standards:

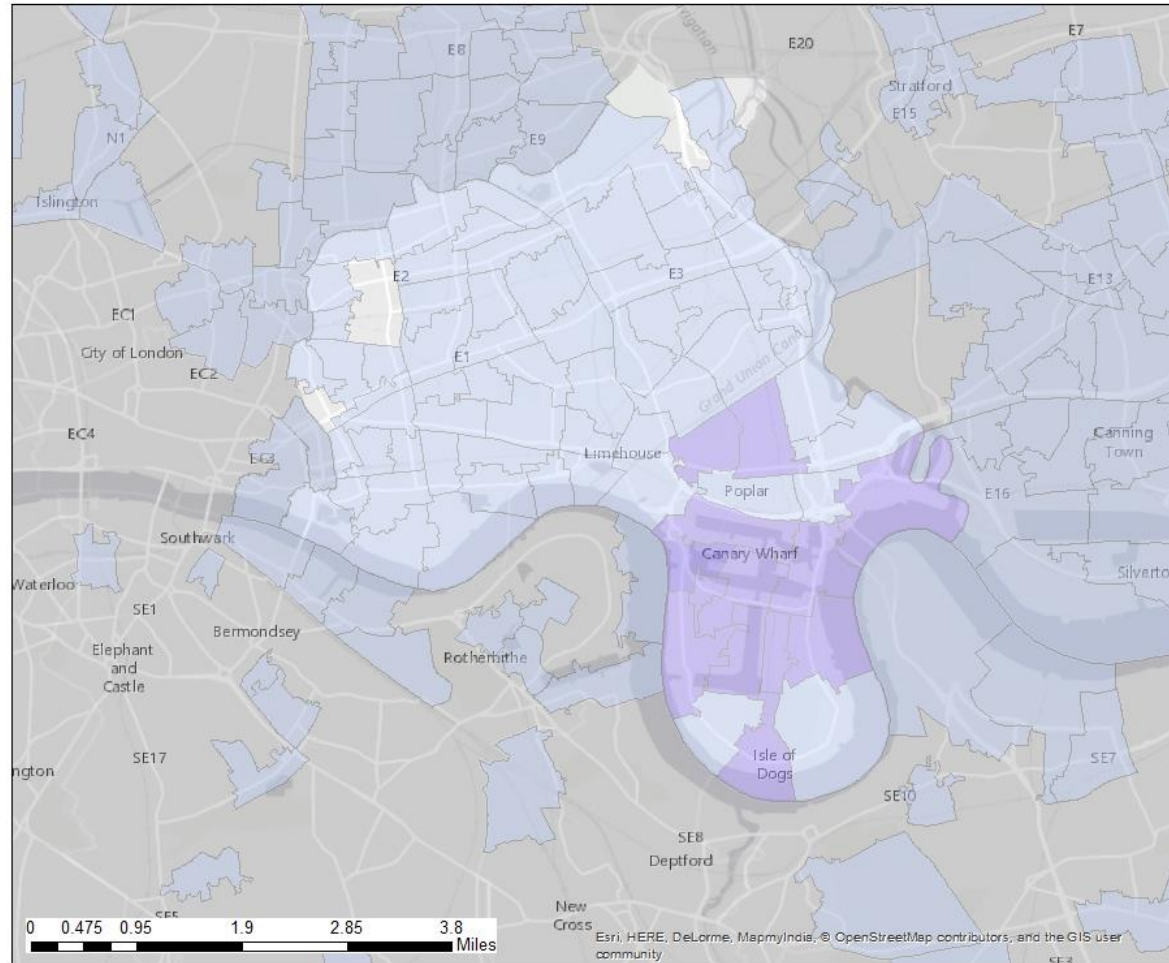
- UC1 and 2 altered
- AM origins
- PM destinations



Demand Plots – UC2 PM Origin Change

Option 2 Parking Standards:

- UC1 and 2 altered
- AM origins
- PM destinations



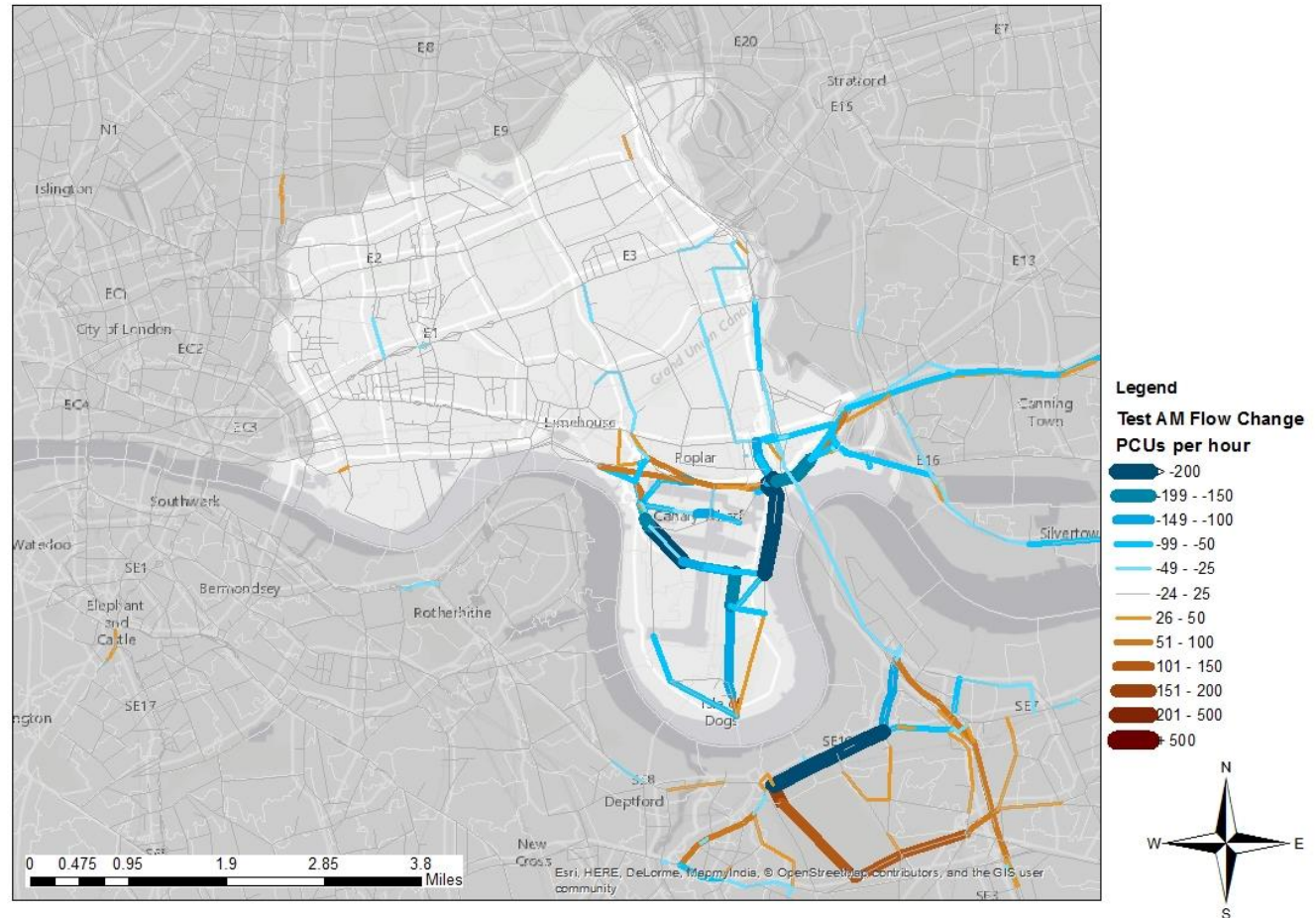
3.



CLOHAM Model Outputs

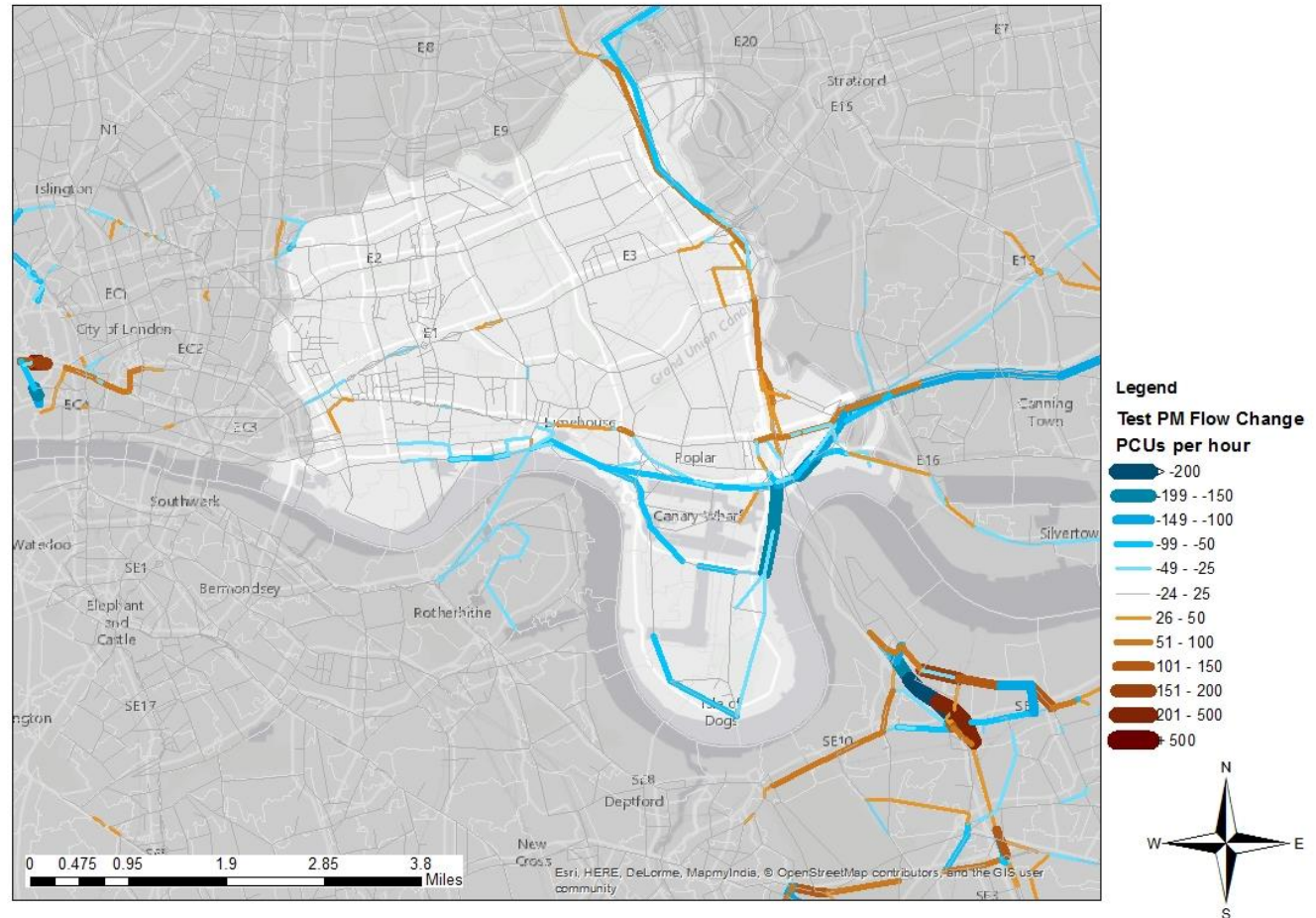
Impact on Flow Change: Implementing Option 2 Parking Standards – AM Peak Hour 2031

- Change in PCU flows per hour
- Compared Previous Local Plan Model Run
- Main Flow Reductions around:
 - Isle of Dogs (biggest reduction in Parking Spaces)
 - Blackwall tunnels
 - Newham Way and Lower Lea Crossing
 - Only small reductions across rest of the borough
 - Re-routing occurring around Southern approach to Blackwall tunnel



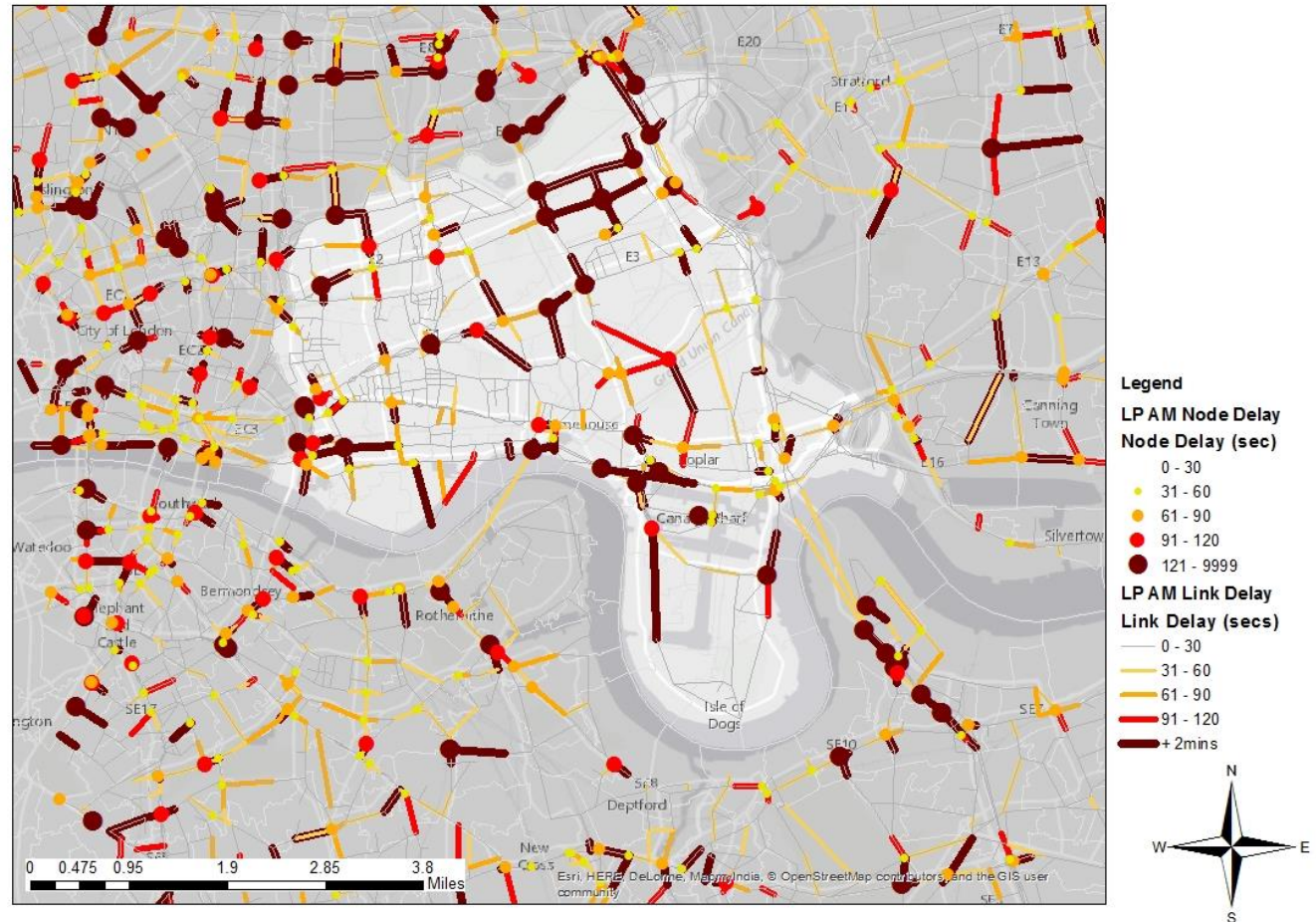
Impact on Flow Change: Implementing Option 2 Parking Standards – PM Peak Hour 2031

- Change in PCU flows per hour
- Compared Previous Local Plan Model Run
- Main Flow Reductions around:
 - Isle of Dogs (biggest reduction in Parking Spaces)
 - Aspen Way and Newham Way
 - Re-routing occurring around Blackwall tunnel – significant congestion occurs here in all scenarios
 - Only small reductions across rest of the borough



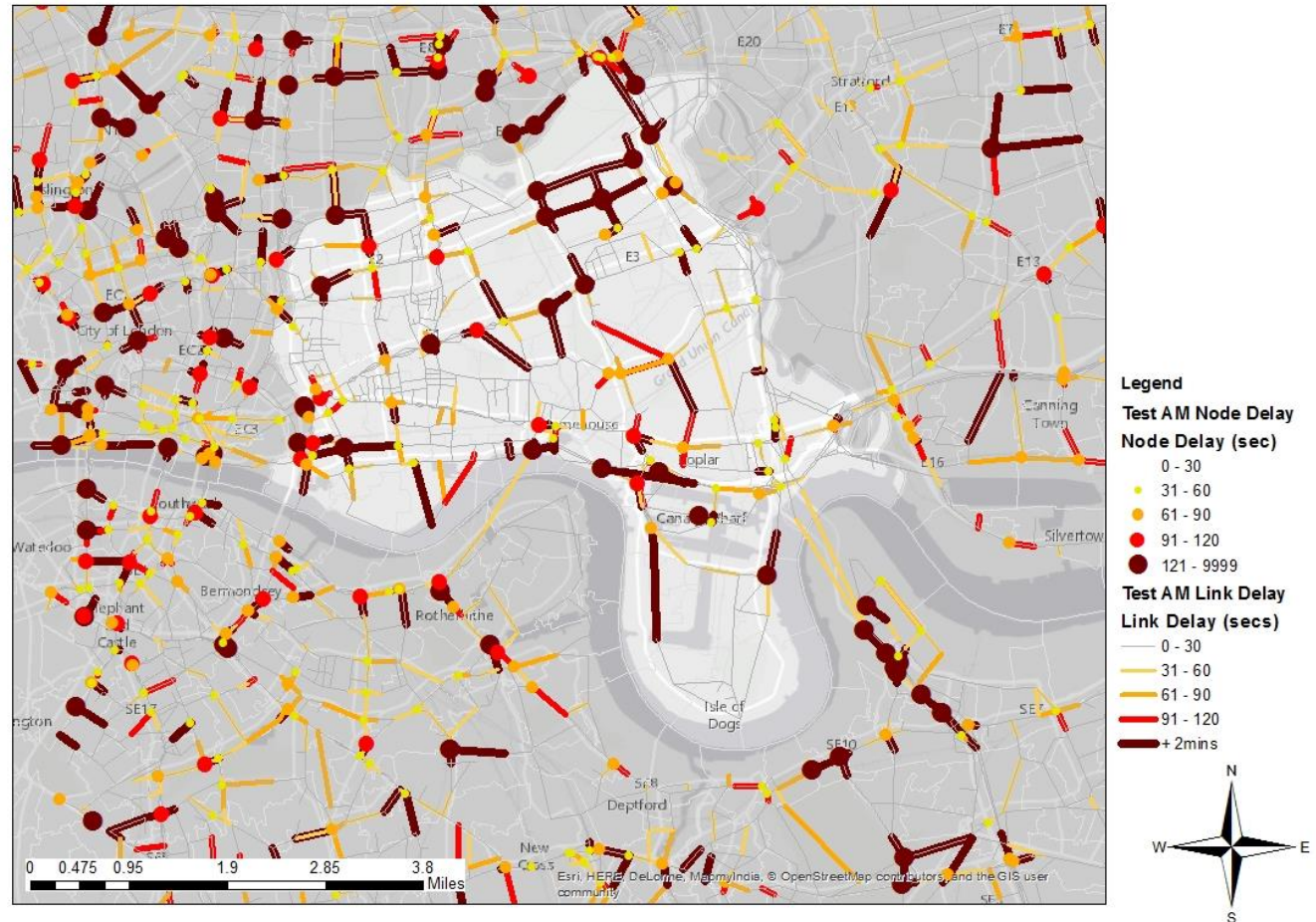
Node and Link Delay – 2031 AM Local Plan

- Node and Link Delay in seconds per pcu
- Forecast stress across much of the borough especially:
 - A1261
 - Westferry Road
 - Mile End Road
 - Old Ford Road / Roman Road



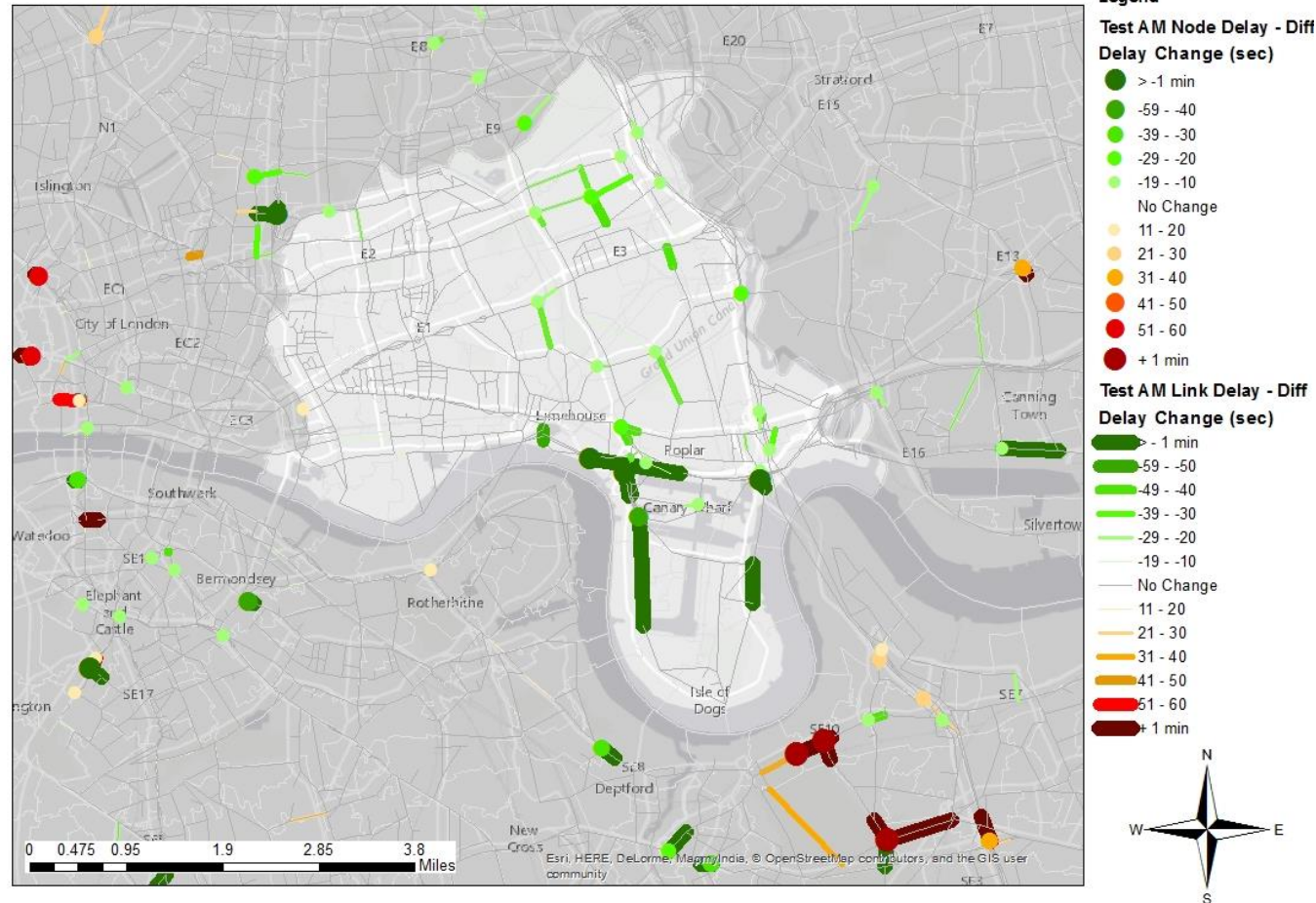
Node and Link Delay – 2031 AM Local Plan with Option 2 Parking Standards

- Node and Link Delay in seconds per pcu
- Small reductions in network stress
- Next Slide highlights this



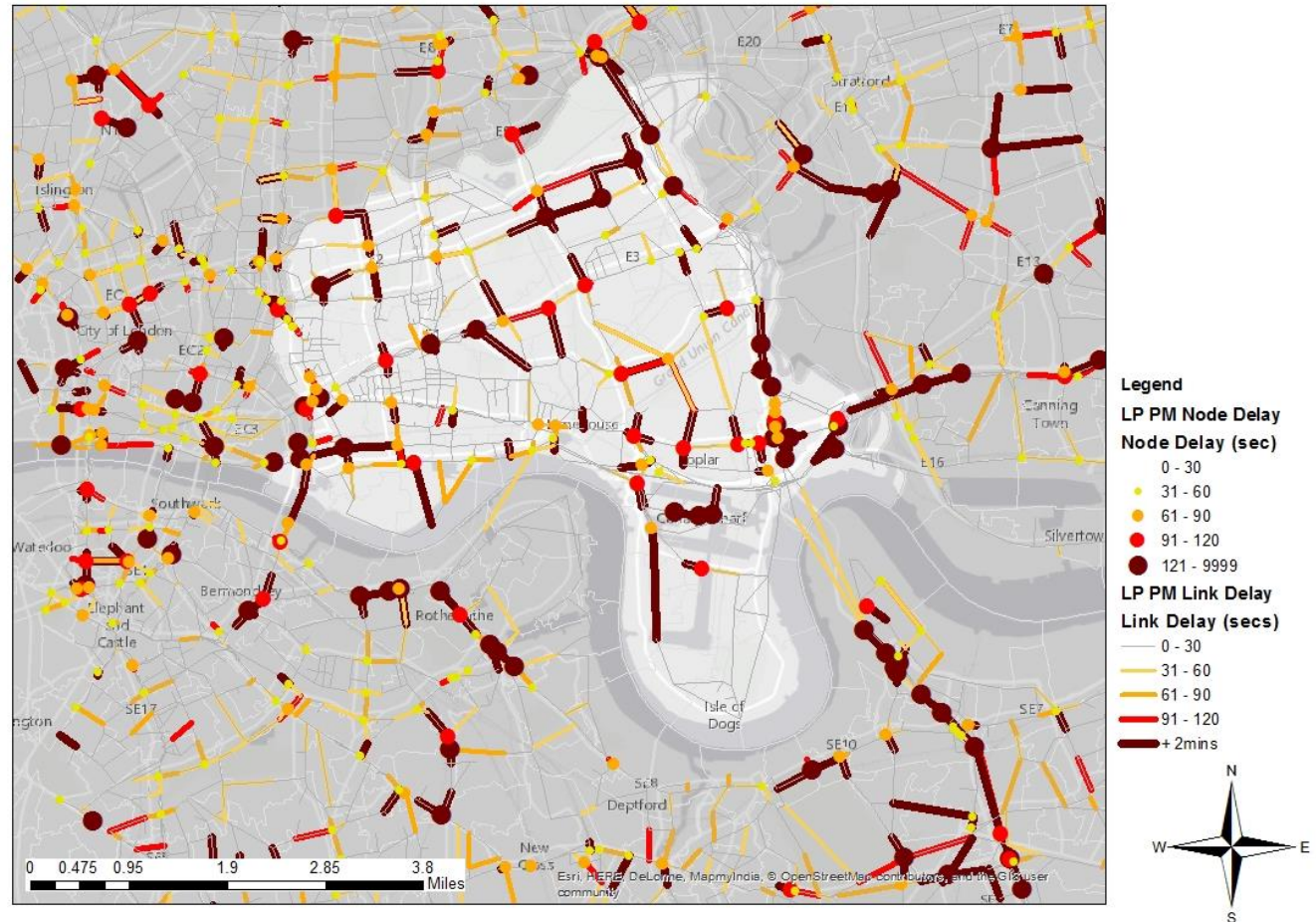
Change in Node and Link Delay – 2031 AM Local Plan with Option 2 Parking Standards

- Change in Node and Link delay in seconds per PCU
- Delays forecast to worsen:
 - Greenwich
- Delays forecast to improve:
 - Around Isle of Dogs / Westferry Road



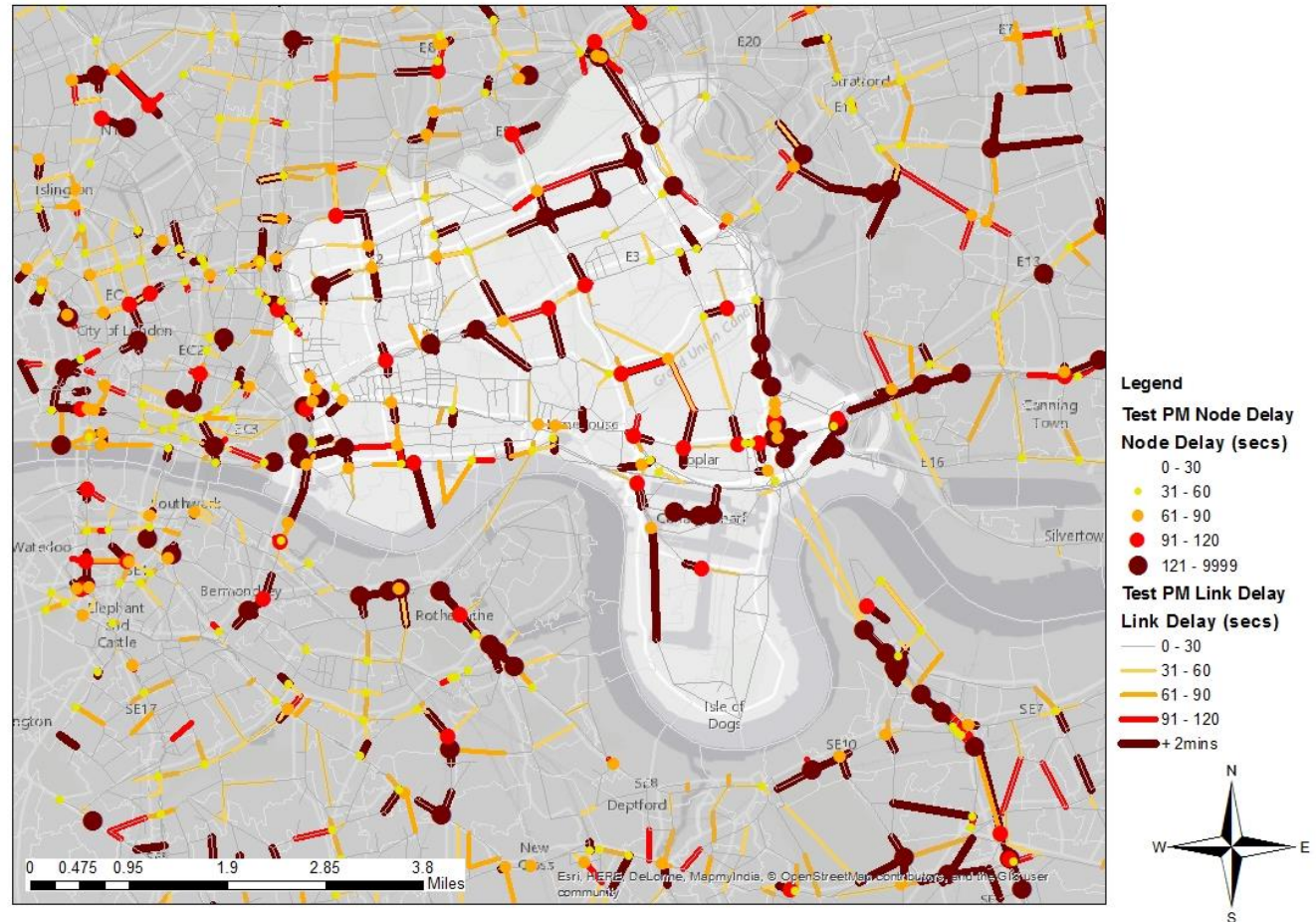
Node and Link Delay – 2031 PM Local Plan

- Node and Link Delay in seconds per pcu
- Forecast stress across much of the borough especially:
 - A1261
 - Westferry Road
 - Mile End Road
 - Old Ford Road / Roman Road



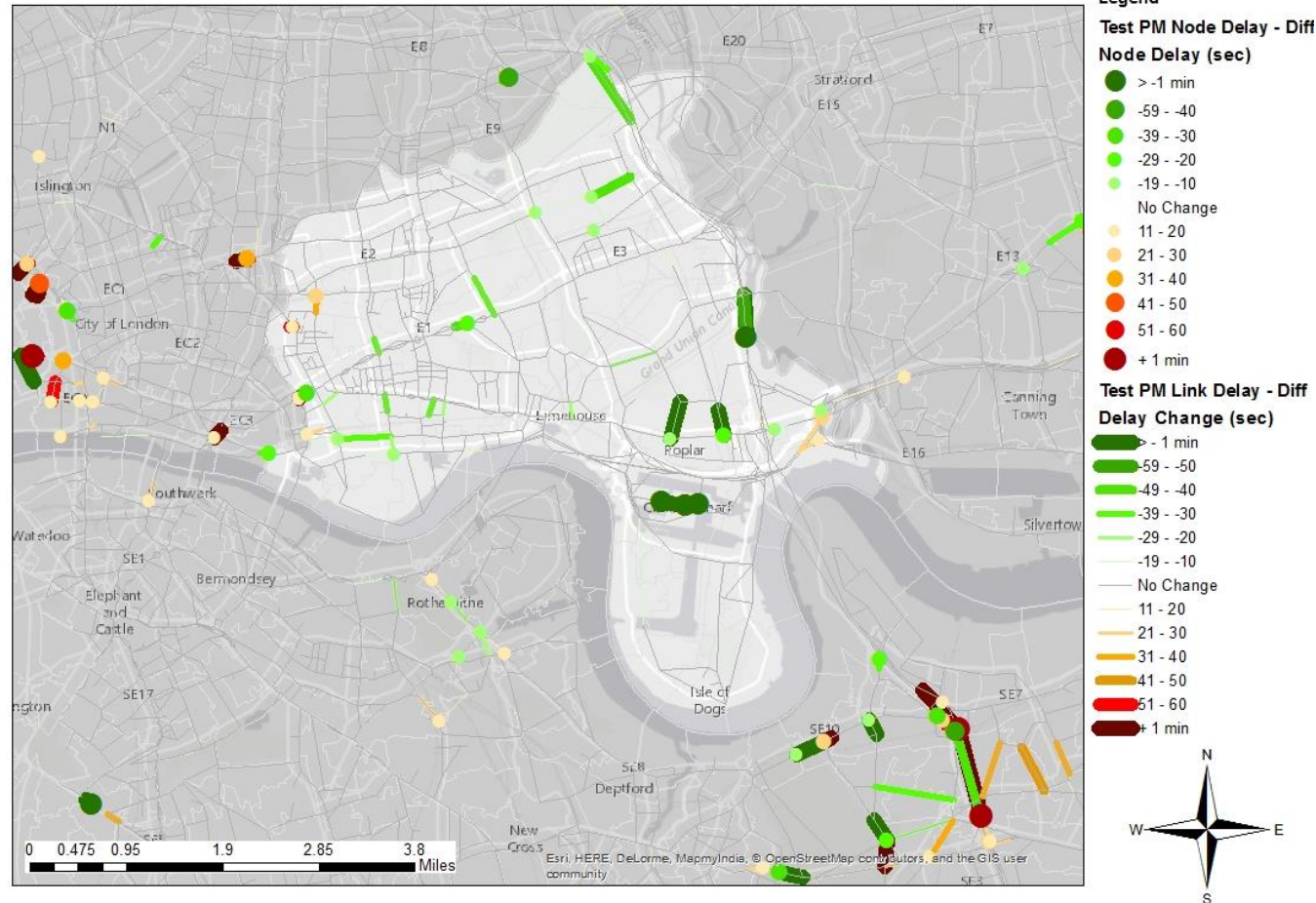
Node and Link Delay – 2031 PM Local Plan with Option 2 Parking Standards

- Node and Link Delay in seconds per pcu
- Levels of stress remain similar with Standards Applied



Change in Node and Link Delay – 2031 PM Local Plan with Option 2 Parking Standards

- Change in Node and Link delay in seconds per PCU
- Change in Node and Link delay in seconds per PCU
- Delays forecast to worsen:
 - Around Blackwall – likely due to changes in flow as a result of re-routing
- Delays forecast to improve:
 - Around Tower Hamlets but to a less extent than in the AM. (trip rate reduction is lower)



4.



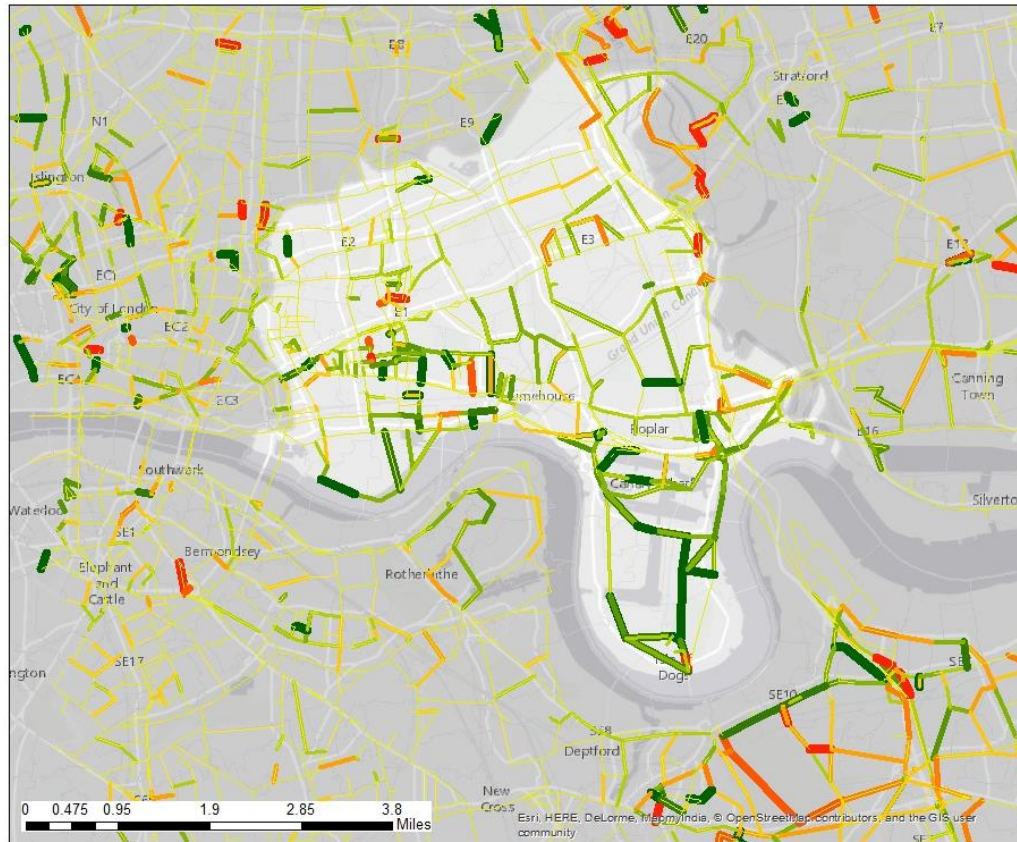
ENEVAL Model Outputs



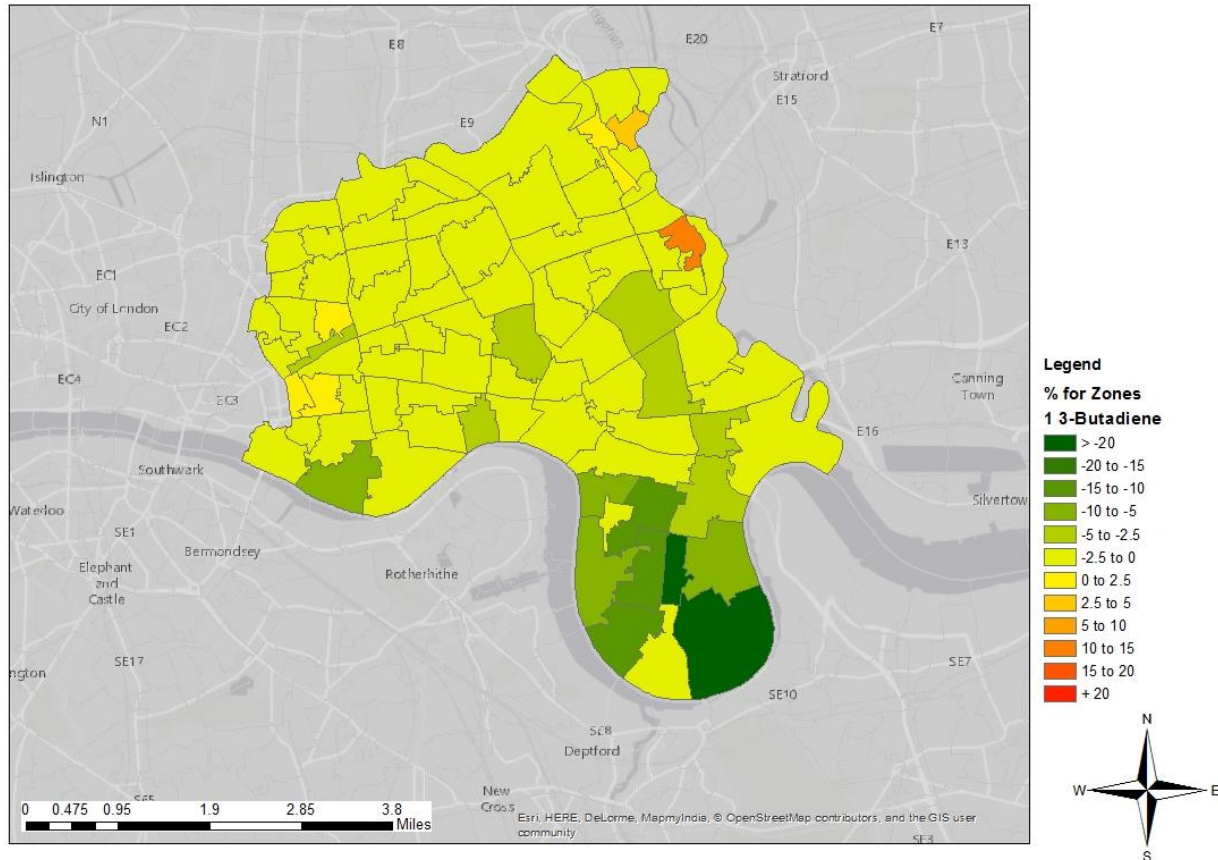
Programme to forecast annual Emissions on model links / zones:

- NOX
- PM10
- PM2.5
- HC
- Carbon Monoxide
- Carbon Dioxide
- Benzene
- Methane
- 1-3 Butadiene

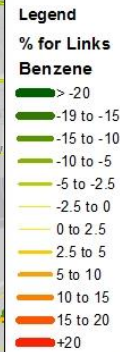
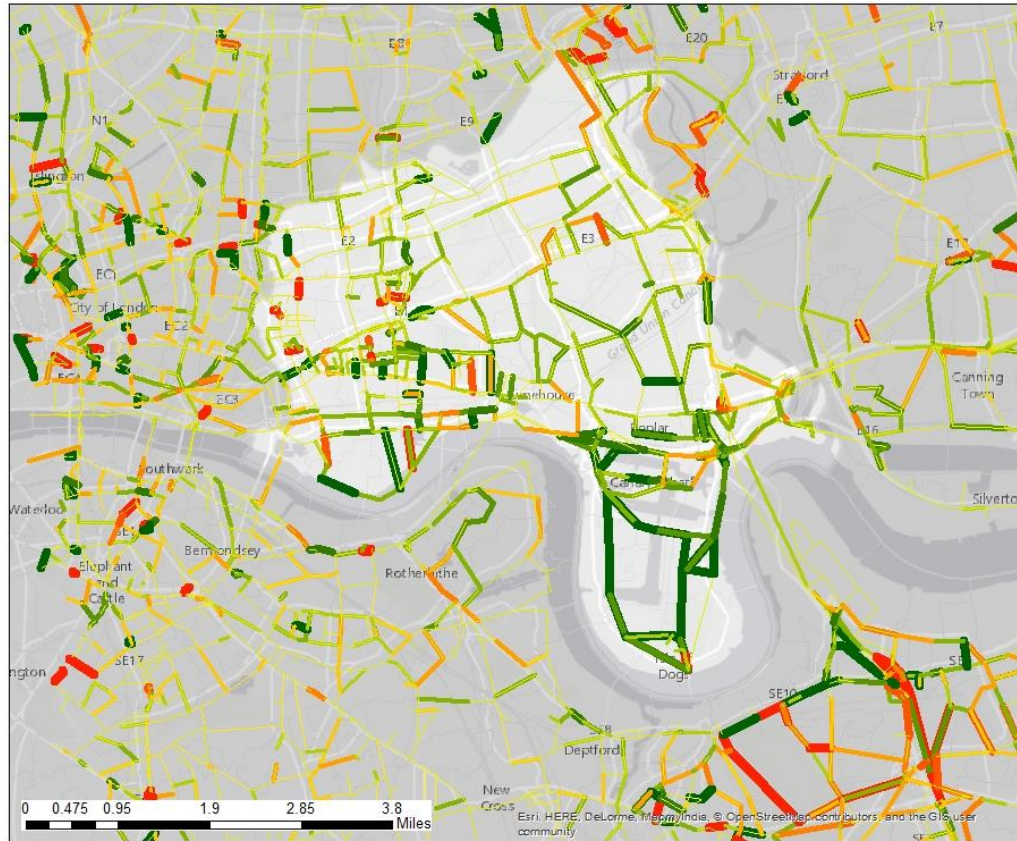
Change in Emissions – 1-3 Butadiene



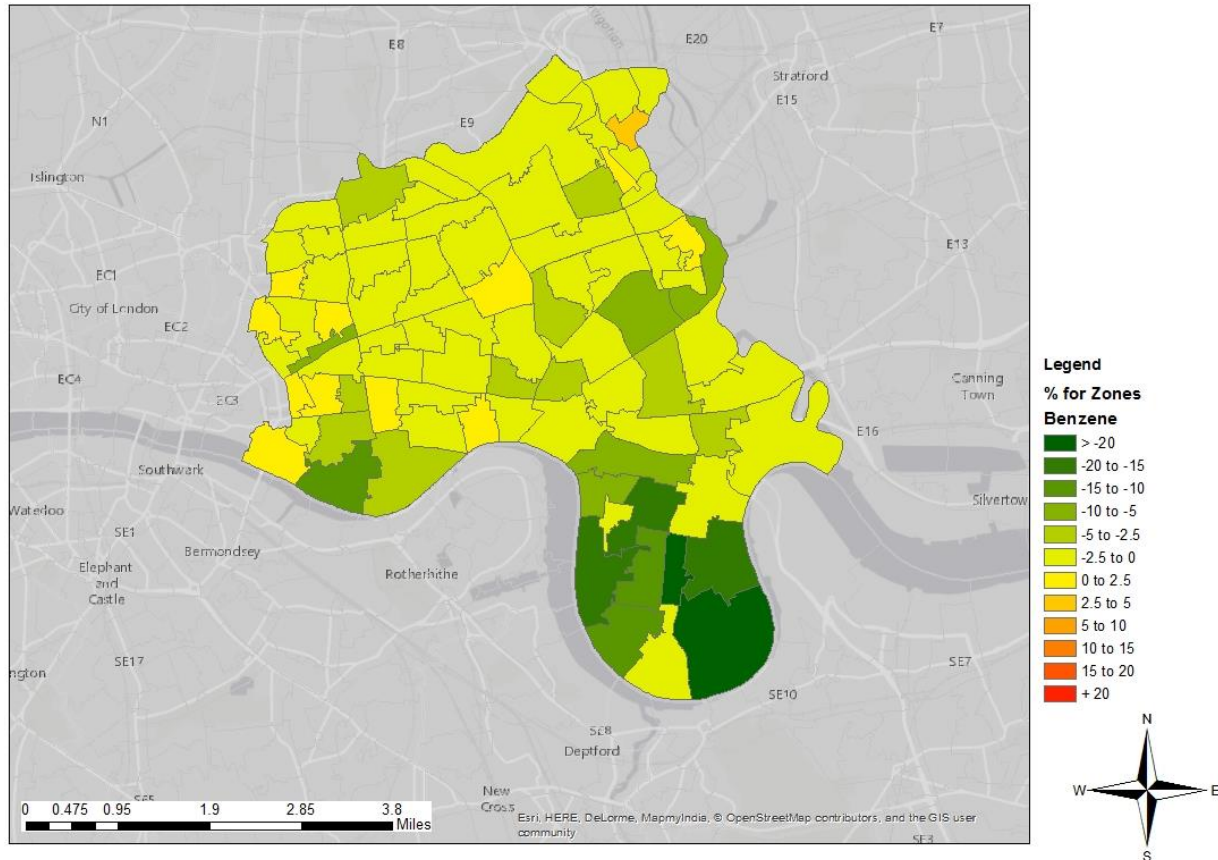
Change in Emissions – 1-3 Butadiene



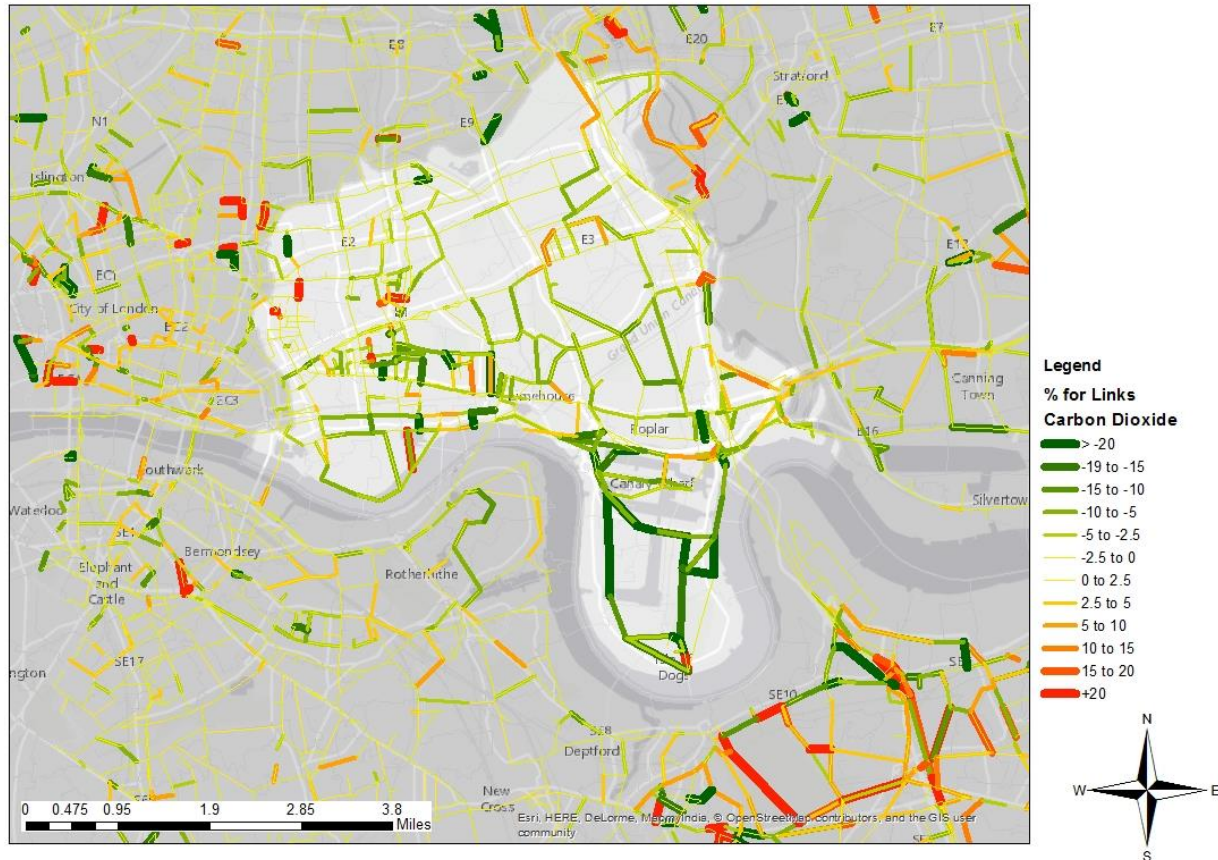
Change in Emissions – Benzene



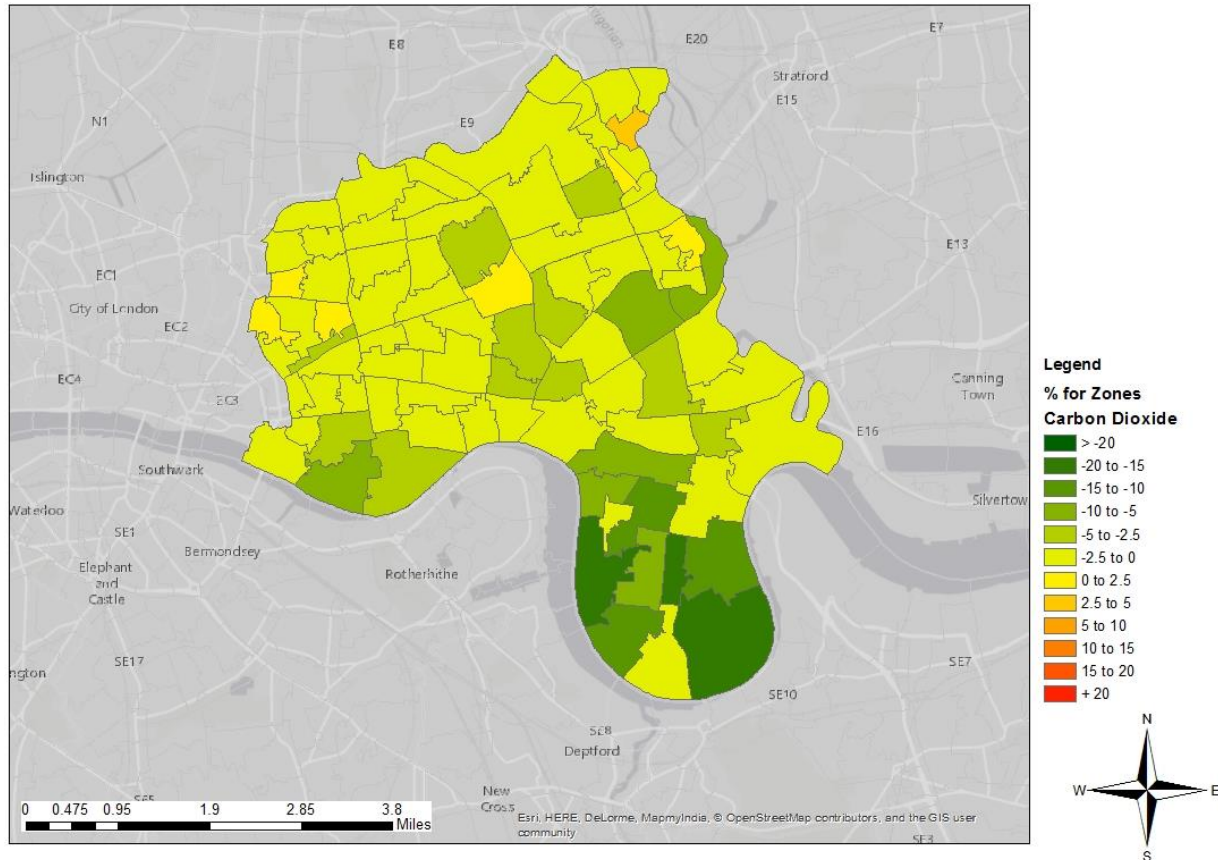
Change in Emissions – Benzene



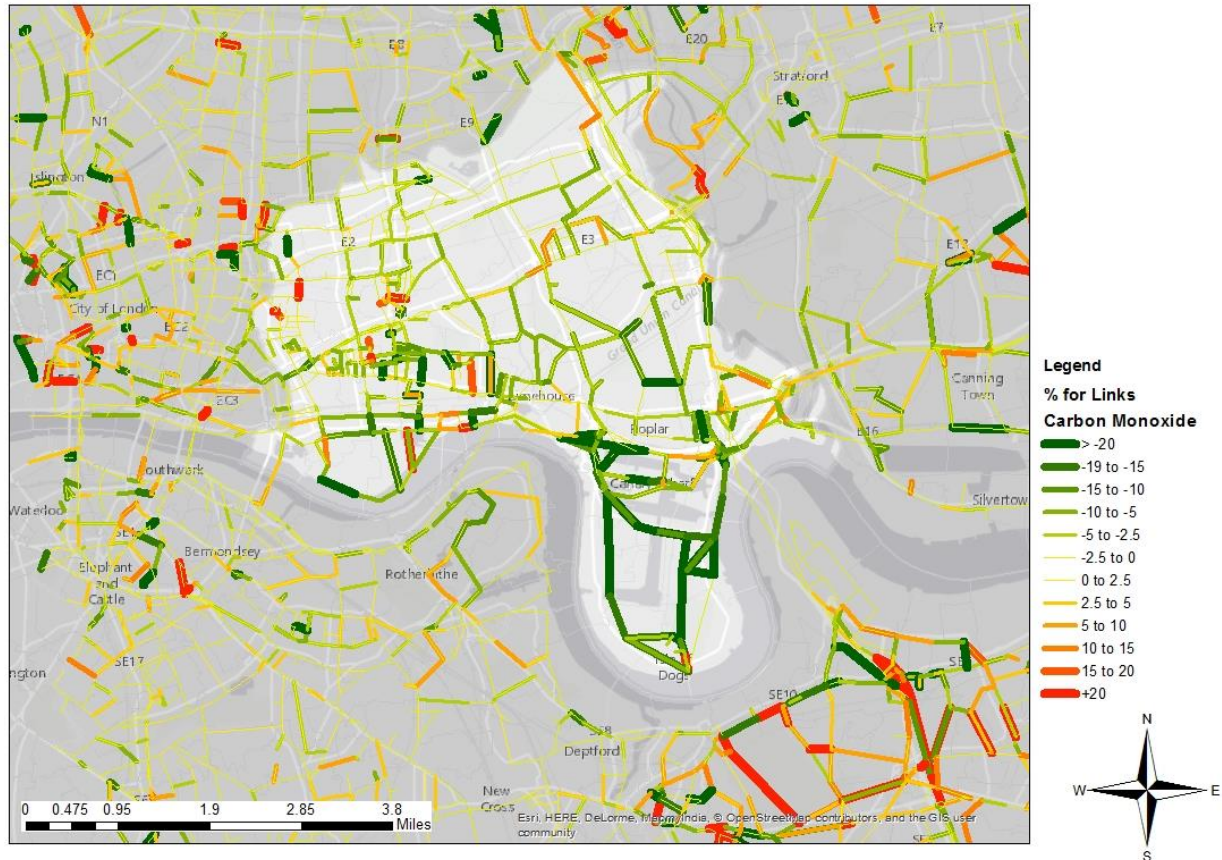
Change in Emissions – Carbon Dioxide



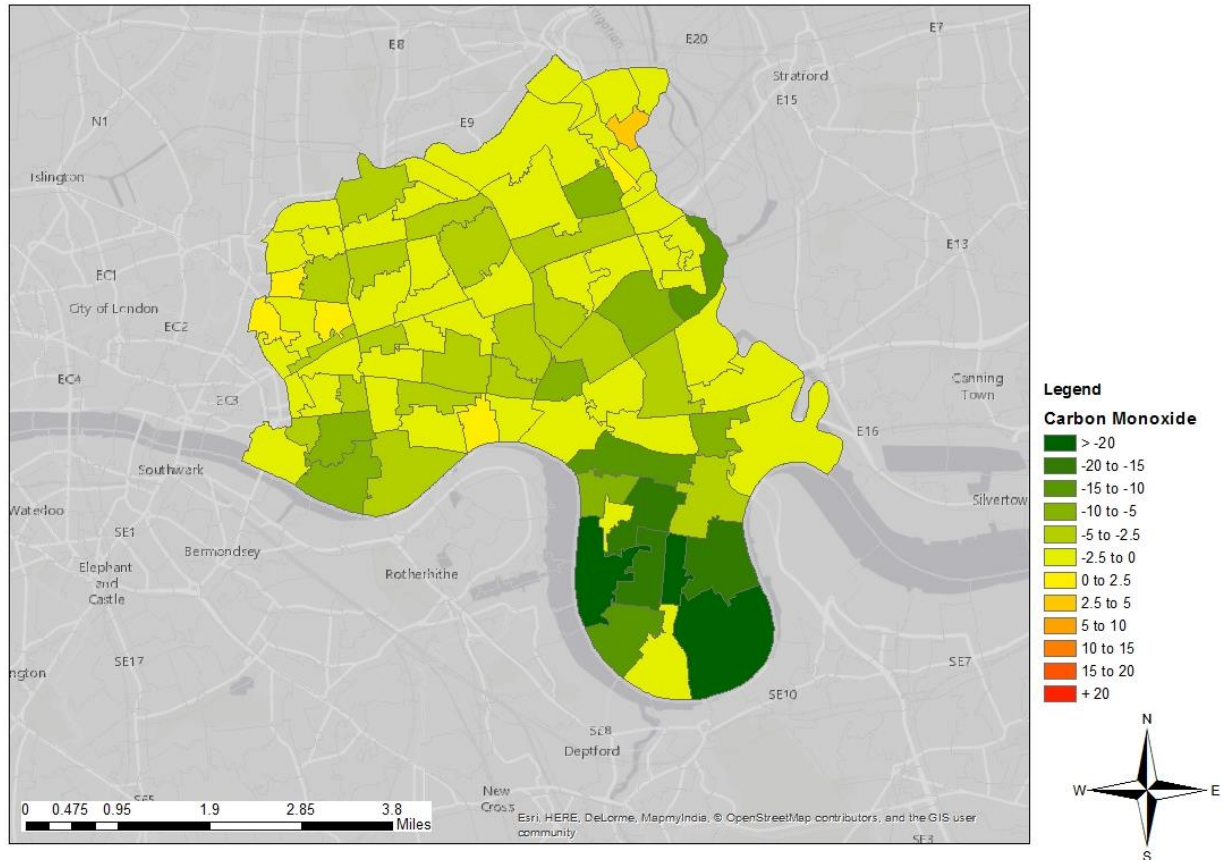
Change in Emissions – Carbon Dioxide



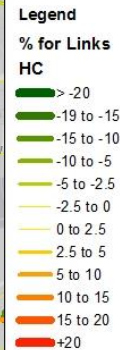
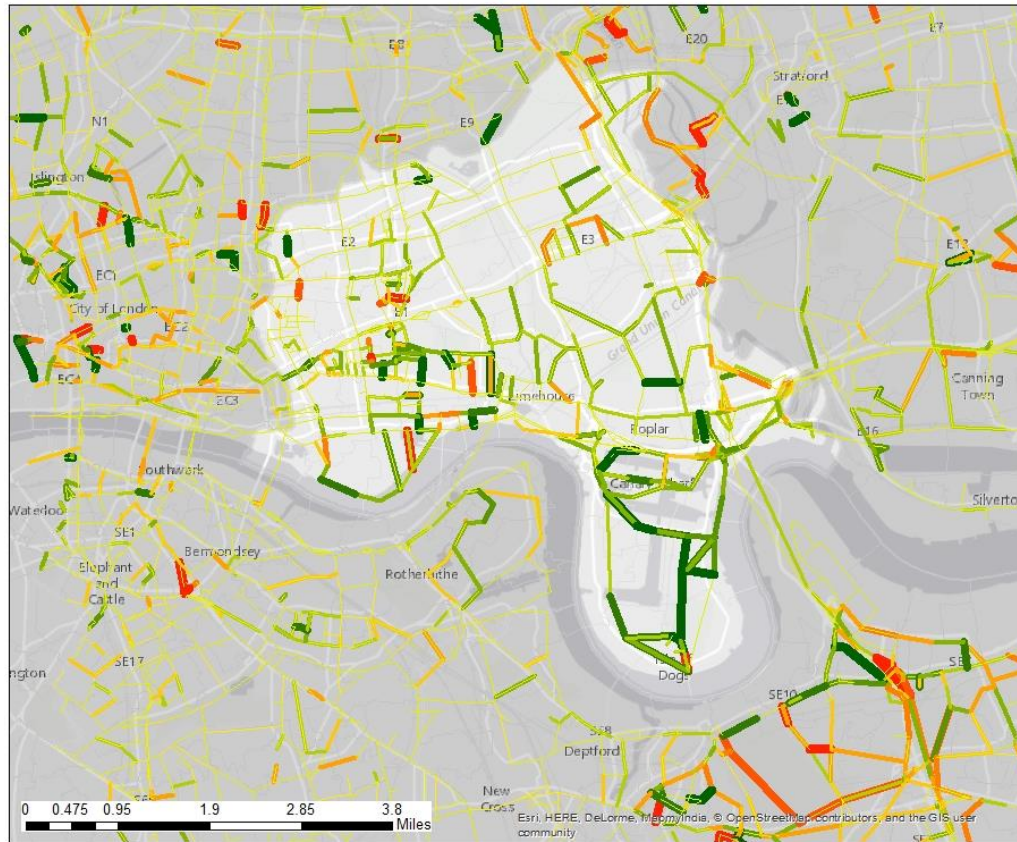
Change in Emissions – Carbon Monoxide



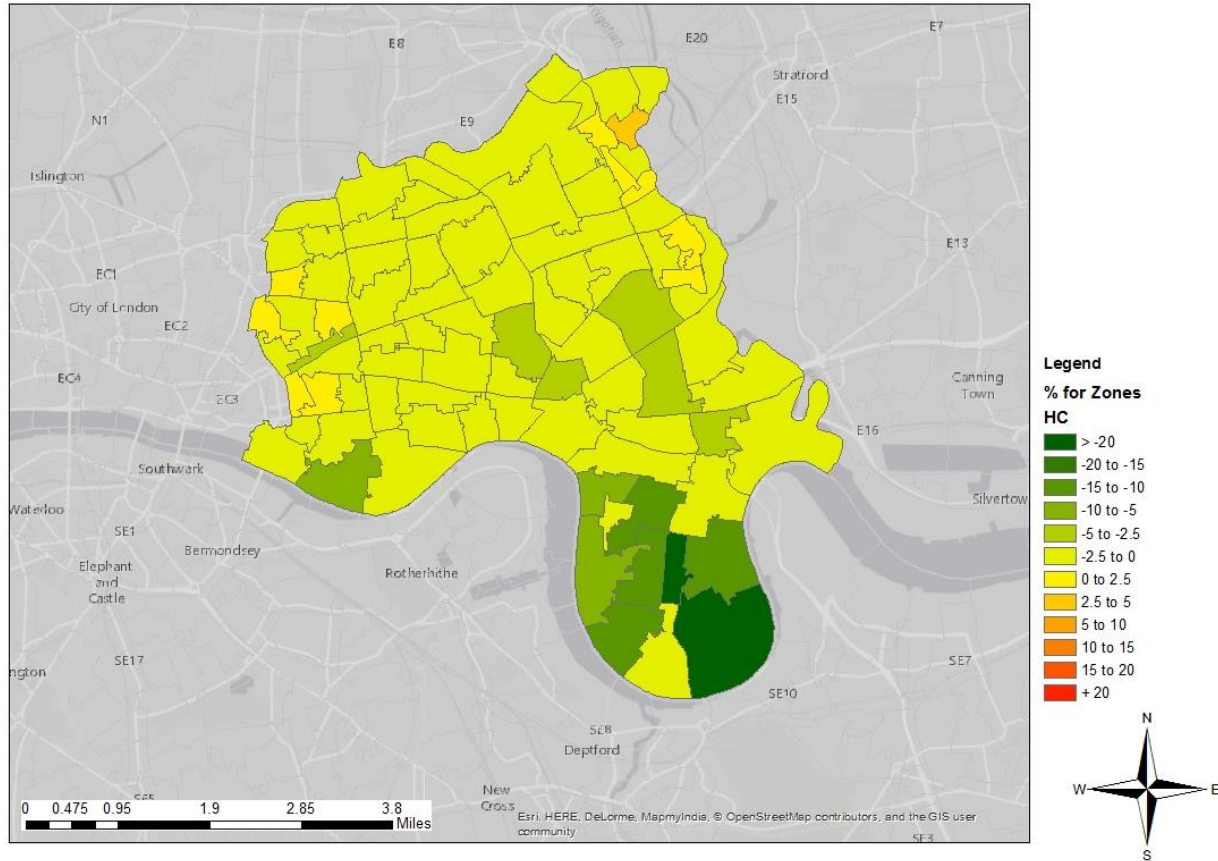
Change in Emissions – Carbon Monoxide



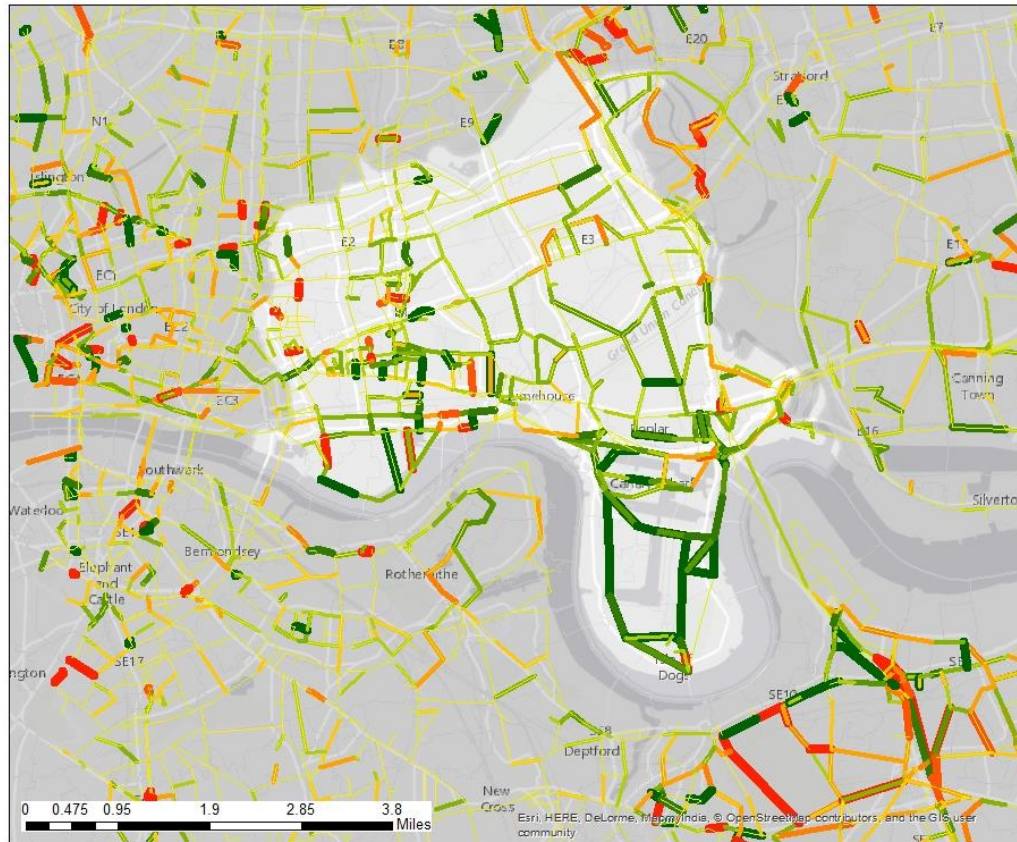
Change in Emissions – HC



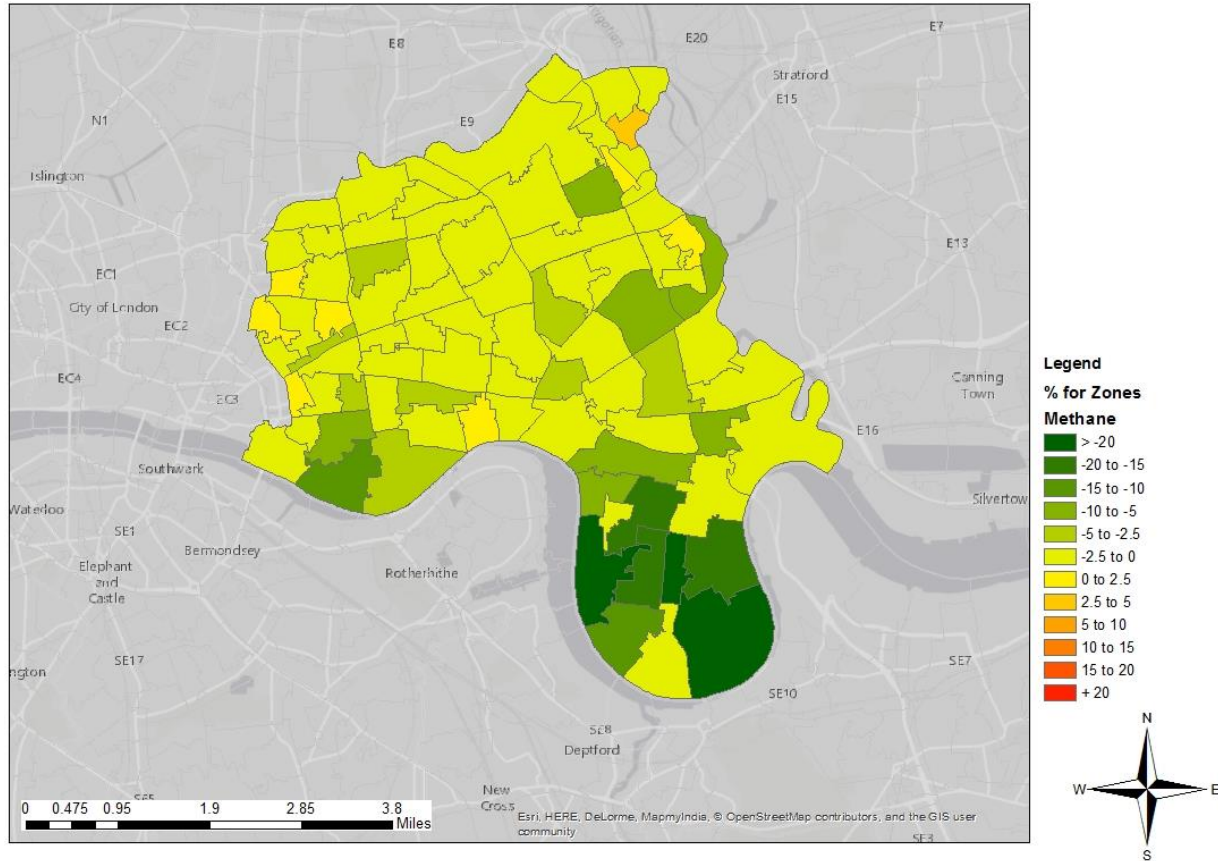
Change in Emissions – HC



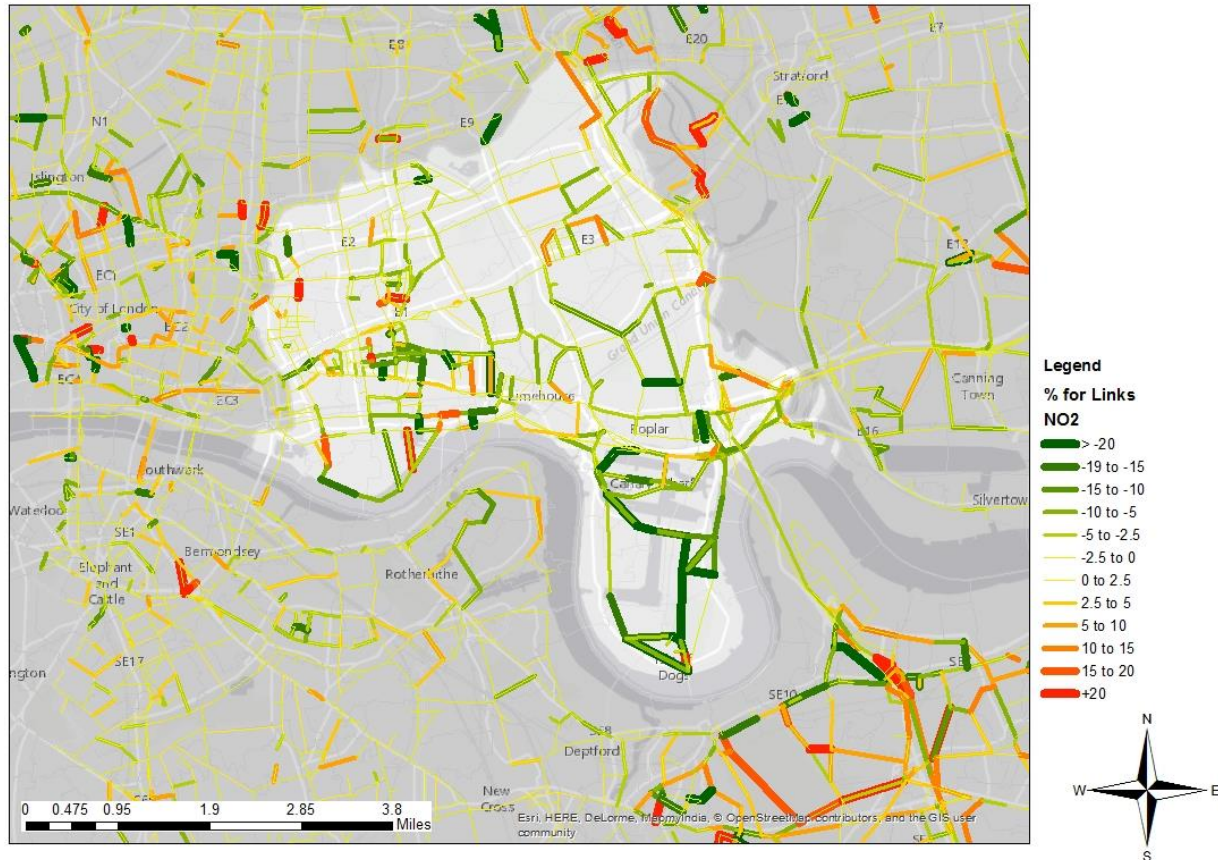
Change in Emissions – Methane



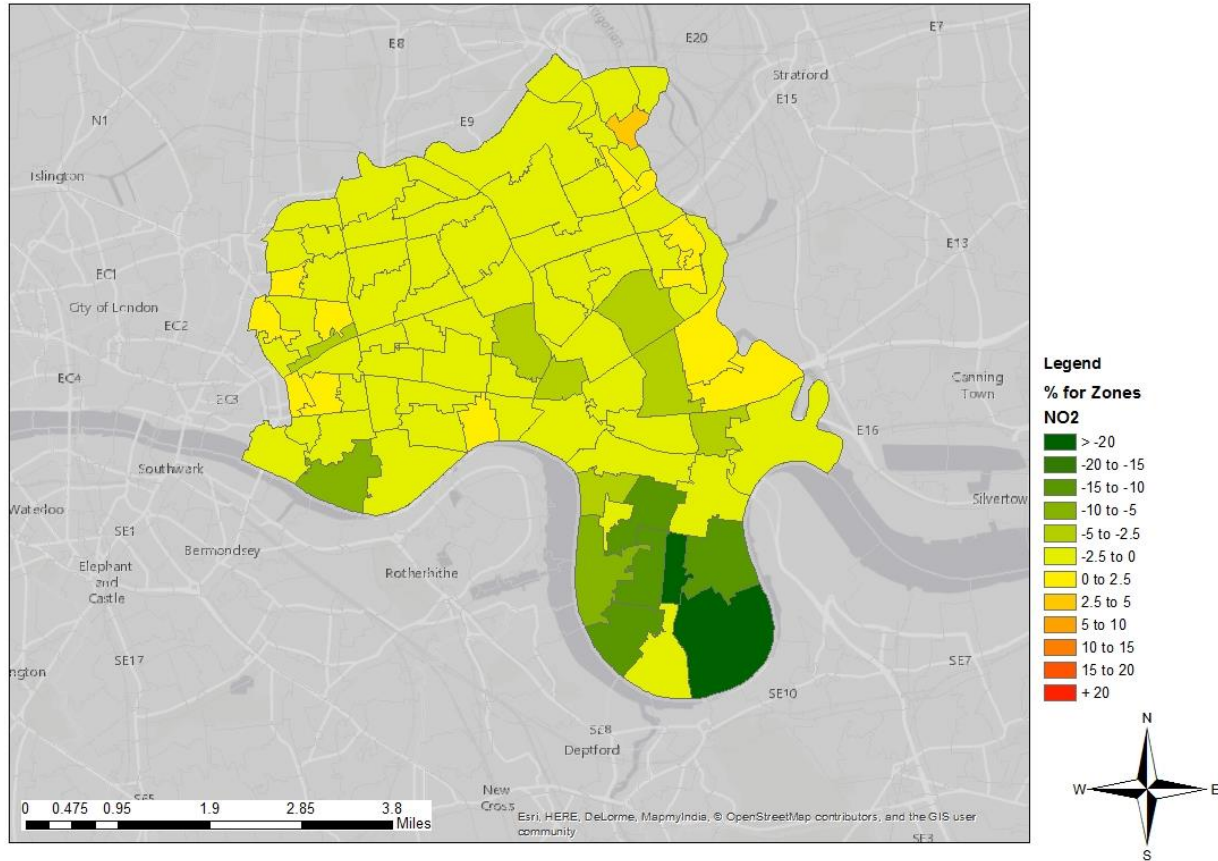
Change in Emissions – Methane



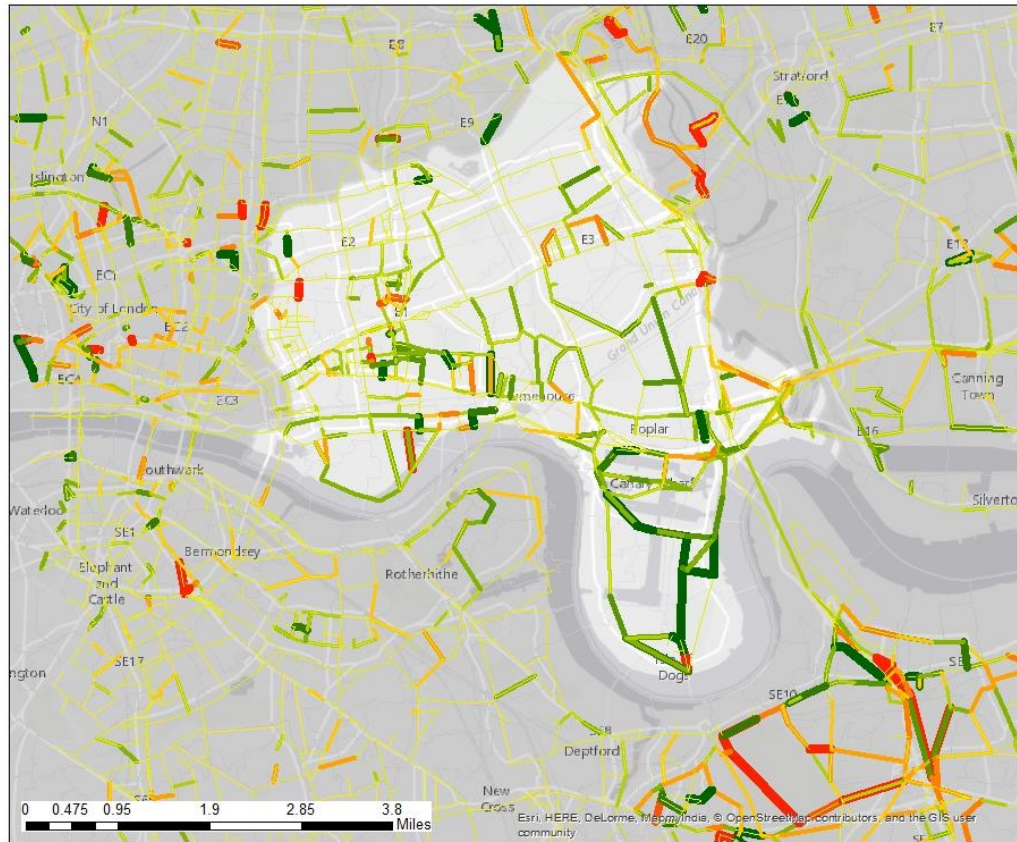
Change in Emissions – N02



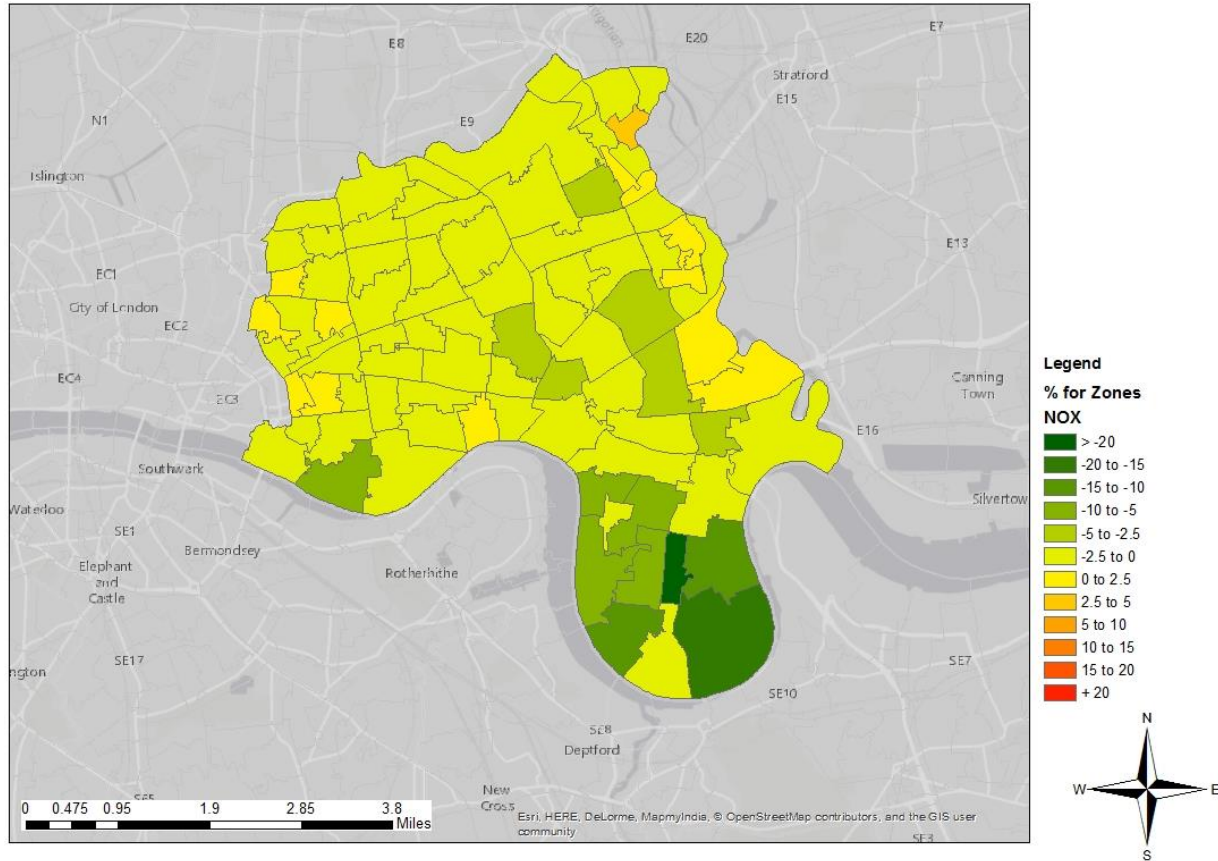
Change in Emissions – N02



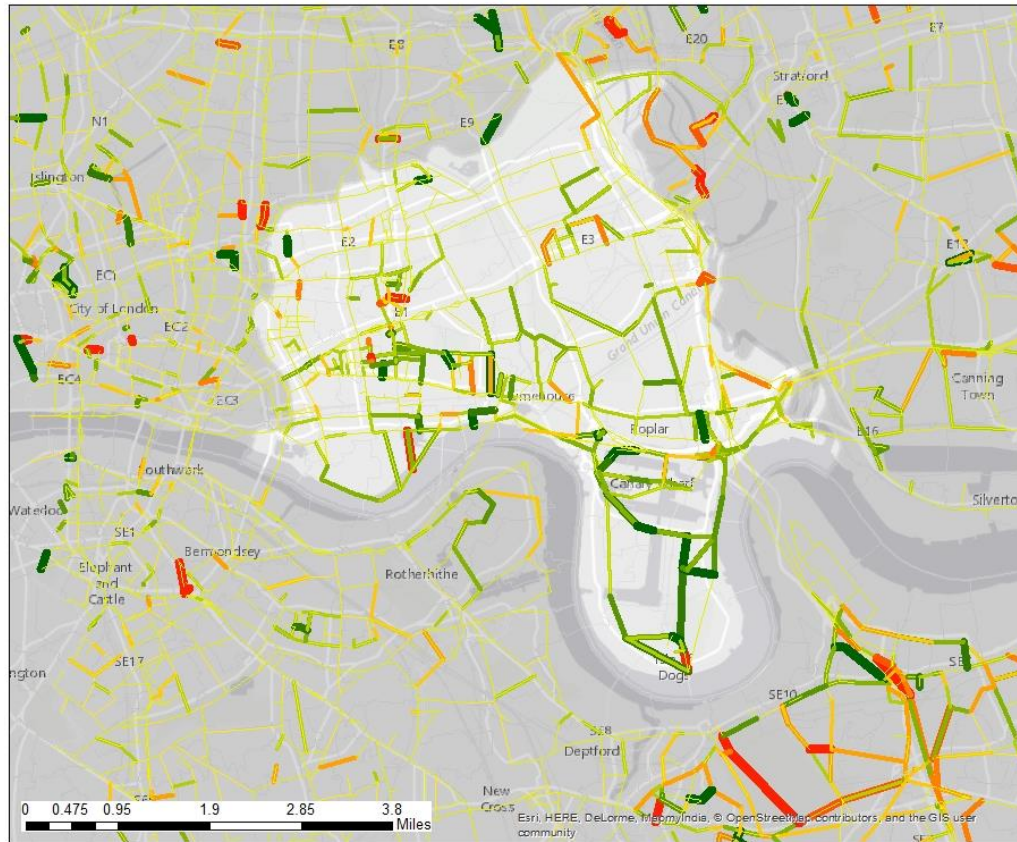
Change in Emissions – NOX



Change in Emissions – NOX



Change in Emissions – PM10

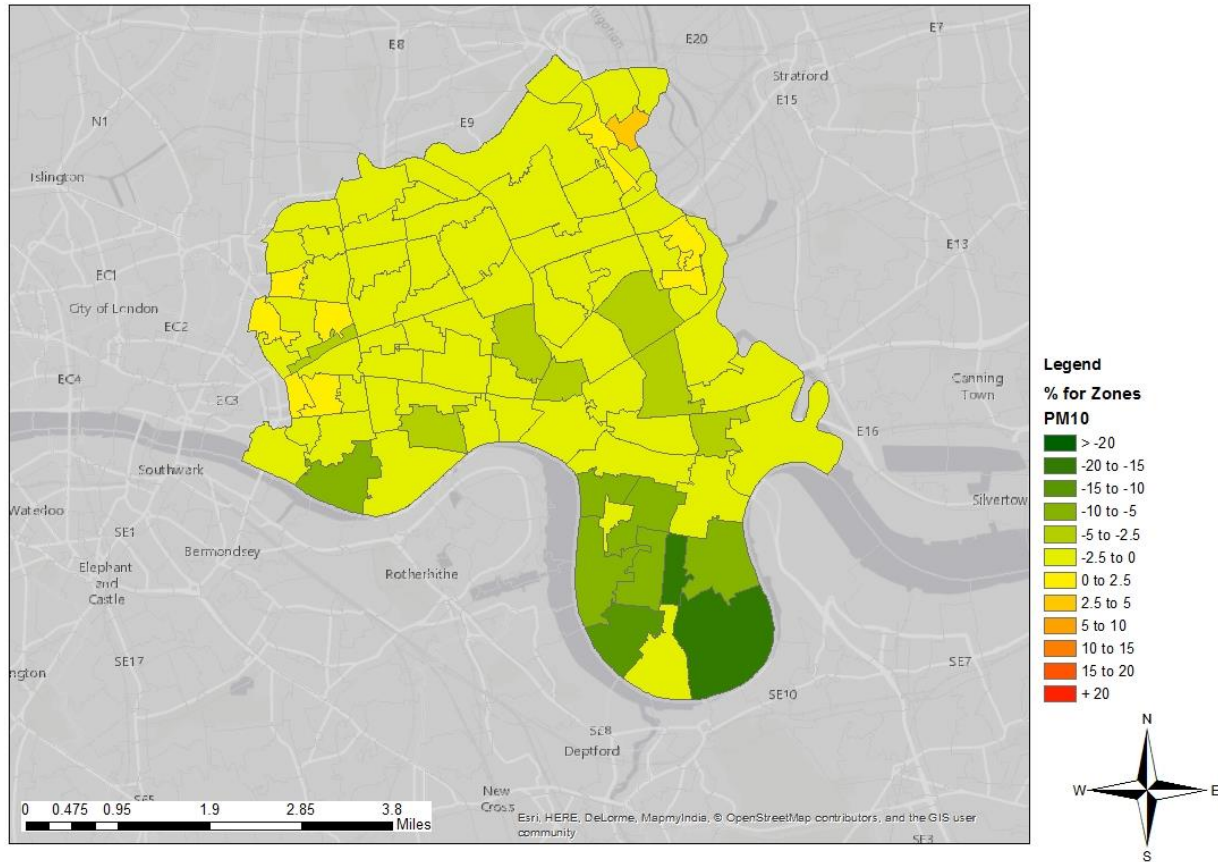


Legend
% for Links
PM10

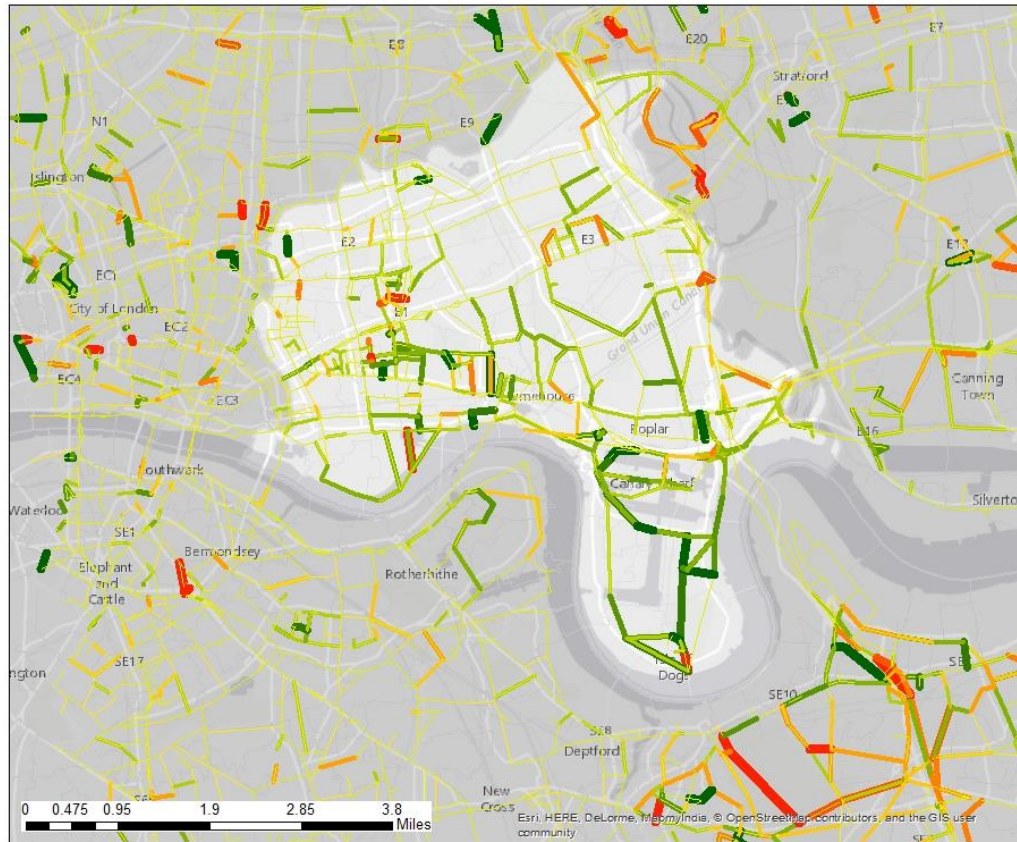
- > -20
- 19 to -15
- 15 to -10
- 10 to -5
- 5 to -2.5
- 2.5 to 0
- 0 to 2.5
- 2.5 to 5
- 5 to 10
- 10 to 15
- 15 to 20
- +20



Change in Emissions – PM10



Change in Emissions – PM2.5



Change in Emissions – PM2.5

