Ricardo Energy & Environment

AQIA for the Eastleigh Borough Local Plan (EBLP): Appendix 3 – Mapped air dispersion results

Report for Eastleigh Borough Council

ED 11692100 | Issue Number 4 | Date 08/11/2018

Customer:

Eastleigh Borough Council

Contact:

Jessica Virdo
Ricardo Energy & Environment
Gemini Building, Harwell, Didcot, OX11 0QR,
United Kingdom

t: +44 (0) 1235 75 3489

e: jessica.virdo@ricardo.com

Ricardo-AEA Ltd is certificated to ISO9001 and ISO14001

Authors:

Thomas Adams, Mark Attree, Ancelin Coulon, Andrew Lewin, Nicola Masey, Tianlin Niu, Victoria Thomson, Jessica Virdo and John Watterson

Approved By:

Mark Broomfield

Date:

08 November 2018

Ricardo Energy & Environment reference:

Ref: ED11692100- Issue Number 4

Table of contents

1 Introduction

This appendix contains maps which show the modelled air dispersion results for the scenarios listed in Table 1-1, both on the scale of the full modelling domain and focussed in on the four individual AQMA locations within Eastleigh Borough.

Table 1-1 Scenarios modelled to represent the five strategic growth options (SGOs)

Modelled scenario	Description	Figure location
2015 Reference case	A transport model scenario designed to represent 2015 conditions and used for dispersion model verification.	Main report
Pseudo-2030 SGO B/C	See 2036 SGO B/C; modelled with 2030 vehicle emission factors as a sensitivity test.	Main report
Pseudo-2030 SGO C	See 2036 SGO C; modelled with 2030 vehicle emission factors as a sensitivity test.	Appendix 3
Pseudo-2030 SGO D1	See 2036 SGO D1; modelled with 2030 vehicle emission factors as a sensitivity test.	Appendix 3
Pseudo-2030 SGO D2	See 2036 SGO D2; modelled with 2030 vehicle emission factors as a sensitivity test.	Appendix 3
Pseudo-2030 SGO E	See 2036 SGO E; modelled with 2030 vehicle emission factors as a sensitivity test.	Appendix 3
2036 Baseline	This scenario includes committed development allocations and transport interventions up to 2036 but does not include any of the new strategic growth options (SGOs) under consideration for the Eastleigh Borough Local Plan. This provides a baseline in order to assess the effects of the new Local Plan allocations against a future development scenario without the SGOs.	Main report
2036 SGO B/C	Expansion of Fair Oak and Bishopstoke to the north/north-east with related development in Allbrook Village; the council's preferred option for new development in the EBLP. The scenario includes the provision of a new link road.	Appendix 3
2036 SGO C	Expansion of Fair Oak to the east and north; an alternative SGO option for new development in the EBLP.	Appendix 3
2036 SGO D1	One variation for Option D, which involves expansion of Bishopstoke to the south and Horton Heath to the west; an alternative SGO option for new development in the EBLP. Option D includes a supplementary development of 606 dwellings. In Option D1, these dwellings are to be located immediately north east of Fair Oak.	Appendix 3
2036 SGO D2	A second variation for Option D, which involves expansion of Bishopstoke to the south and Horton Heath to the west; an alternative SGO option for new development in the EBLP. Option	Appendix 3

Modelled scenario	Description	Figure location
	D2 includes an additional 606 dwellings immediately south of the main development zone.	
2036 SGO E	Extension of West End to the north of the M27; an alternative SGO option for new development in the EBLP.	Appendix 3

2 NO_2 annual mean concentration

2.1 Full modelling domain

Figure 2-1 Annual mean NO_2 concentration model results for pseudo-2030 SGO C scenario

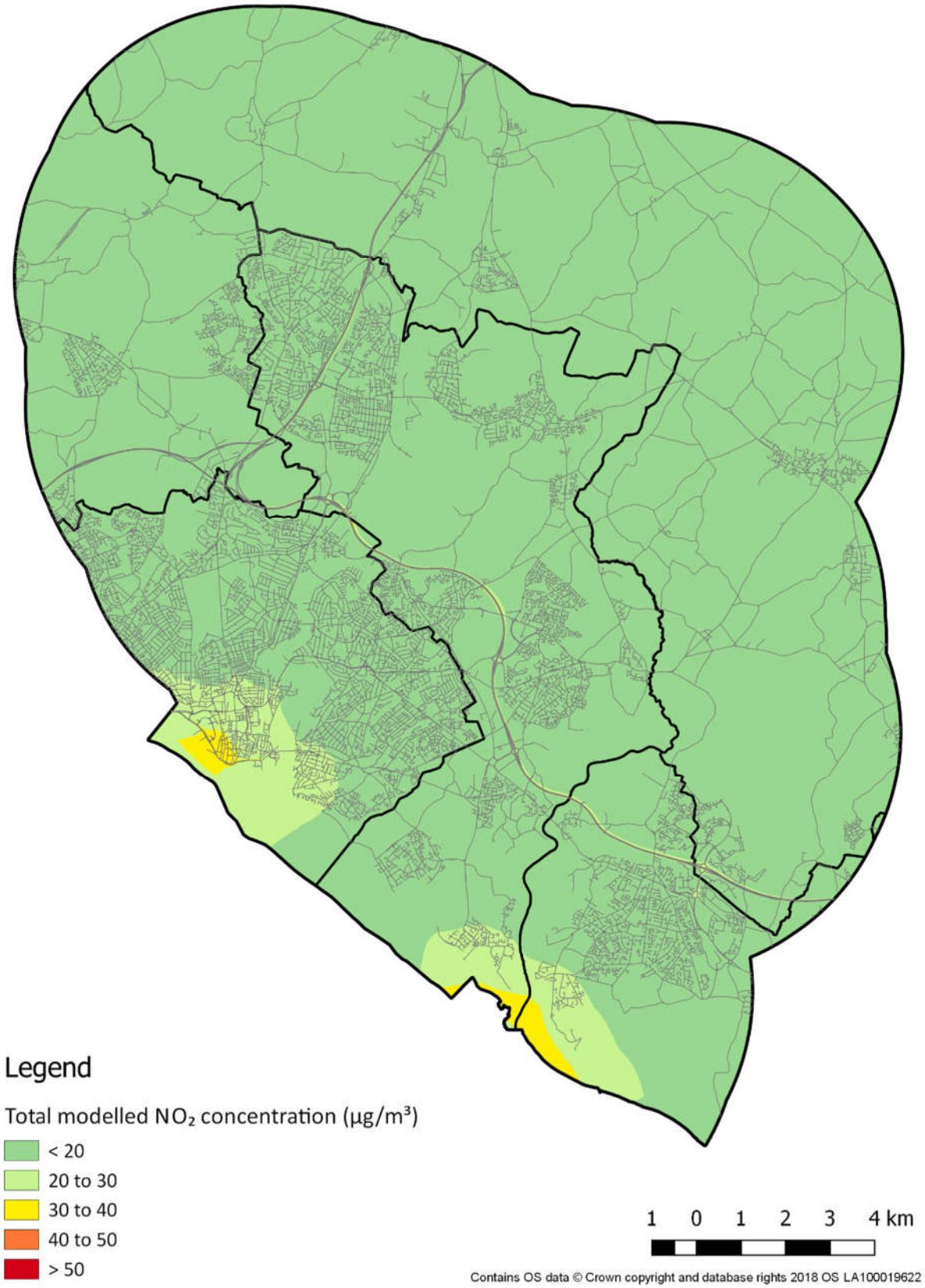


Figure 2-2 Annual mean NO_2 concentration model results for pseudo-2030 SGO D1 scenario

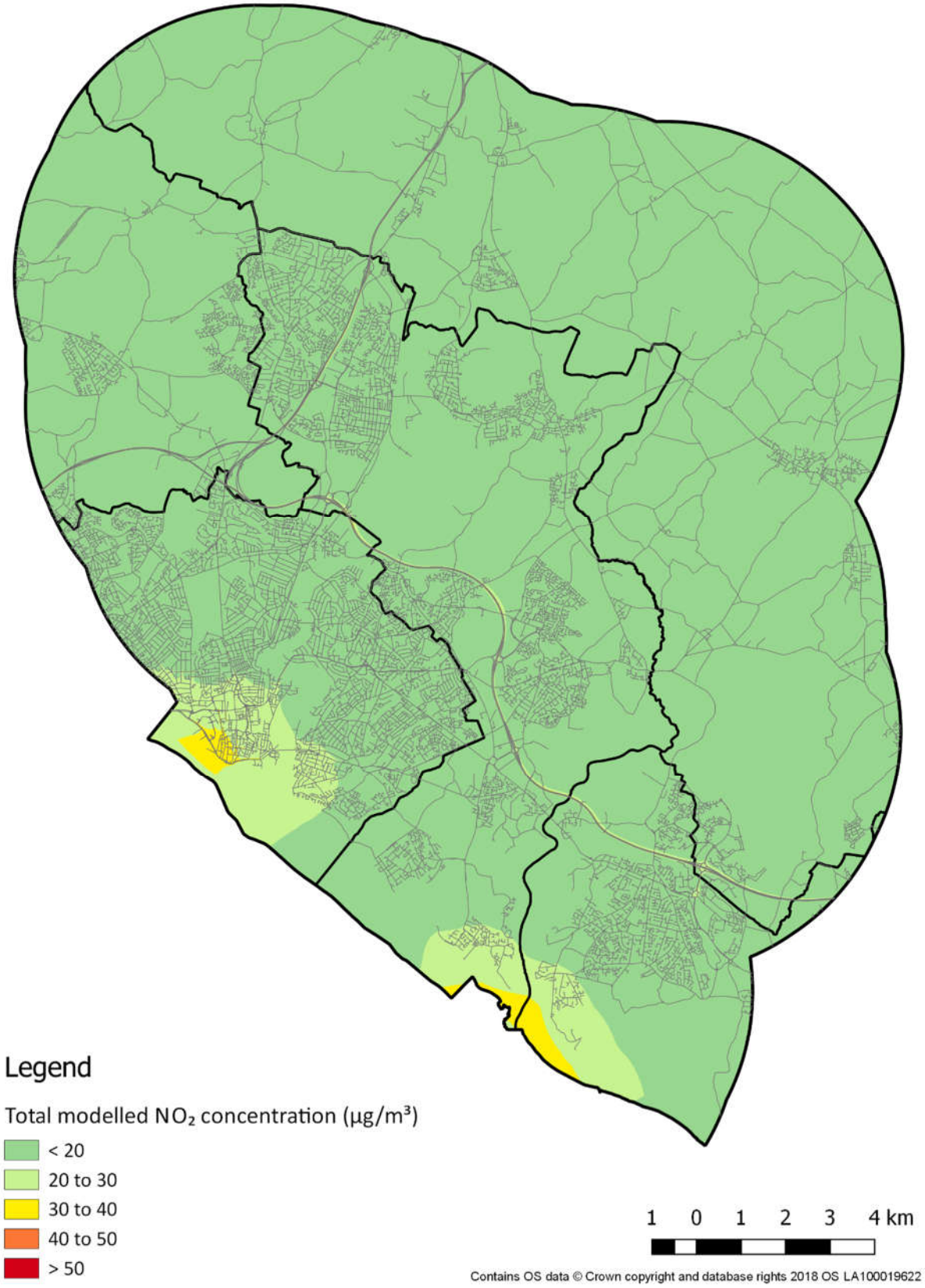


Figure 2-3 Annual mean NO_2 concentration model results for pseudo-2030 SGO D2 scenario

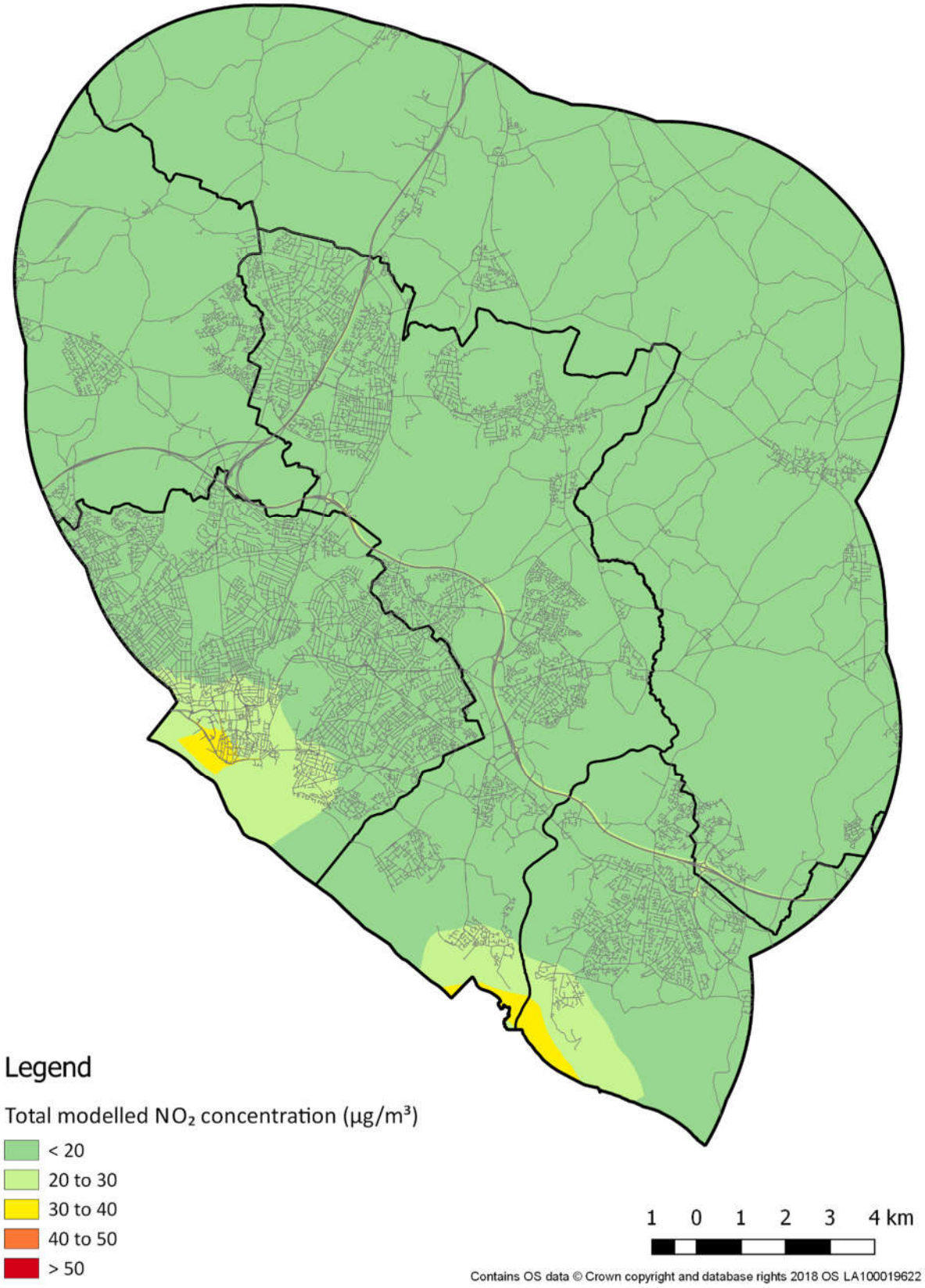


Figure 2-4 Annual mean NO_2 concentration model results for pseudo-2030 SGO E scenario

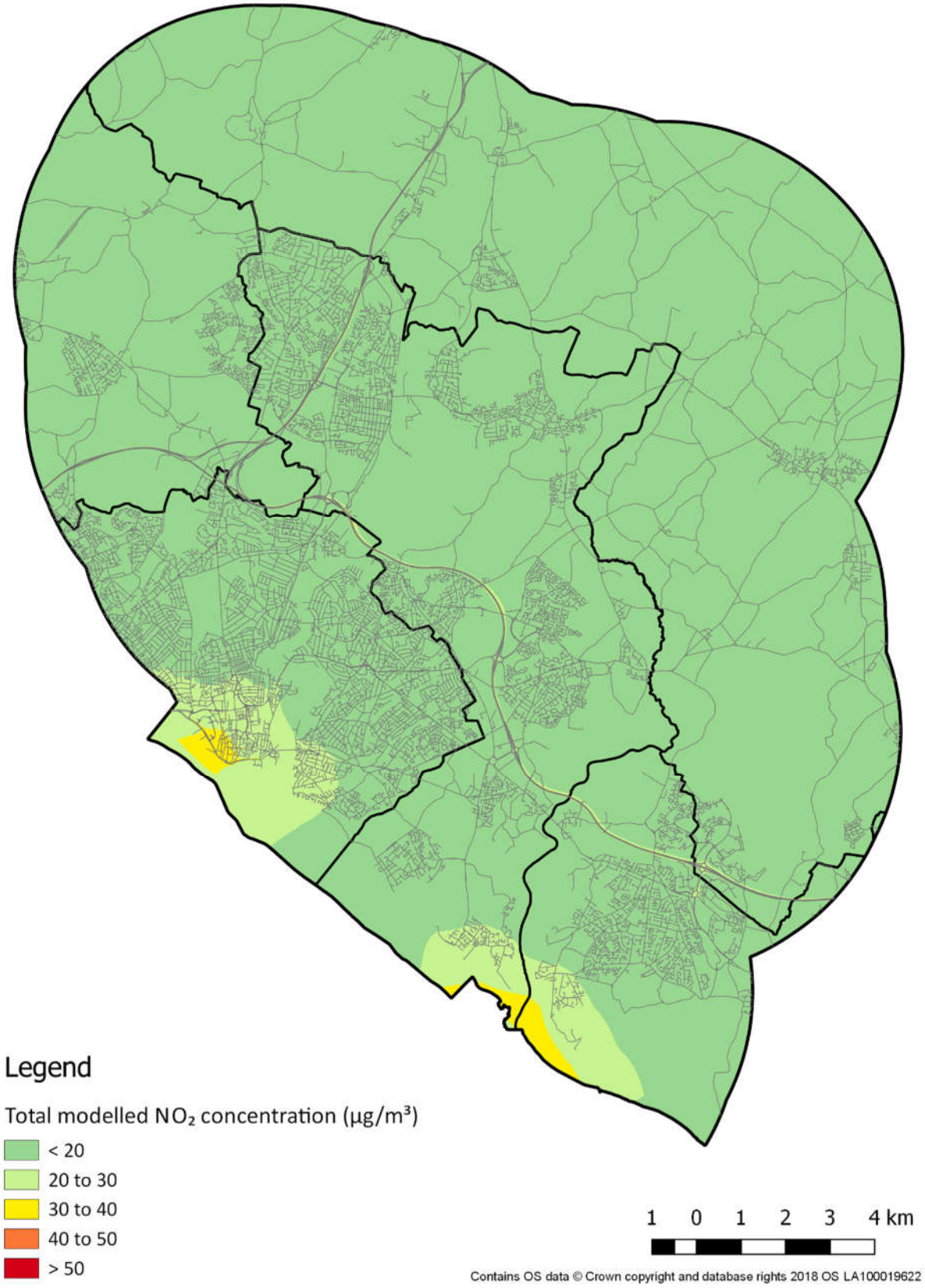


Figure 2-5 Annual mean NO_2 concentration model results for 2036 SGO C scenario

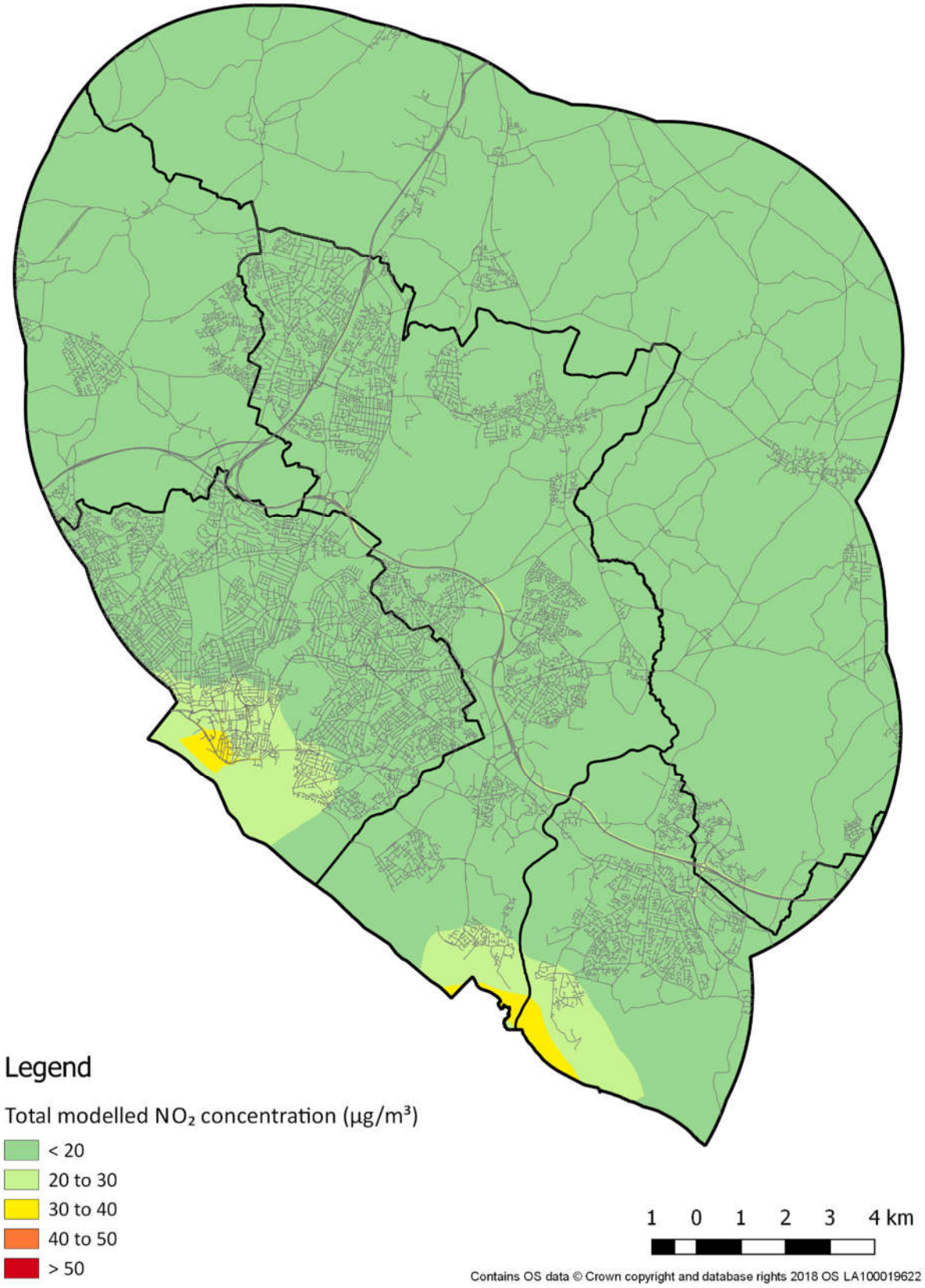


Figure 2-6 Annual mean NO_2 concentration model results for 2036 SGO D1 scenario

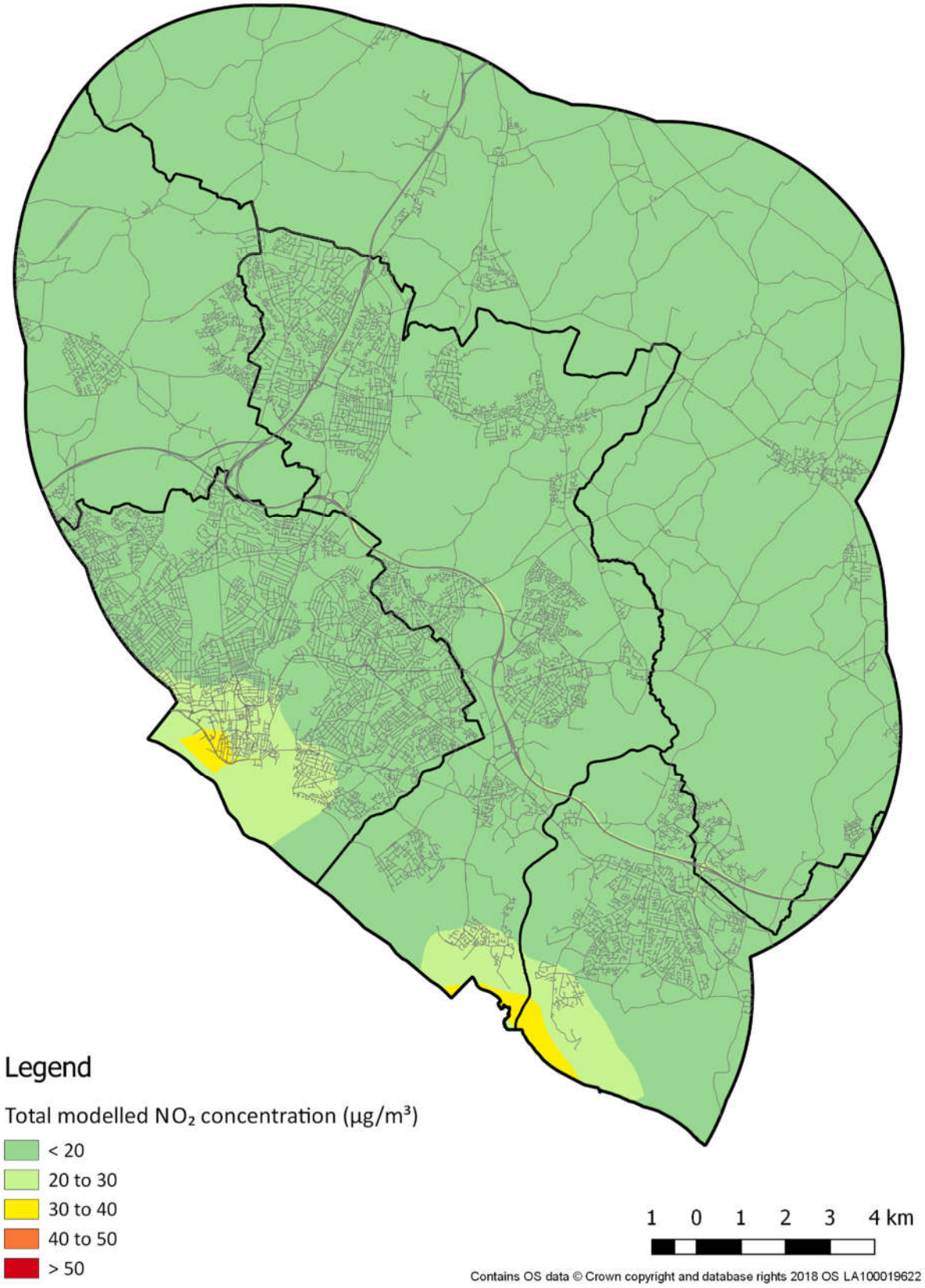


Figure 2-7 Annual mean NO_2 concentration model results for 2036 SGO D2 scenario

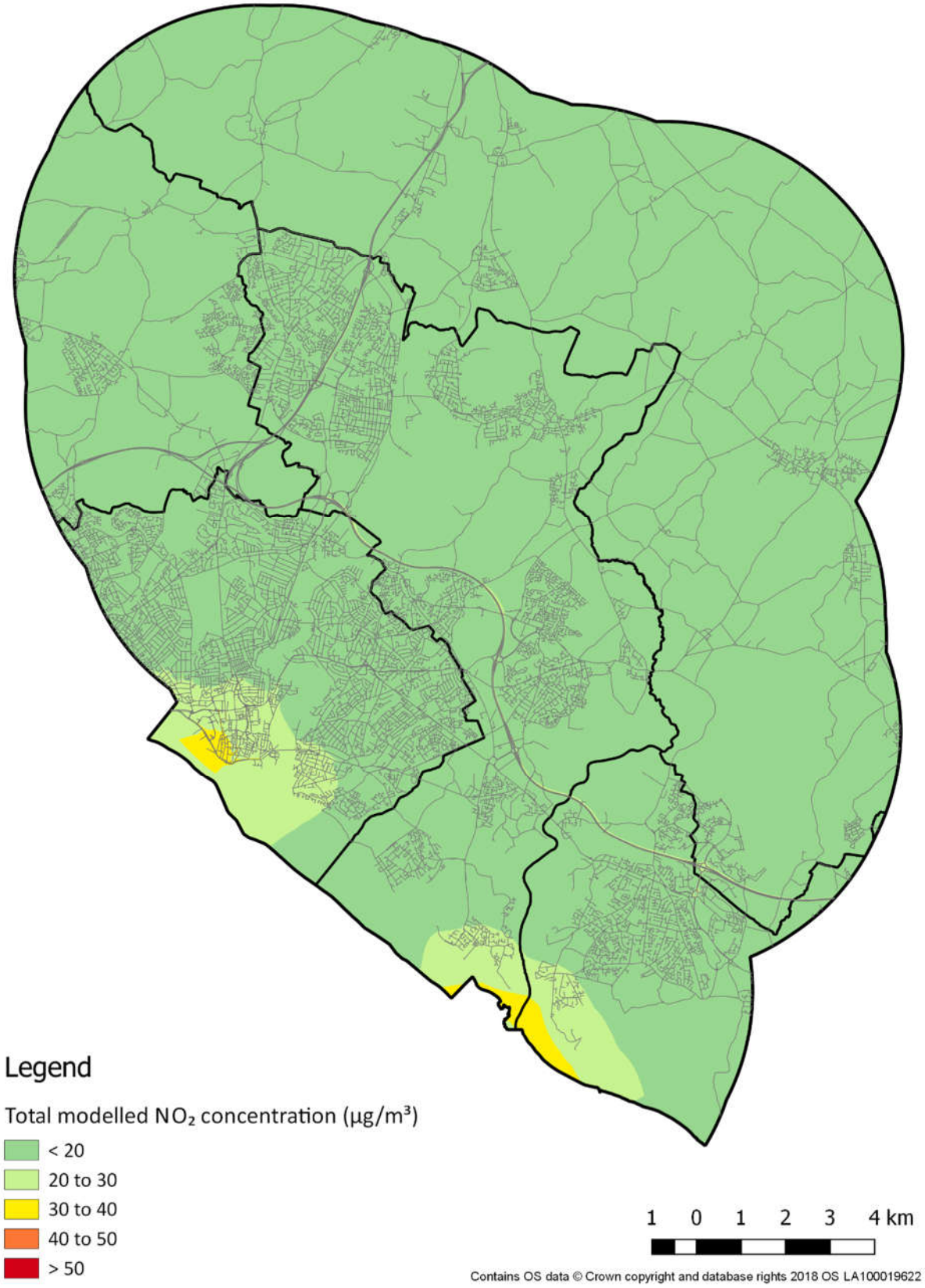
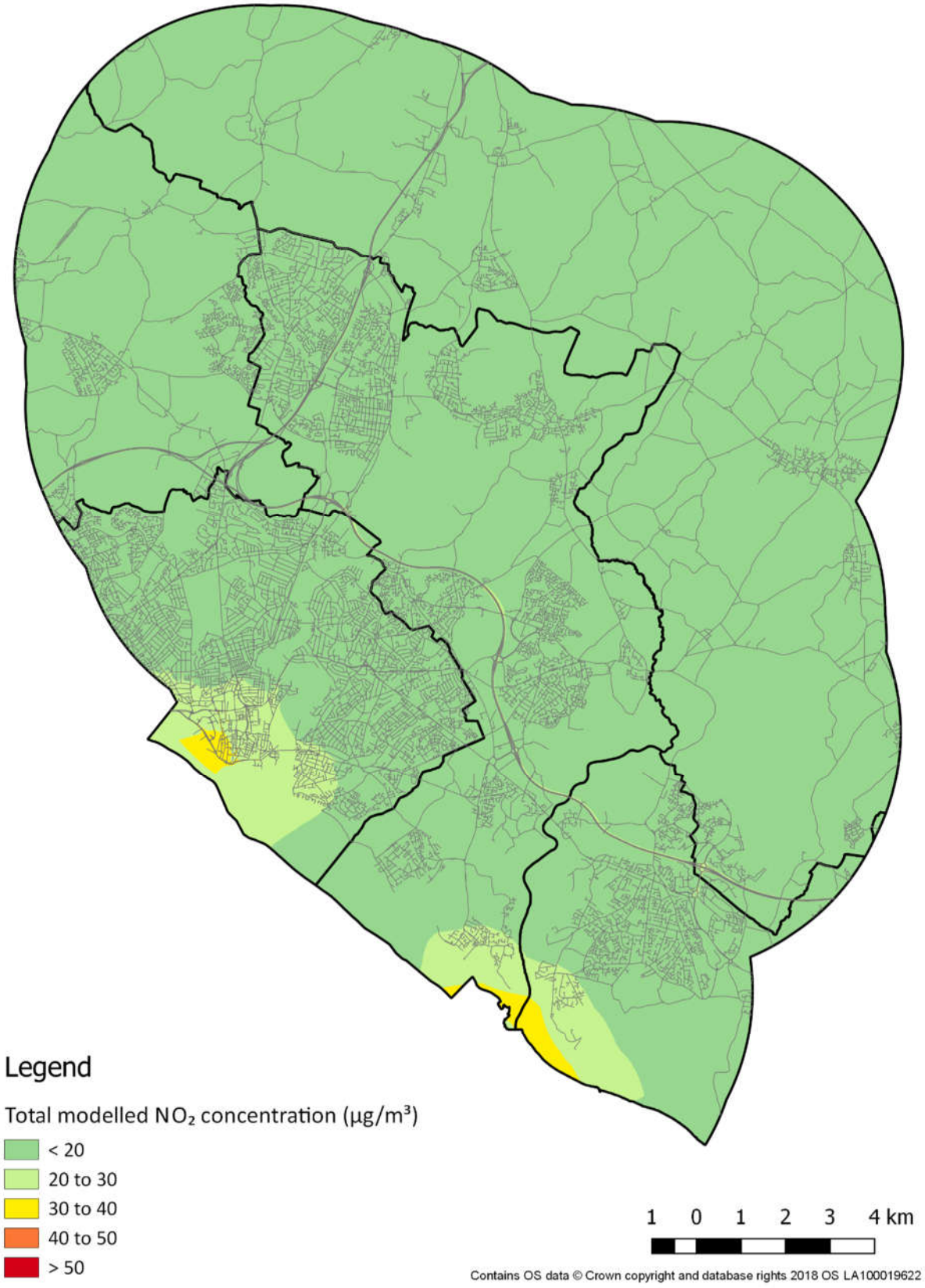


Figure 2-8 Annual mean NO_2 concentration model results for 2036 SGO E scenario



2.2 AQMA 1 and 2

Figure 2-9 Annual mean NO_2 concentration model results for pseudo-2030 SGO C scenario AQMA No. 1 (A335 / Eastleigh) (East)

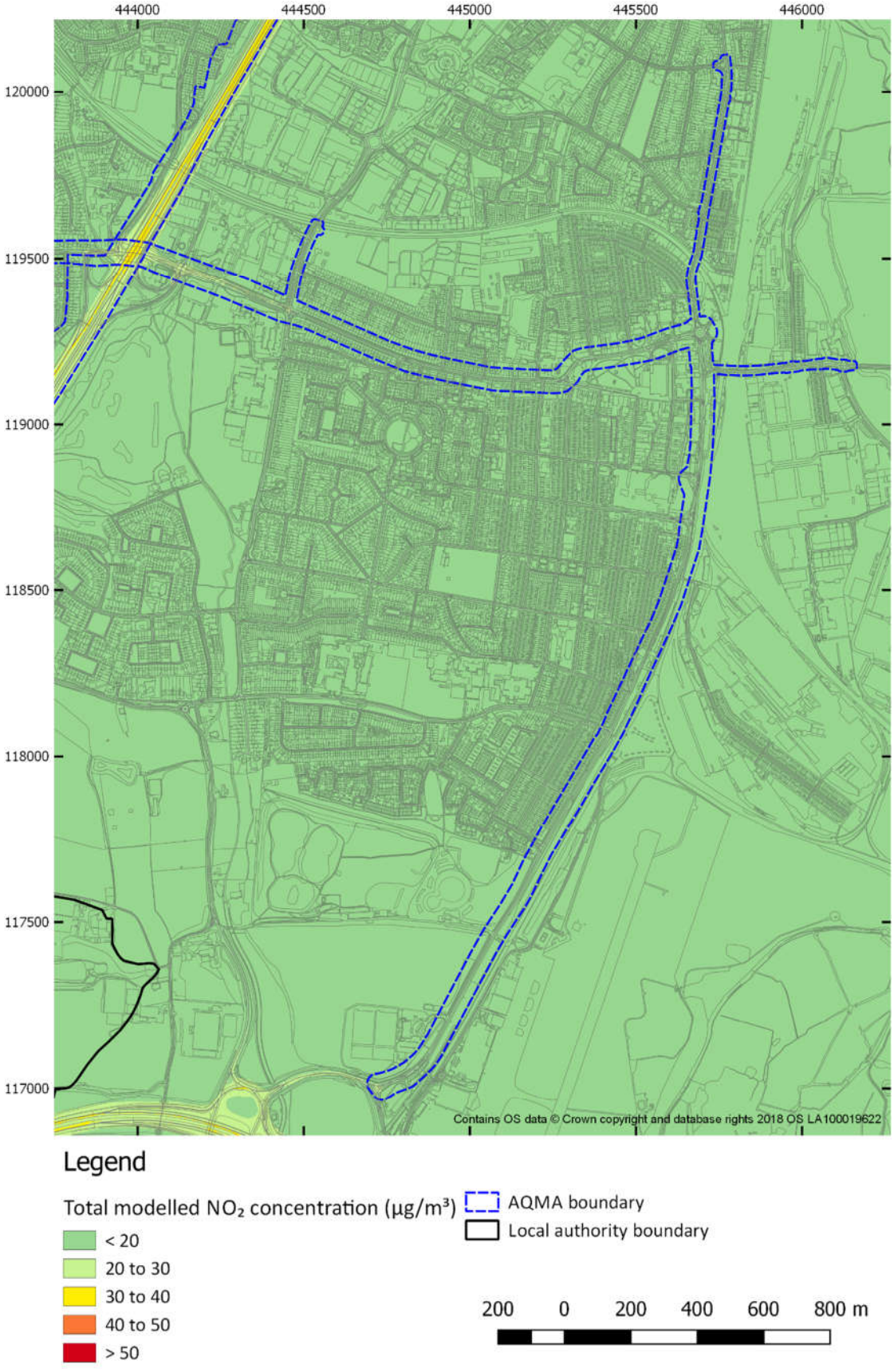


Figure 2-10 Annual mean NO_2 concentration model results for pseudo-2030 SGO D1 scenario AQMA No. 1 (A335 / Eastleigh) (East)

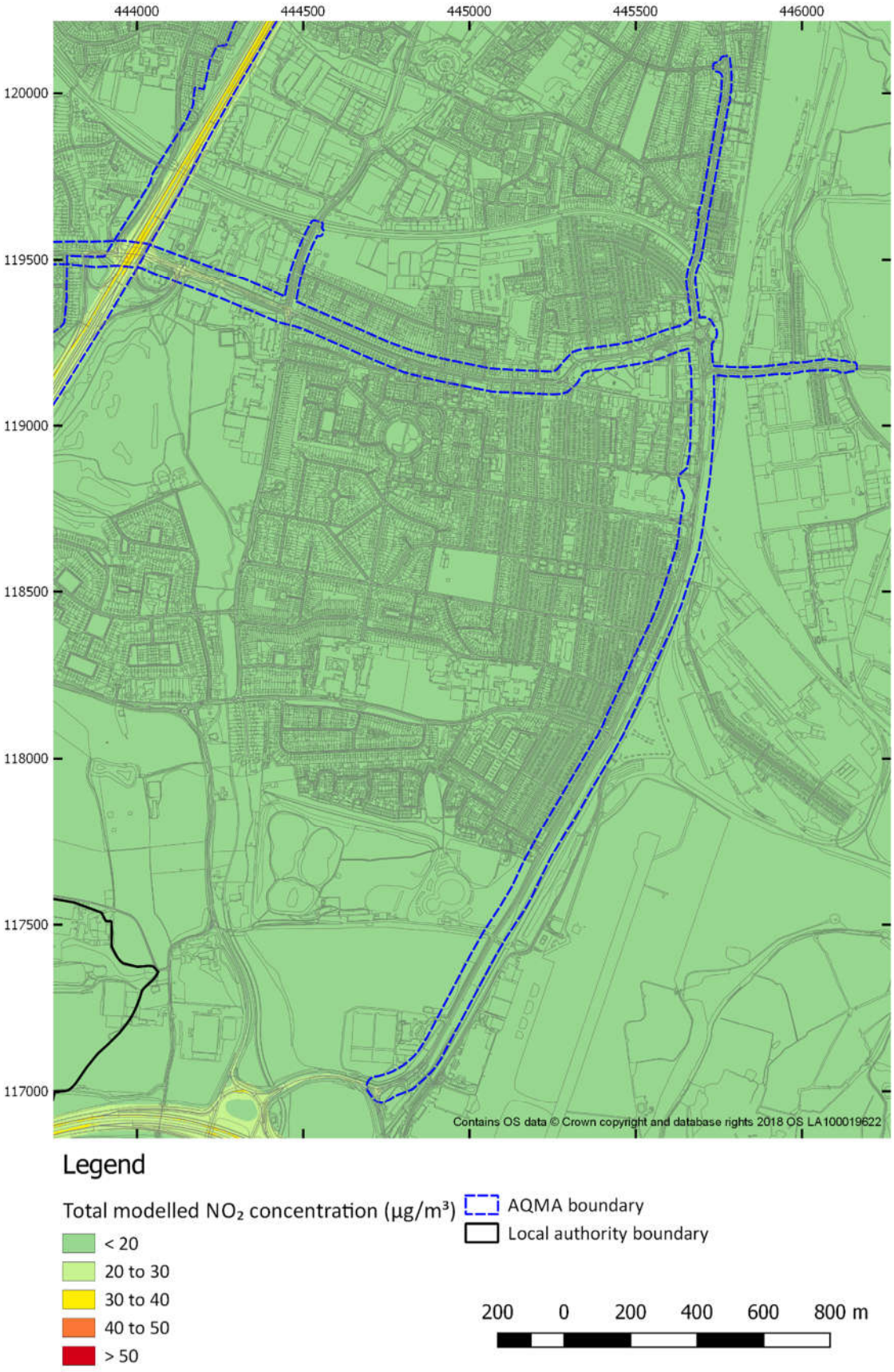


Figure 2-11 Annual mean NO_2 concentration model results for pseudo-2030 SGO D2 scenario AQMA No. 1 (A335 / Eastleigh) (East)

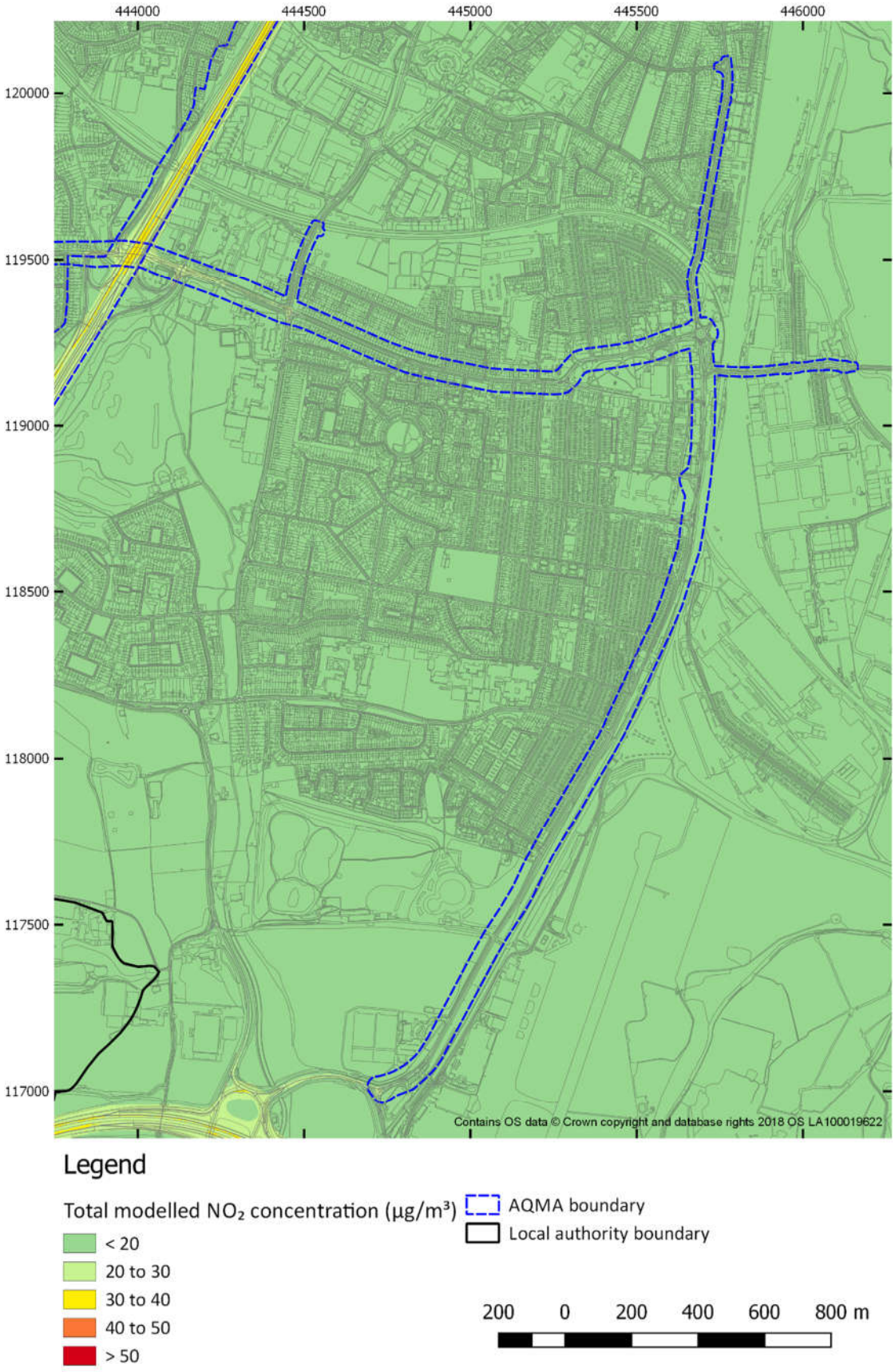


Figure 2-12 Annual mean NO_2 concentration model results for pseudo-2030 SGO E scenario AQMA No. 1 (A335 / Eastleigh) (East)

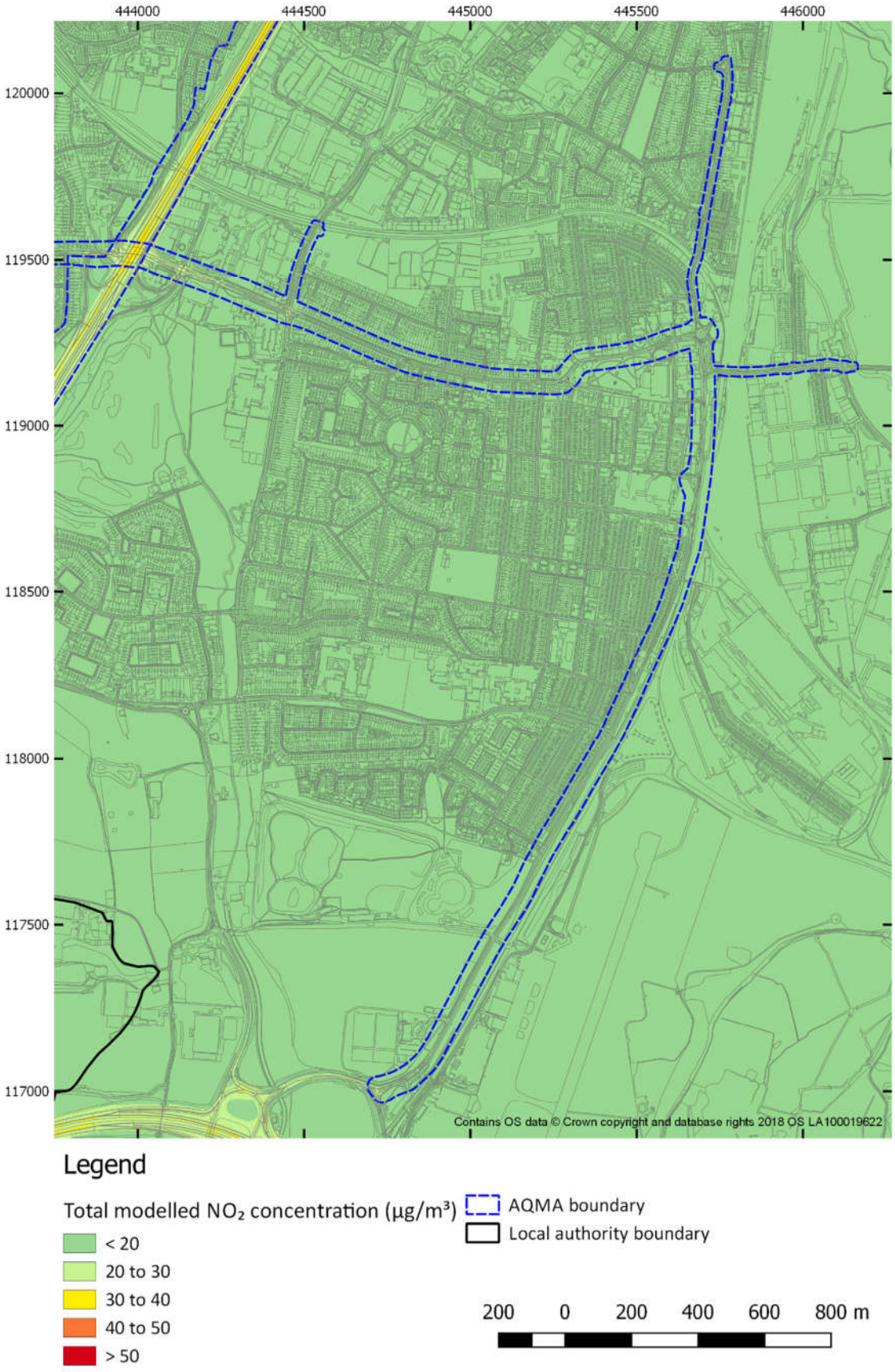


Figure 2-13 Annual mean NO_2 concentration model results for 2036 SGO C scenario AQMA No. 1 (A335 / Eastleigh) (East)

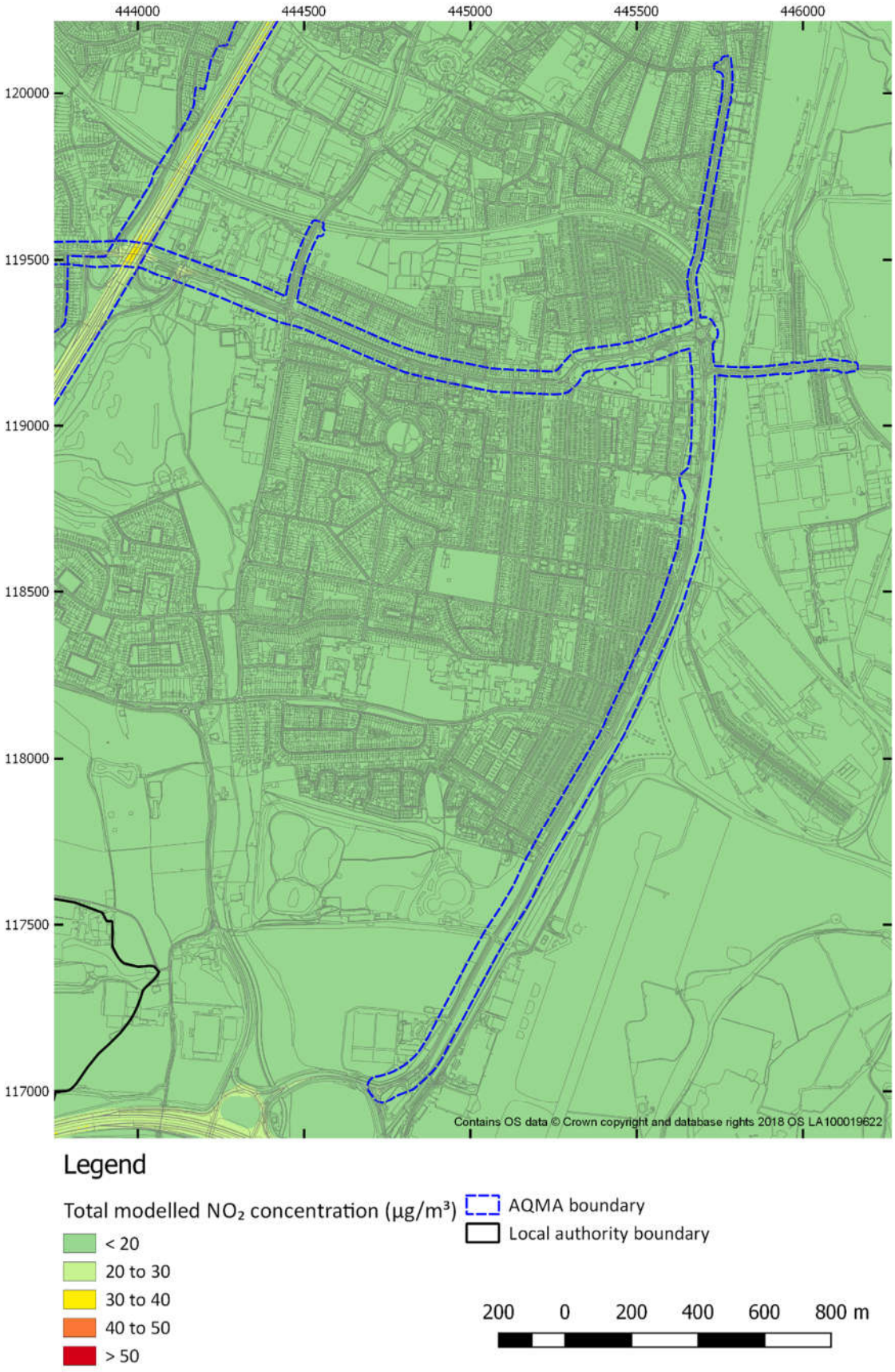


Figure 2-14 Annual mean NO_2 concentration model results for 2036 SGO D1 scenario AQMA No. 1 (A335 / Eastleigh) (East)

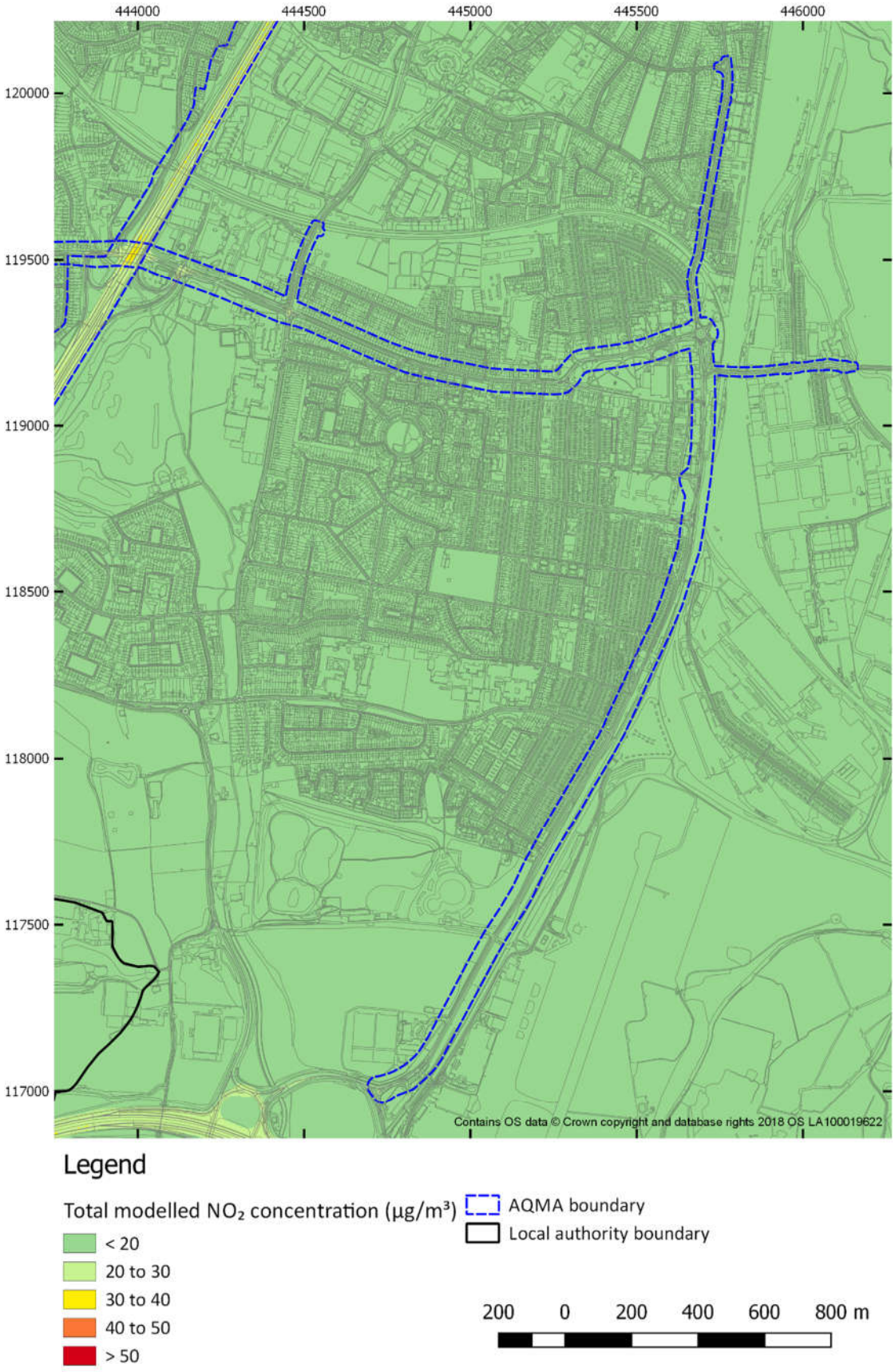


Figure 2-15 Annual mean NO_2 concentration model results for 2036 SGO D2 scenario AQMA No. 1 (A335 / Eastleigh) (East)

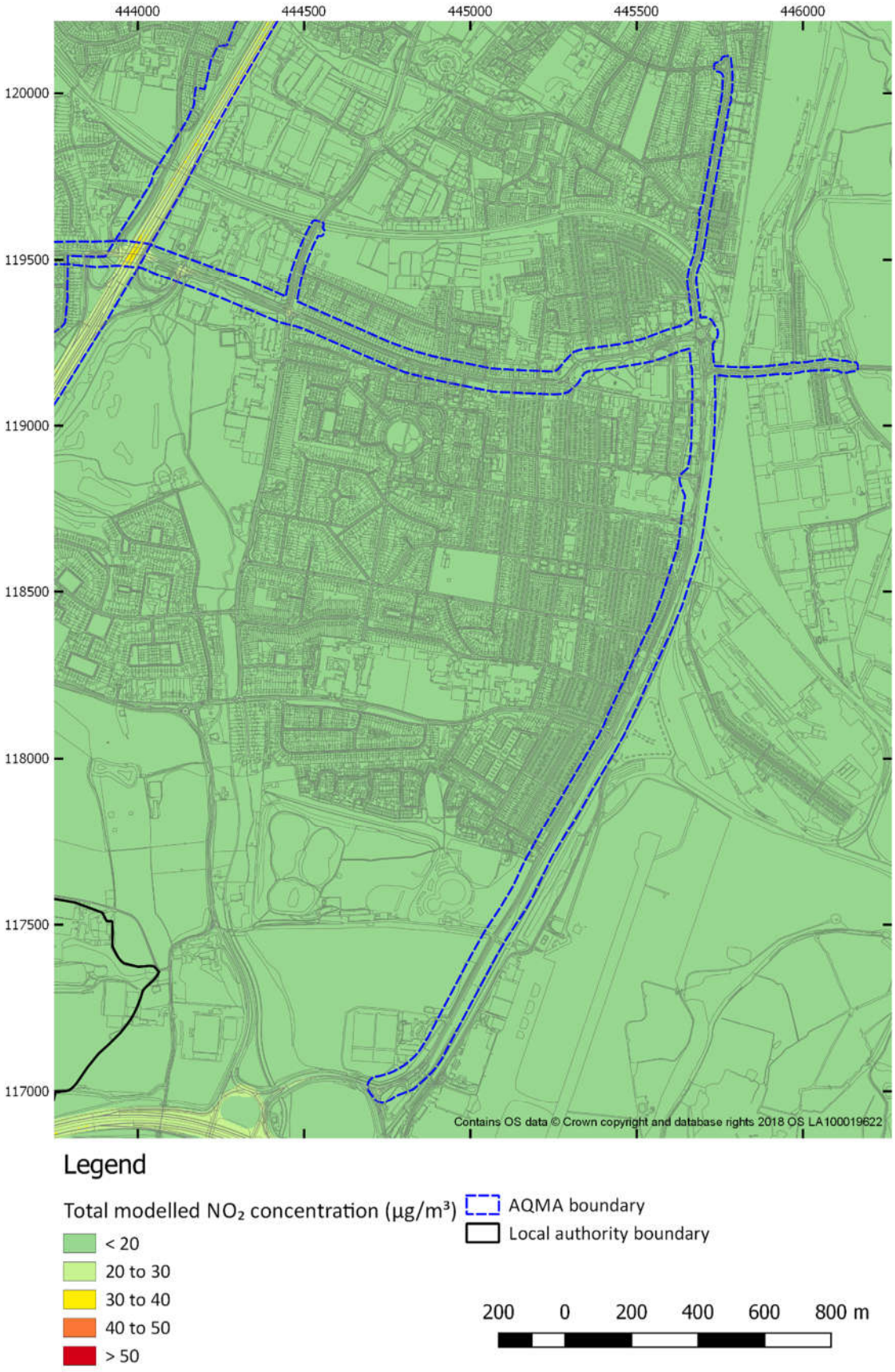


Figure 2-16 Annual mean NO_2 concentration model results for 2036 SGO E scenario AQMA No. 1 (A335 / Eastleigh) (East)

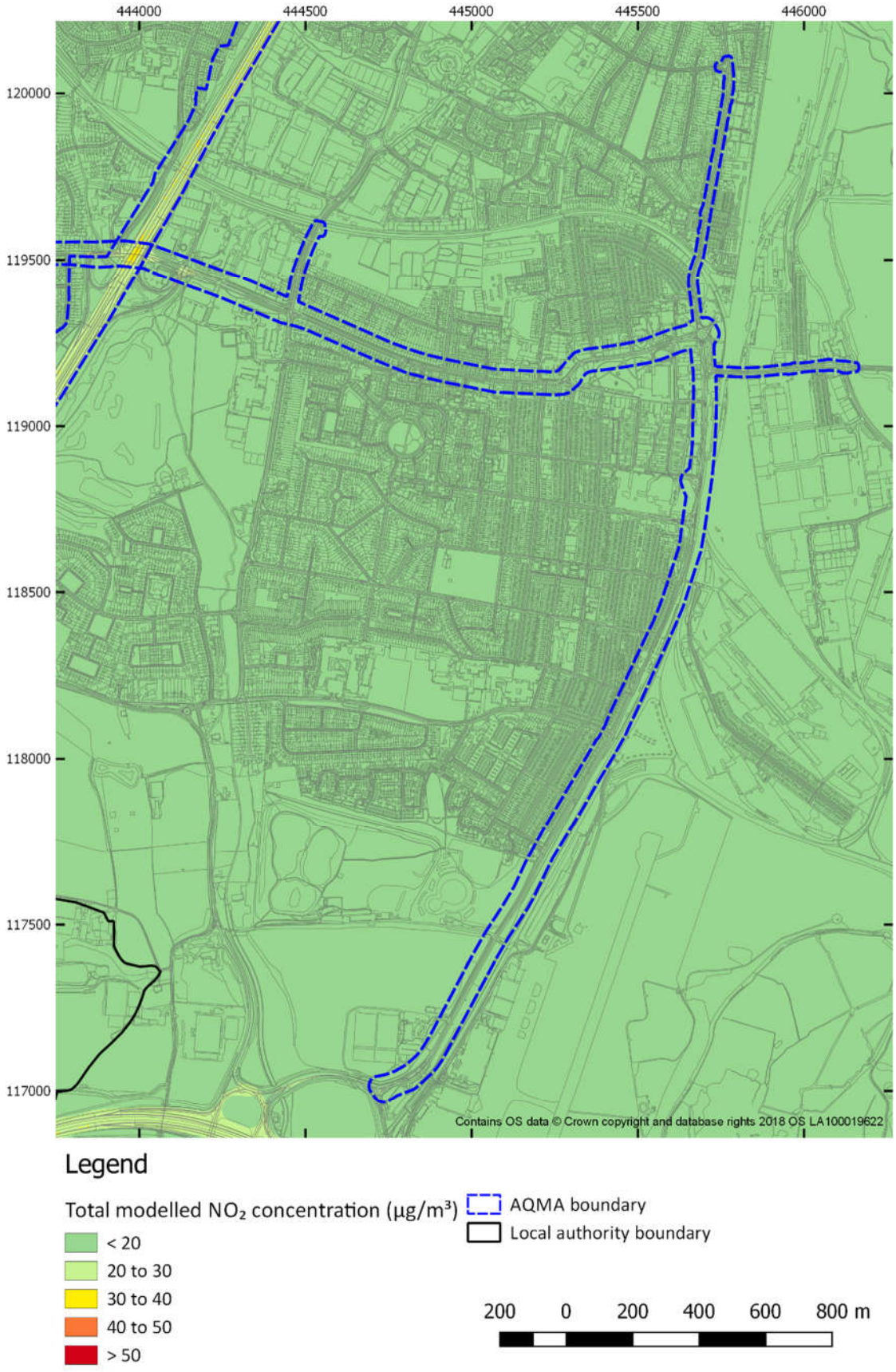


Figure 2-17 Annual mean NO_2 concentration model results for 2036 Baseline AQMA No. 1 (A335 / Eastleigh) (East)

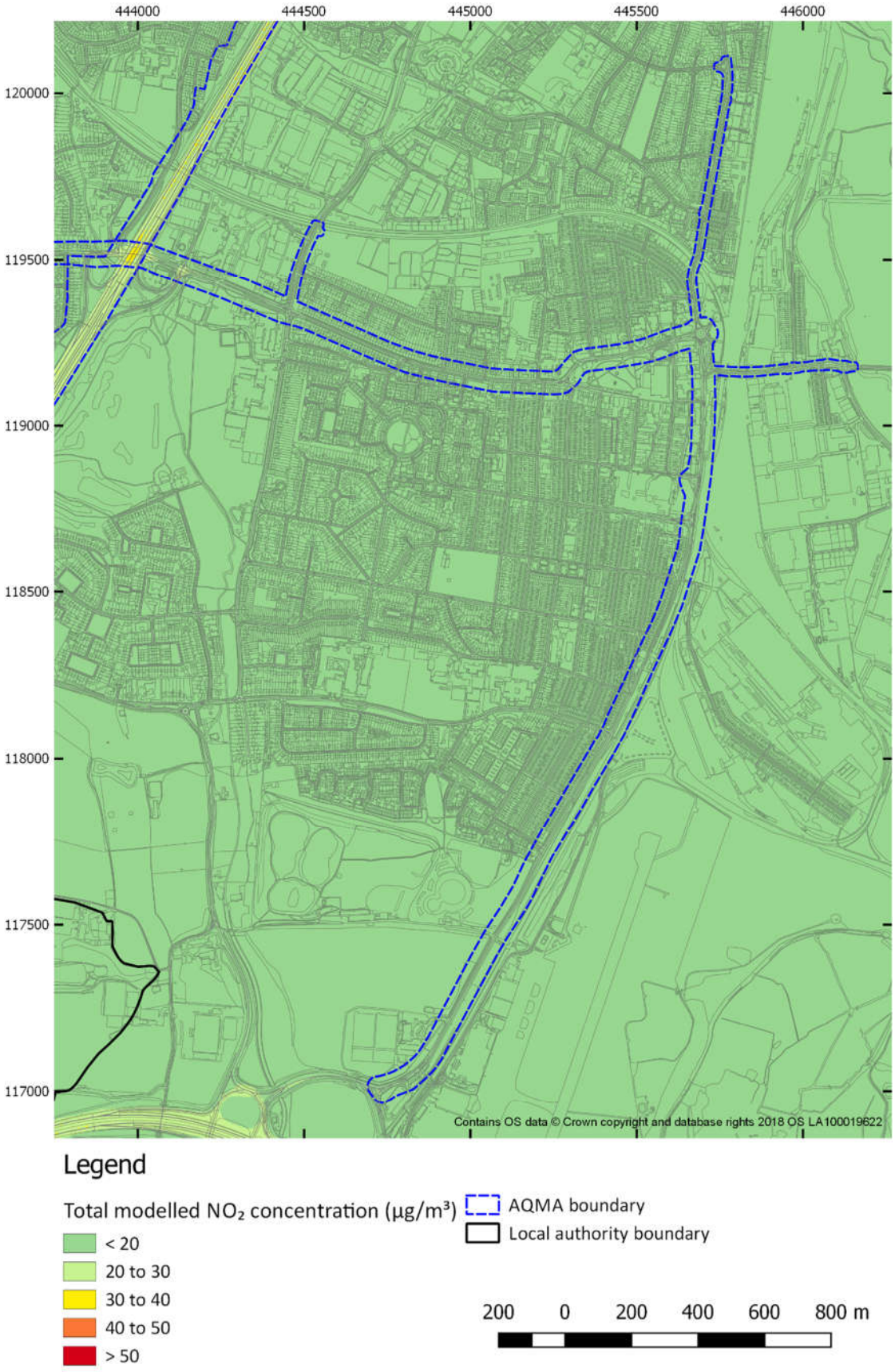


Figure 2-18 Annual mean NO_2 concentration model results for pseudo-2030 SGO C scenario AQMA No. 1 (A335 / Eastleigh) (West)

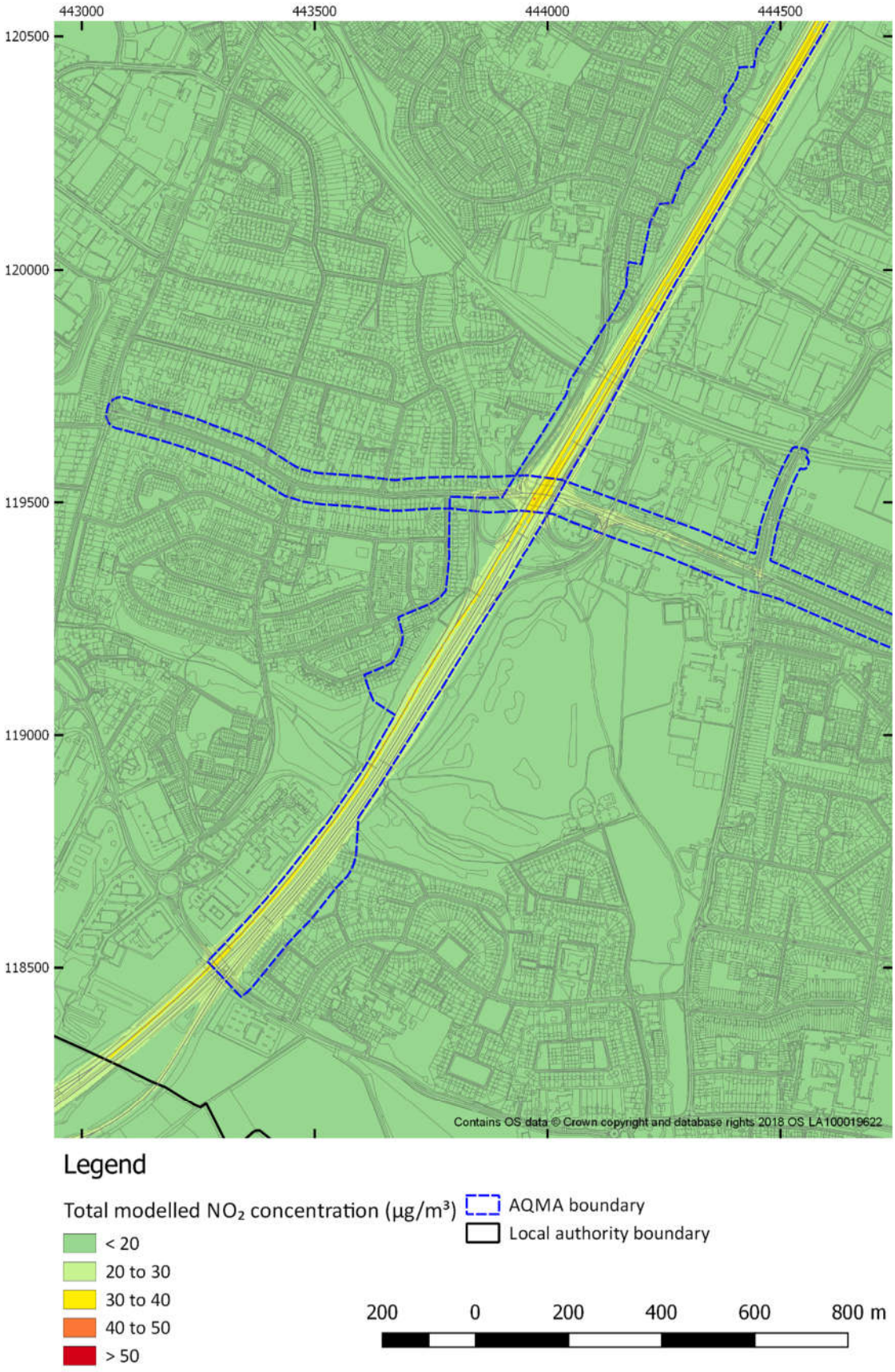


Figure 2-19 Annual mean NO_2 concentration model results for pseudo-2030 SGO D1 scenario AQMA No. 1 (A335 / Eastleigh) (West)

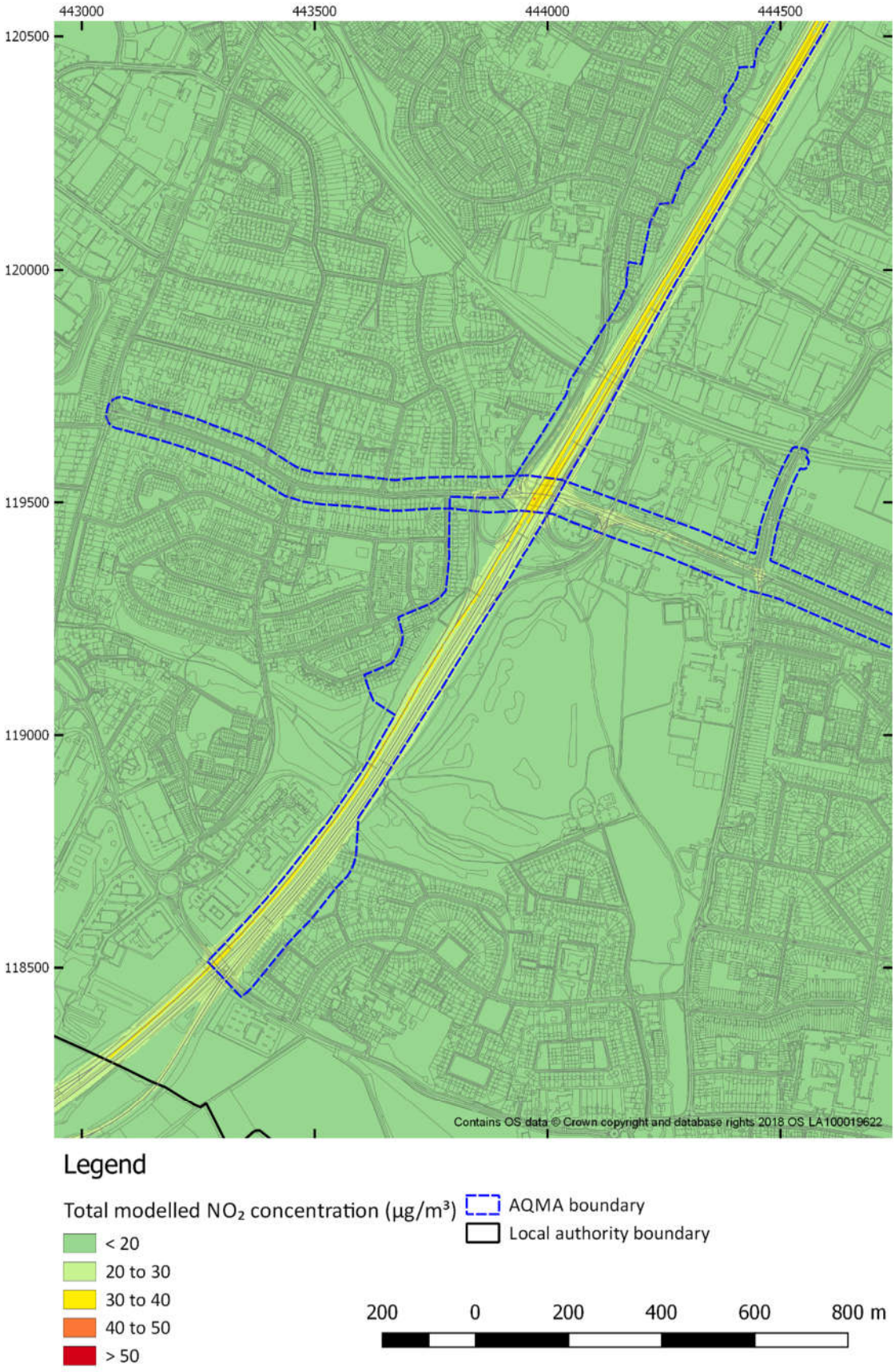


Figure 2-20 Annual mean NO_2 concentration model results for pseudo-2030 SGO D2 scenario AQMA No. 1 (A335 / Eastleigh) (West)

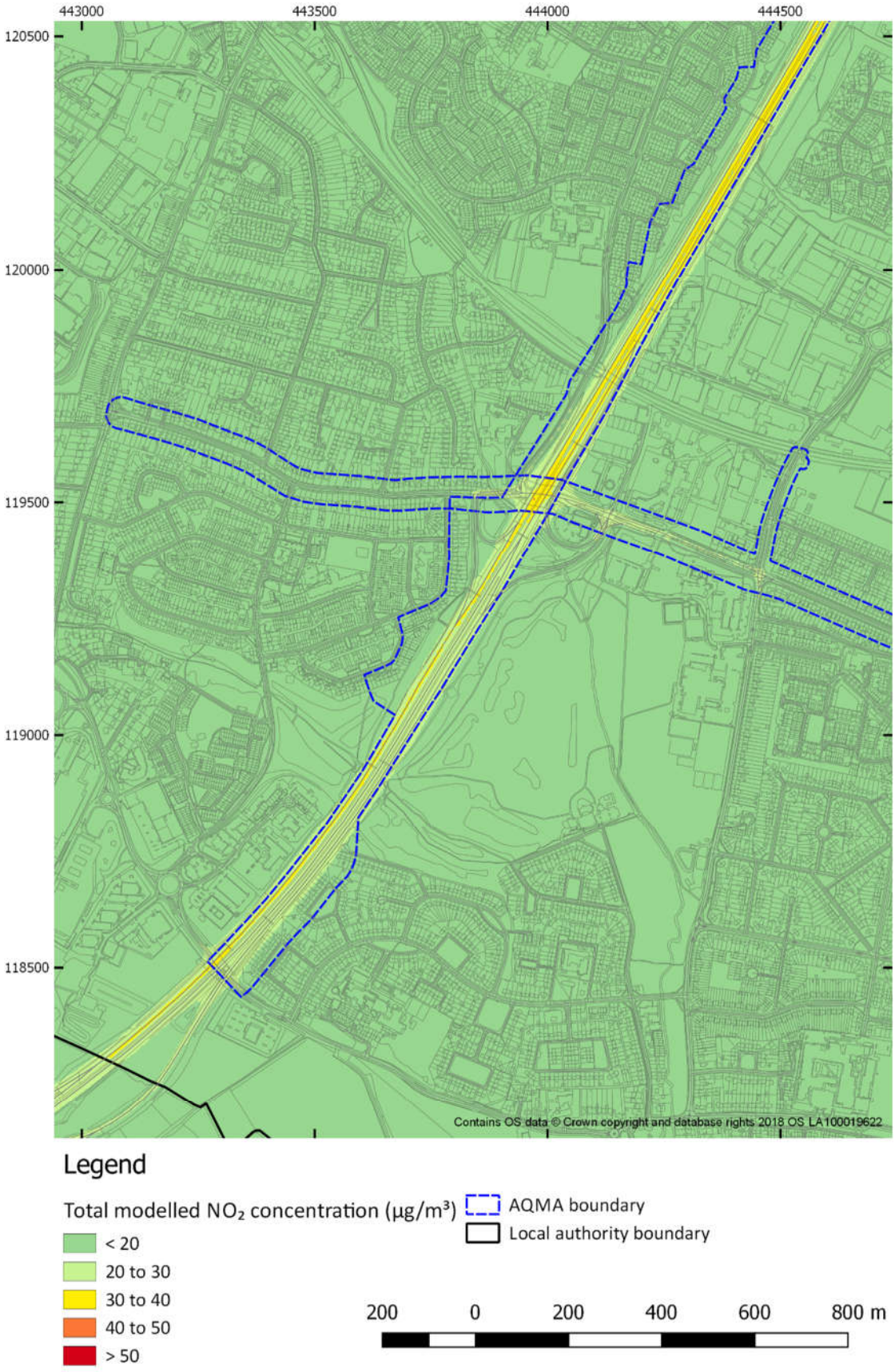


Figure 2-21 Annual mean NO_2 concentration model results for pseudo-2030 SGO E scenario AQMA No. 1 (A335 / Eastleigh) (West)

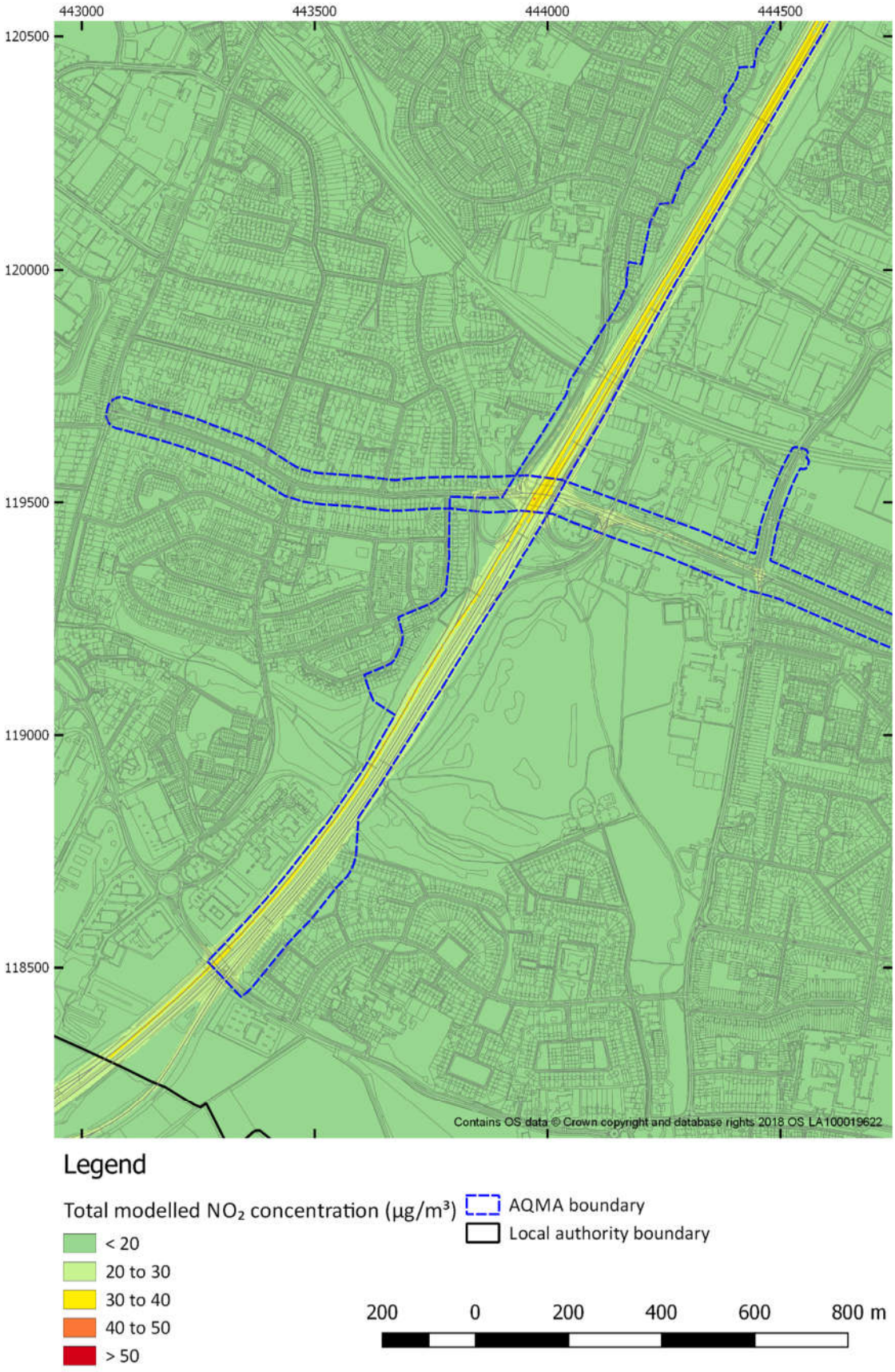


Figure 2-22 Annual mean NO_2 concentration model results for 2036 SGO C scenario AQMA No. 1 (A335 / Eastleigh) (West)

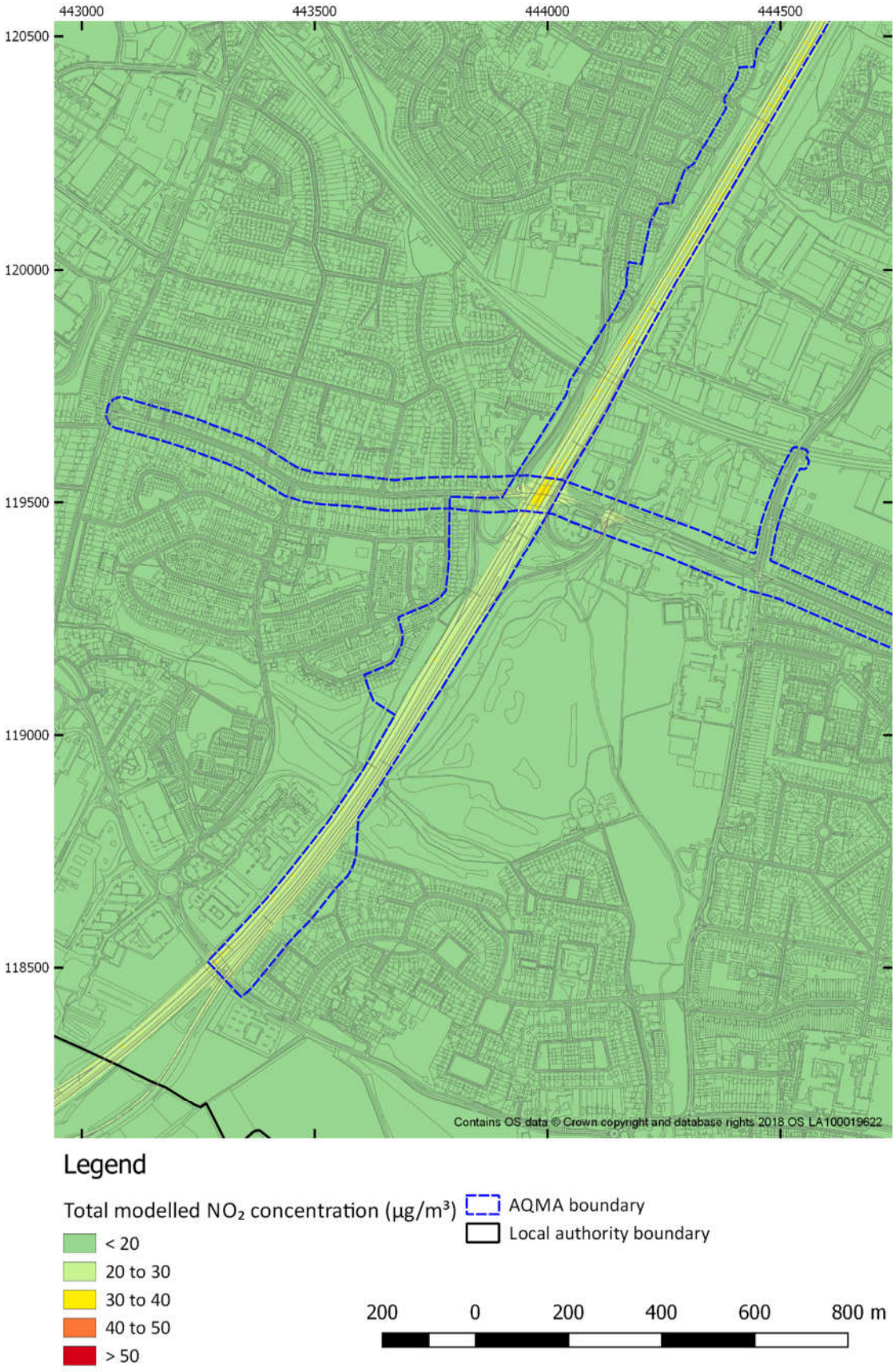


Figure 2-23 Annual mean NO_2 concentration model results for 2036 SGO D1 scenario AQMA No. 1 (A335 / Eastleigh) (West)

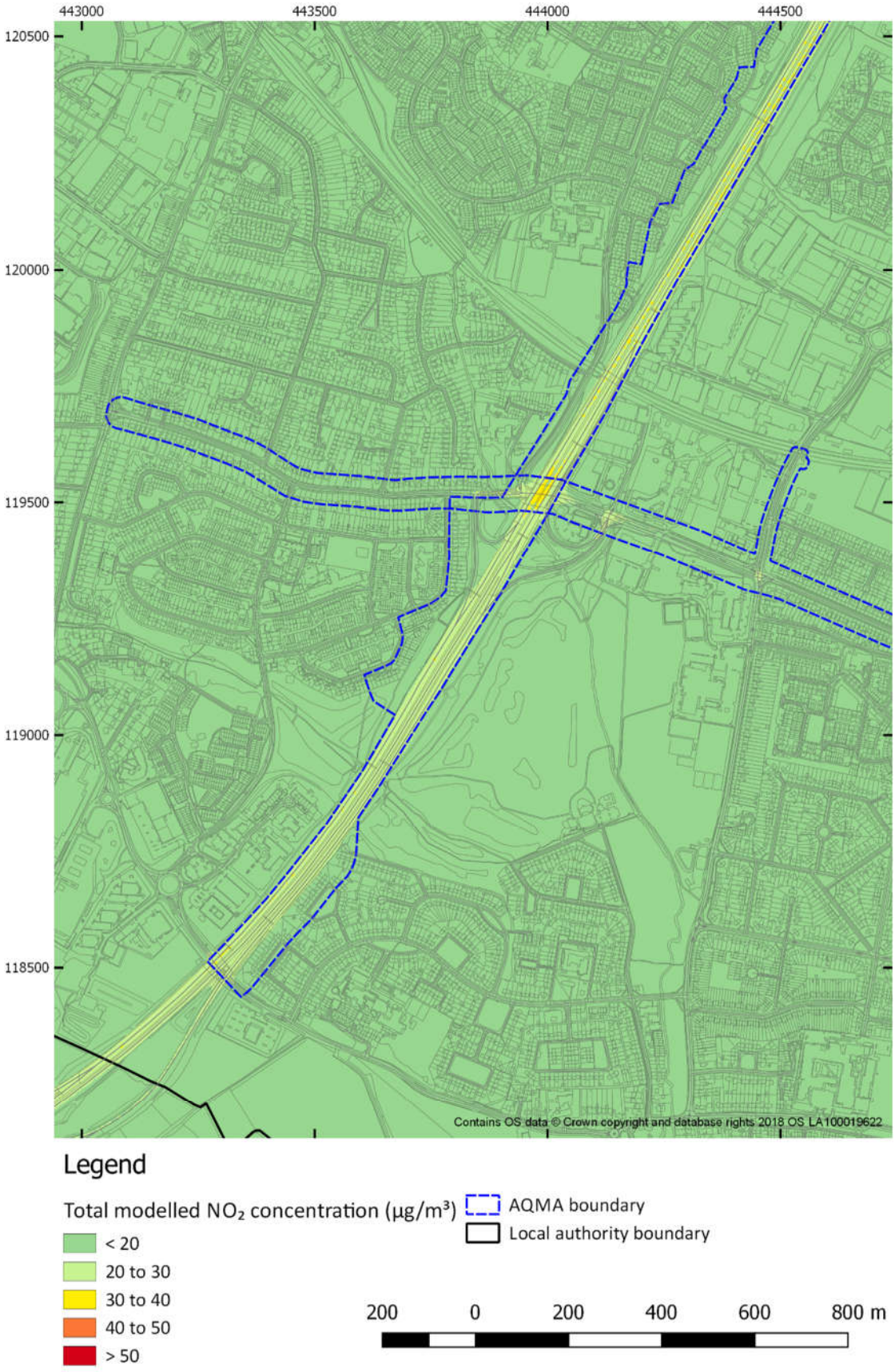


Figure 2-24 Annual mean NO_2 concentration model results for 2036 SGO D2 scenario AQMA No. 1 (A335 / Eastleigh) (West)

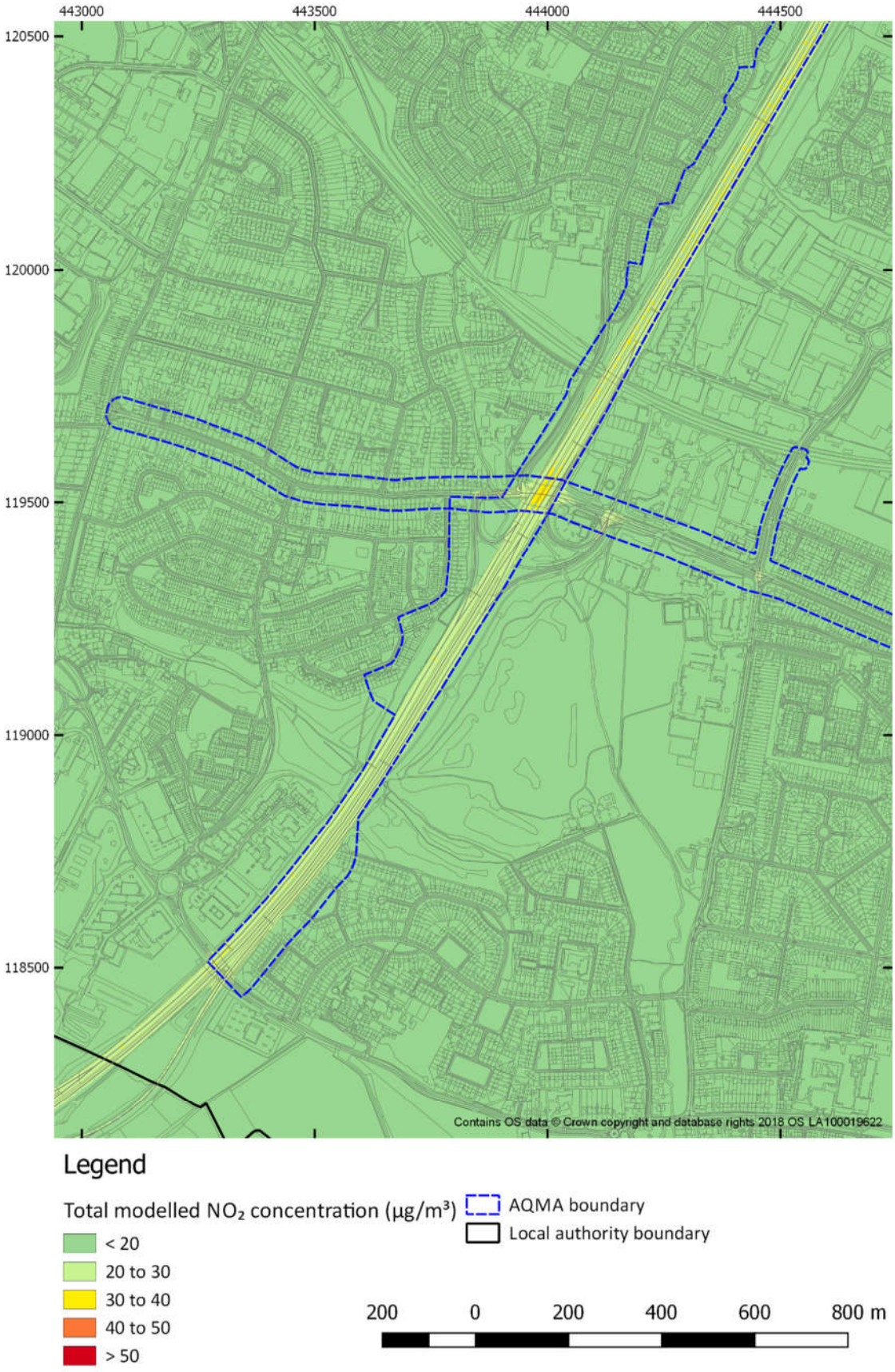


Figure 2-25 Annual mean NO_2 concentration model results for 2036 SGO E scenario AQMA No. 1 (A335 / Eastleigh) (West)

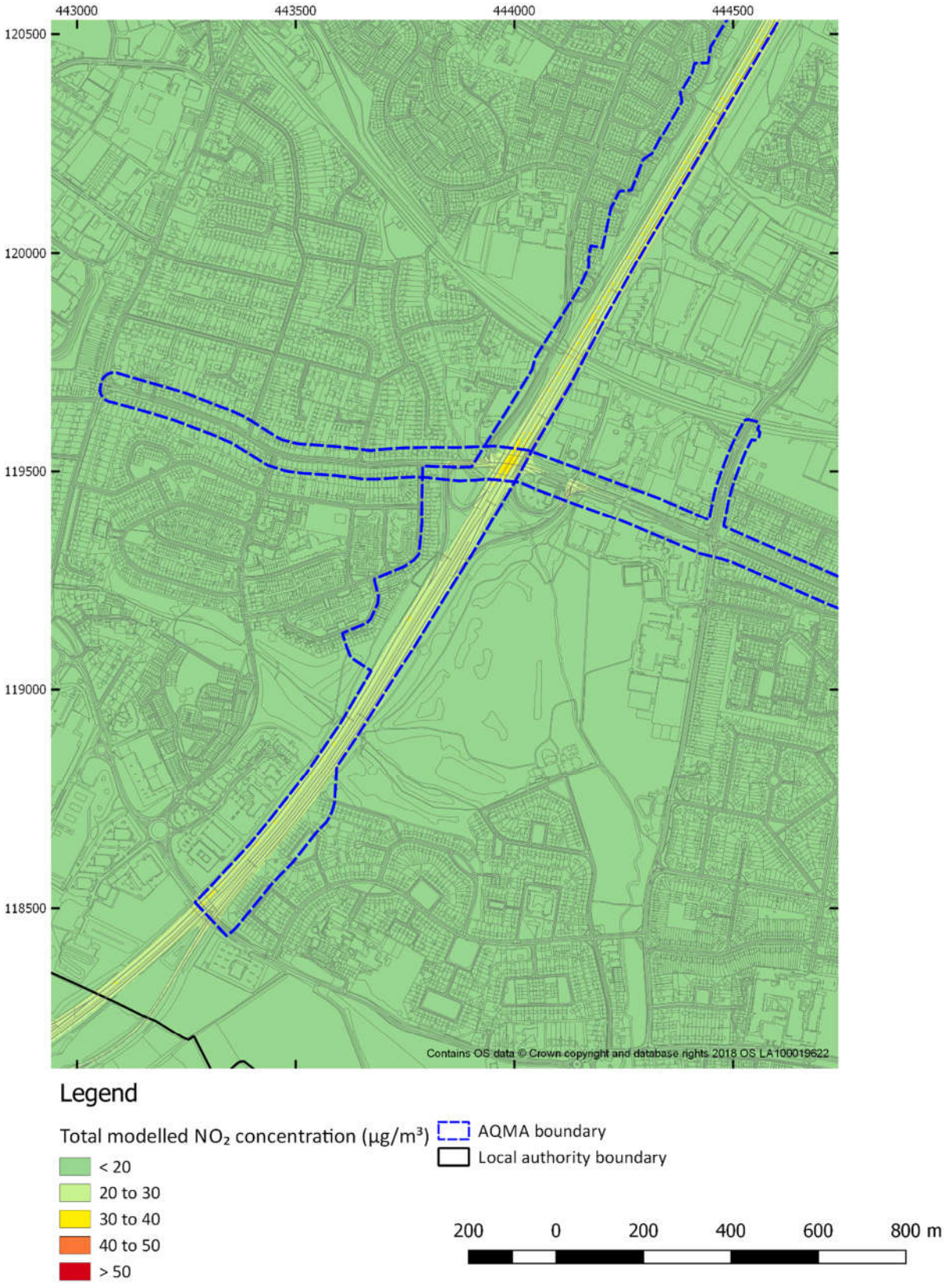


Figure 2-26 Annual mean NO_2 concentration model results for 2036 Baseline AQMA No. 1 (A335 / Eastleigh) (West)

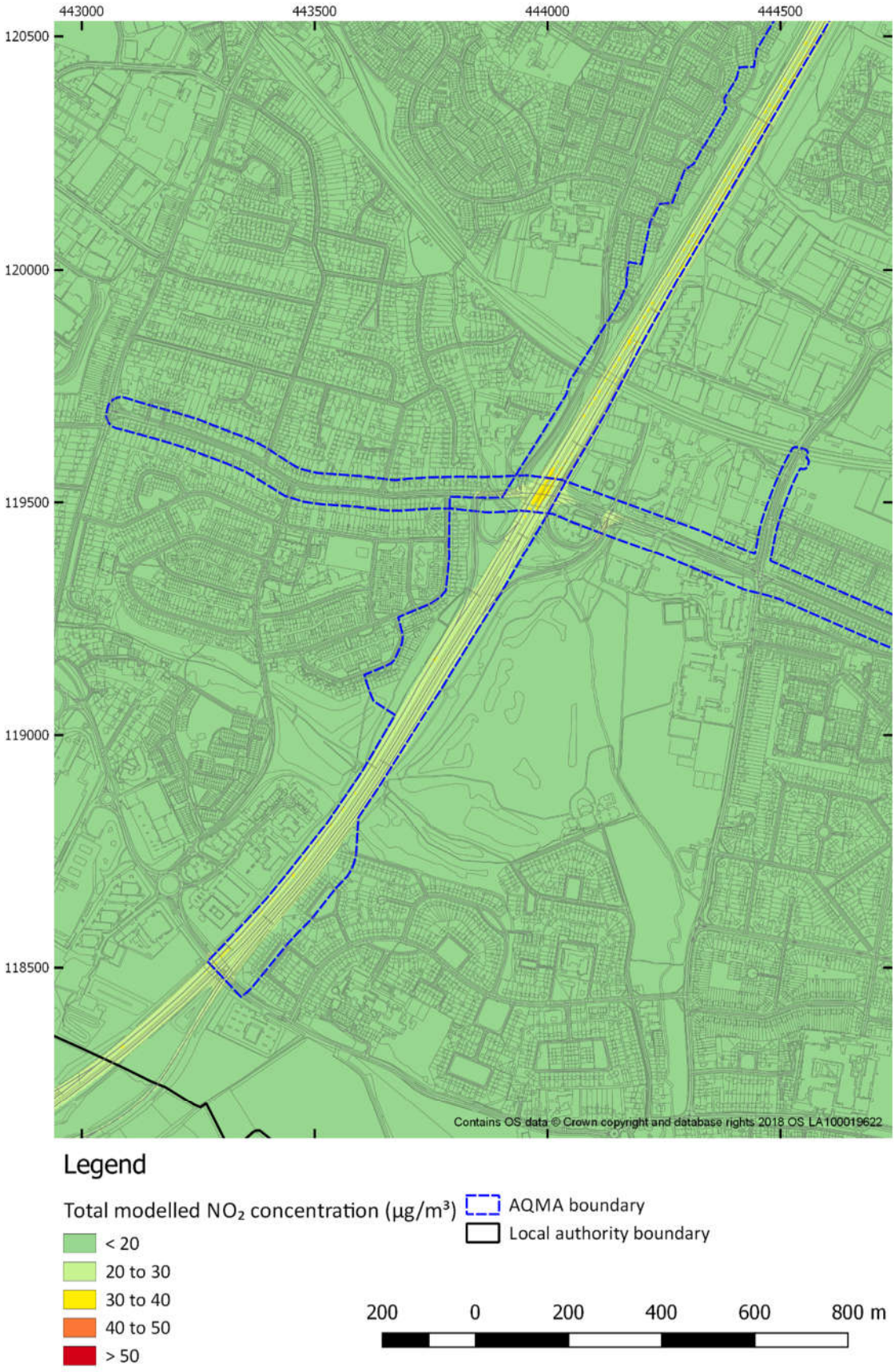


Figure 2-27 Annual mean NO_2 concentration model results for pseudo-2030 SGO C scenario AQMA No. 2 (M3) (North)

Figure 2-28 Annual mean NO_2 concentration model results for pseudo-2030 SGO D1 scenario AQMA No. 2 (M3) (North)

Figure 2-29 Annual mean NO_2 concentration model results for pseudo-2030 SGO D2 scenario AQMA No. 2 (M3) (North)

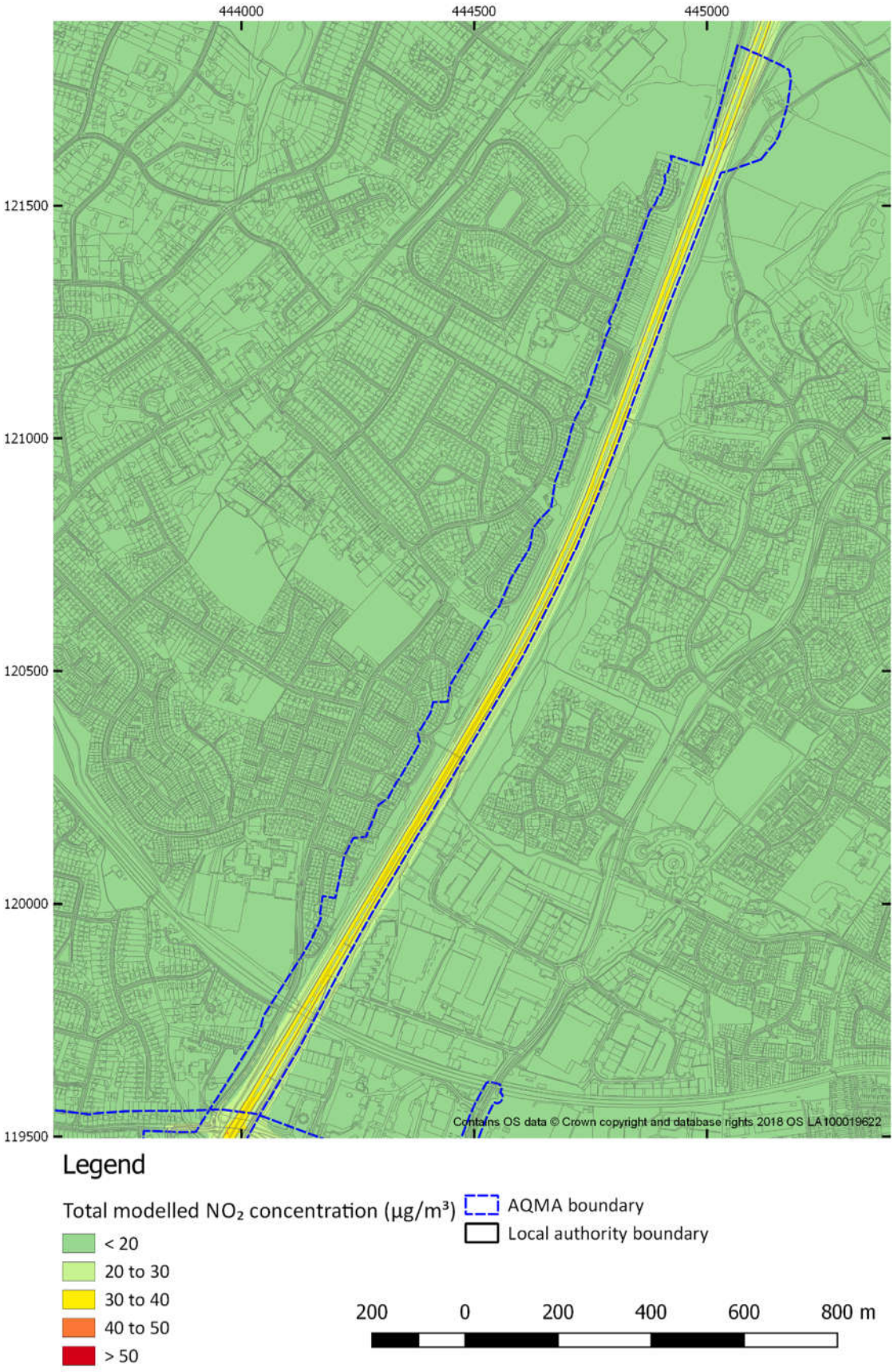


Figure 2-30 Annual mean NO_2 concentration model results for pseudo-2030 SGO E scenario AQMA No. 2 (M3) (North)

Figure 2-31 Annual mean NO_2 concentration model results for 2036 SGO C scenario AQMA No. 2 (M3) (North)

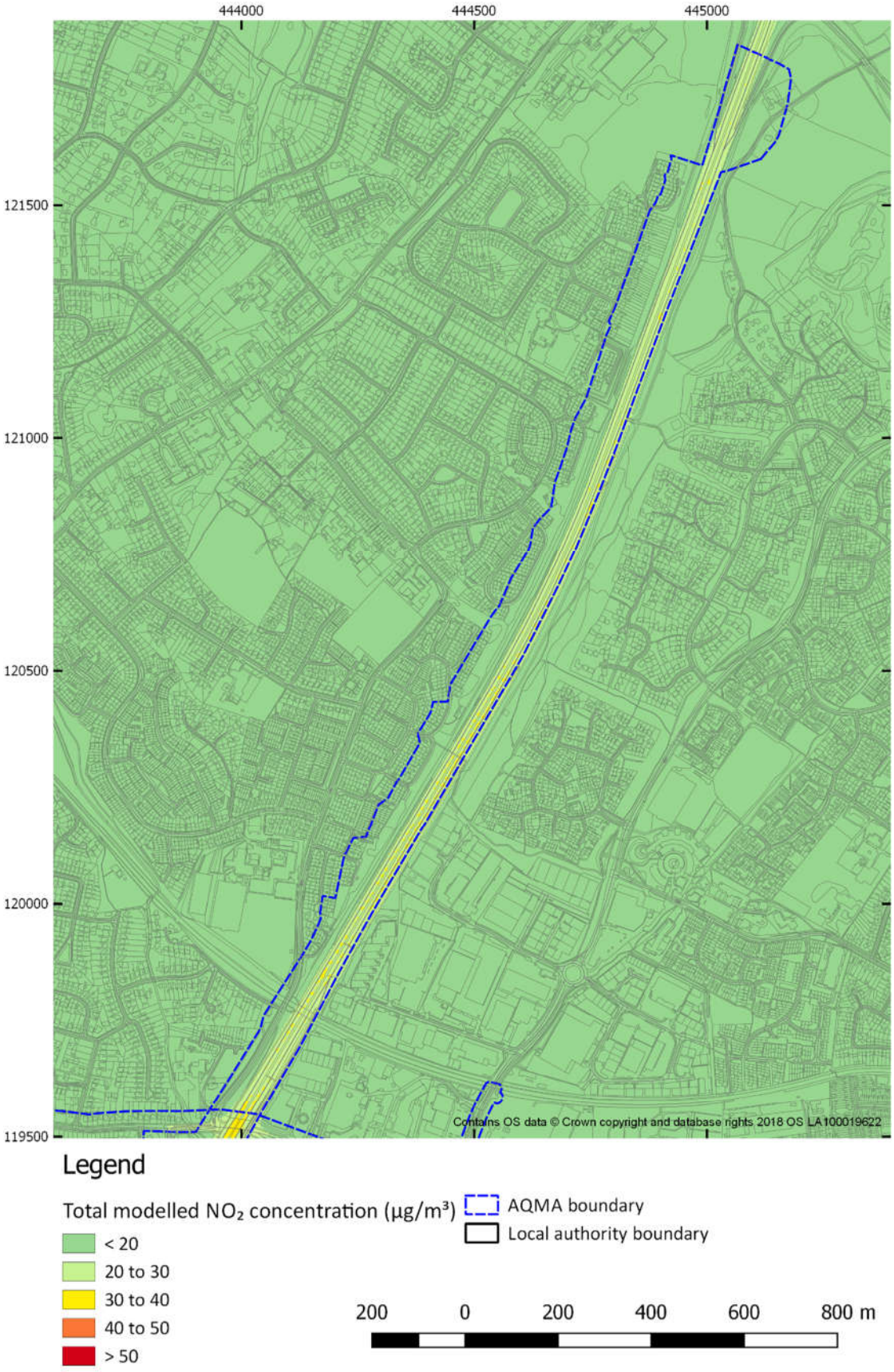


Figure 2-32 Annual mean NO_2 concentration model results for 2036 SGO D1 scenario AQMA No. 2 (M3) (North)

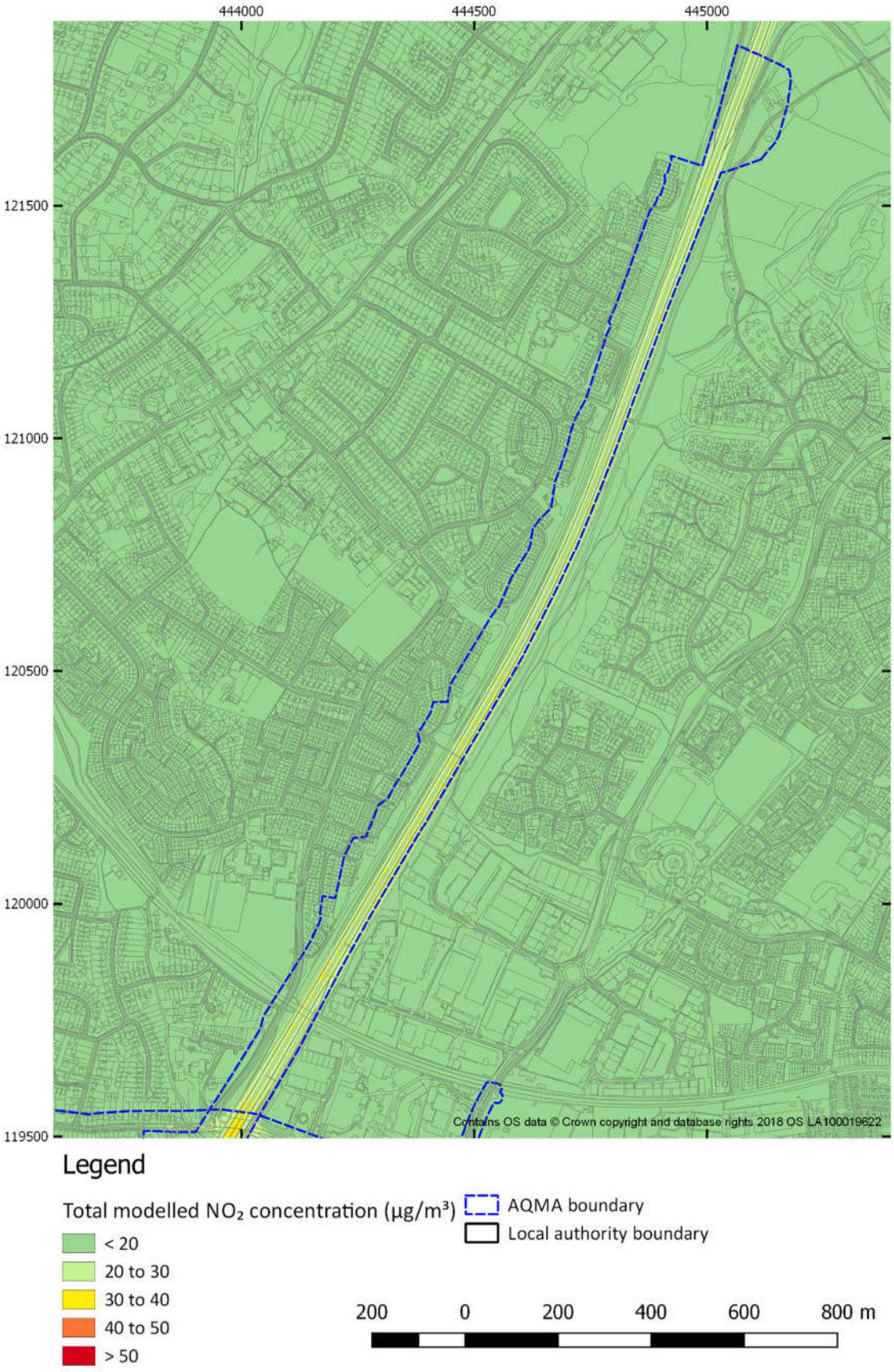


Figure 2-33 Annual mean NO_2 concentration model results for 2036 SGO D2 scenario AQMA No. 2 (M3) (North)

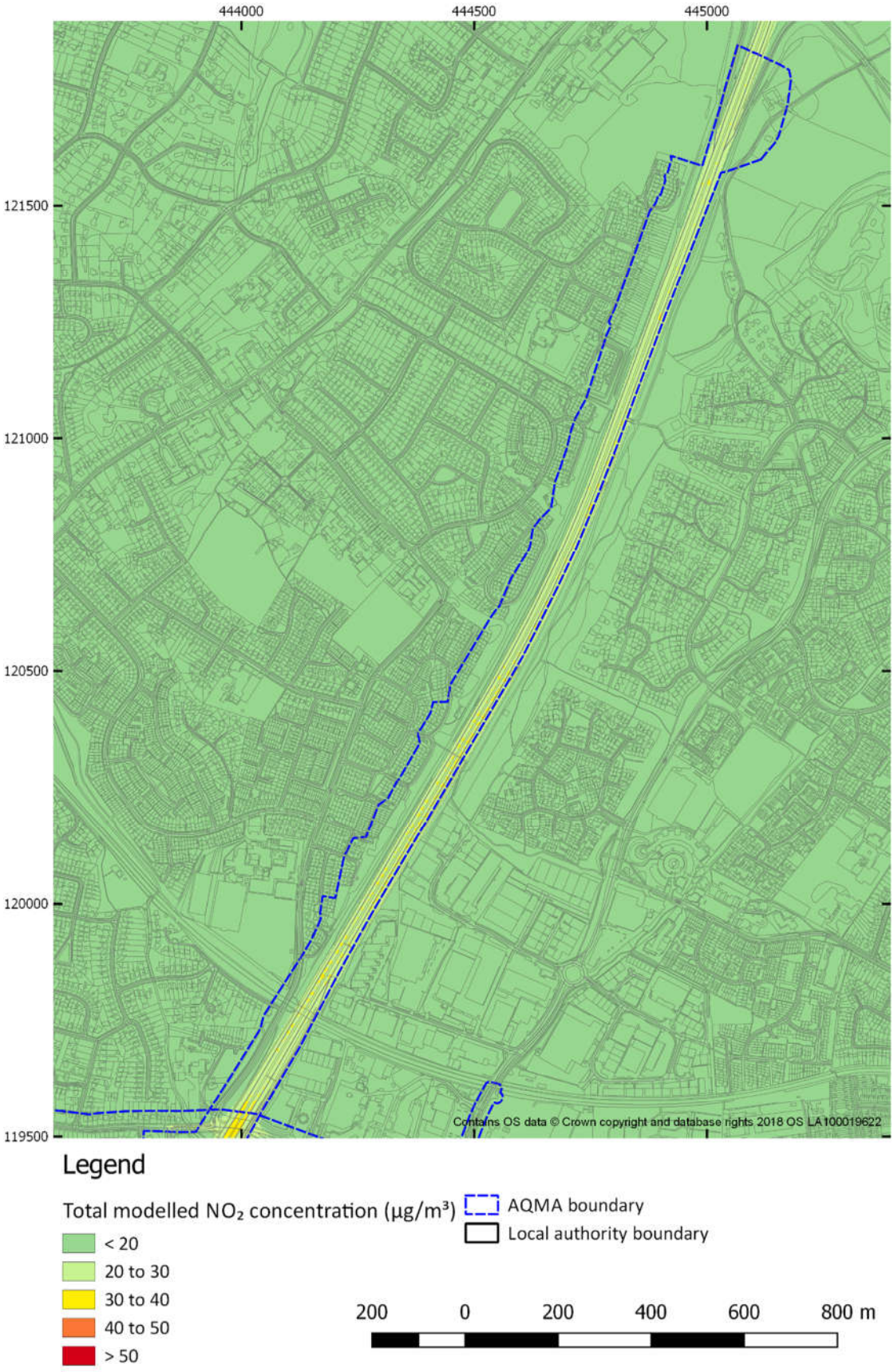


Figure 2-34 Annual mean NO_2 concentration model results for 2036 SGO E scenario AQMA No. 2 (M3) (North)

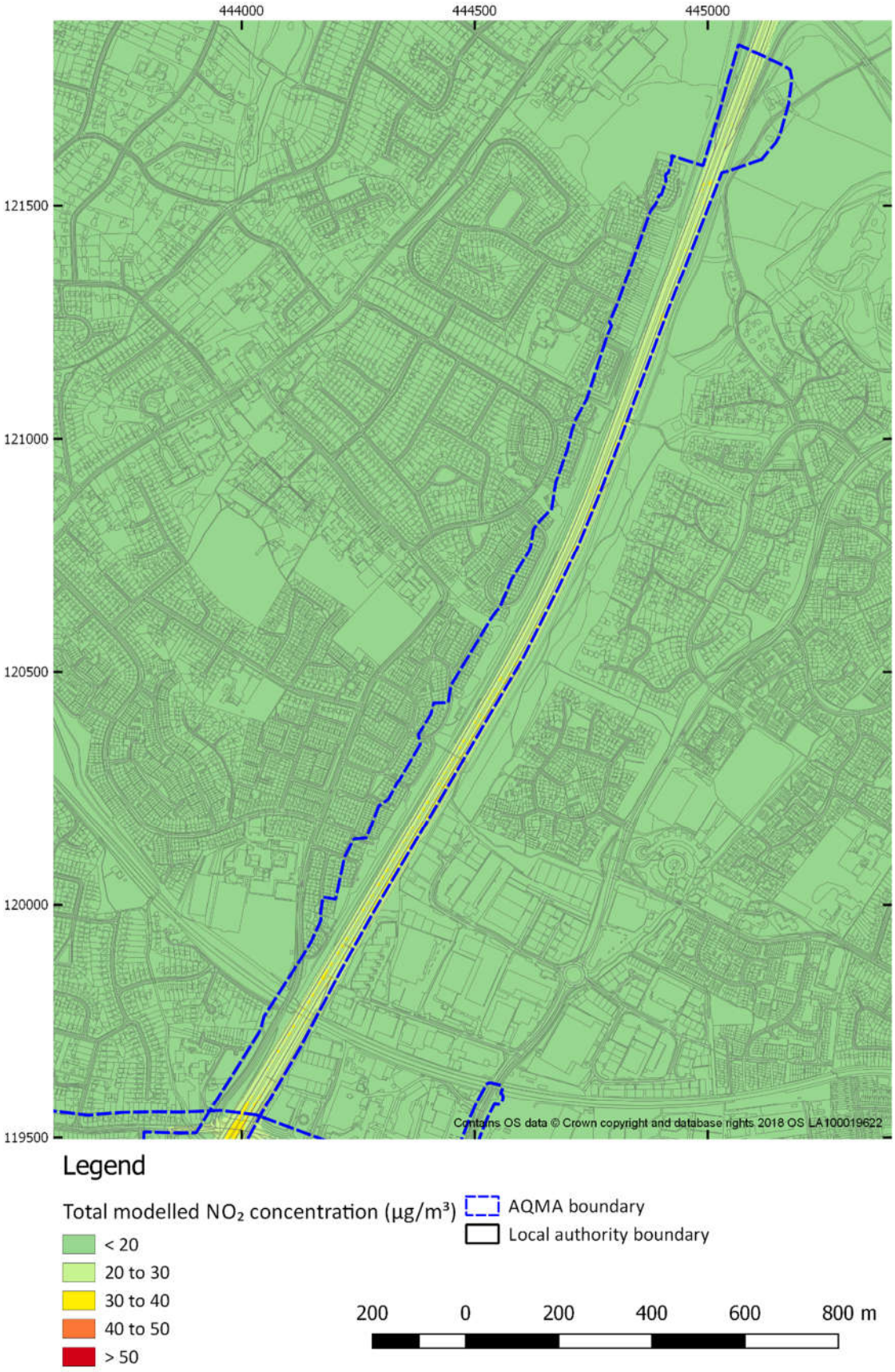
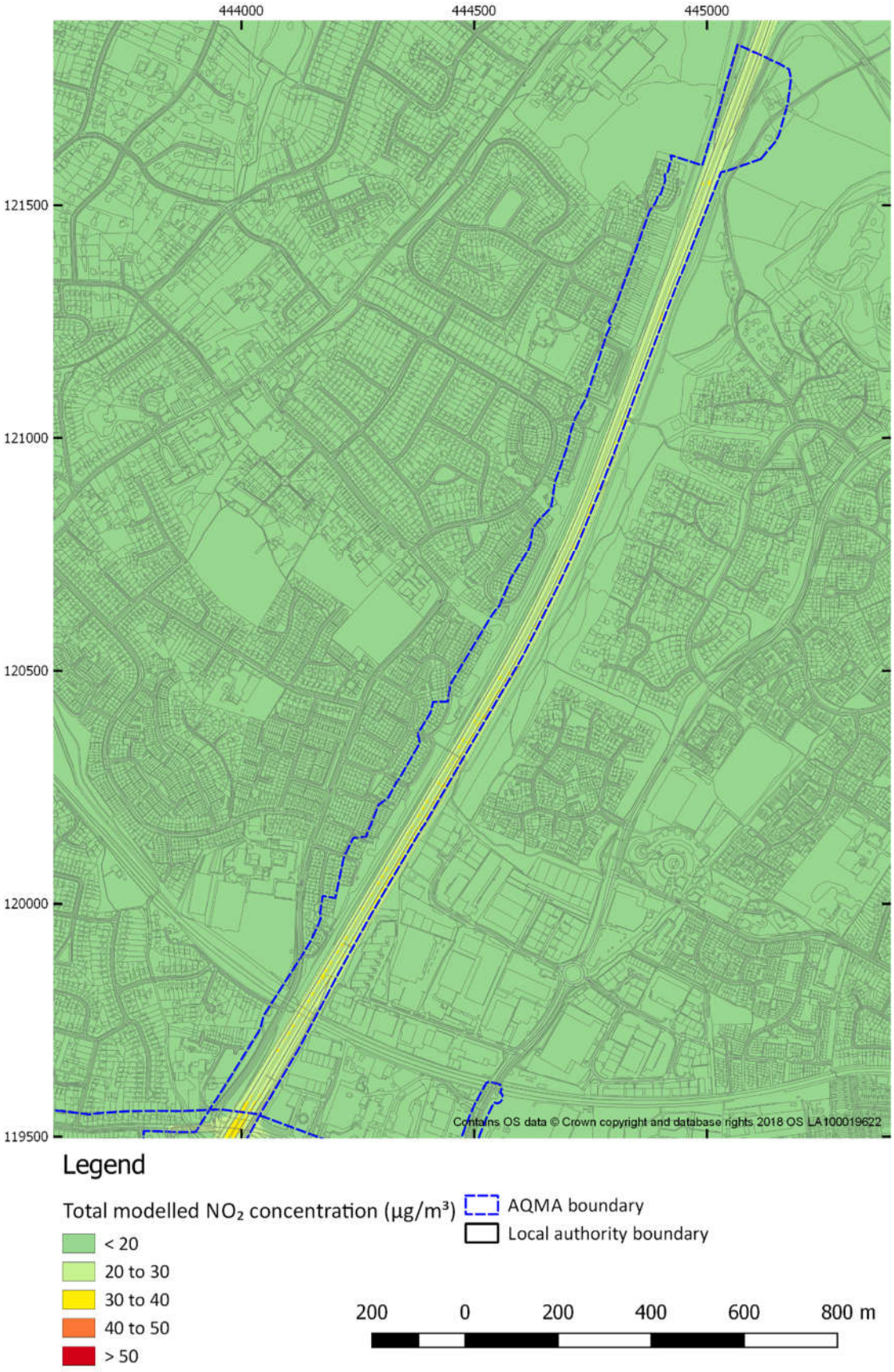


Figure 2-35 Annual mean NO_2 concentration model results for 2036 Baseline AQMA No. 2 (M3) (North)



2.3 AQMA 3

Figure 2-36 Annual mean NO_2 concentration model results for pseudo-2030 SGO C scenario AQMA No. 3 (Hamble Lane)

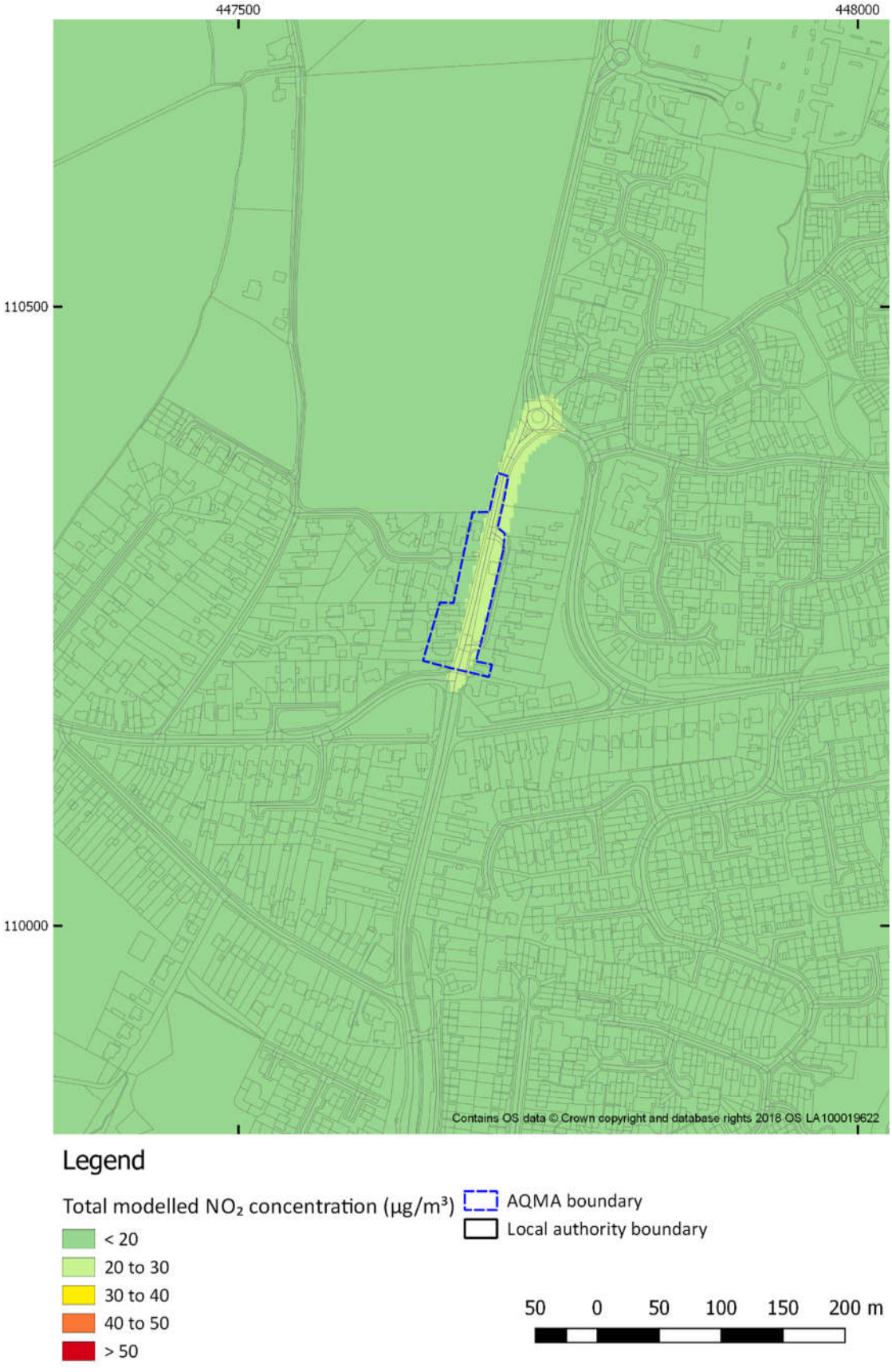


Figure 2-37 Annual mean NO_2 concentration model results for pseudo-2030 SGO D1 scenario AQMA No. 3 (Hamble Lane)

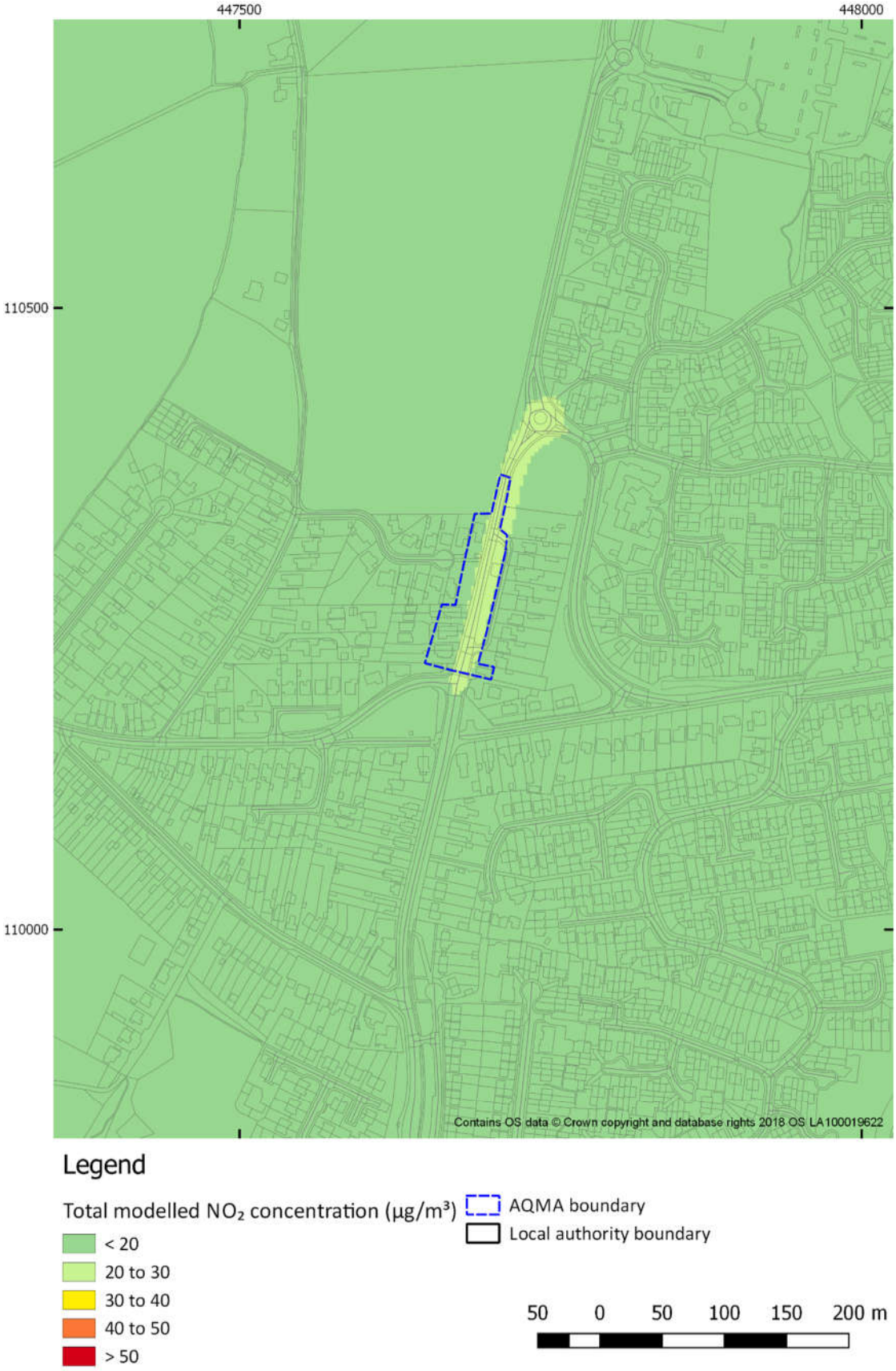


Figure 2-38 Annual mean NO_2 concentration model results for pseudo-2030 SGO D2 scenario AQMA No. 3 (Hamble Lane)

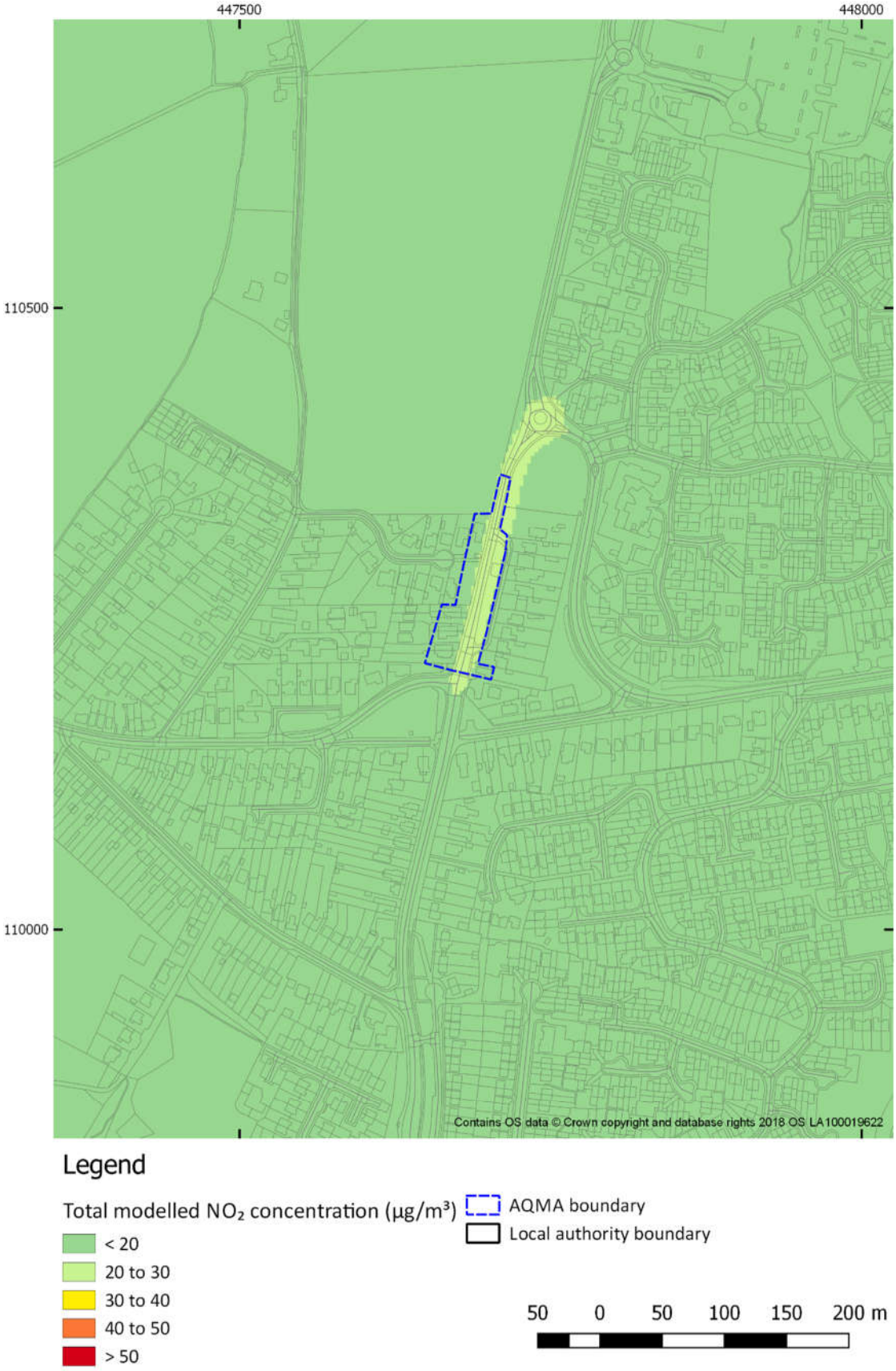


Figure 2-39 Annual mean NO_2 concentration model results for pseudo-2030 SGO E scenario AQMA No. 3 (Hamble Lane)

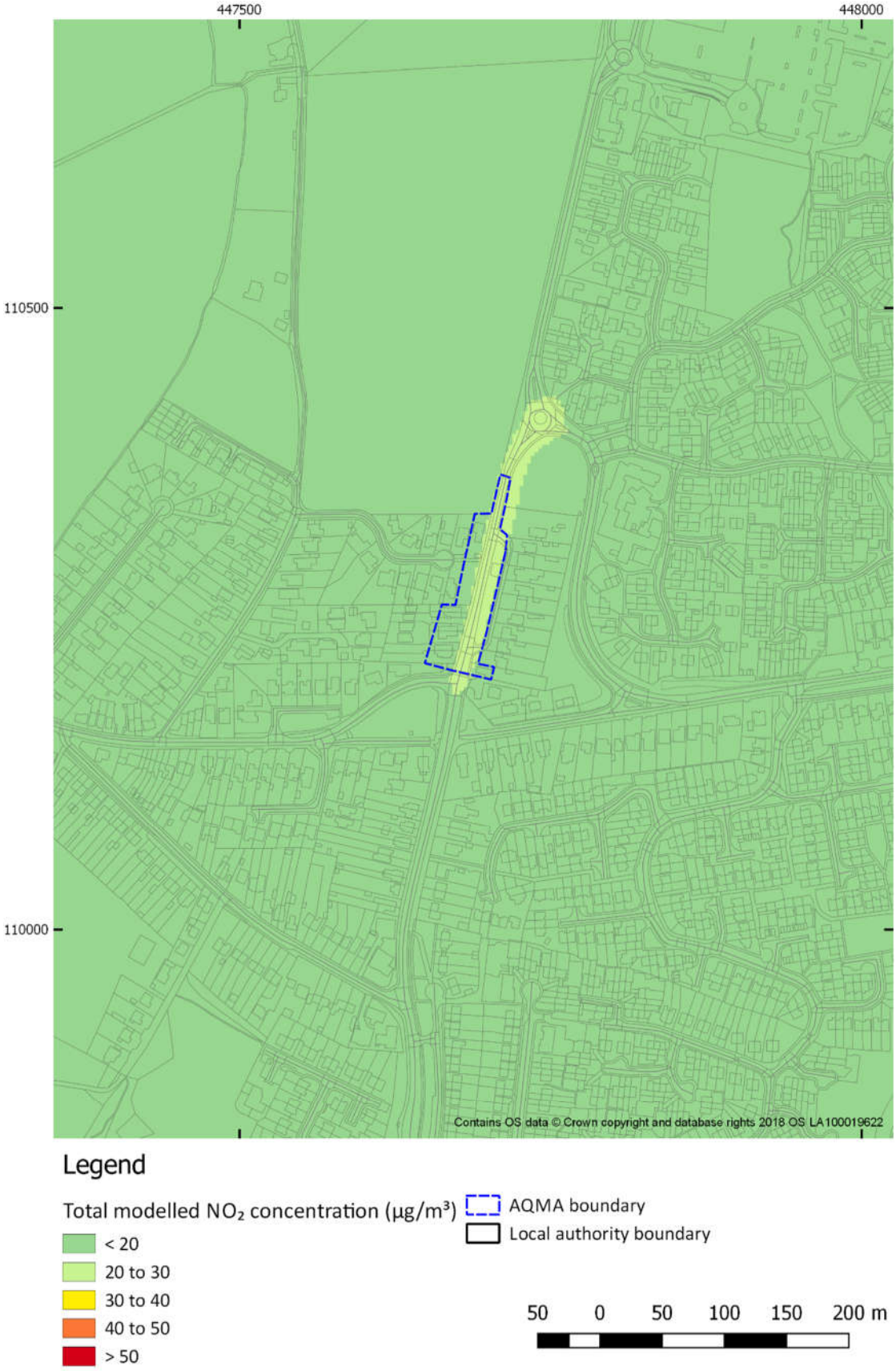


Figure 2-40 Annual mean NO_2 concentration model results for 2036 SGO C scenario AQMA No. 3 (Hamble Lane)

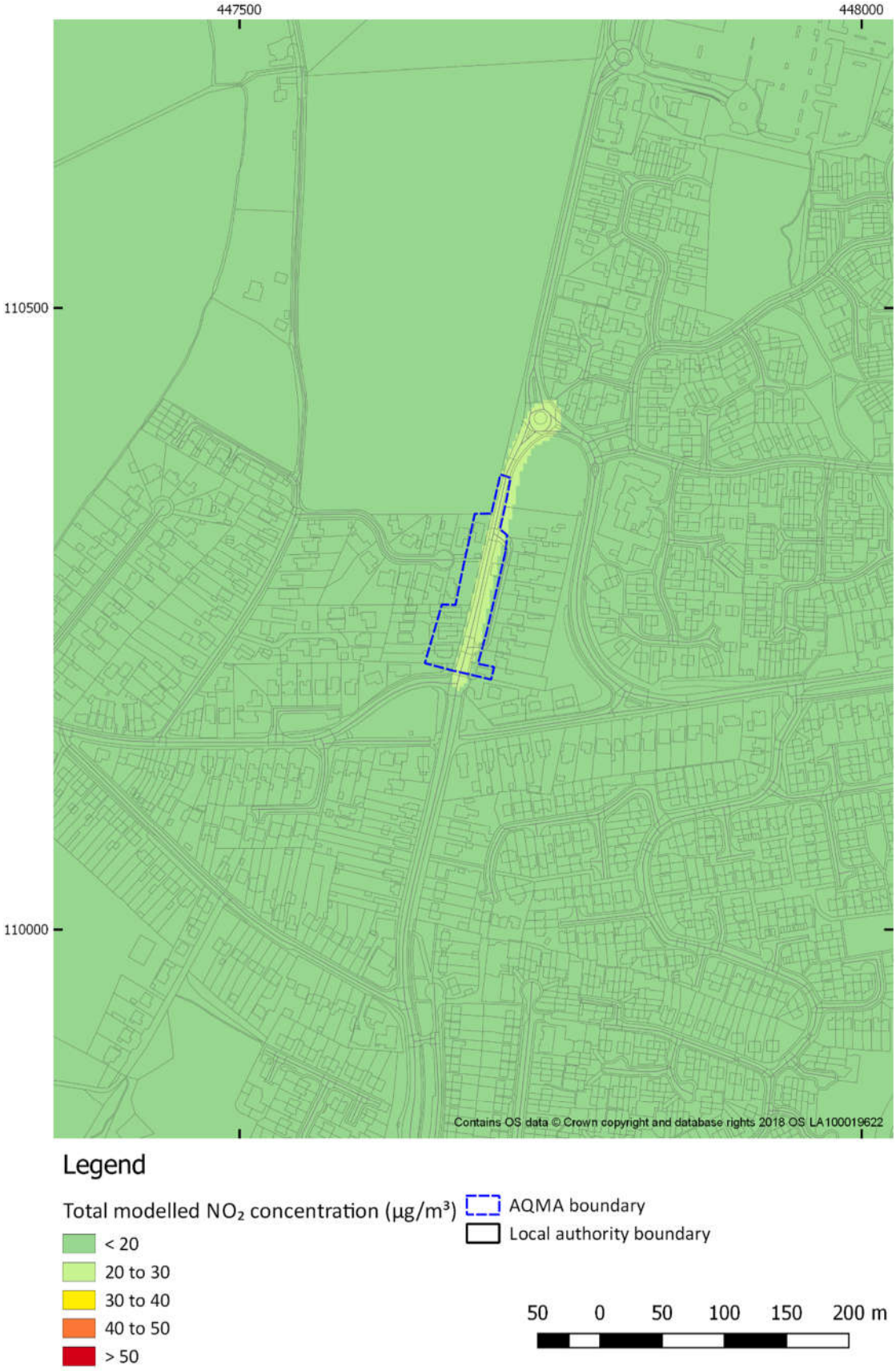


Figure 2-41 Annual mean NO_2 concentration model results for 2036 SGO D1 scenario AQMA No. 3 (Hamble Lane)

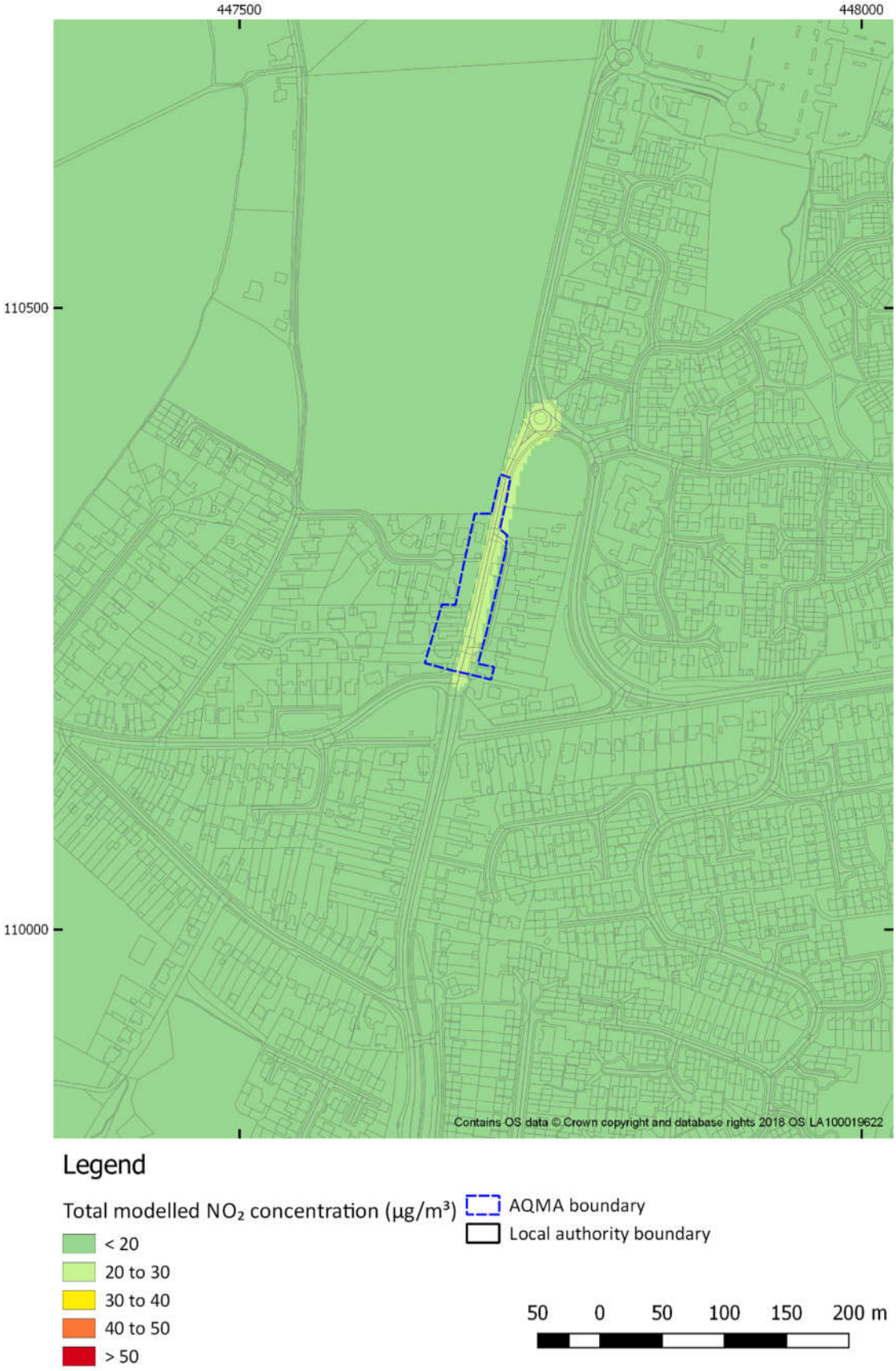


Figure 2-42 Annual mean NO_2 concentration model results for 2036 SGO D2 scenario AQMA No. 3 (Hamble Lane)

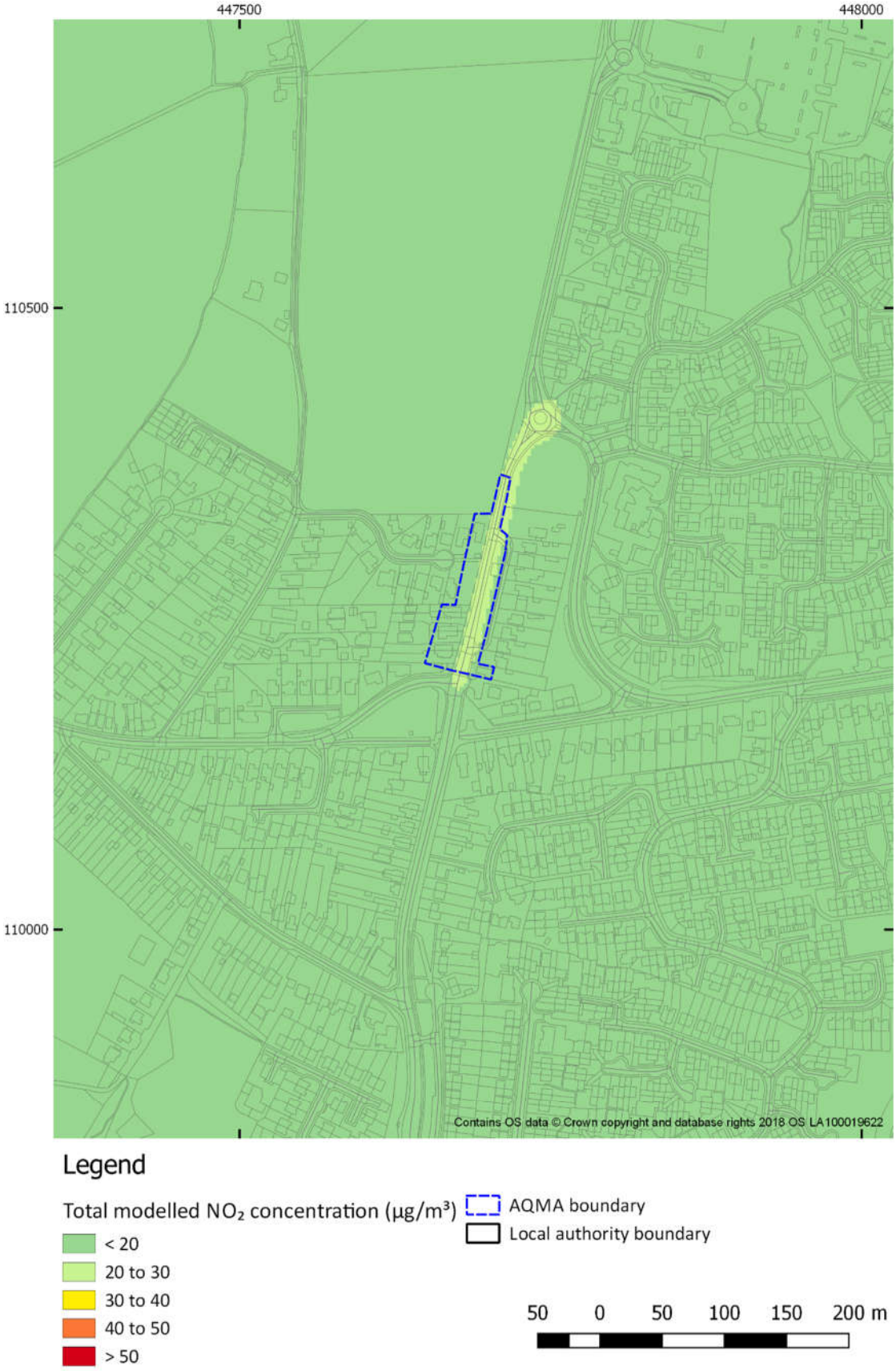


Figure 2-43 Annual mean NO_2 concentration model results for 2036 SGO E scenario AQMA No. 3 (Hamble Lane)

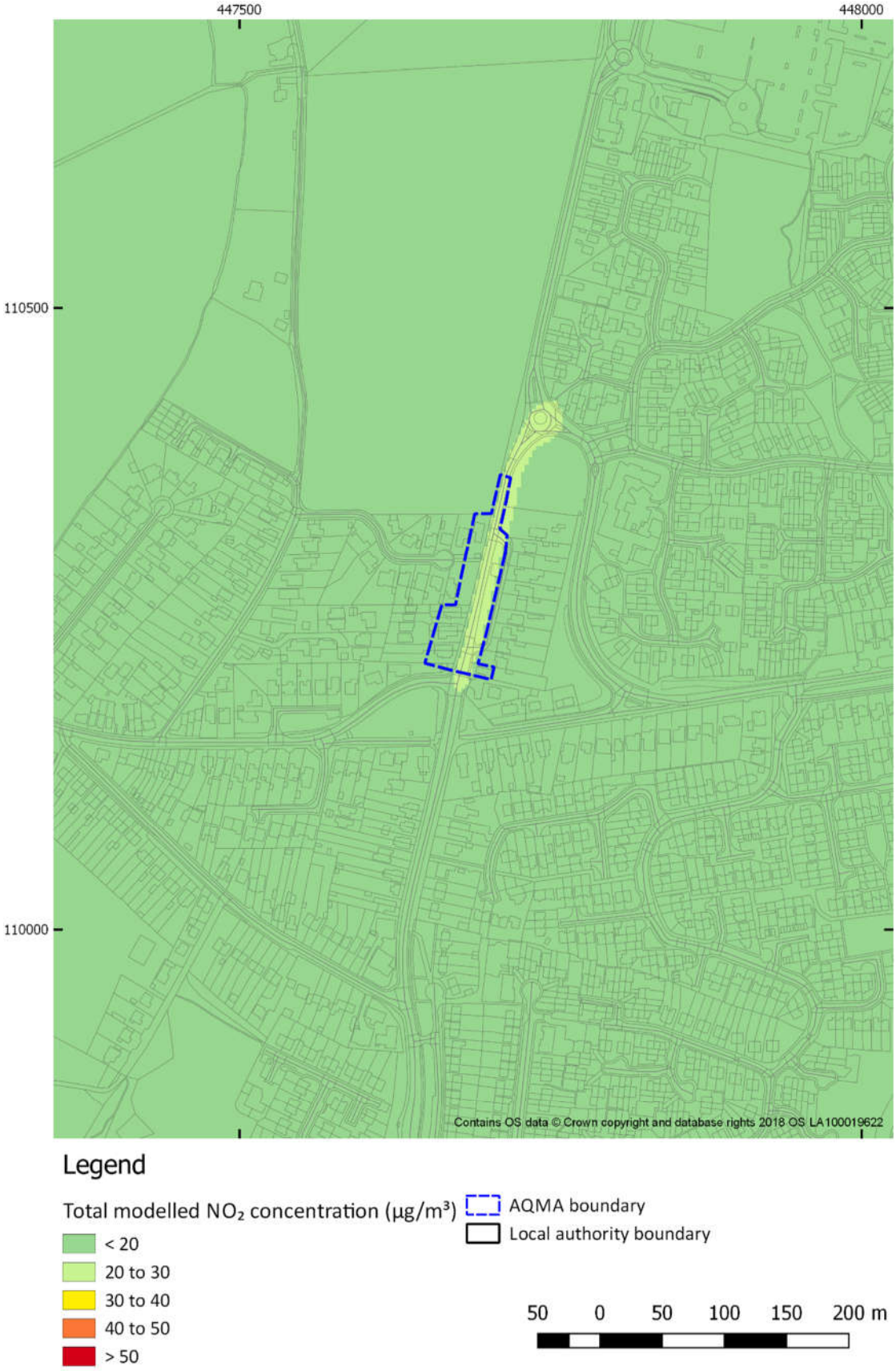
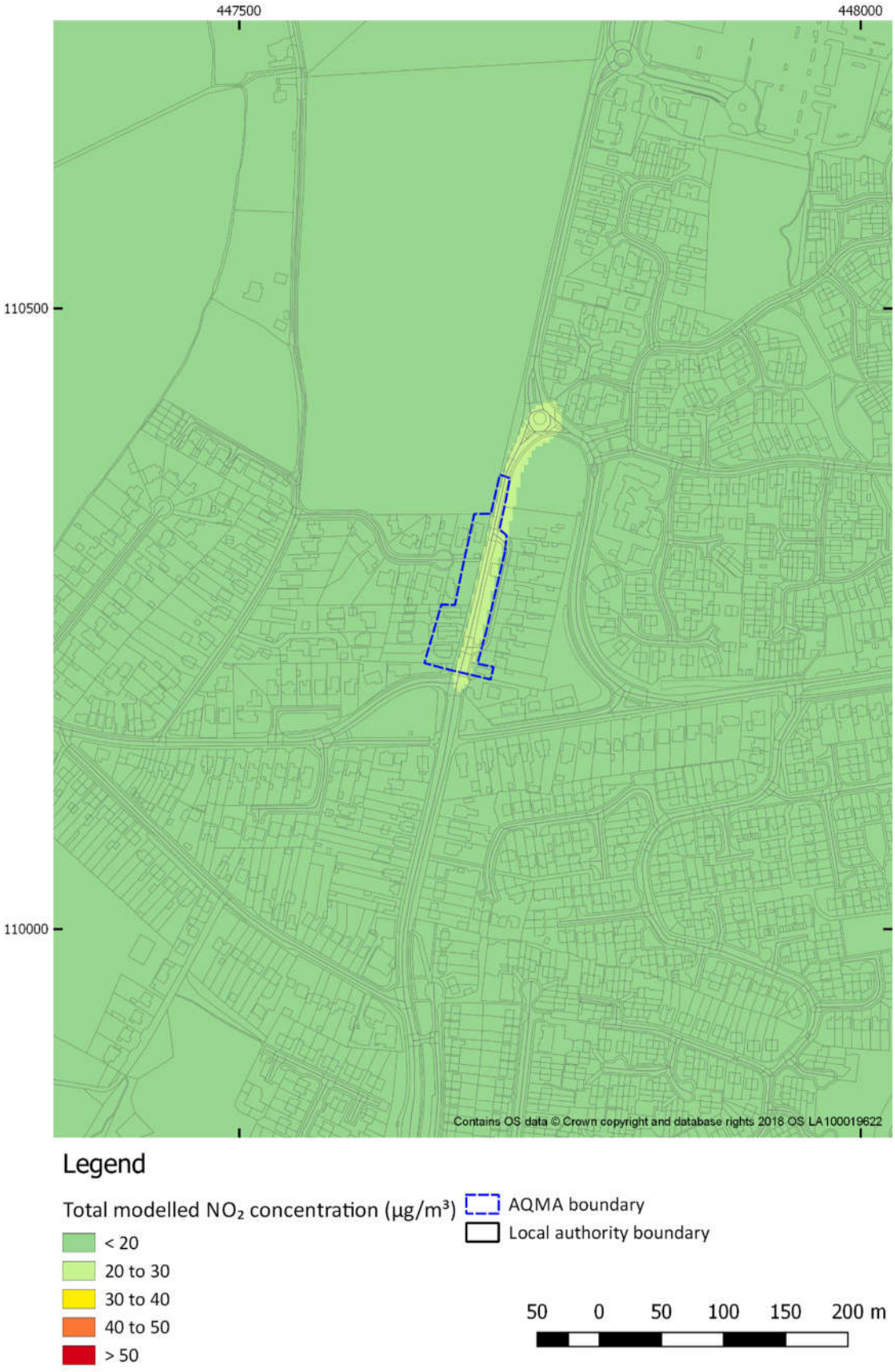


Figure 2-44 Annual mean NO_2 concentration model results for 2036 Baseline AQMA No. 3 (Hamble Lane)



2.4 AQMA 4

Figure 2-45 Annual mean NO_2 concentration model results for pseudo-2030 SGO C scenario AQMA No. 4 (High Street Botley)

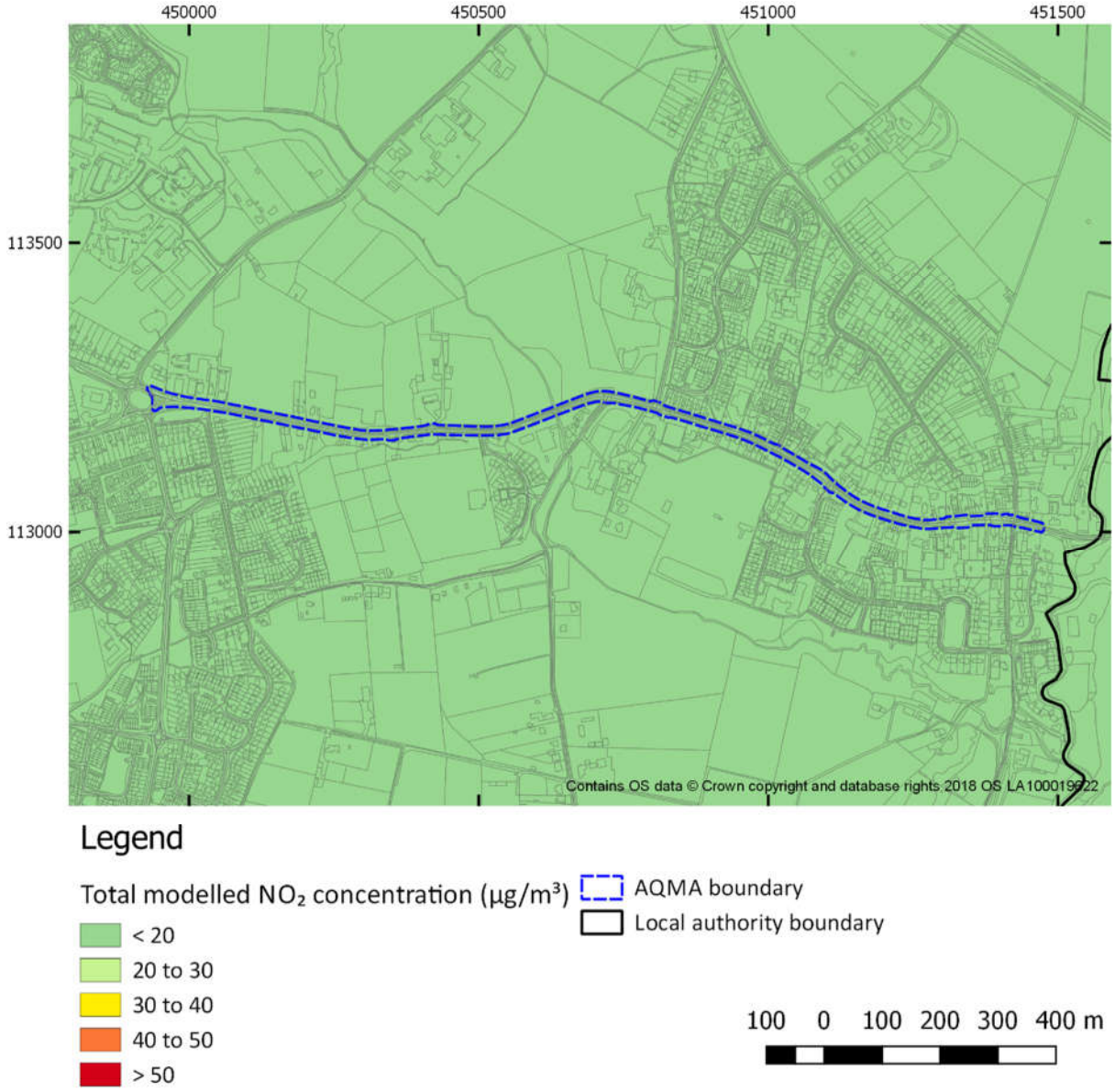


Figure 2-46 Annual mean NO_2 concentration model results for pseudo-2030 SGO D1 scenario AQMA No. 4 (High Street Botley)

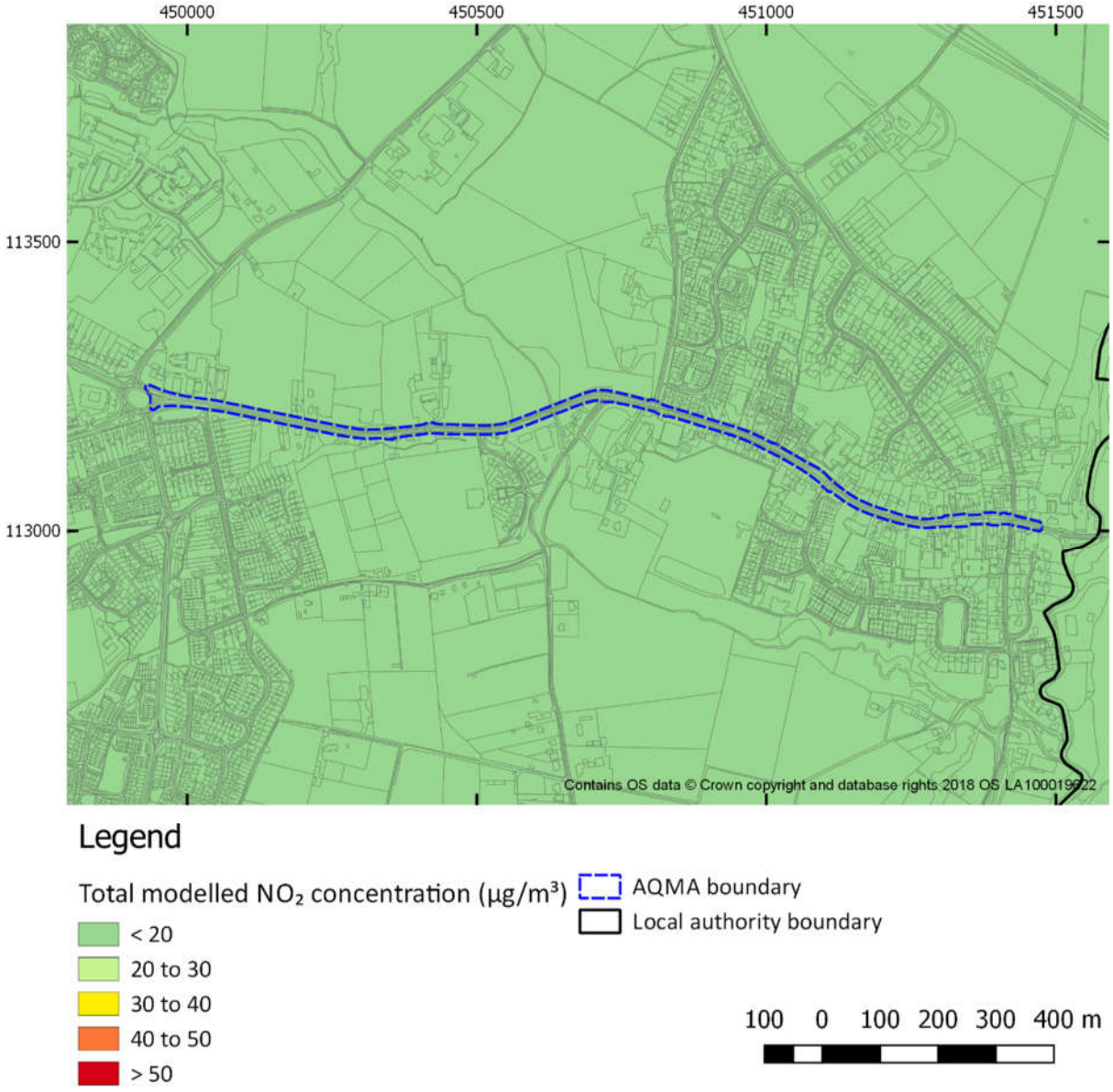


Figure 2-47 Annual mean NO_2 concentration model results for pseudo-2030 SGO D2 scenario AQMA No. 4 (High Street Botley)

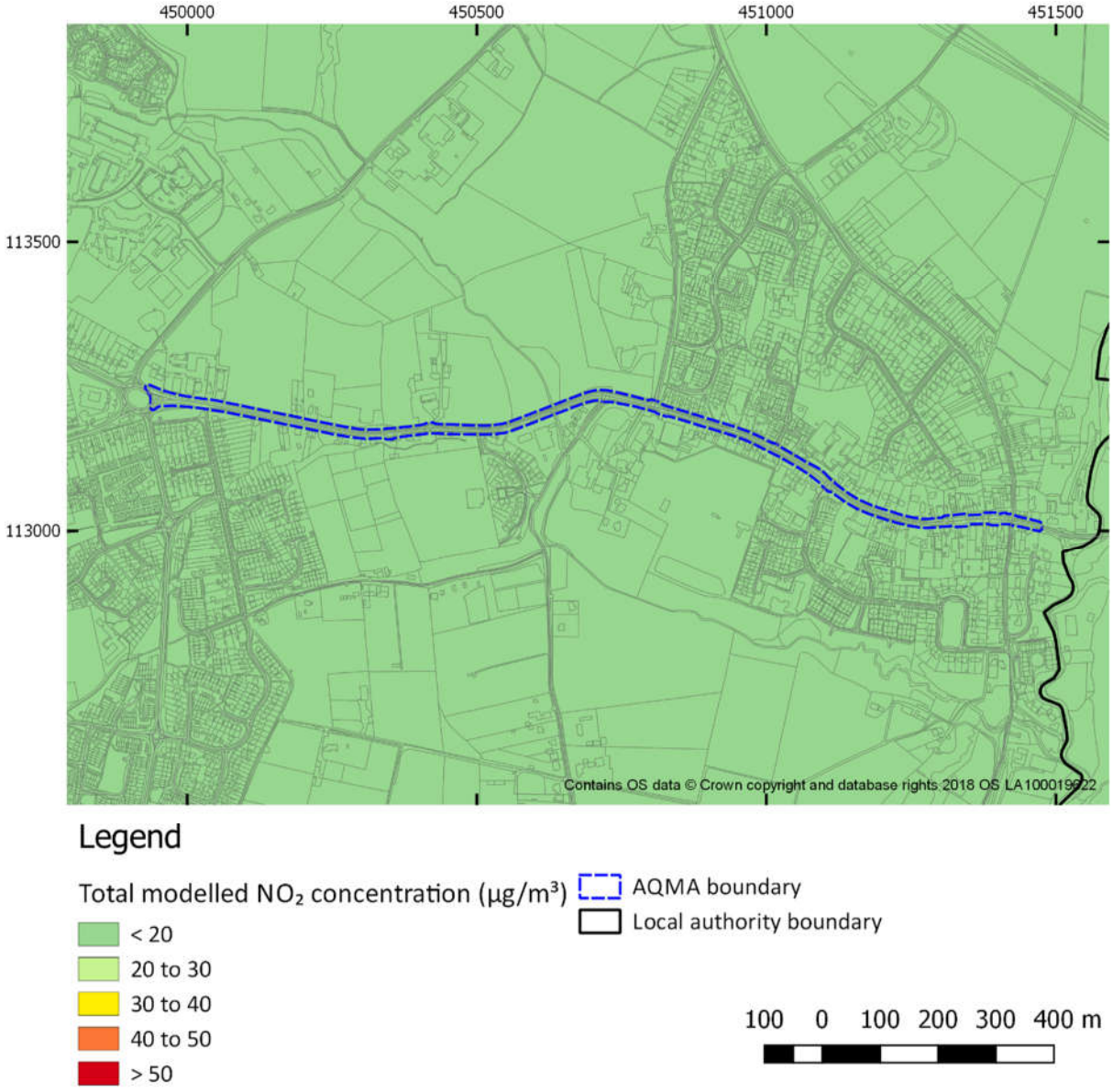


Figure 2-48 Annual mean NO_2 concentration model results for pseudo-2030 SGO E scenario AQMA No. 4 (High Street Botley)

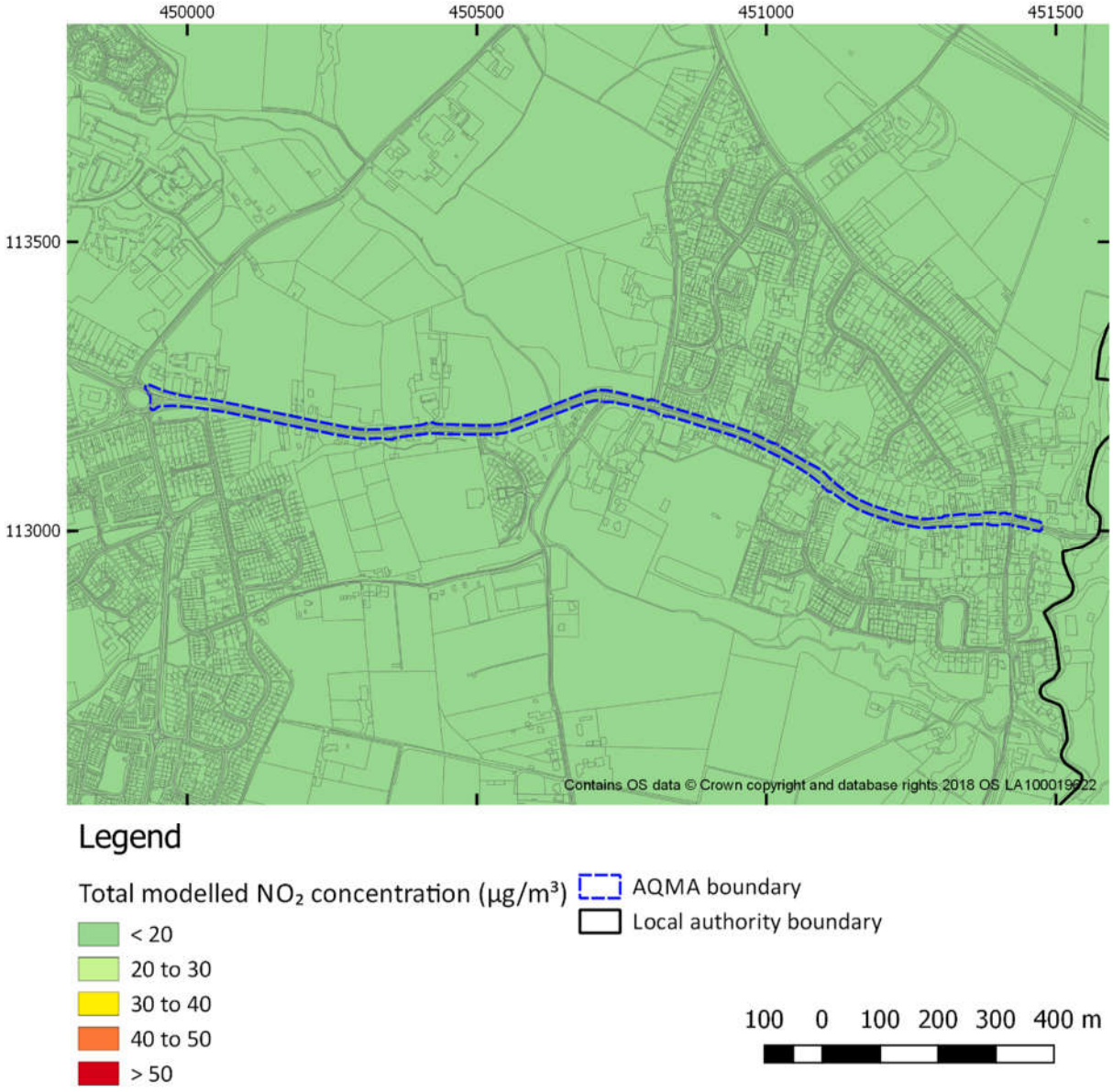


Figure 2-49 Annual mean NO_2 concentration model results for 2036 SGO C scenario AQMA No. 4 (High Street Botley)

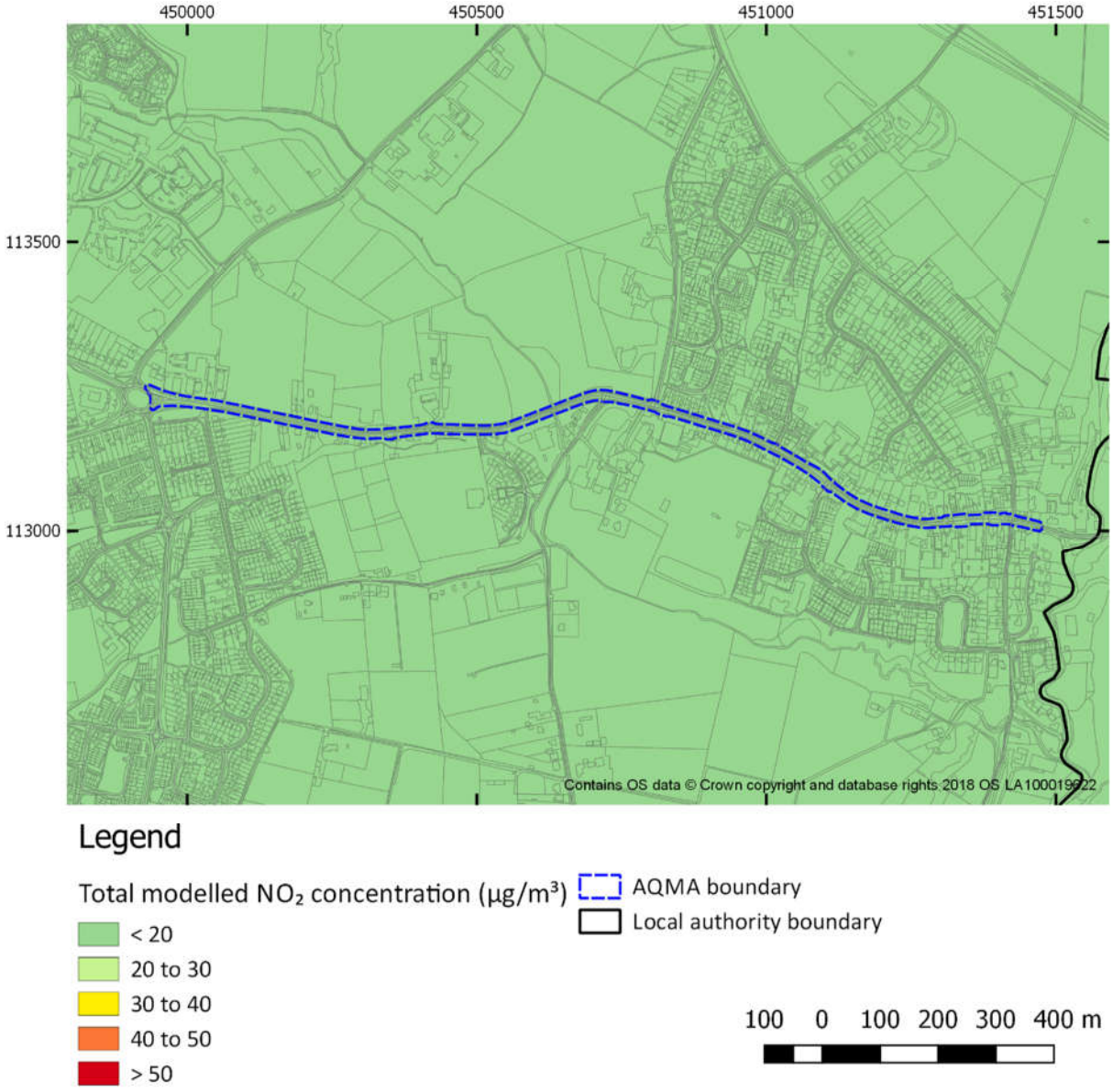


Figure 2-50 Annual mean NO_2 concentration model results for 2036 SGO D1 scenario AQMA No. 4 (High Street Botley)

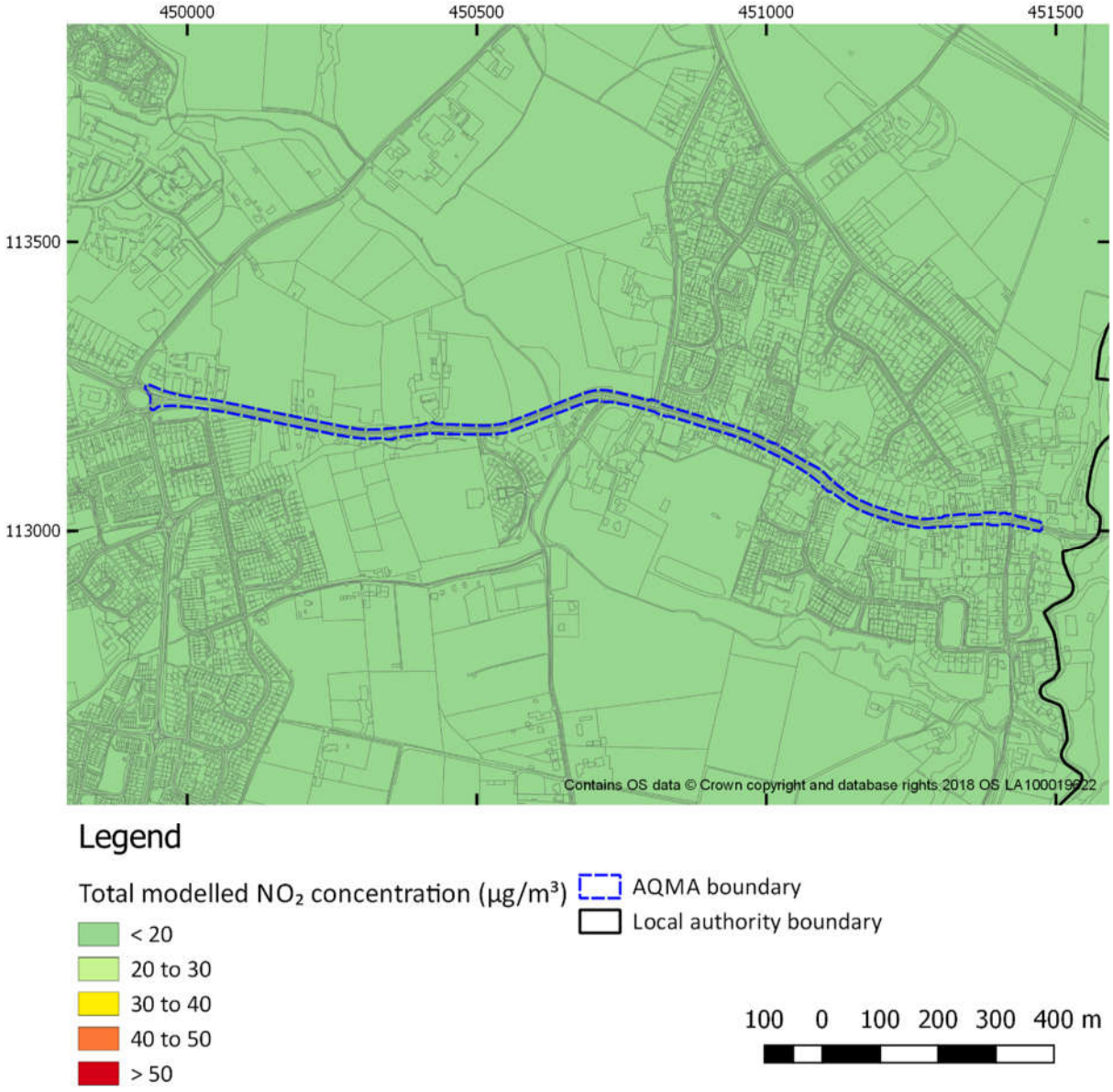


Figure 2-51 Annual mean NO_2 concentration model results for 2036 SGO D2 scenario AQMA No. 4 (High Street Botley)

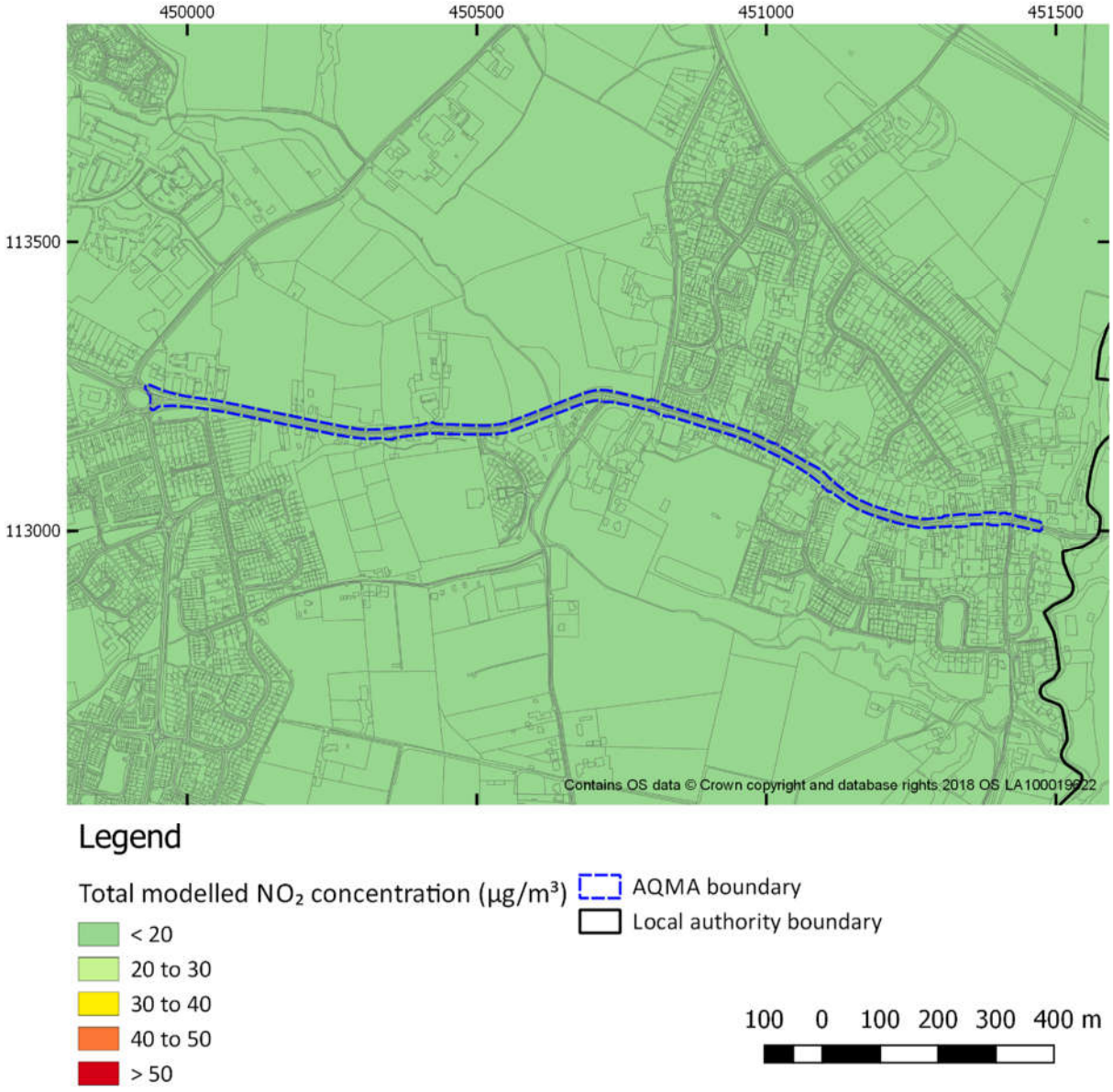


Figure 2-52 Annual mean NO_2 concentration model results for 2036 SGO E scenario AQMA No. 4 (High Street Botley)

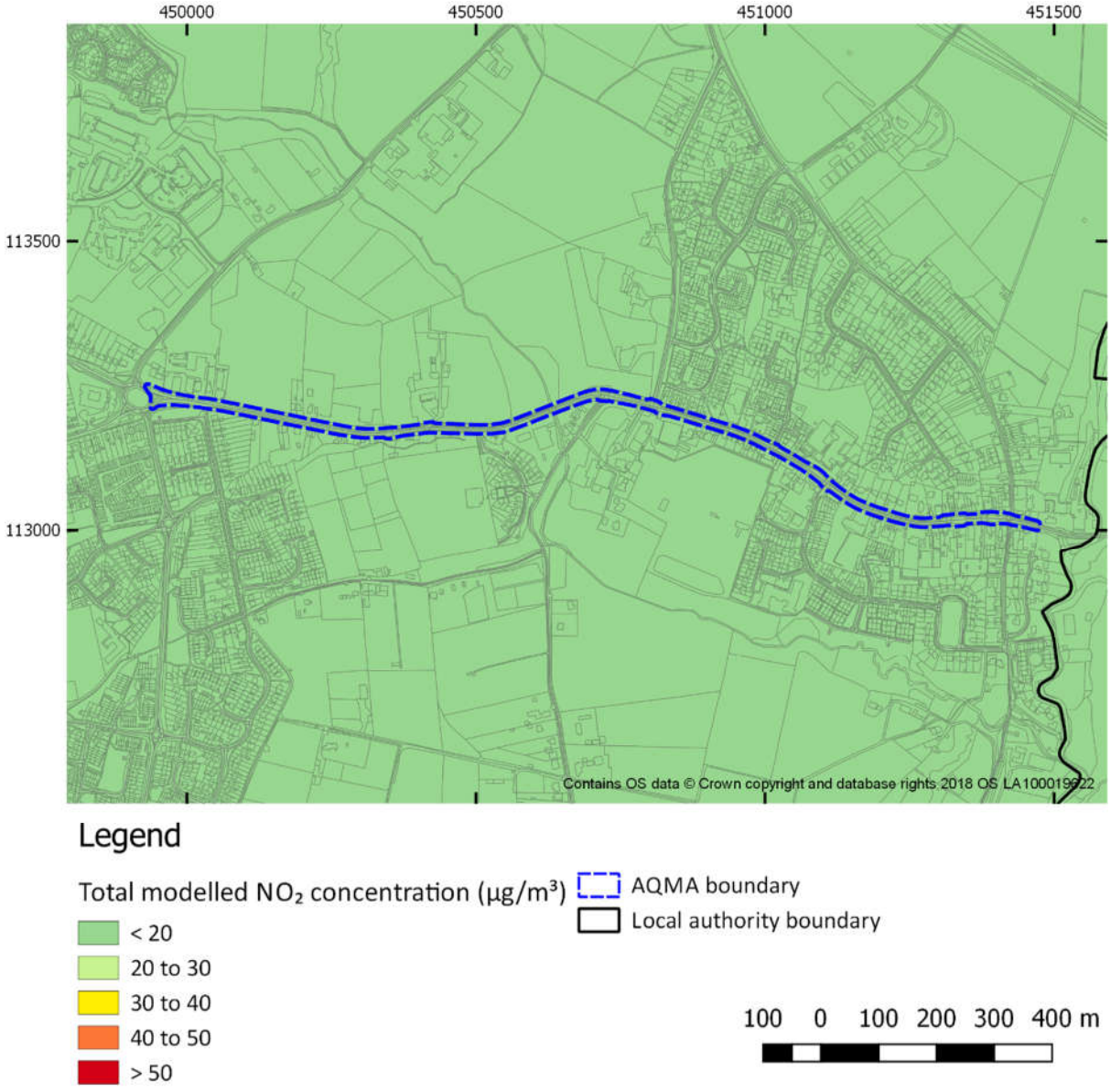
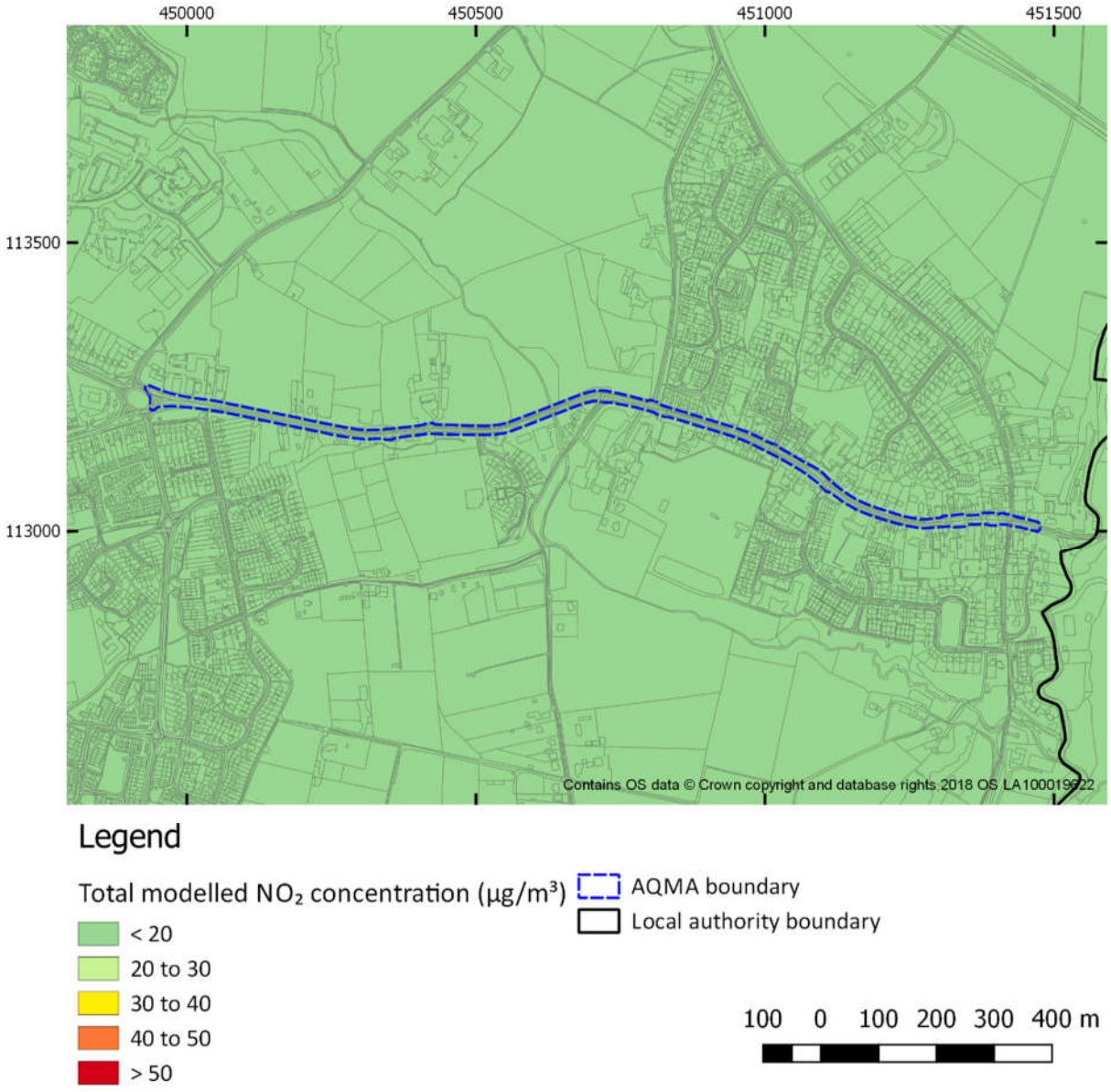


Figure 2-53 Annual mean NO_2 concentration model results for 2036 Baseline AQMA No. 4 (High Street Botley)



3 PM_{10} annual mean concentration

3.1 Full modelling domain

Figure 3-1 Annual mean PM_{10} concentration model results for pseudo-2030 SGO C scenario

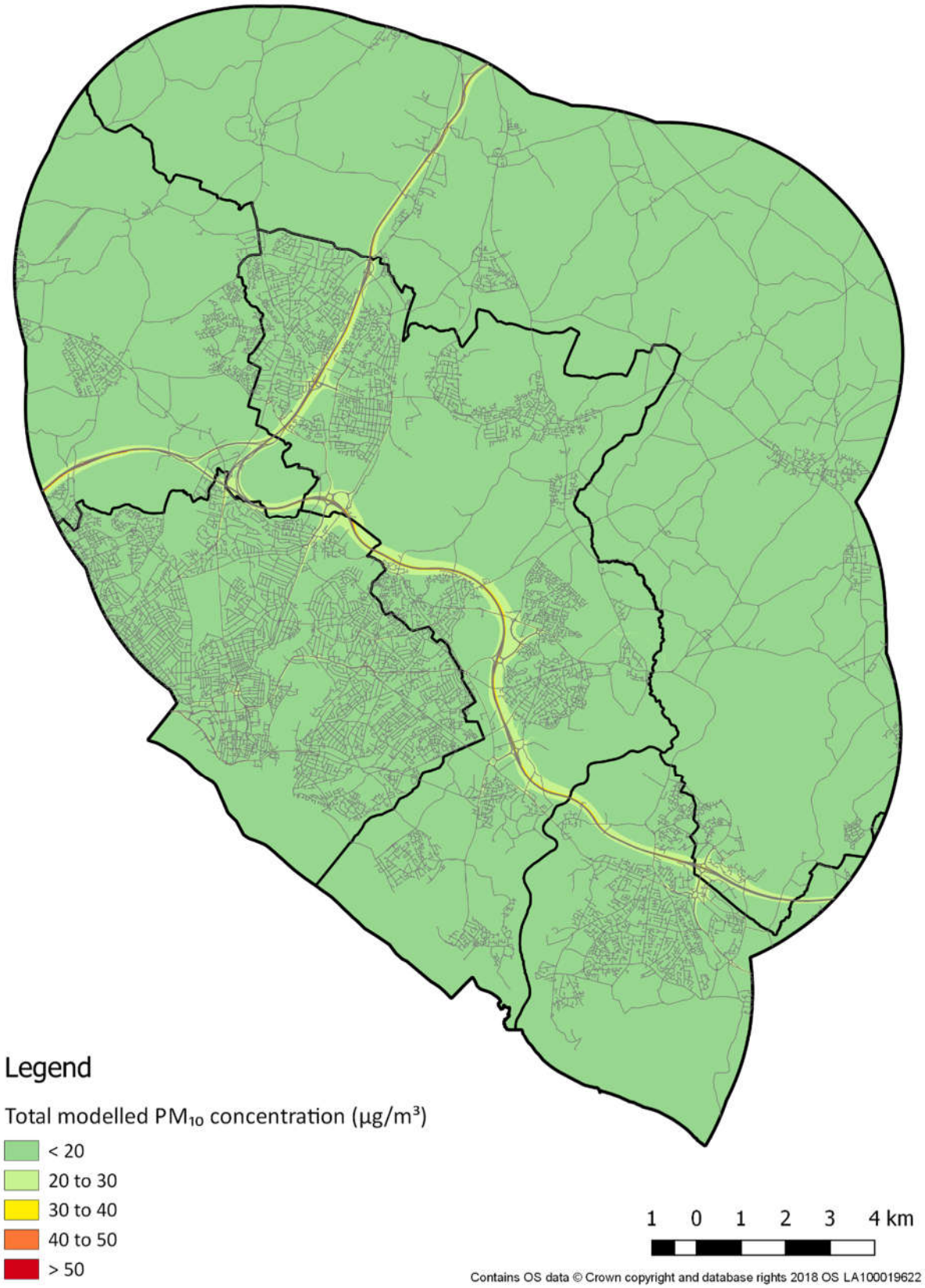


Figure 3-2 Annual mean PM_{10} concentration model results for pseudo-2030 SGO D1 scenario

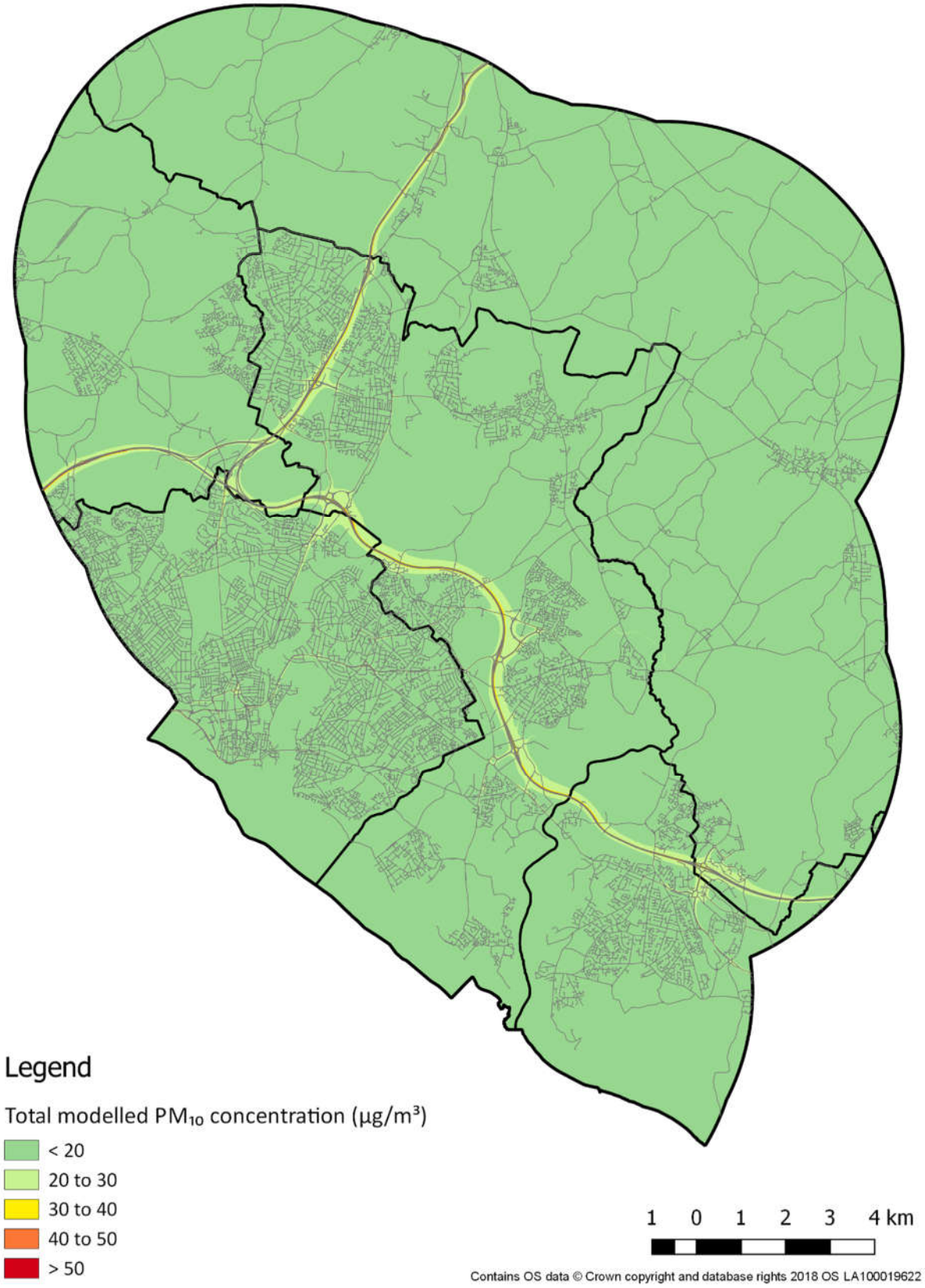


Figure 3-3 Annual mean PM_{10} concentration model results for pseudo-2030 SGO D2 scenario

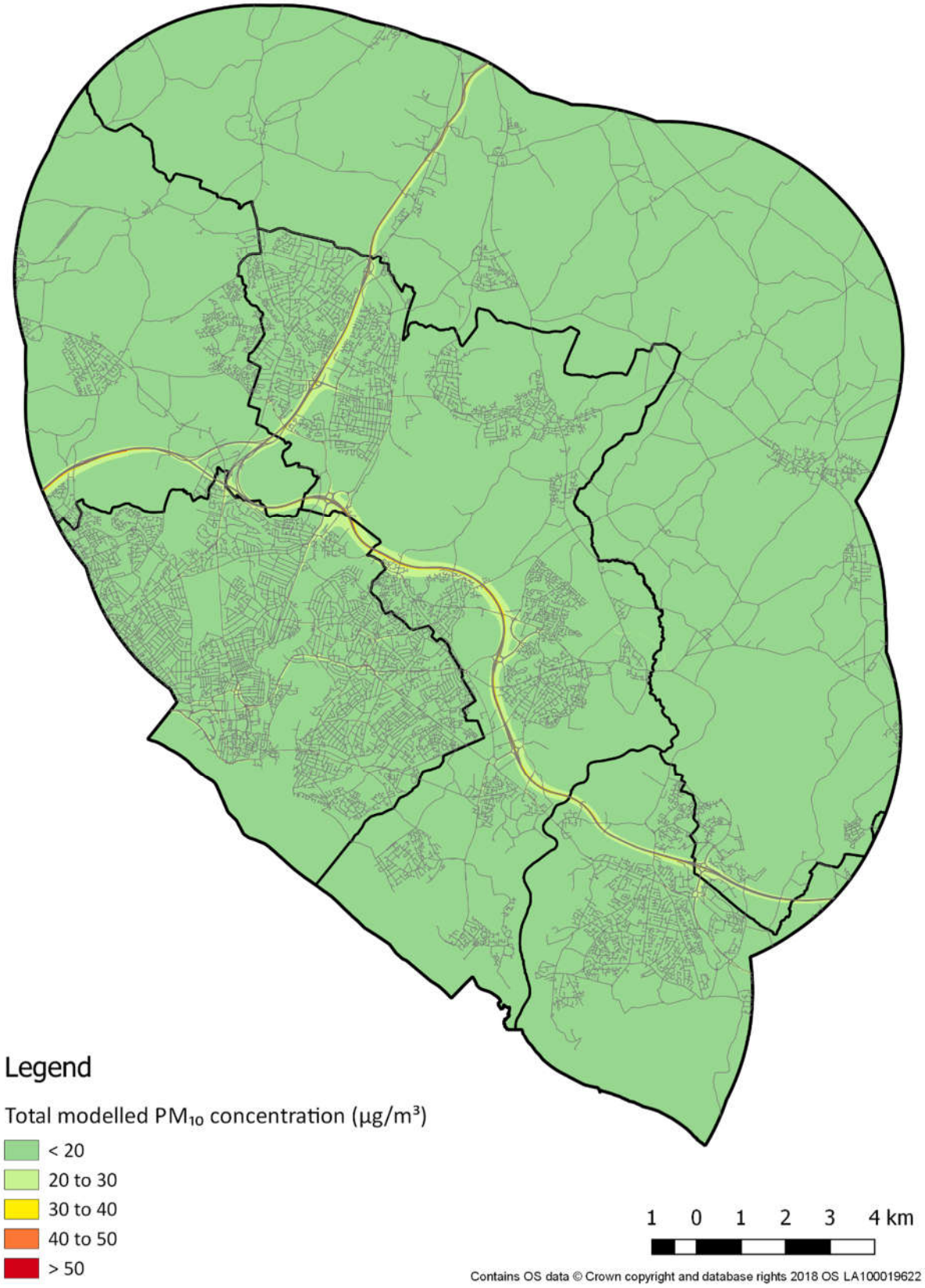


Figure 3-4 Annual mean PM_{10} concentration model results for pseudo-2030 SGO E scenario

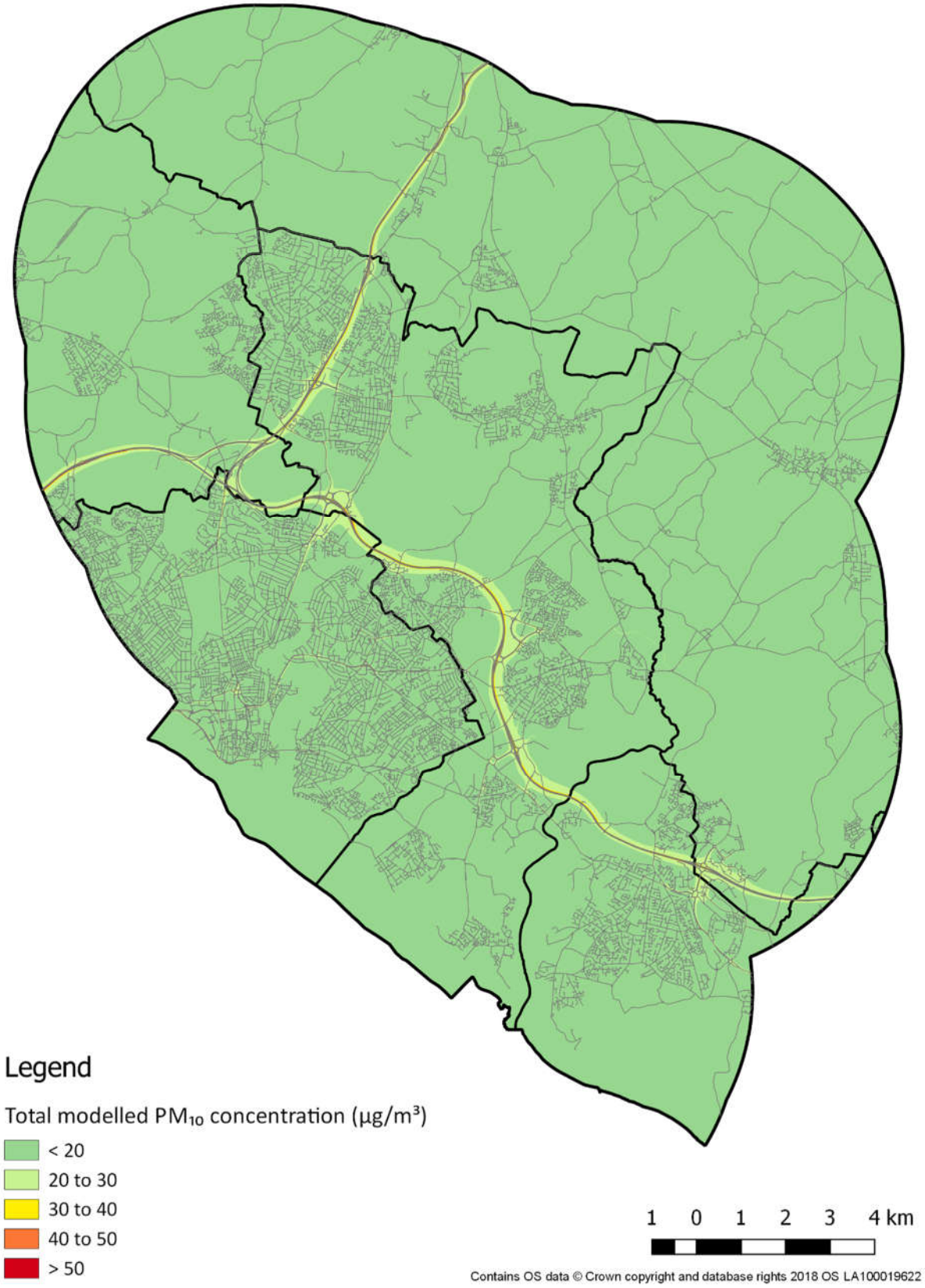


Figure 3-5 Annual mean PM_{10} concentration model results for 2036 SGO C scenario

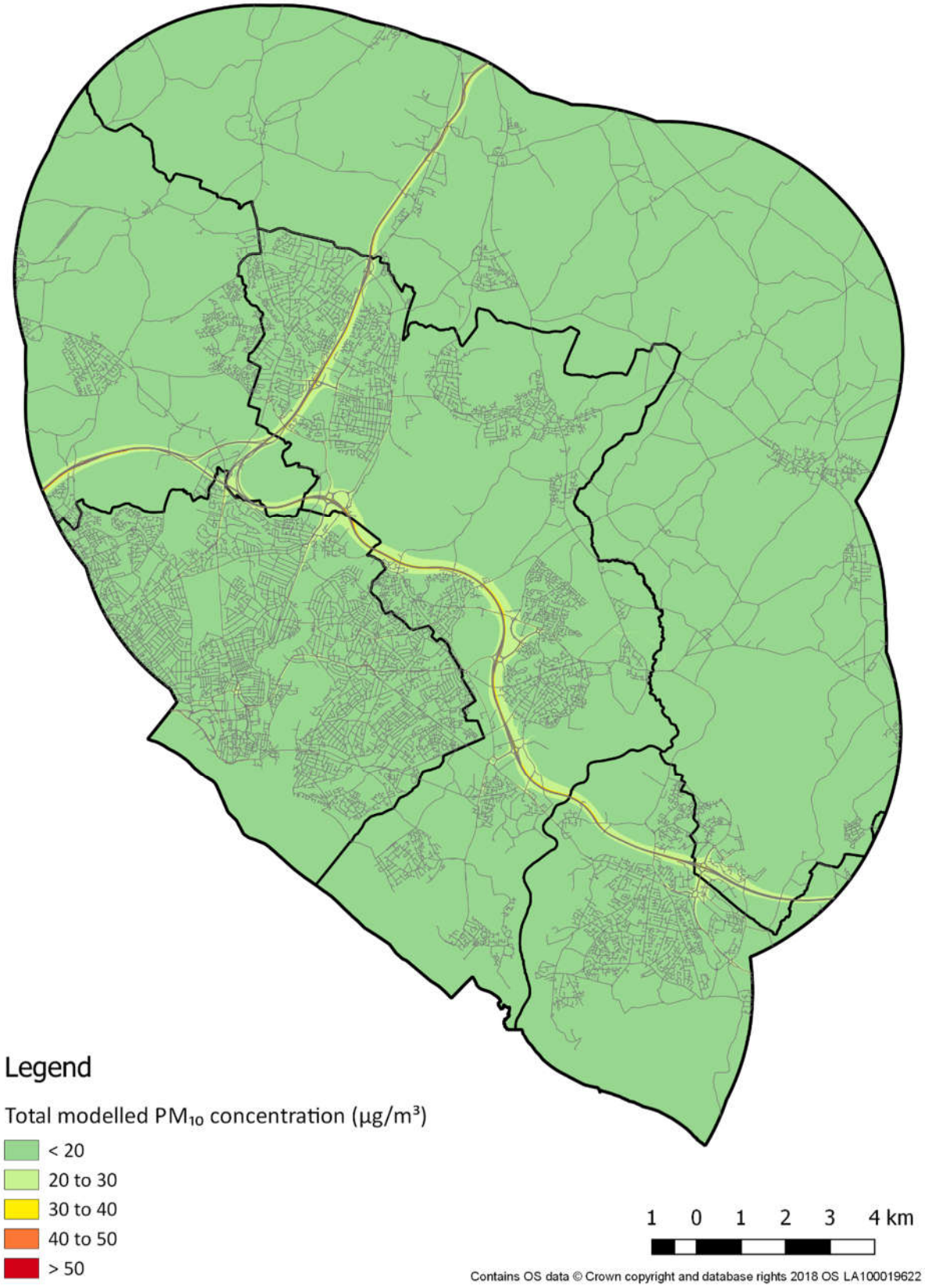


Figure 3-6 Annual mean PM_{10} concentration model results for 2036 SGO D1 scenario

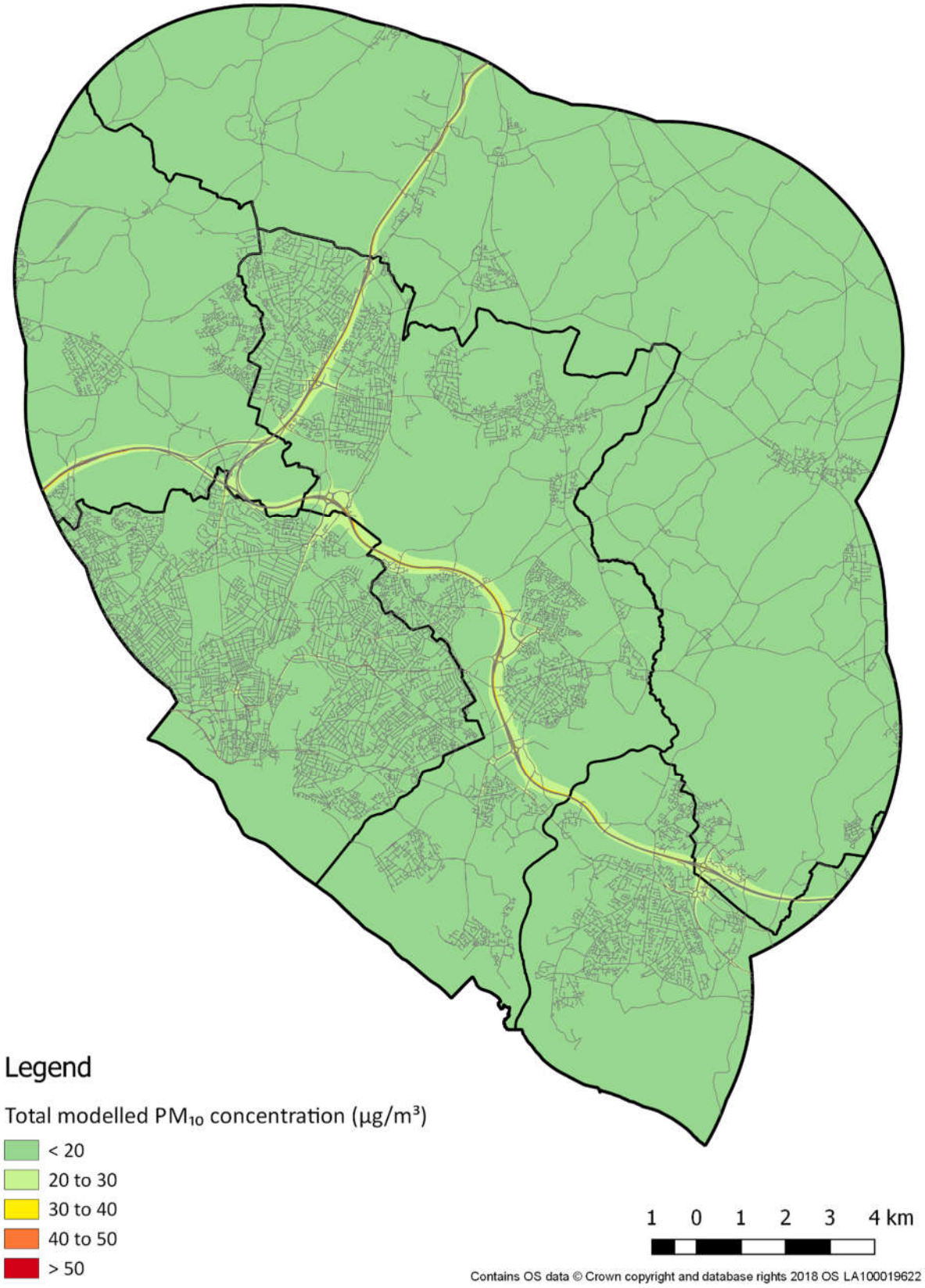


Figure 3-7 Annual mean PM_{10} concentration model results for 2036 SGO D2 scenario

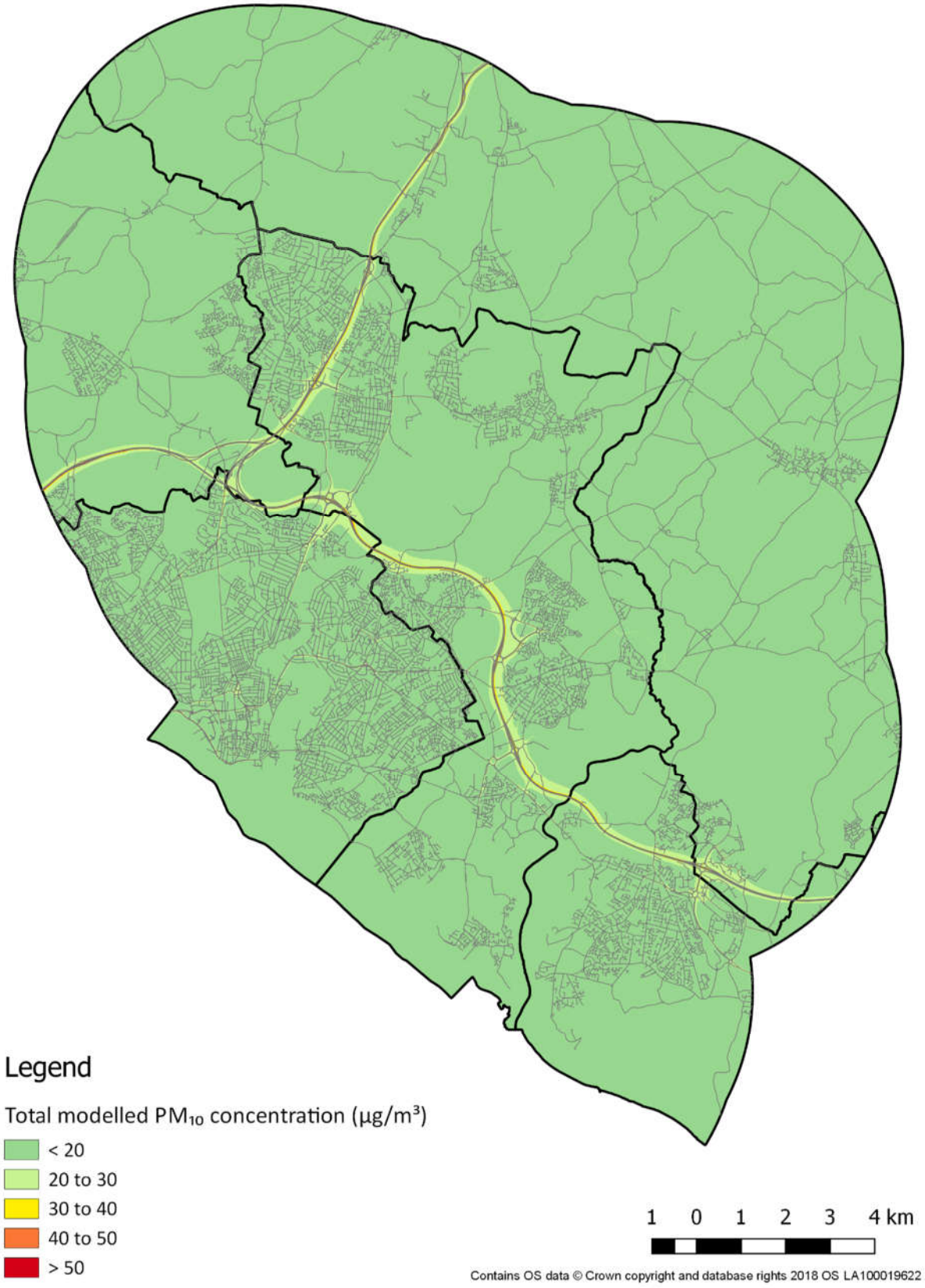
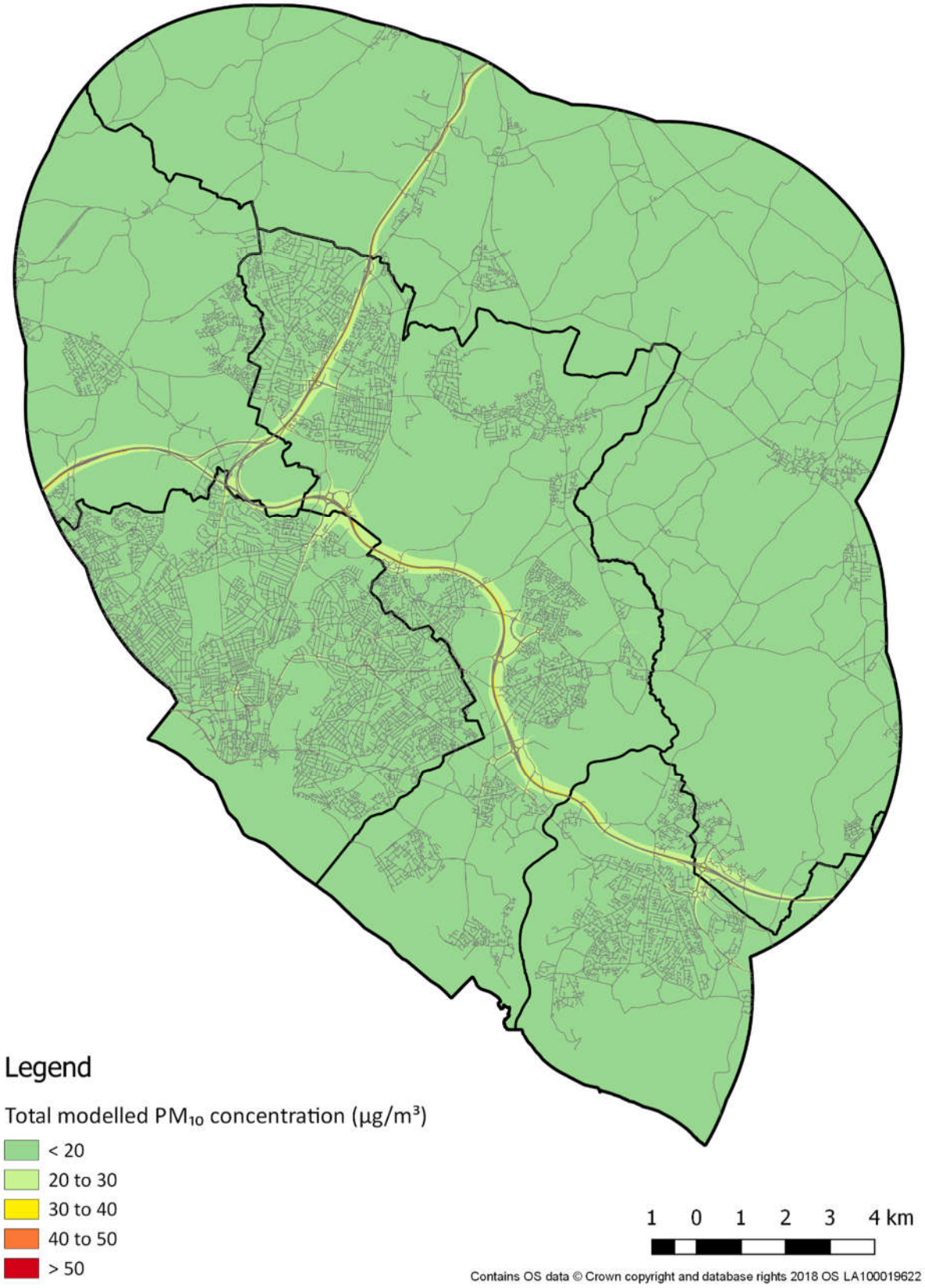


Figure 3-8 Annual mean PM_{10} concentration model results for 2036 SGO E scenario



3.2 AQMA 1 and 2

Figure 3-9 Annual mean PM_{10} concentration model results for pseudo-2030 SGO C scenario AQMA No. 1 (A335 / Eastleigh) (East)

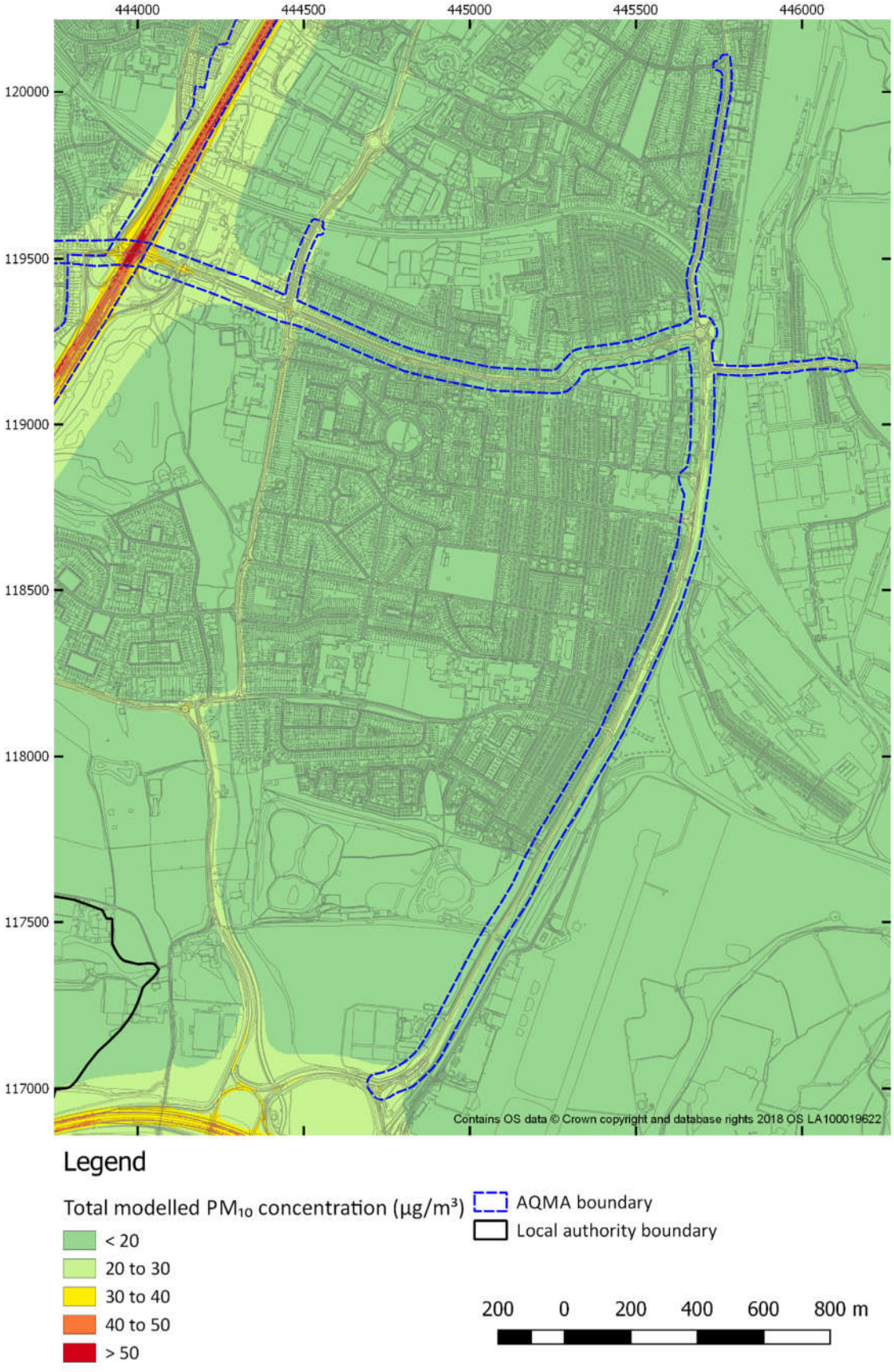


Figure 3-10 Annual mean PM_{10} concentration model results for pseudo-2030 SGO D1 scenario AQMA No. 1 (A335 / Eastleigh) (East)

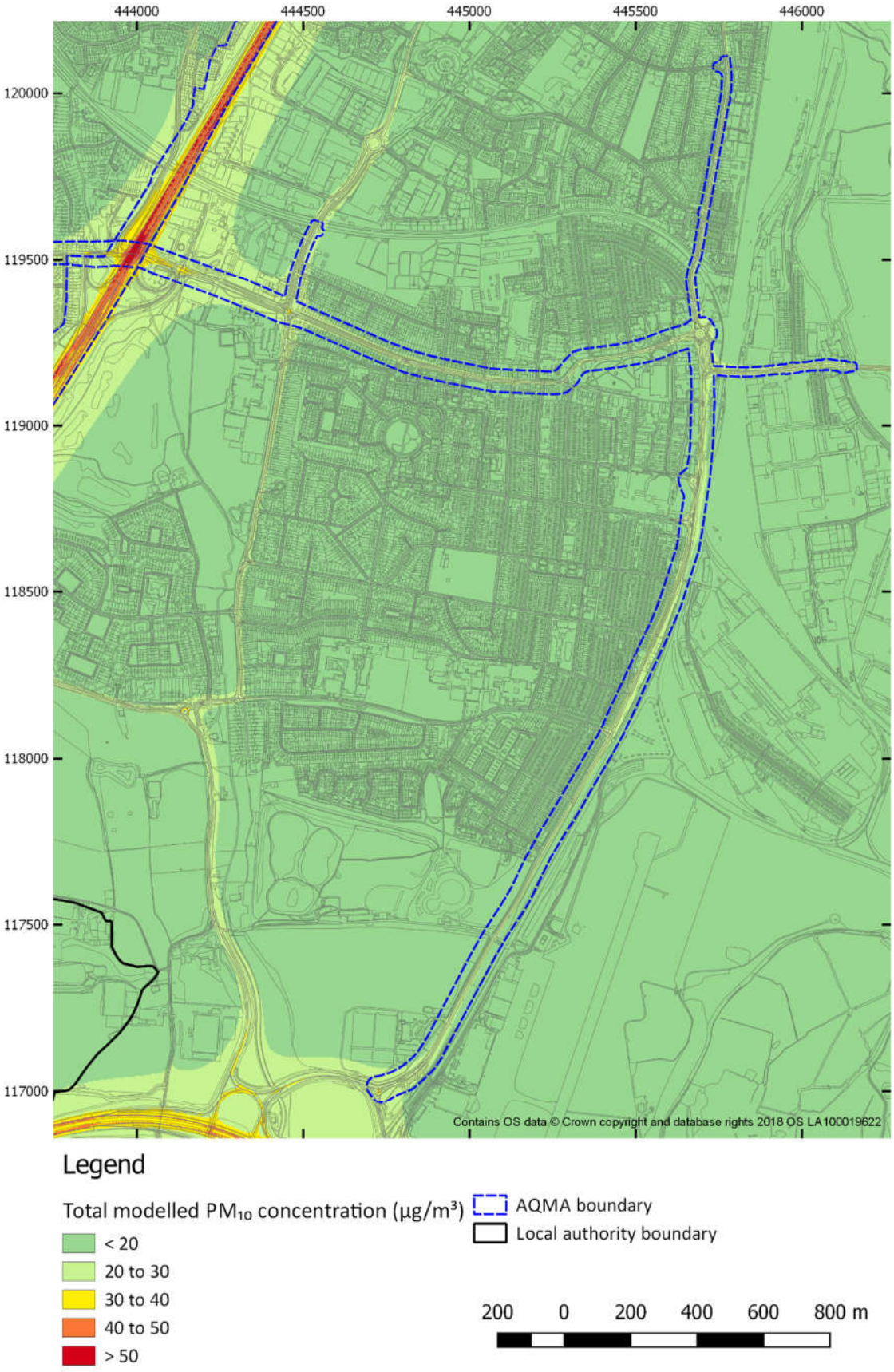


Figure 3-11 Annual mean PM_{10} concentration model results for pseudo-2030 SGO D2 scenario AQMA No. 1 (A335 / Eastleigh) (East)

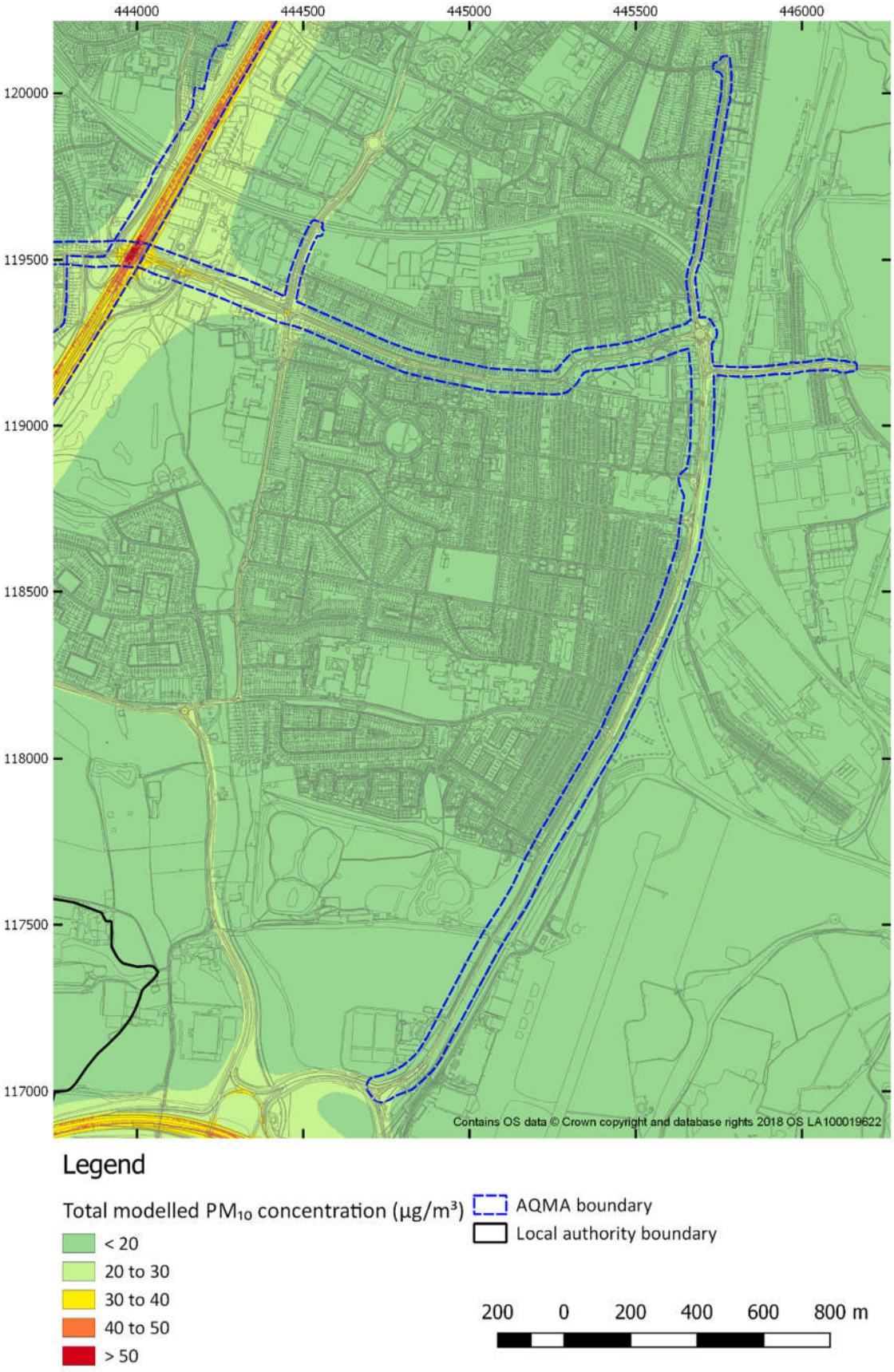


Figure 3-12 Annual mean PM_{10} concentration model results for pseudo-2030 SGO E scenario AQMA No. 1 (A335 / Eastleigh) (East)

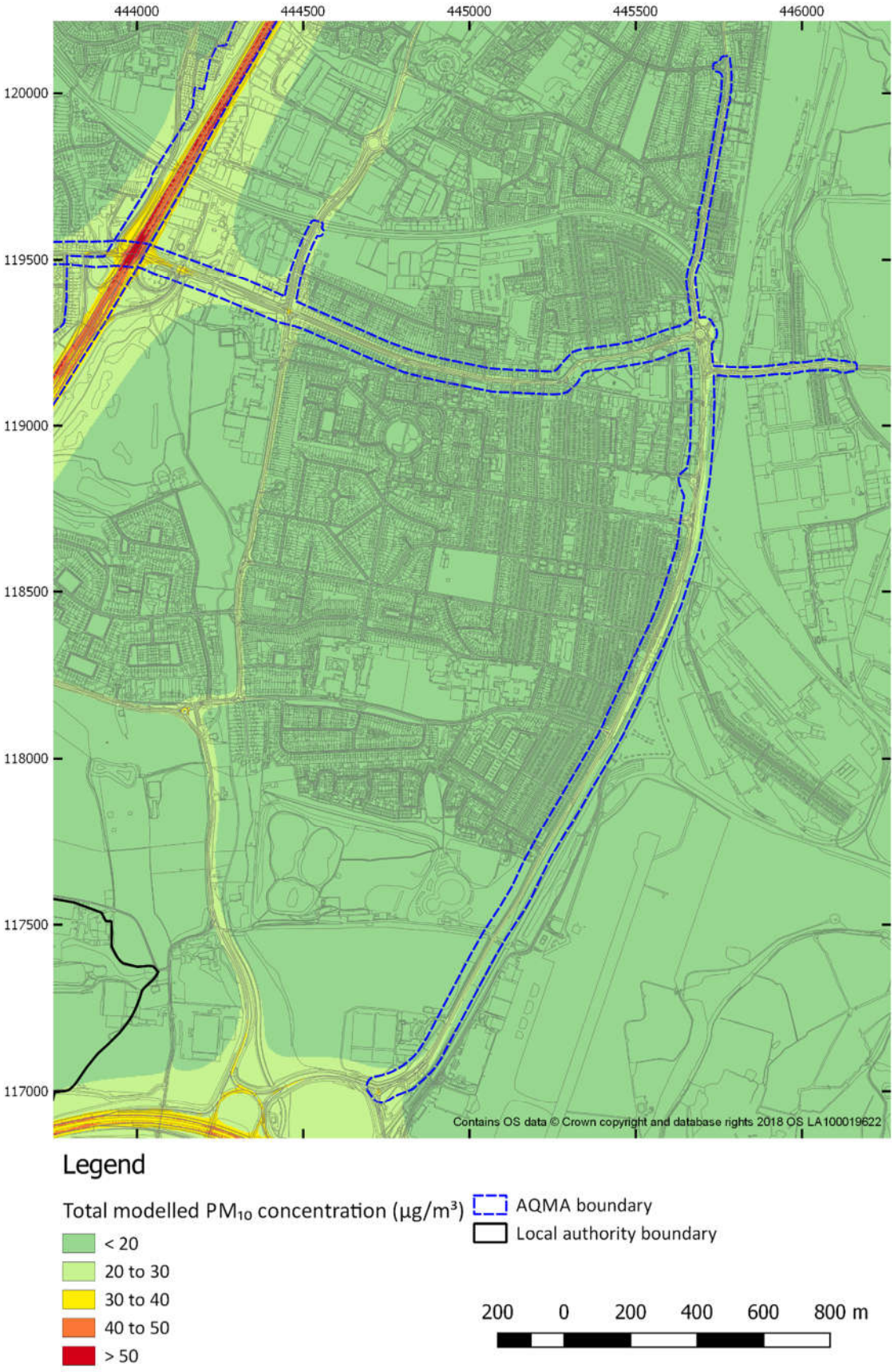


Figure 3-13 Annual mean PM_{10} concentration model results for 2036 SGO C scenario AQMA No. 1 (A335 / Eastleigh) (East)

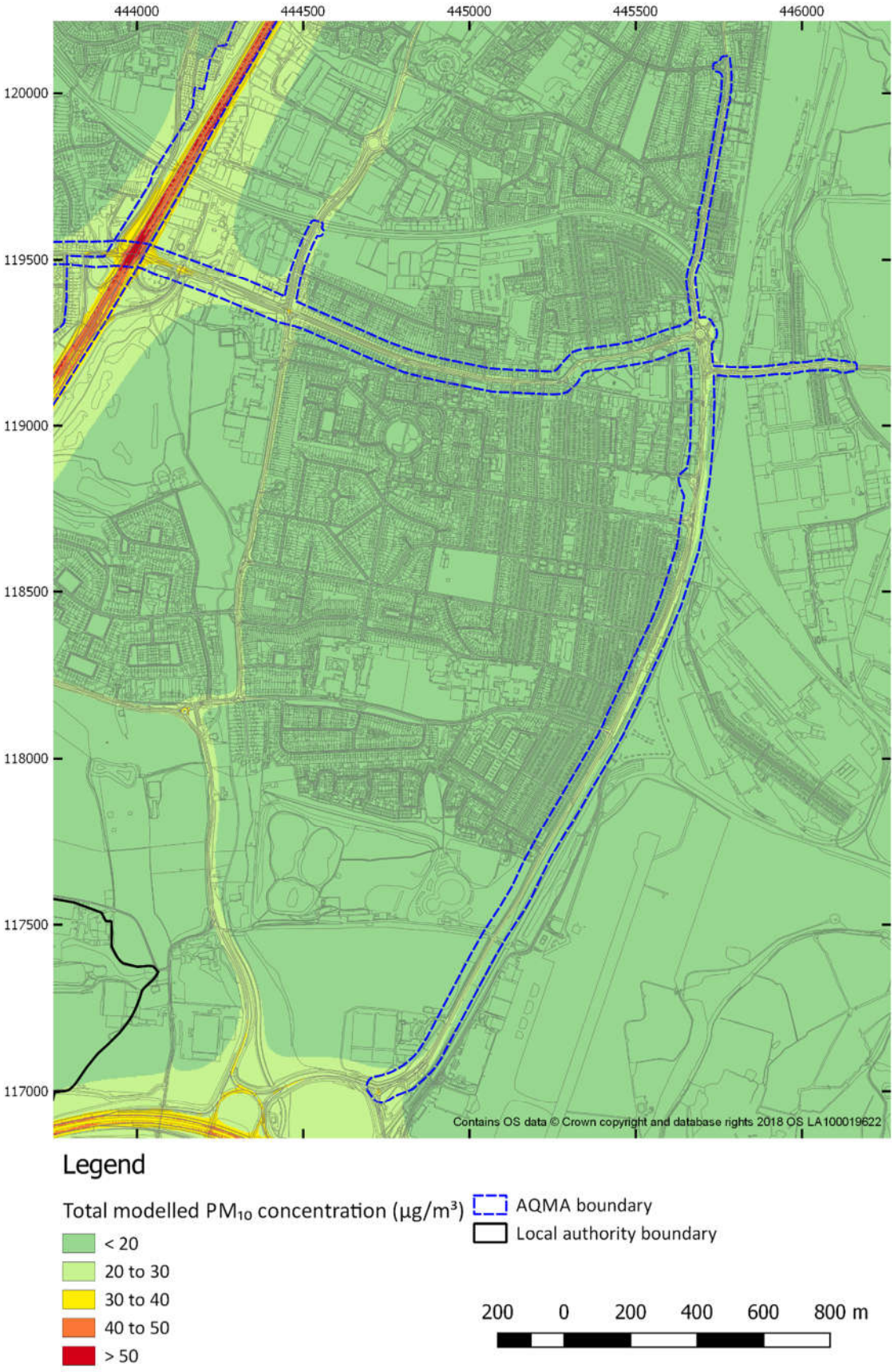


Figure 3-14 Annual mean PM_{10} concentration model results for 2036 SGO D1 scenario AQMA No. 1 (A335 / Eastleigh) (East)

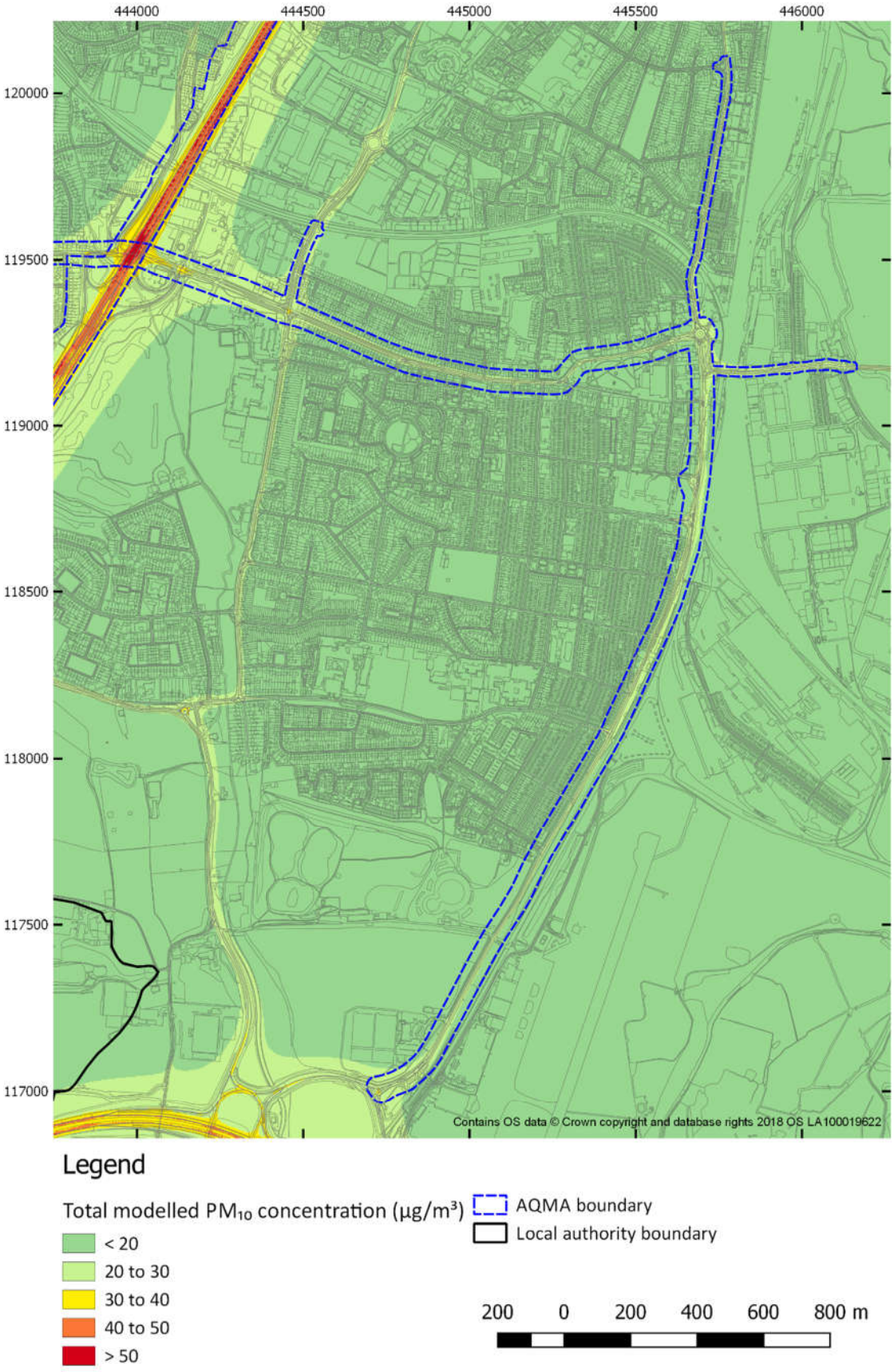


Figure 3-15 Annual mean PM_{10} concentration model results for 2036 SGO D2 scenario AQMA No. 1 (A335 / Eastleigh) (East)

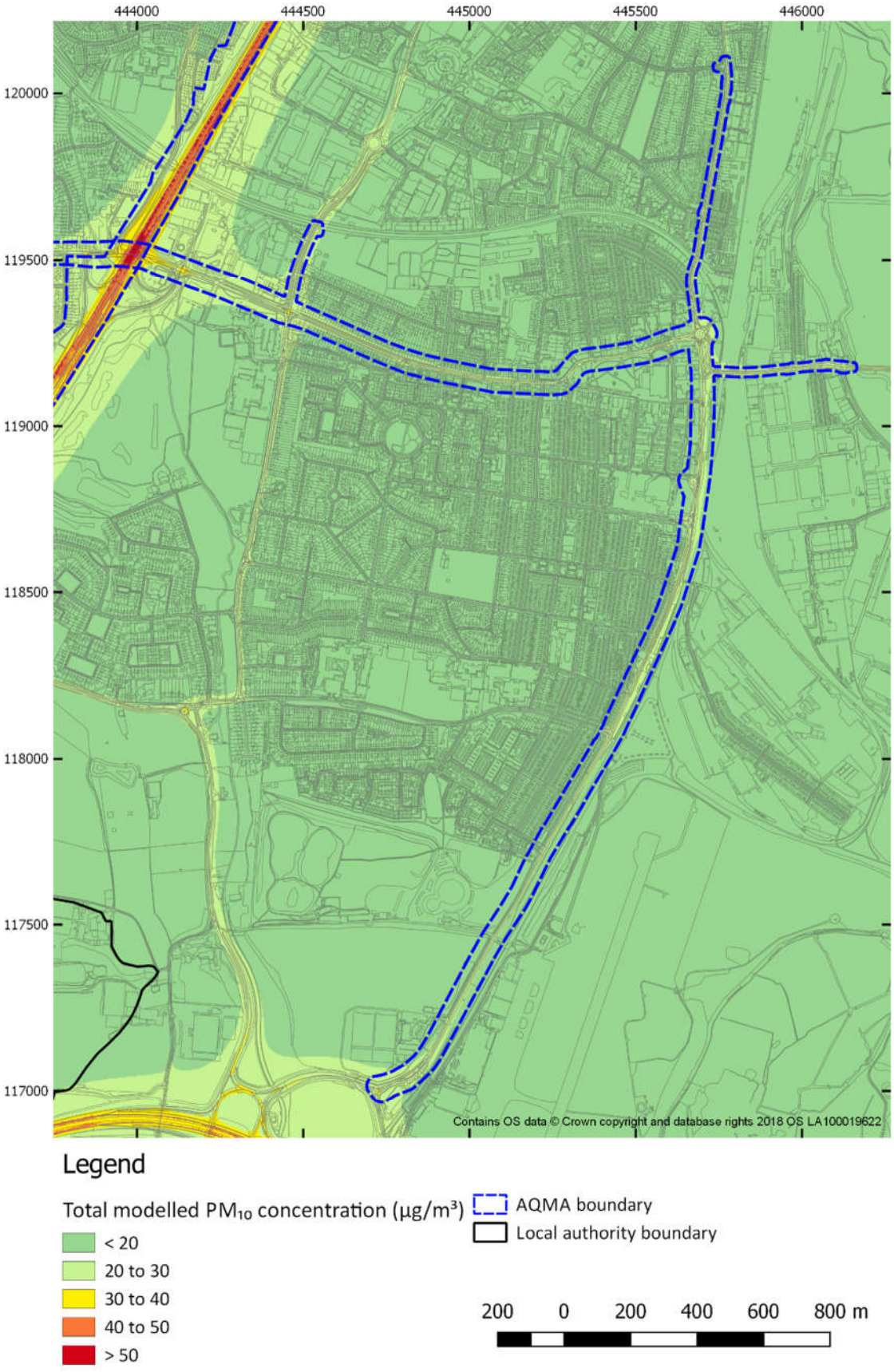


Figure 3-16 Annual mean PM_{10} concentration model results for 2036 SGO E scenario AQMA No. 1 (A335 / Eastleigh) (East)

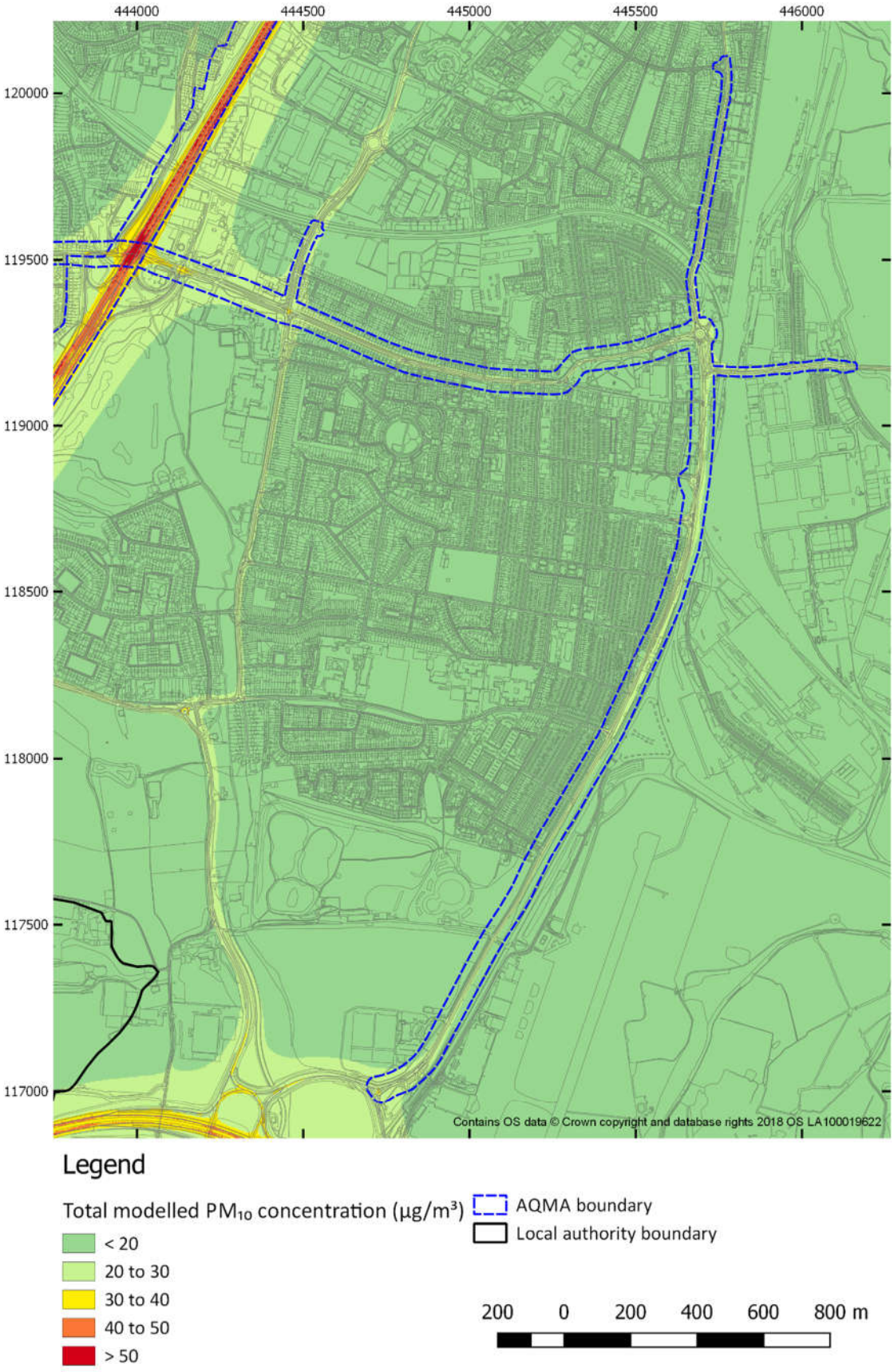


Figure 3-17 Annual mean PM_{10} concentration model results for 2036 Baseline AQMA No. 1 (A335 / Eastleigh) (East)

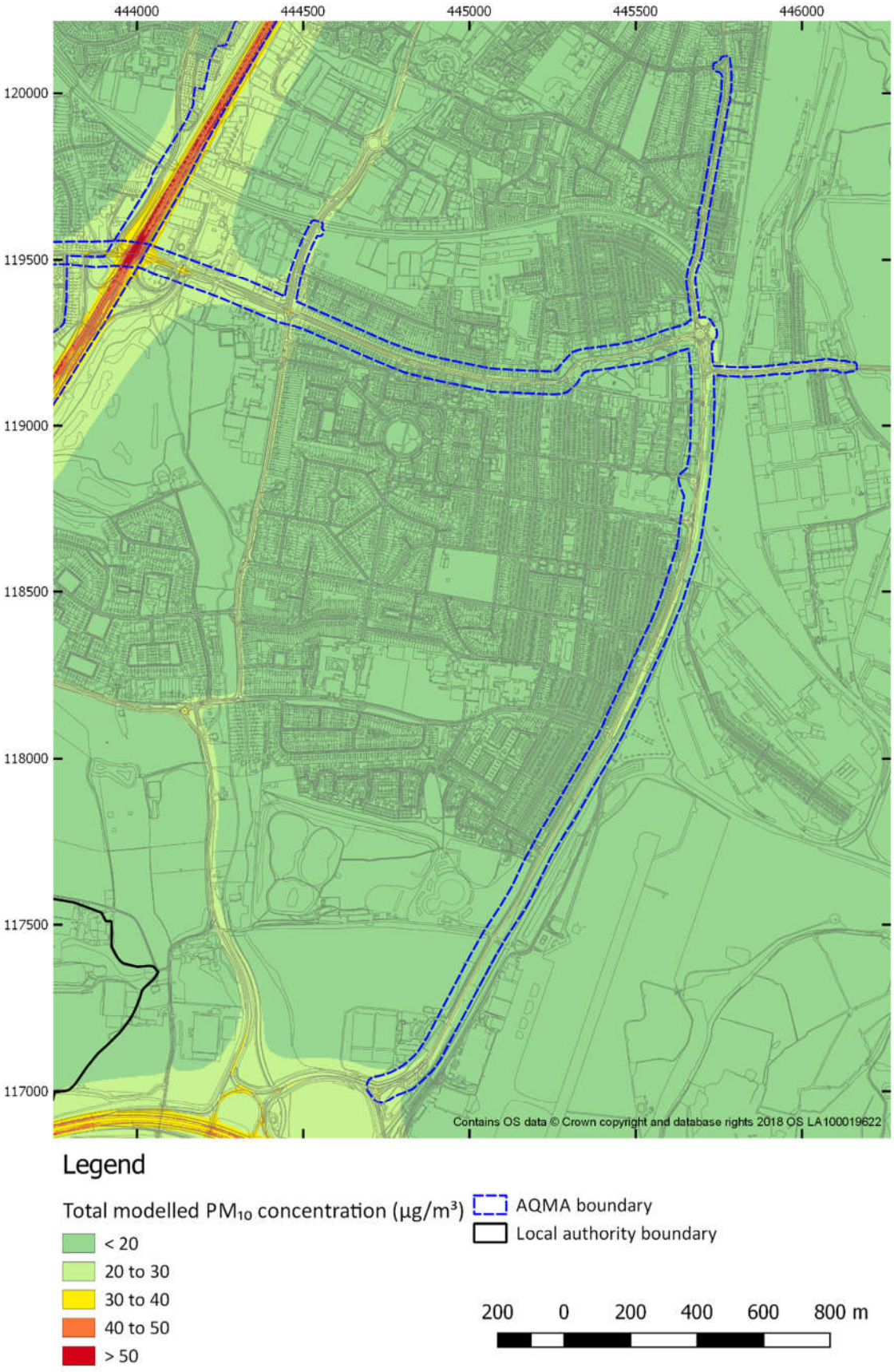


Figure 3-18 Annual mean PM_{10} concentration model results for pseudo-2030 SGO C scenario AQMA No. 1 (A335 / Eastleigh) (West)

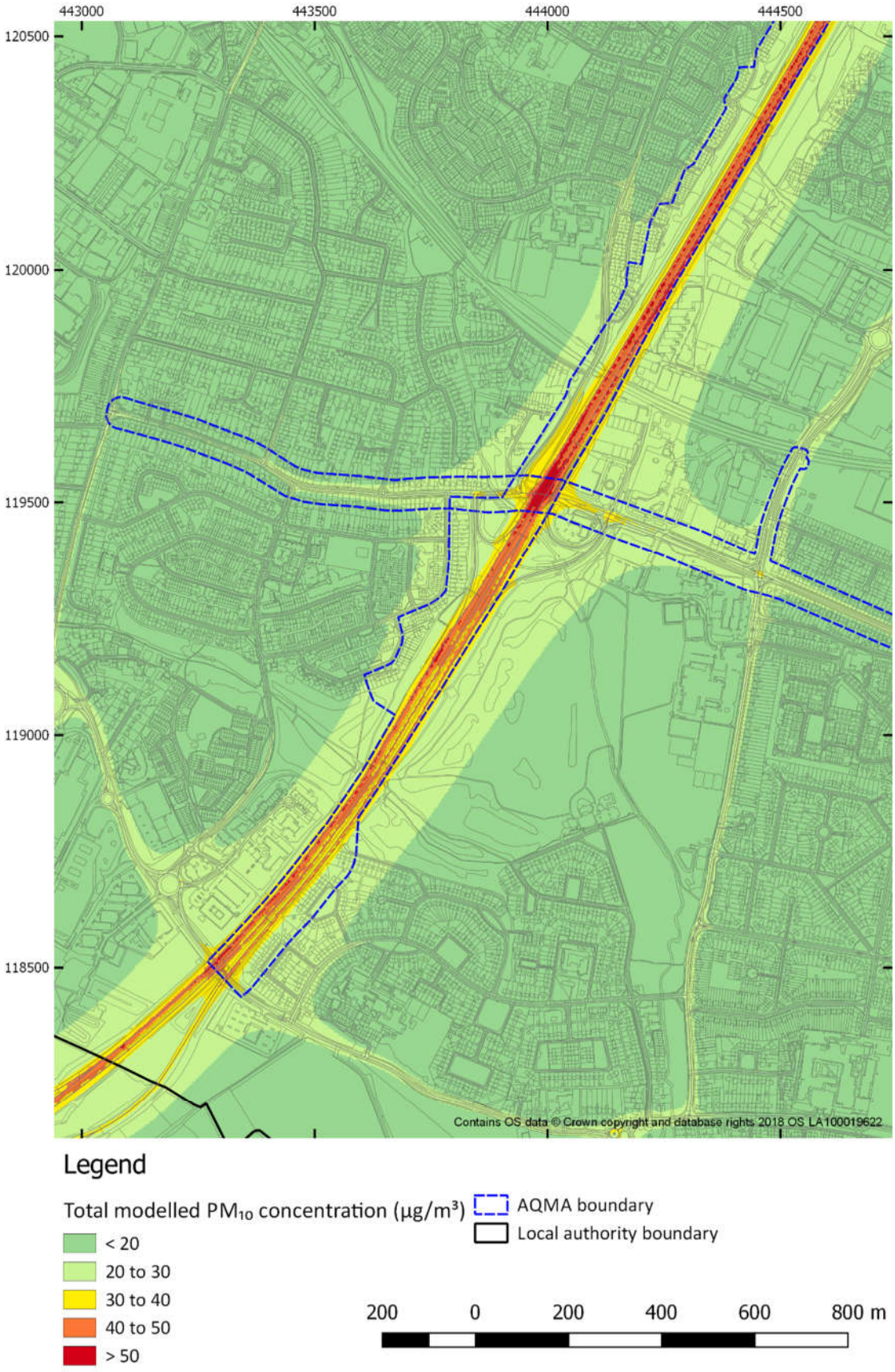


Figure 3-19 Annual mean PM_{10} concentration model results for pseudo-2030 SGO D1 scenario AQMA No. 1 (A335 / Eastleigh) (West)

Figure 3-20 Annual mean PM_{10} concentration model results for pseudo-2030 SGO D2 scenario AQMA No. 1 (A335 / Eastleigh) (West)

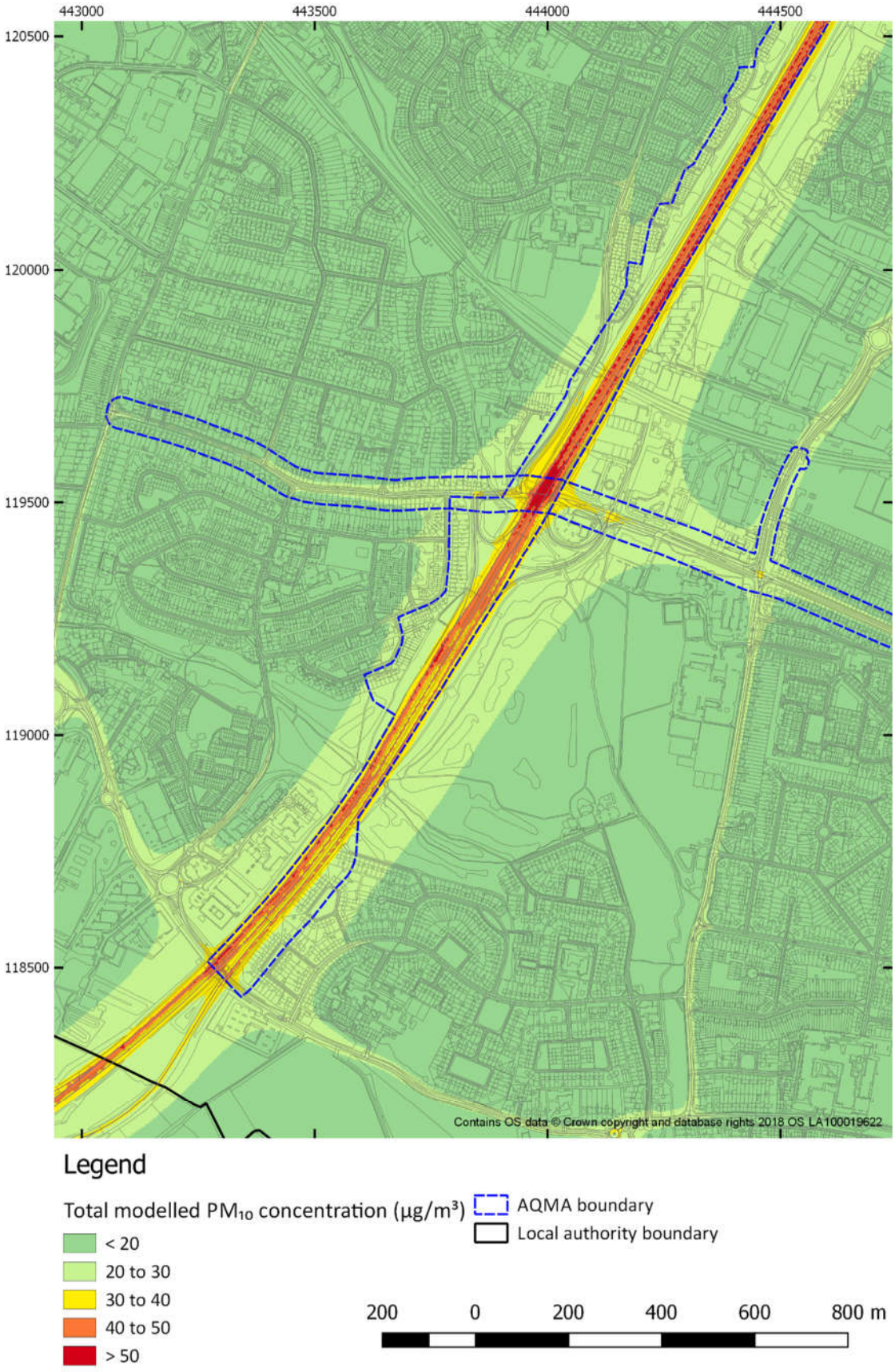


Figure 3-21 Annual mean PM_{10} concentration model results for pseudo-2030 SGO E scenario AQMA No. 1 (A335 / Eastleigh) (West)

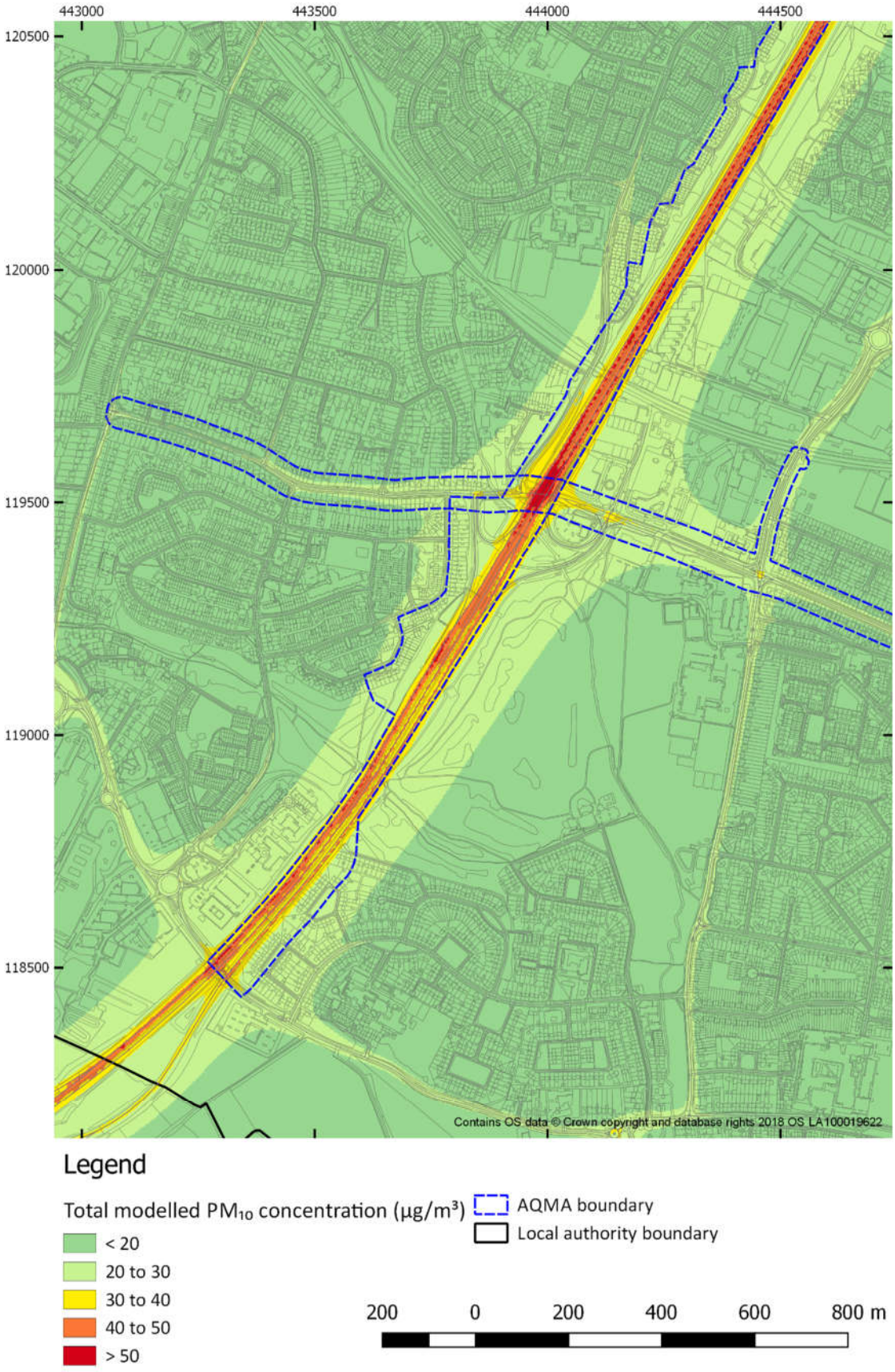


Figure 3-22 Annual mean PM_{10} concentration model results for 2036 SGO C scenario AQMA No. 1 (A335 / Eastleigh) (West)

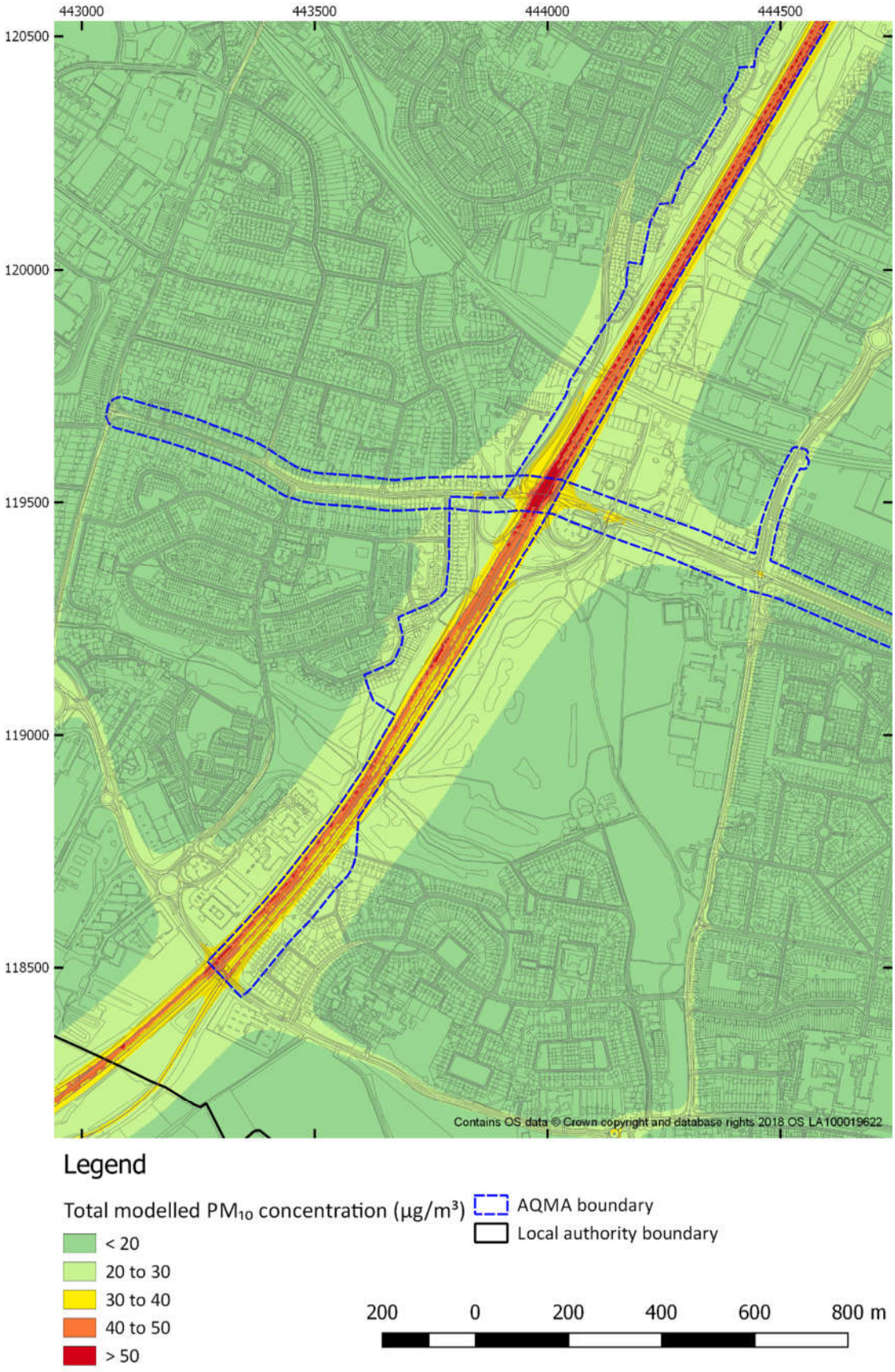


Figure 3-23 Annual mean PM_{10} concentration model results for 2036 SGO D1 scenario AQMA No. 1 (A335 / Eastleigh) (West)

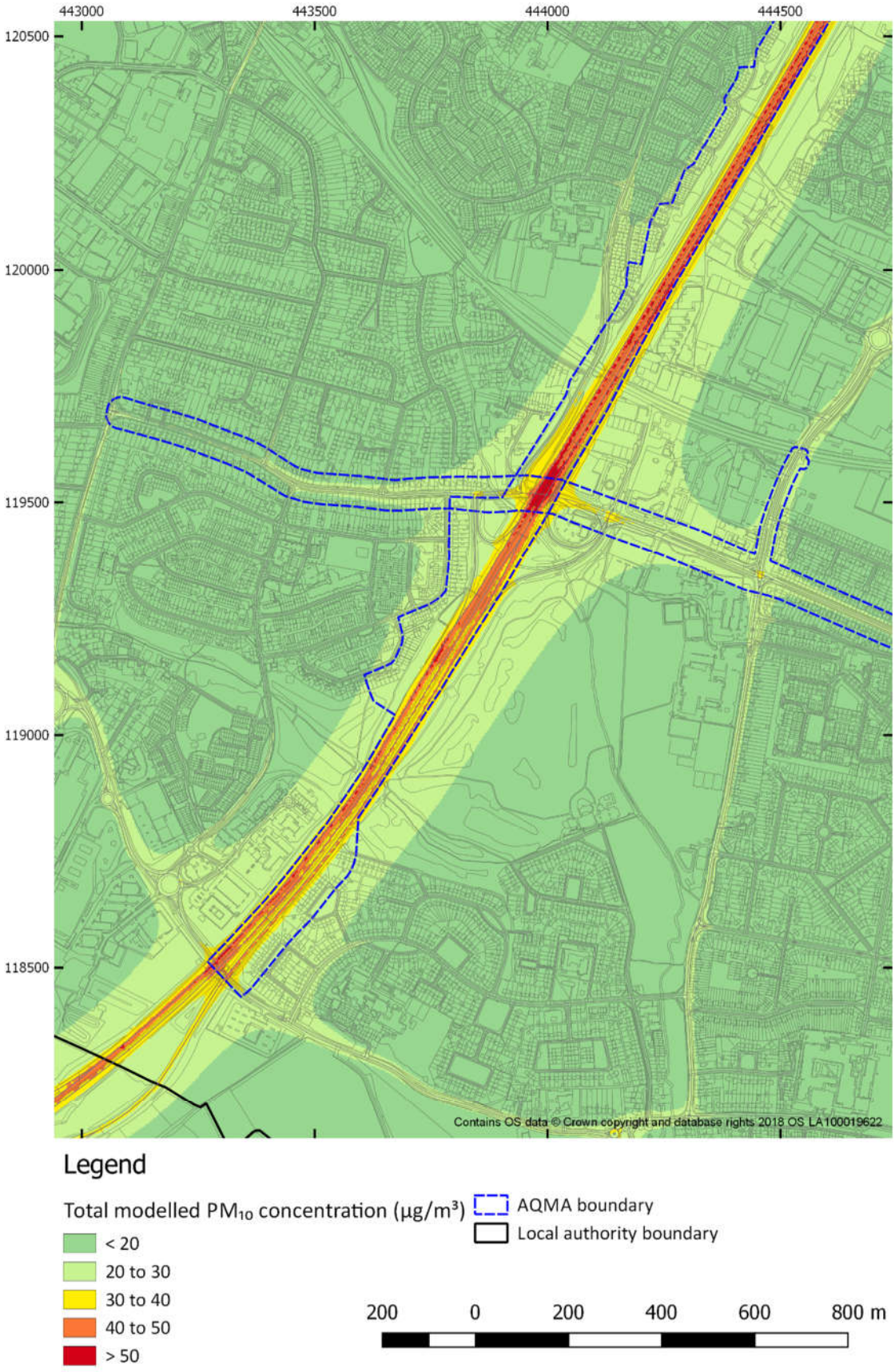


Figure 3-24 Annual mean PM_{10} concentration model results for 2036 SGO D2 scenario AQMA No. 1 (A335 / Eastleigh) (West)

Figure 3-25 Annual mean PM_{10} concentration model results for 2036 SGO E scenario AQMA No. 1 (A335 / Eastleigh) (West)

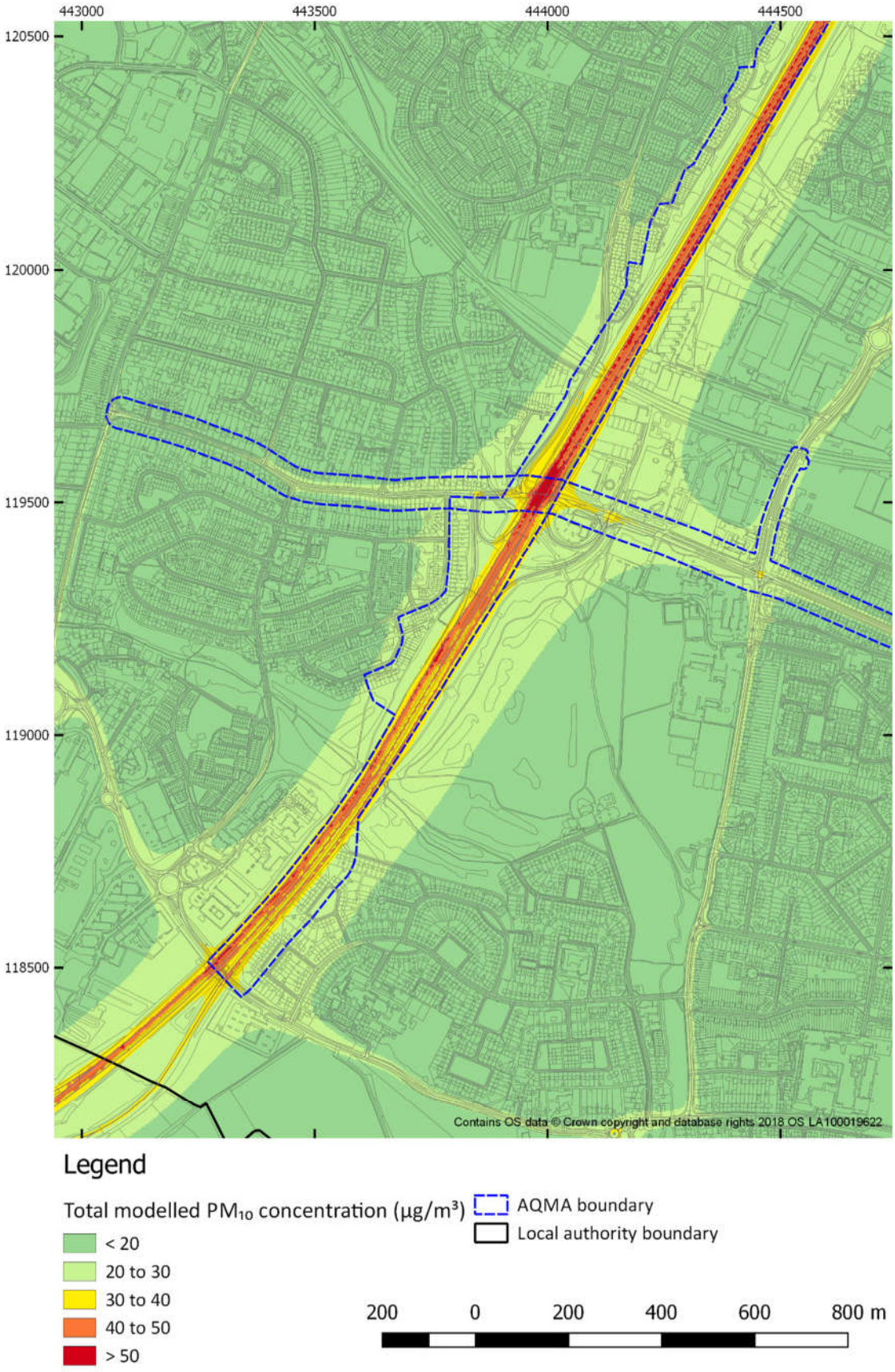


Figure 3-26 Annual mean PM_{10} concentration model results for 2036 Baseline AQMA No. 1 (A335 / Eastleigh) (West)

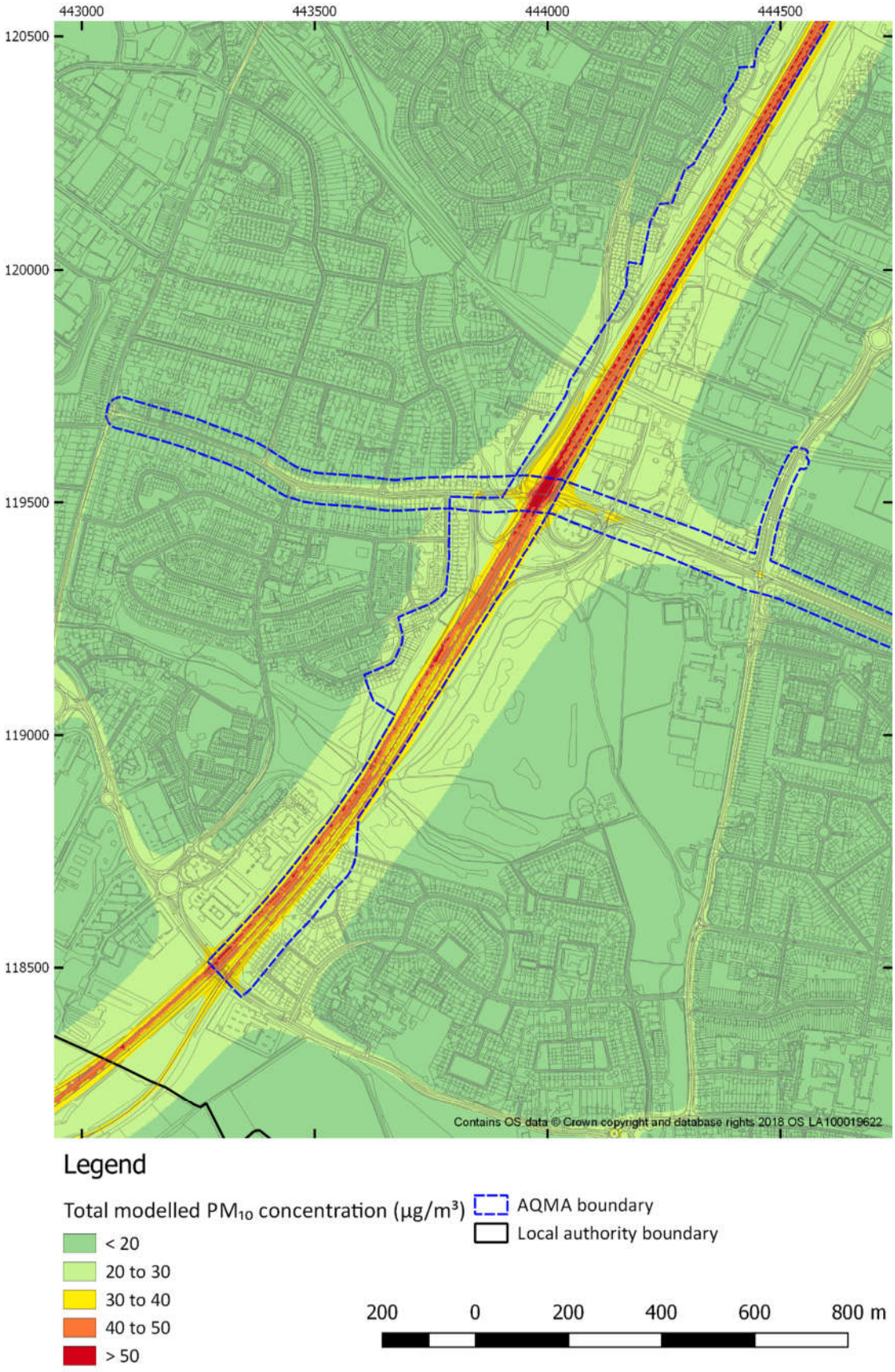


Figure 3-27 Annual mean PM_{10} concentration model results for pseudo-2030 SGO C scenario AQMA No. 2 (M3) (North)

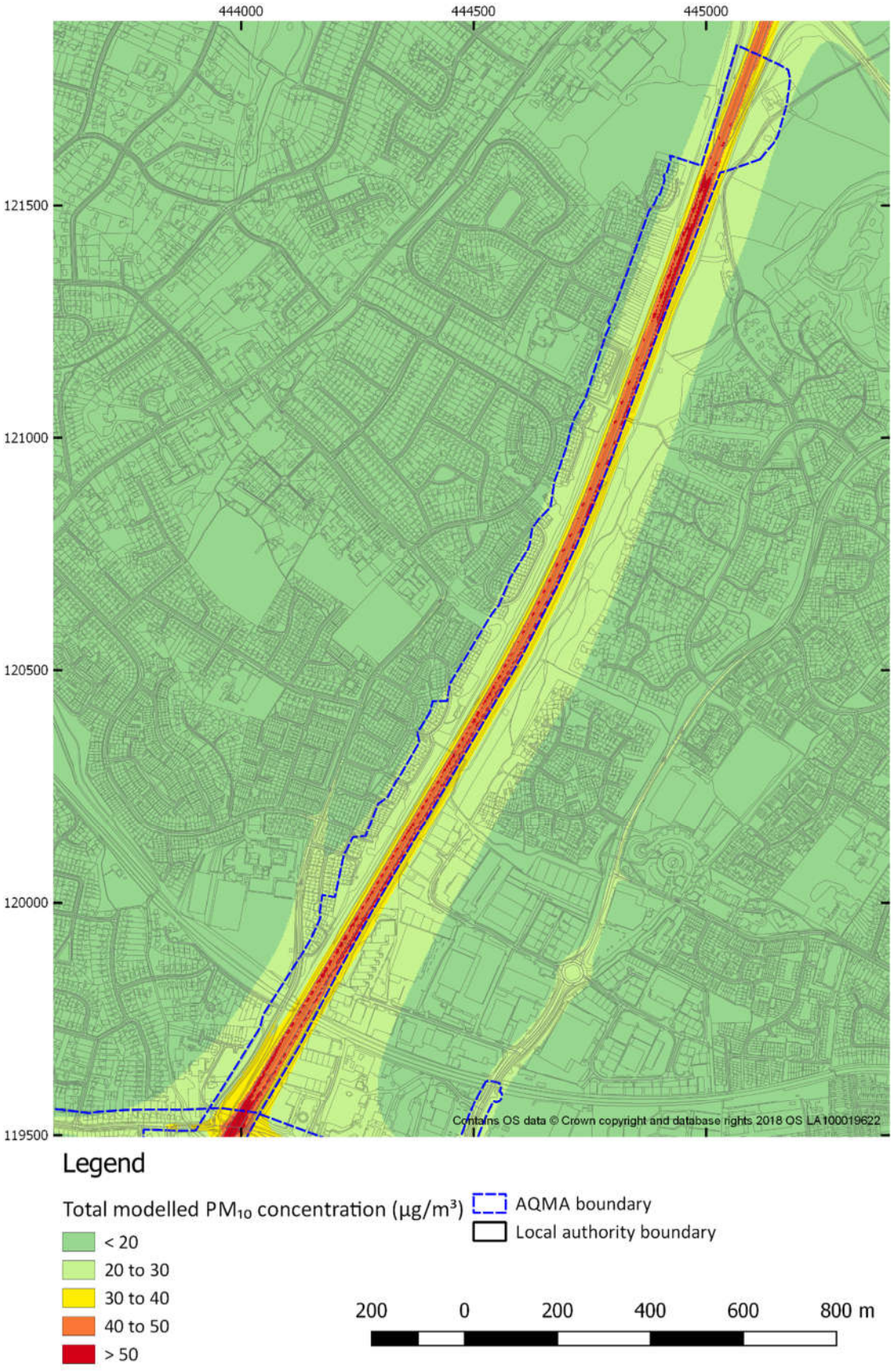


Figure 3-28 Annual mean PM_{10} concentration model results for pseudo-2030 SGO D1 scenario AQMA No. 2 (M3) (North)

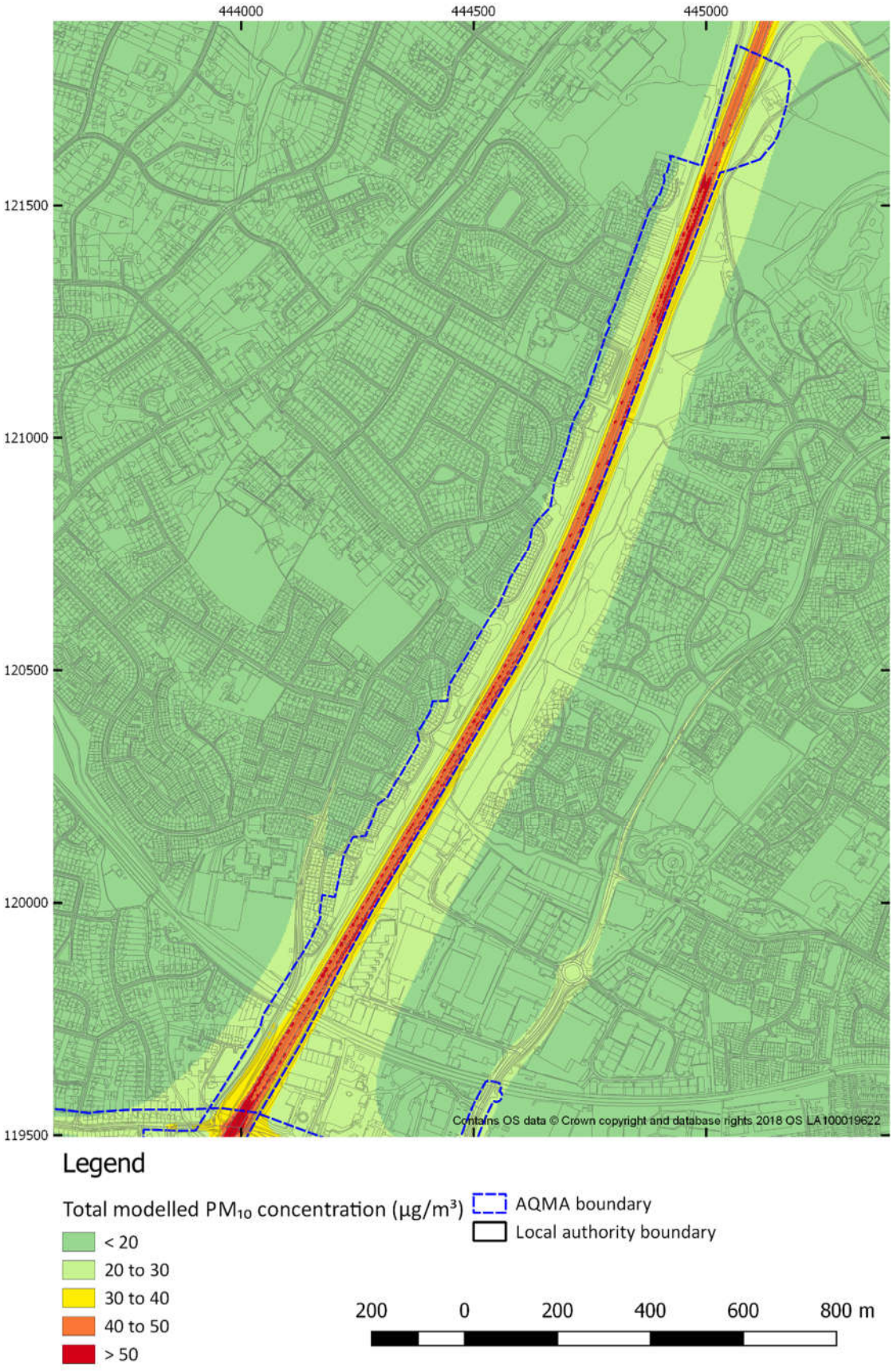


Figure 3-29 Annual mean PM_{10} concentration model results for pseudo-2030 SGO D2 scenario AQMA No. 2 (M3) (North)

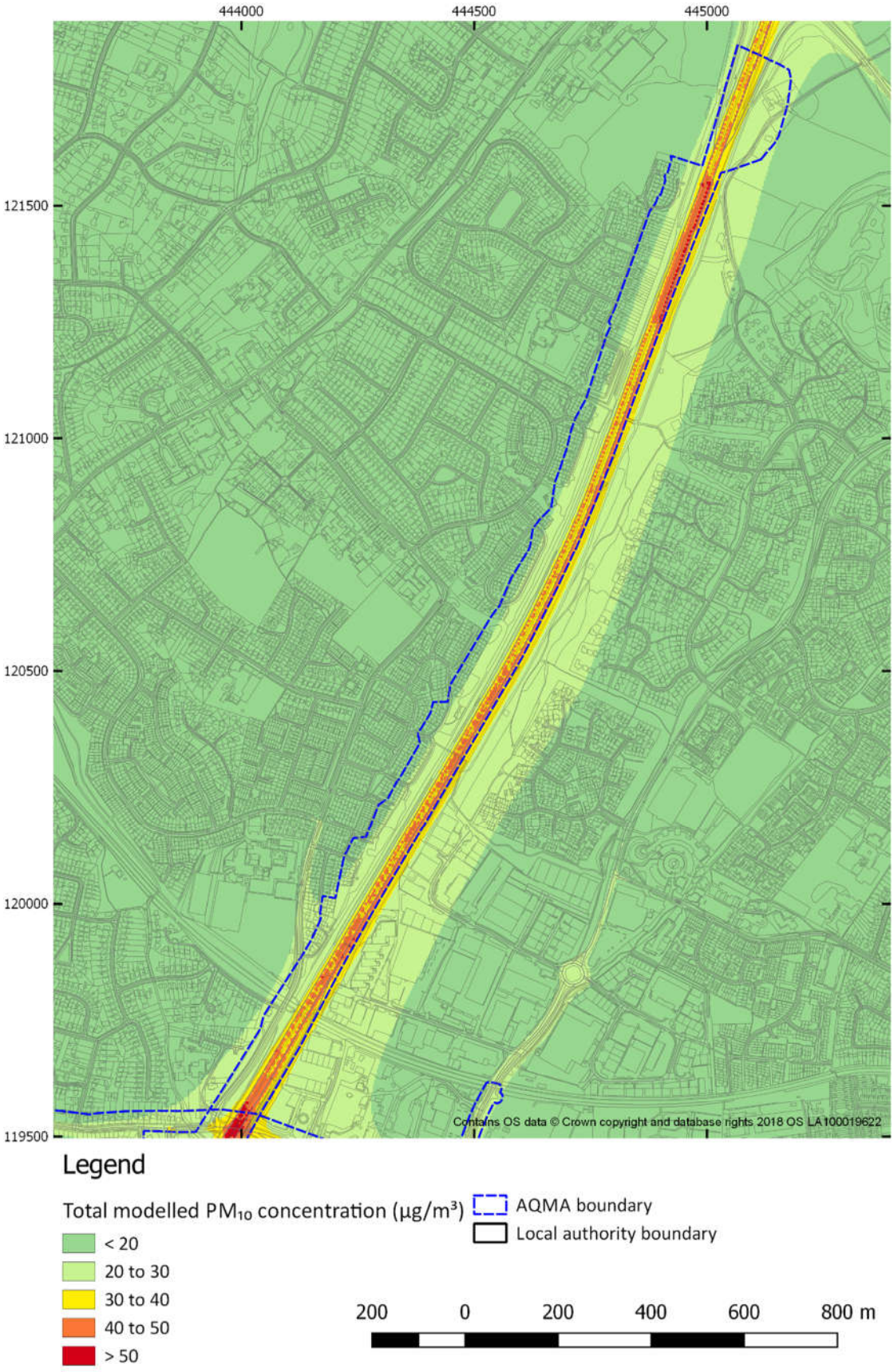


Figure 3-30 Annual mean PM_{10} concentration model results for pseudo-2030 SGO E scenario AQMA No. 2 (M3) (North)

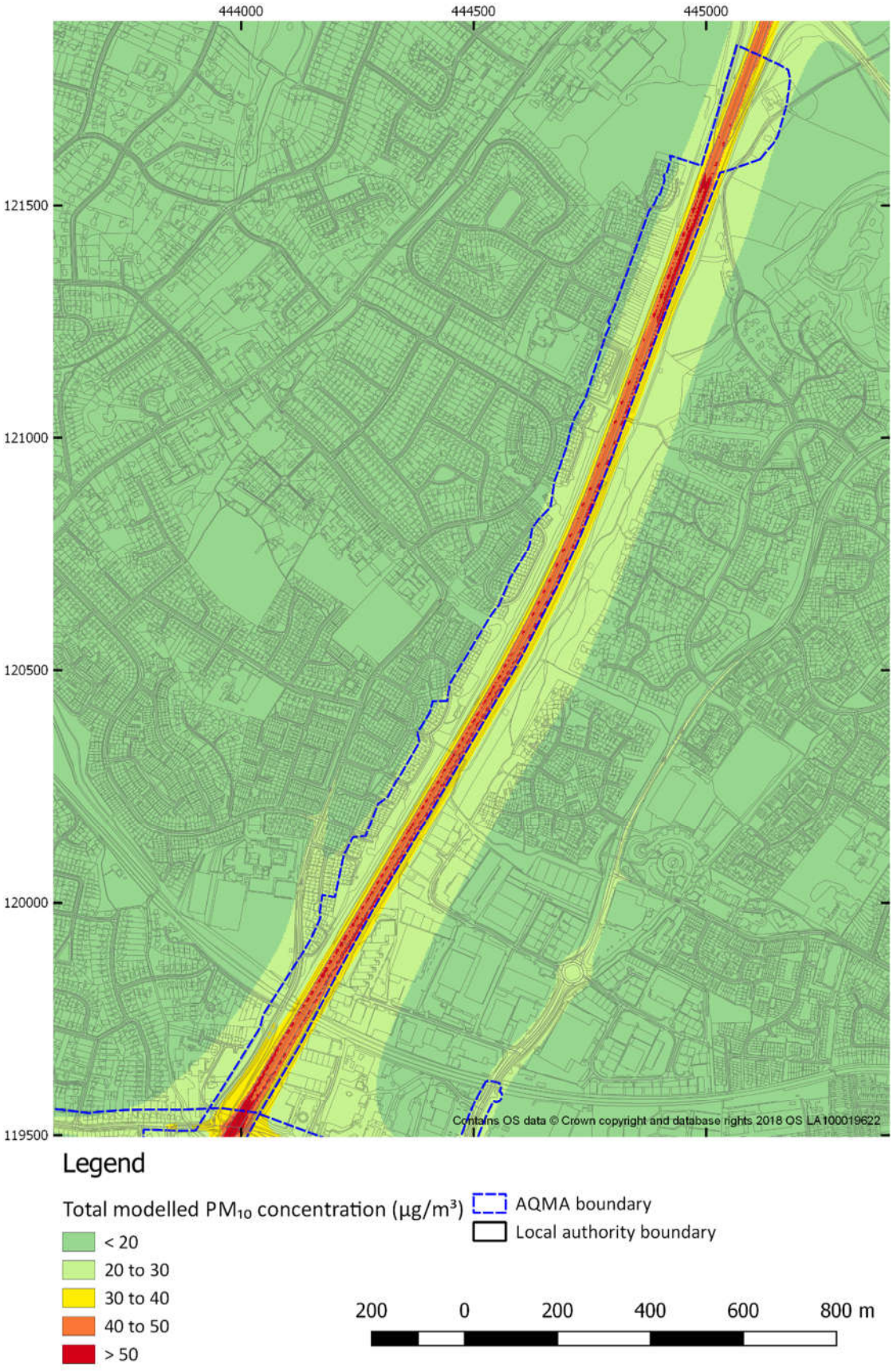


Figure 3-31 Annual mean PM_{10} concentration model results for 2036 SGO C scenario AQMA No. 2 (M3) (North)

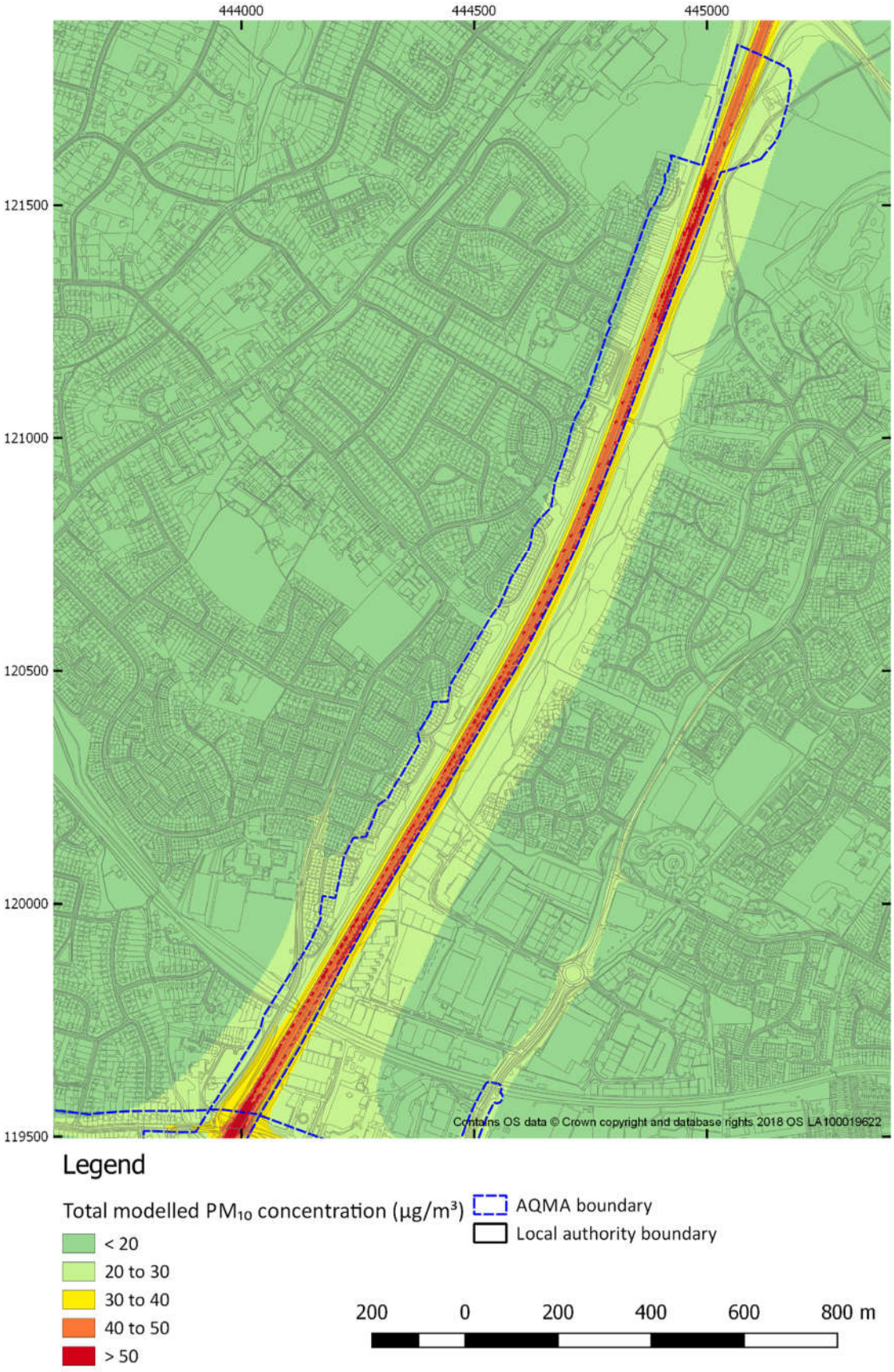


Figure 3-32 Annual mean PM_{10} concentration model results for 2036 SGO D1 scenario AQMA No. 2 (M3) (North)

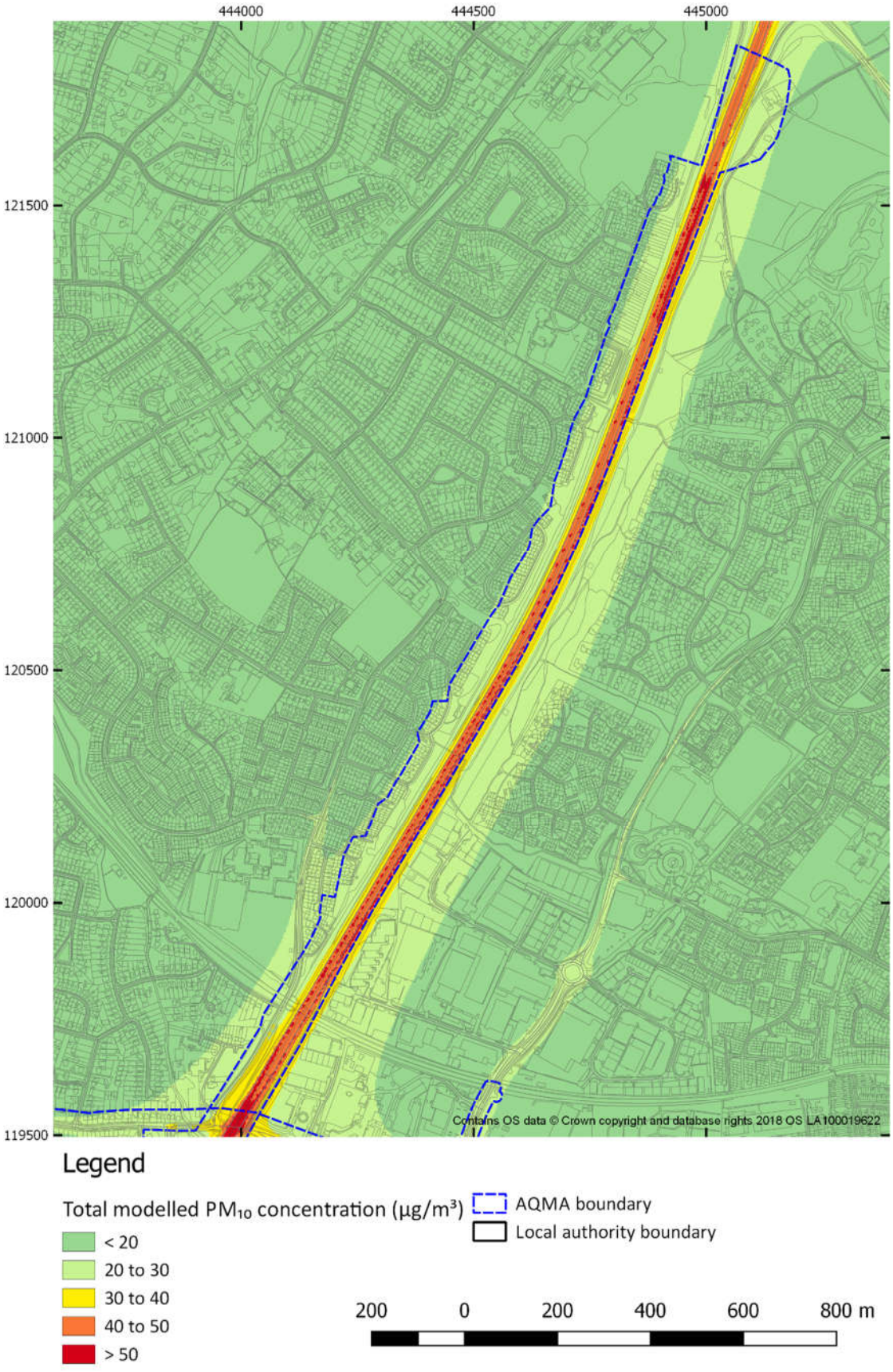


Figure 3-33 Annual mean PM_{10} concentration model results for 2036 SGO D2 scenario AQMA No. 2 (M3) (North)

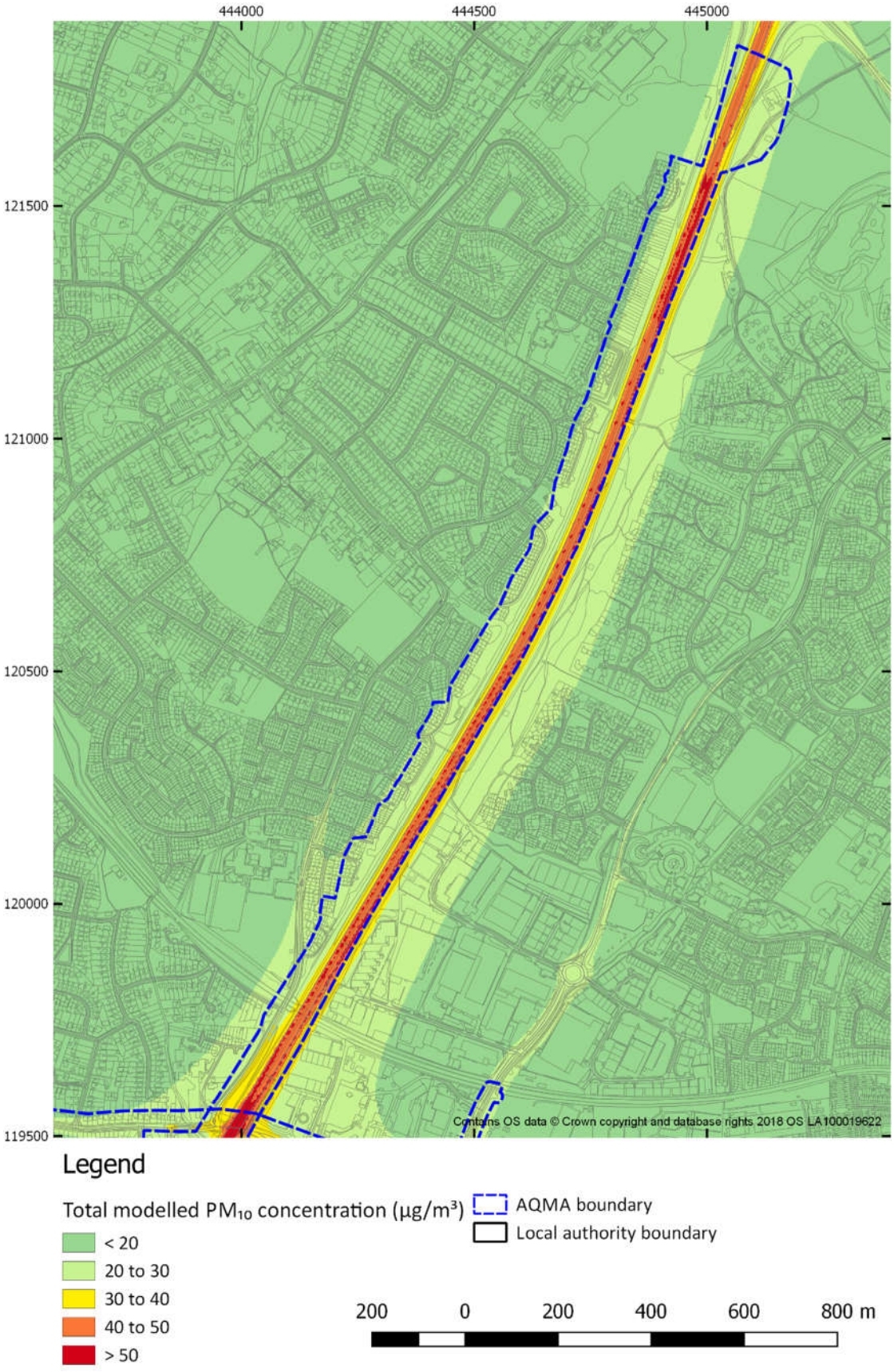


Figure 3-34 Annual mean PM_{10} concentration model results for 2036 SGO E scenario AQMA No. 2 (M3) (North)

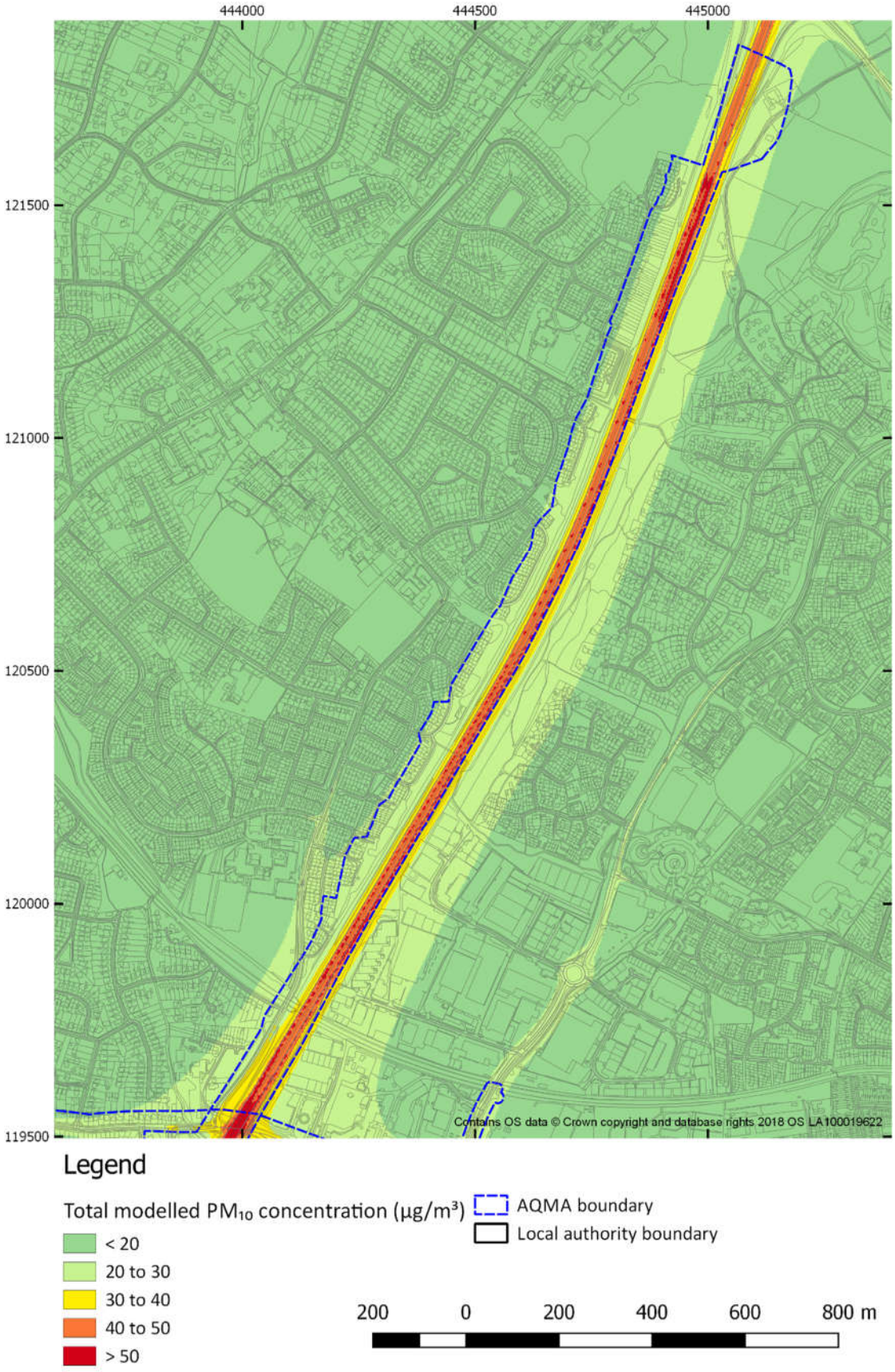
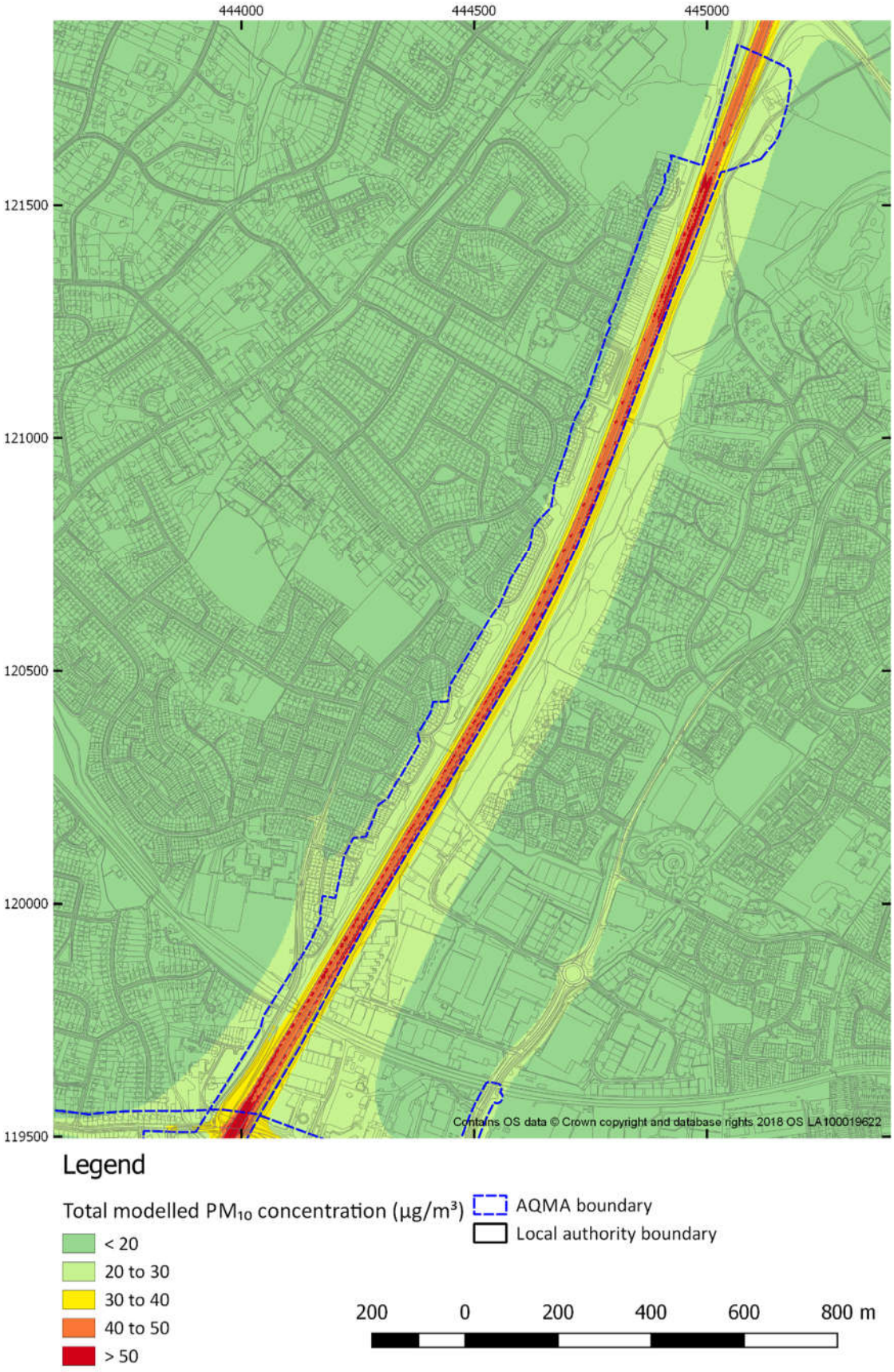


Figure 3-35 Annual mean PM_{10} concentration model results for 2036 Baseline AQMA No. 2 (M3) (North)



3.3 AQMA 3

Figure 3-36 Annual mean PM_{10} concentration model results for pseudo-2030 SGO C scenario AQMA No. 3 (Hamble Lane)

Figure 3-37 Annual mean PM_{10} concentration model results for pseudo-2030 SGO D1 scenario AQMA No. 3 (Hamble Lane)

Figure 3-38 Annual mean PM_{10} concentration model results for pseudo-2030 SGO D2 scenario AQMA No. 3 (Hamble Lane)

Figure 3-39 Annual mean PM_{10} concentration model results for pseudo-2030 SGO E scenario AQMA No. 3 (Hamble Lane)

Figure 3-40 Annual mean PM_{10} concentration model results for 2036 SGO C scenario AQMA No. 3 (Hamble Lane)

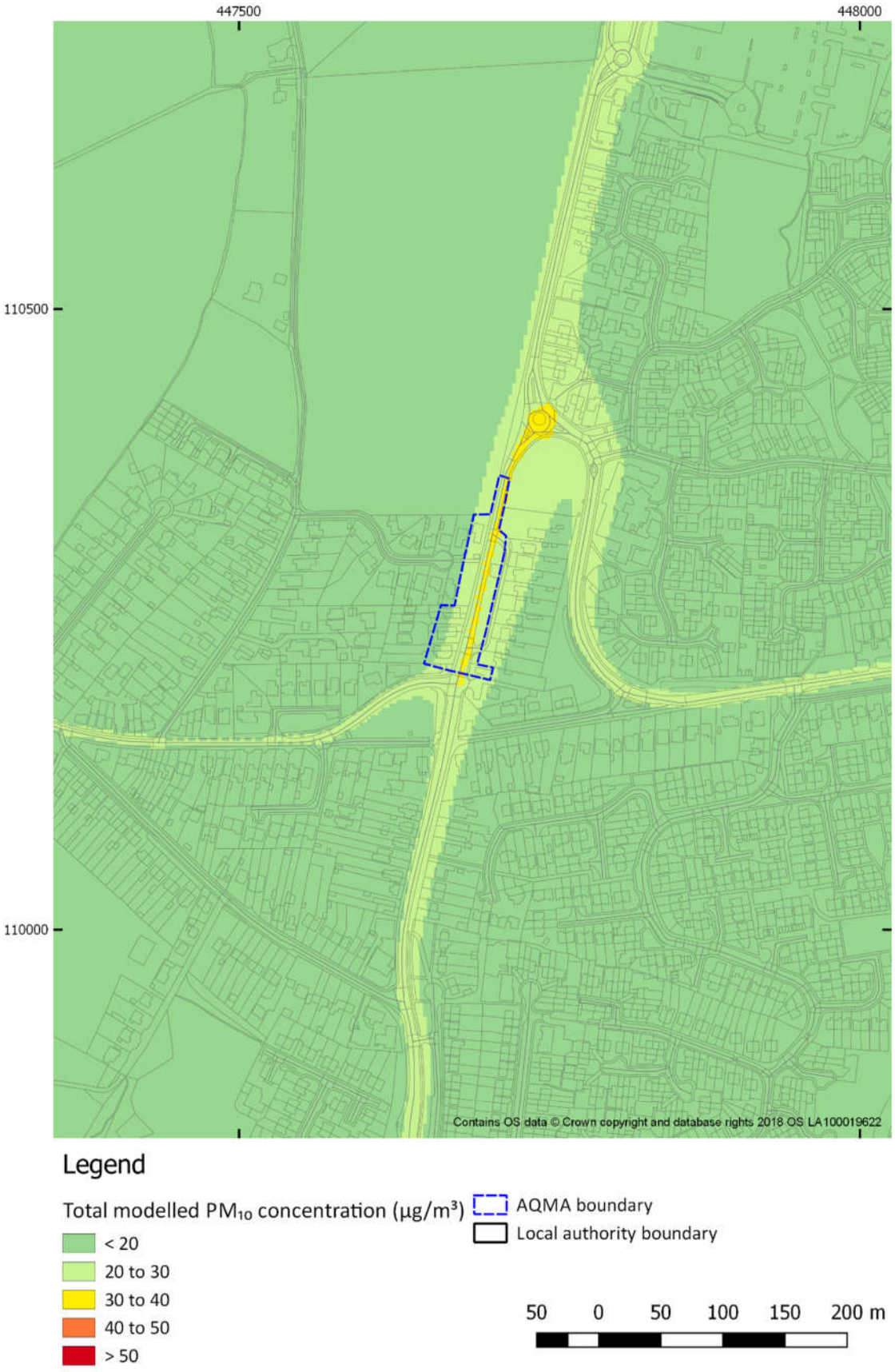


Figure 3-41 Annual mean PM_{10} concentration model results for 2036 SGO D1 scenario AQMA No. 3 (Hamble Lane)

Figure 3-42 Annual mean PM_{10} concentration model results for 2036 SGO D2 scenario AQMA No. 3 (Hamble Lane)

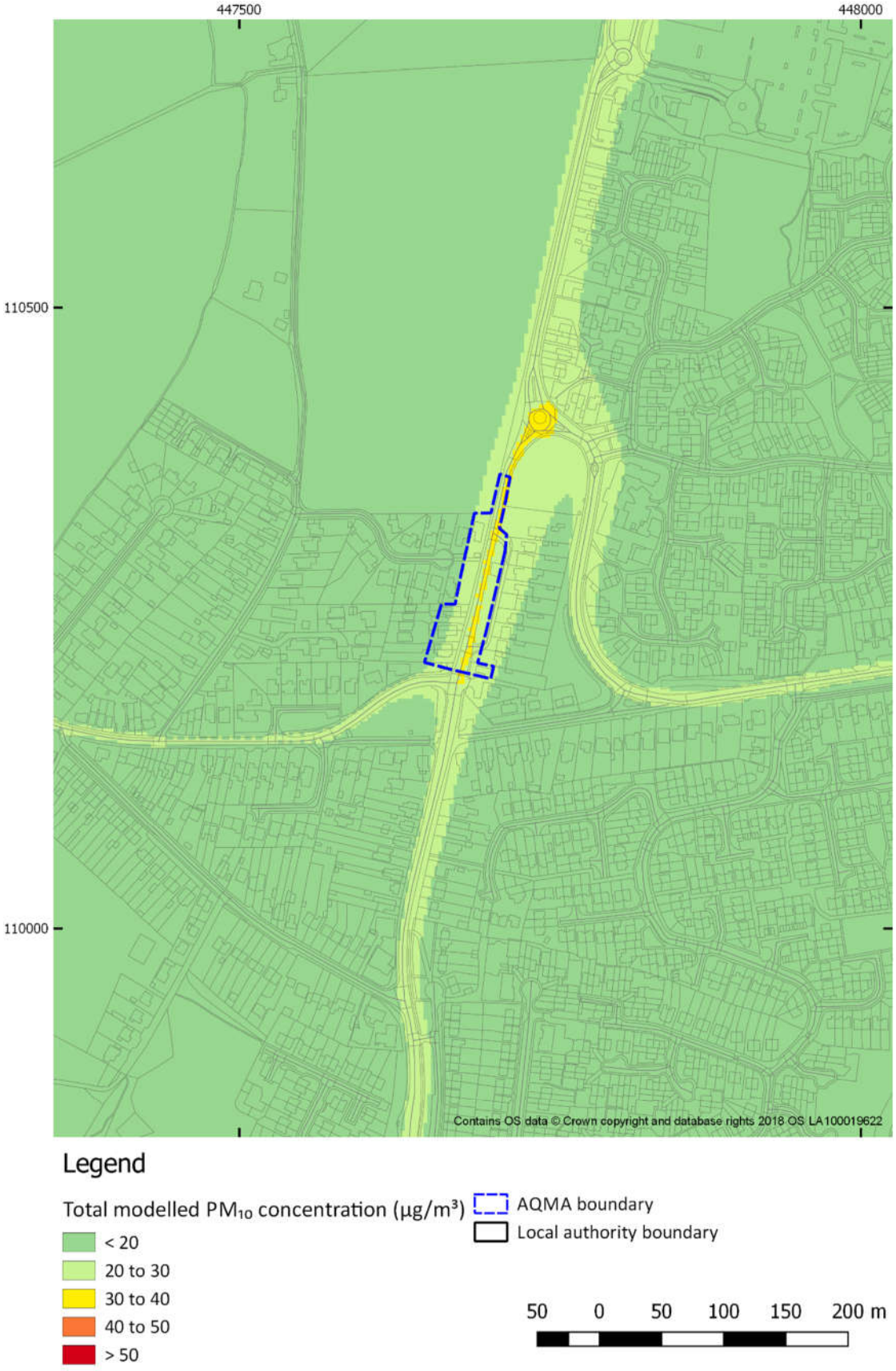
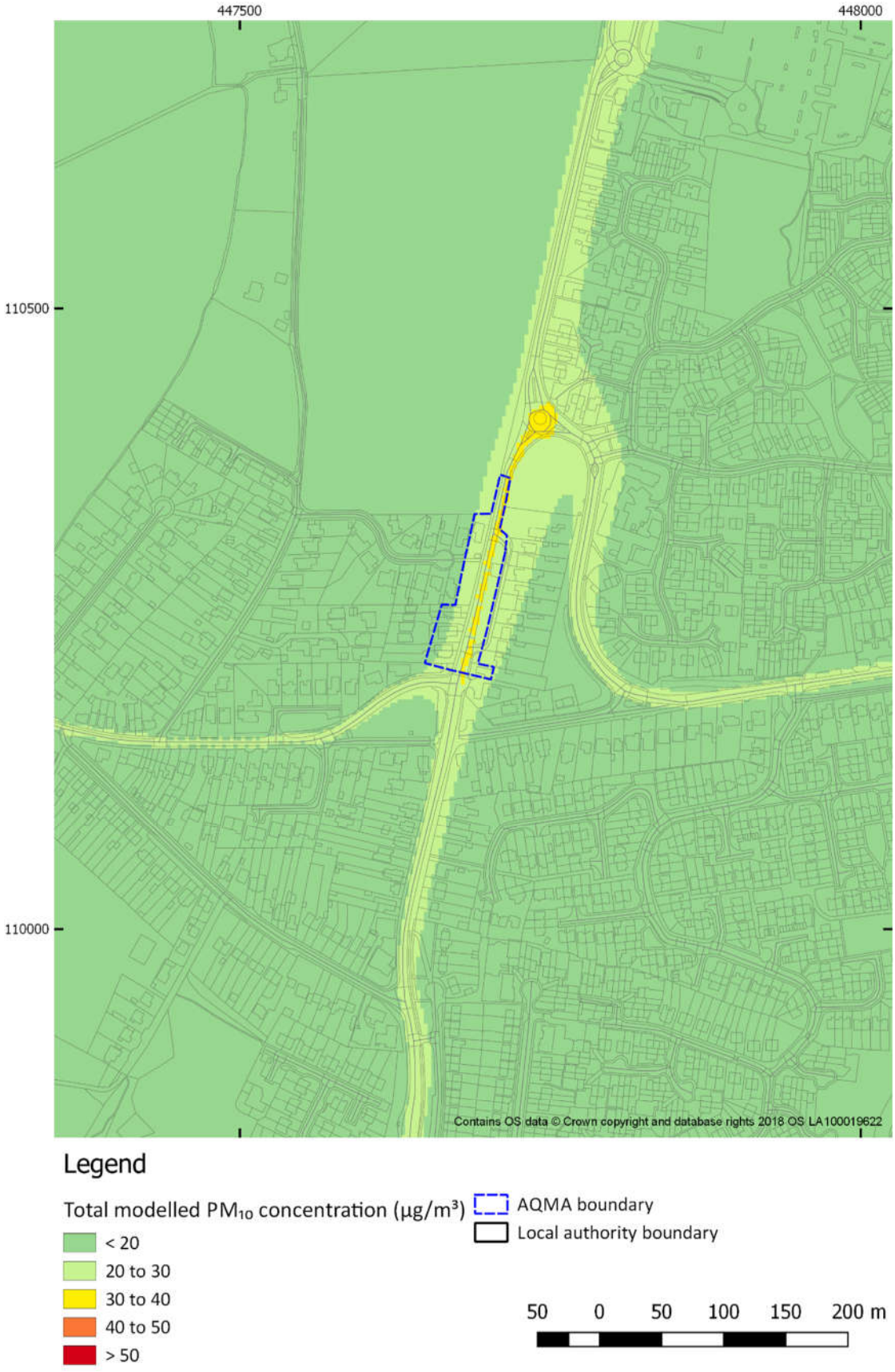


Figure 3-43 Annual mean PM_{10} concentration model results for 2036 SGO E scenario AQMA No. 3 (Hamble Lane)

Figure 3-44 Annual mean PM_{10} concentration model results for 2036 Baseline AQMA No. 3 (Hamble Lane)



3.4 AQMA 4

Figure 3-45 Annual mean PM_{10} concentration model results for pseudo-2030 SGO C scenario AQMA No. 4 (High Street Botley)

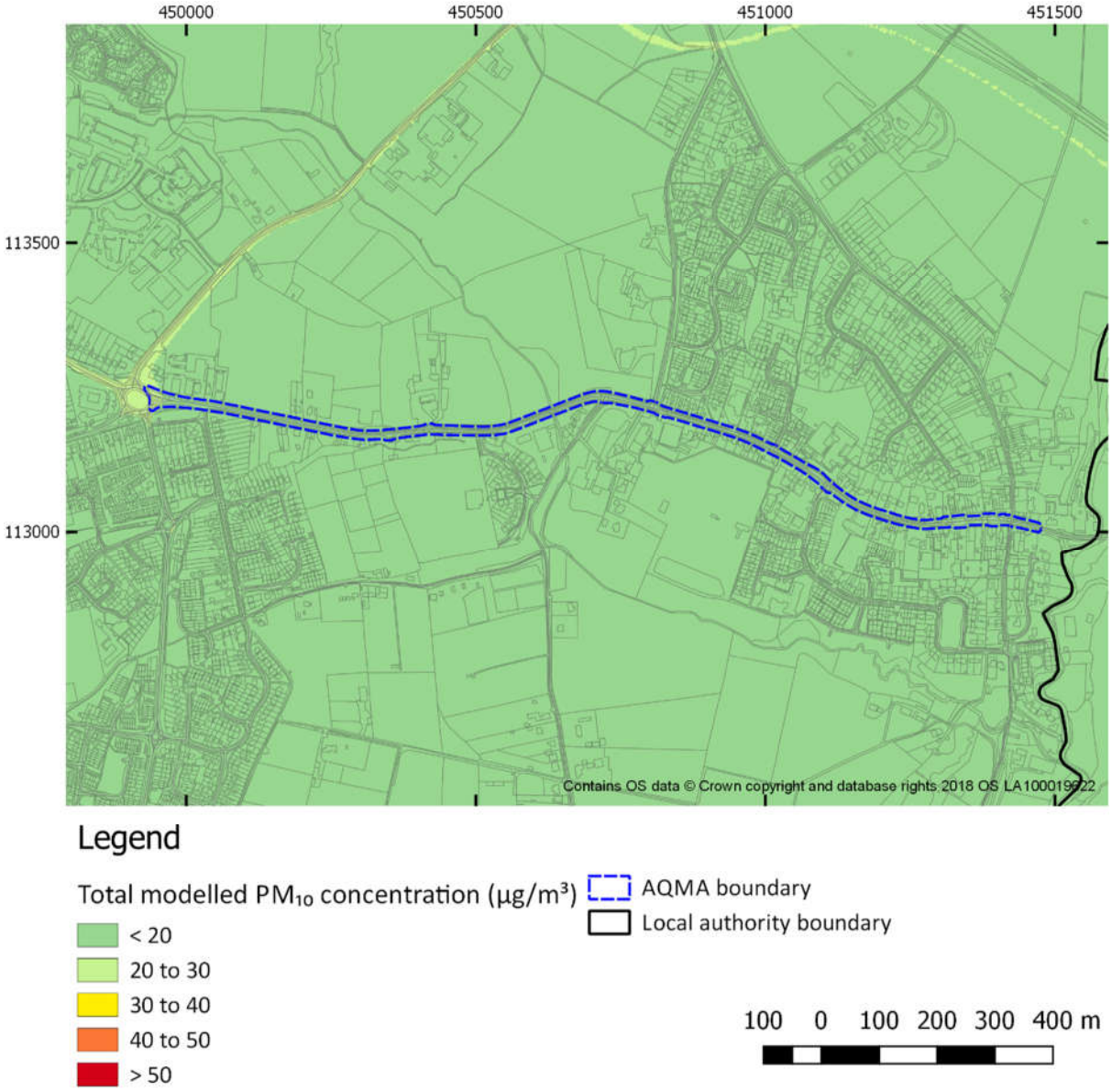


Figure 3-46 Annual mean PM_{10} concentration model results for pseudo-2030 SGO D1 scenario AQMA No. 4 (High Street Botley)

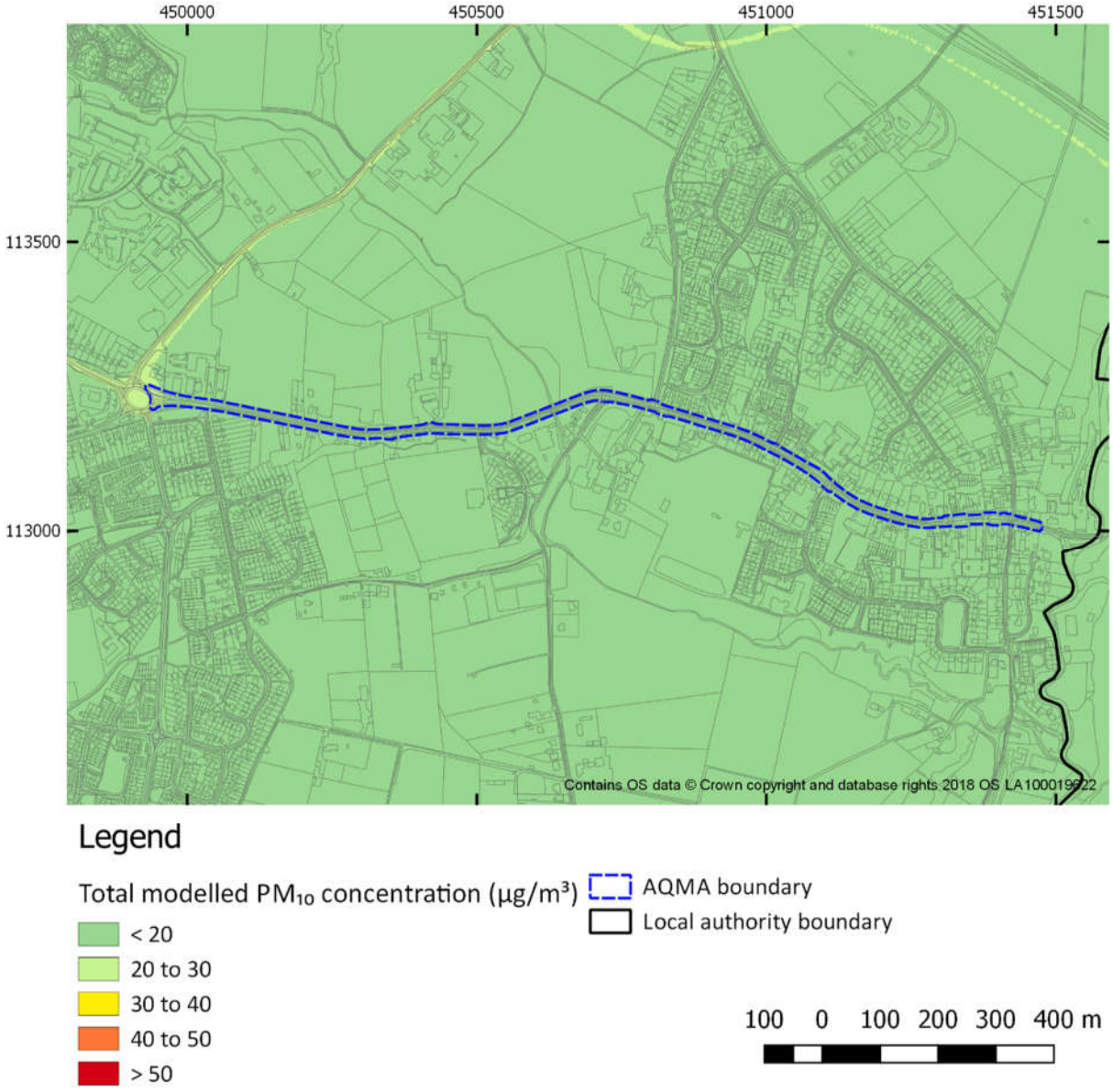


Figure 3-47 Annual mean PM_{10} concentration model results for pseudo-2030 SGO D2 scenario AQMA No. 4 (High Street Botley)

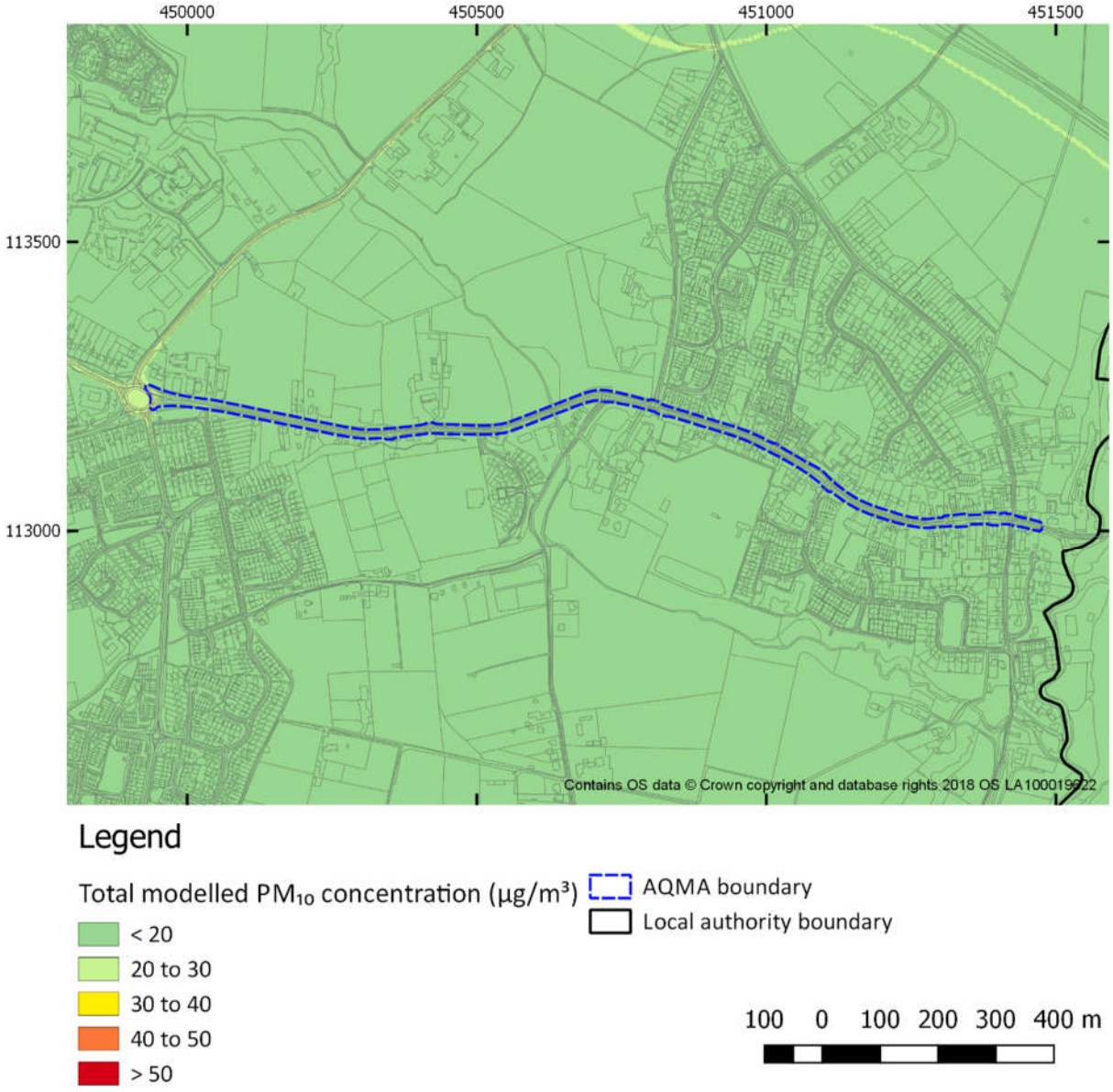


Figure 3-48 Annual mean PM_{10} concentration model results for pseudo-2030 SGO E scenario AQMA No. 4 (High Street Botley)

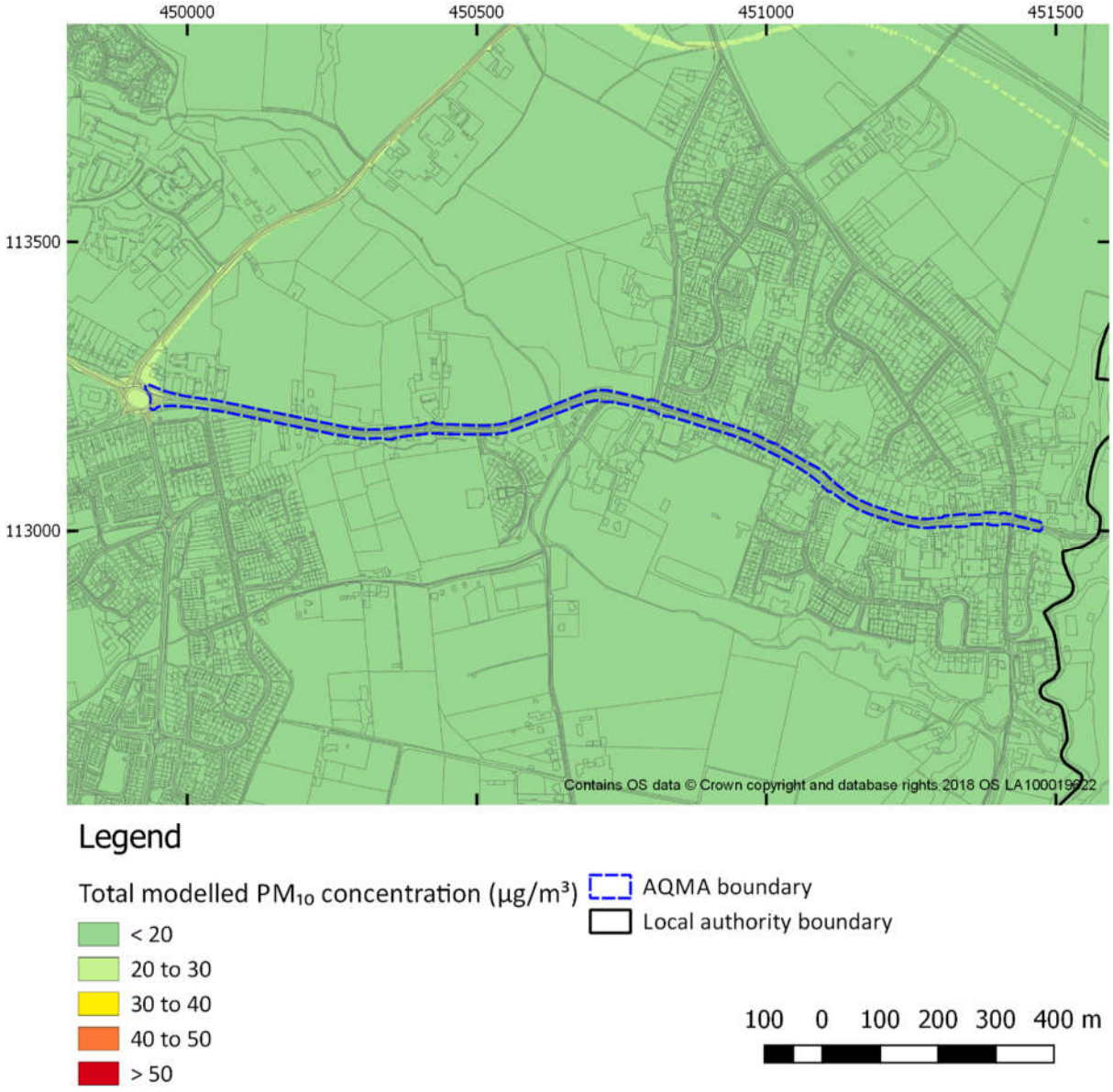


Figure 3-49 Annual mean PM_{10} concentration model results for 2036 SGO C scenario AQMA No. 4 (High Street Botley)

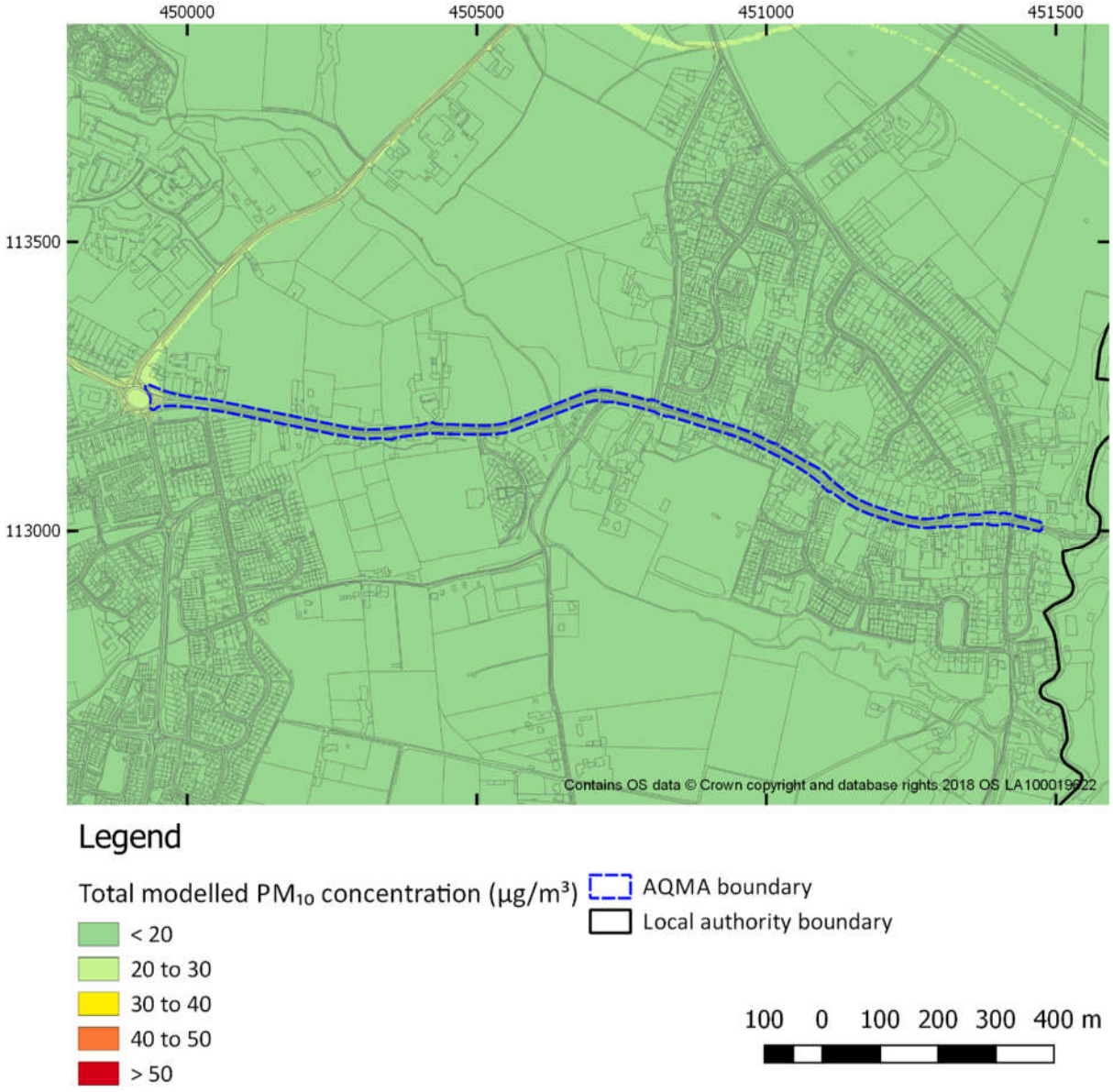


Figure 3-50 Annual mean PM_{10} concentration model results for 2036 SGO D1 scenario AQMA No. 4 (High Street Botley)

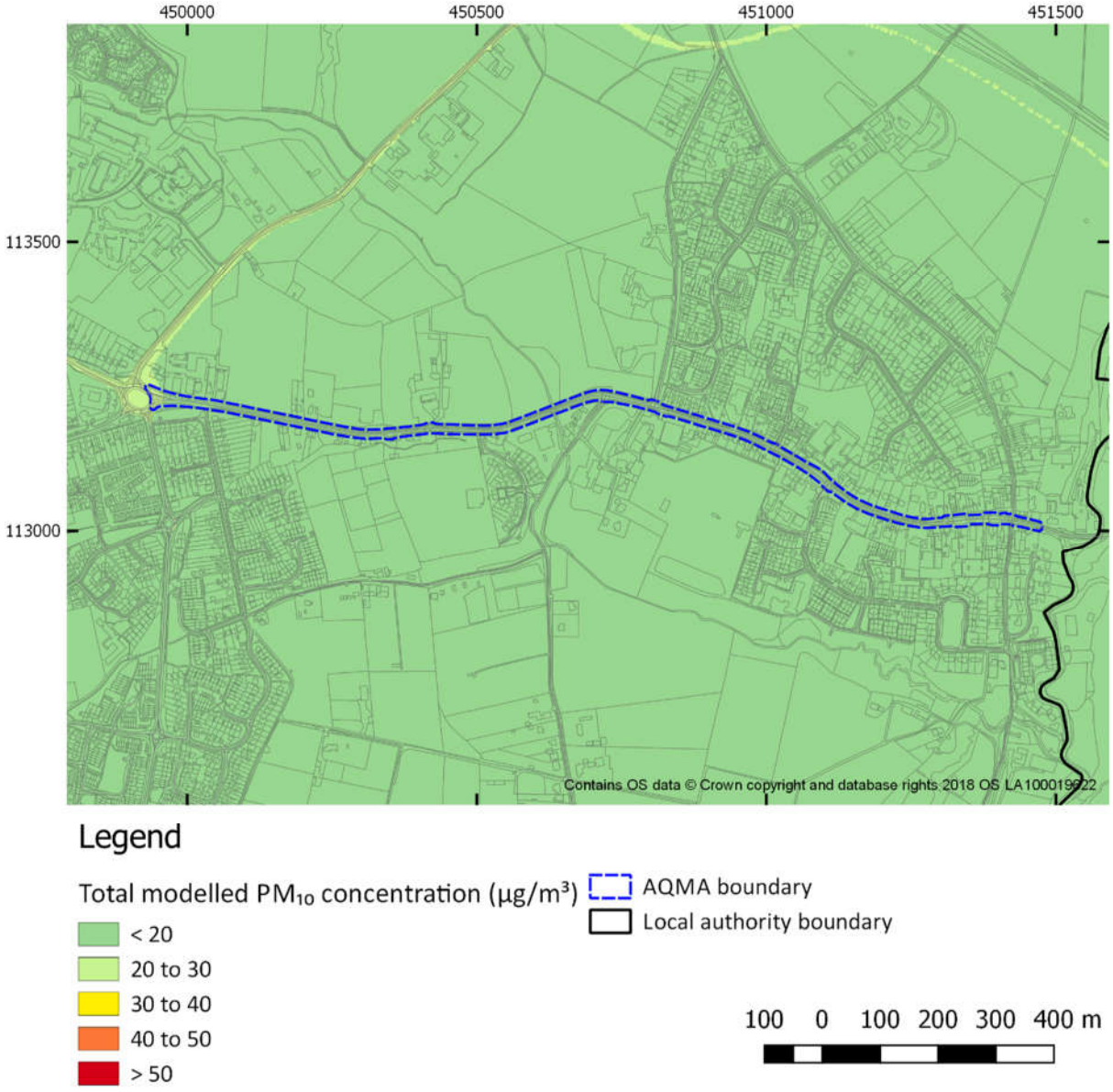


Figure 3-51 Annual mean PM_{10} concentration model results for 2036 SGO D2 scenario AQMA No. 4 (High Street Botley)

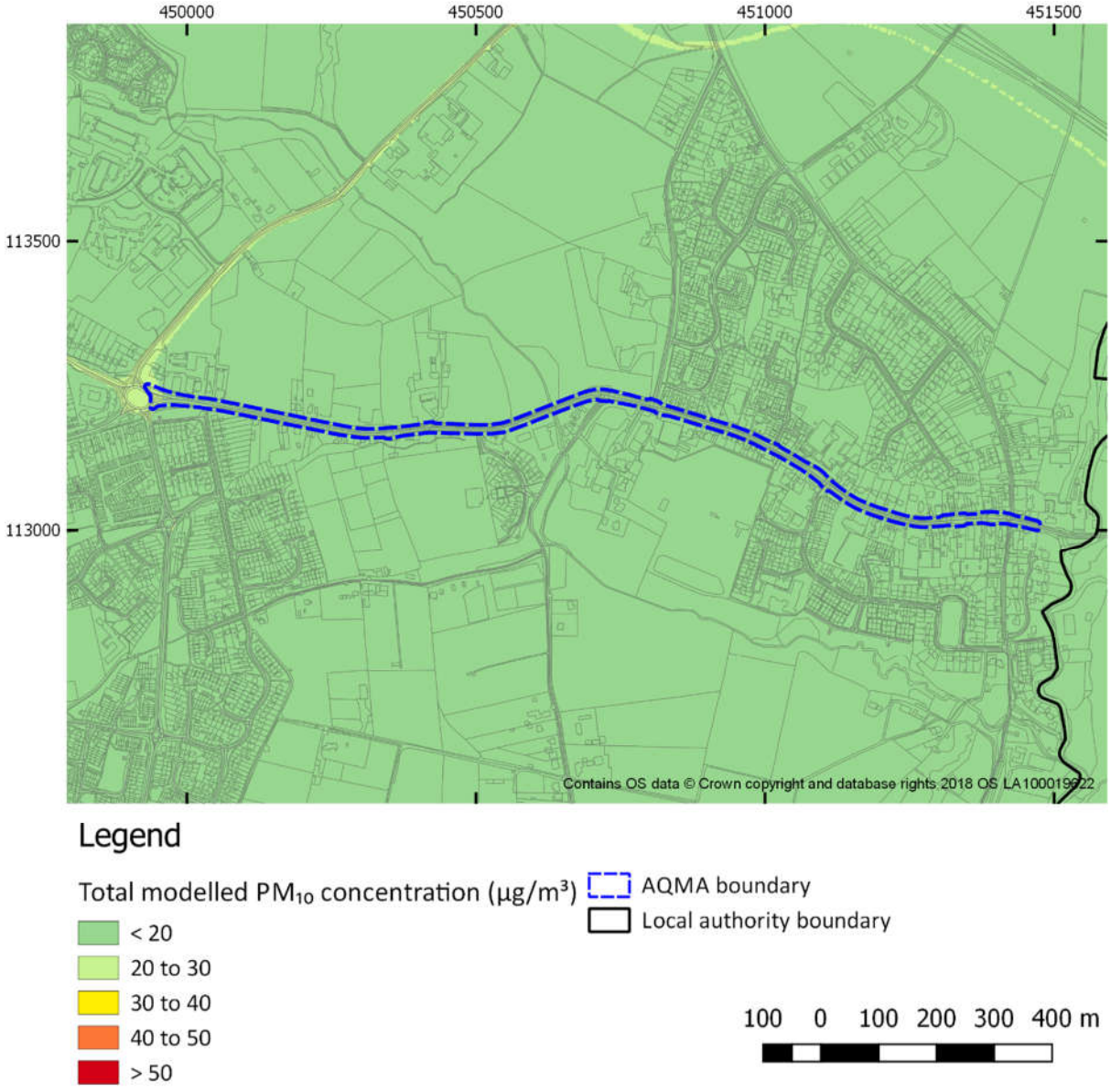


Figure 3-52 Annual mean PM_{10} concentration model results for 2036 SGO E scenario AQMA No. 4 (High Street Botley)

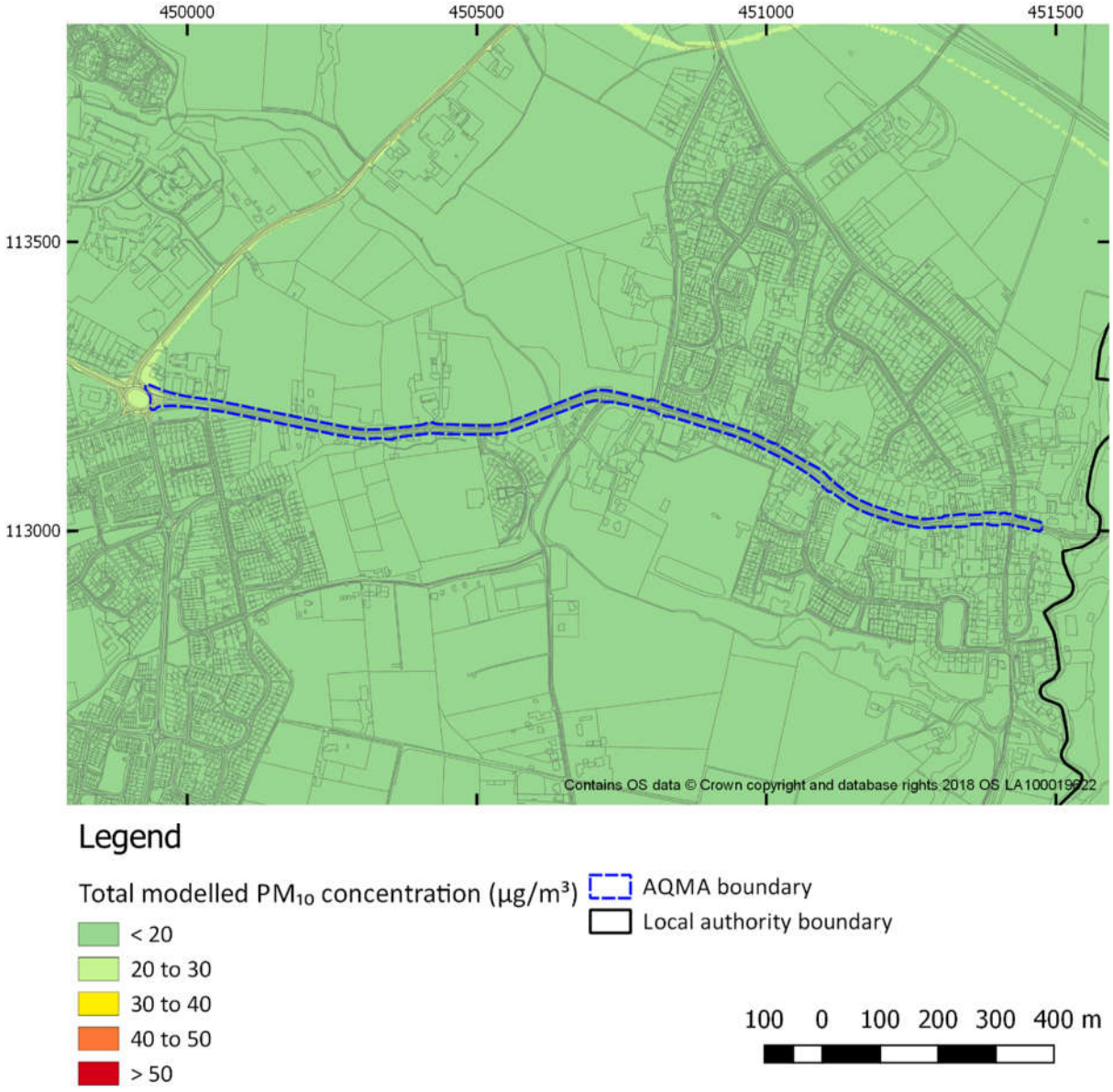
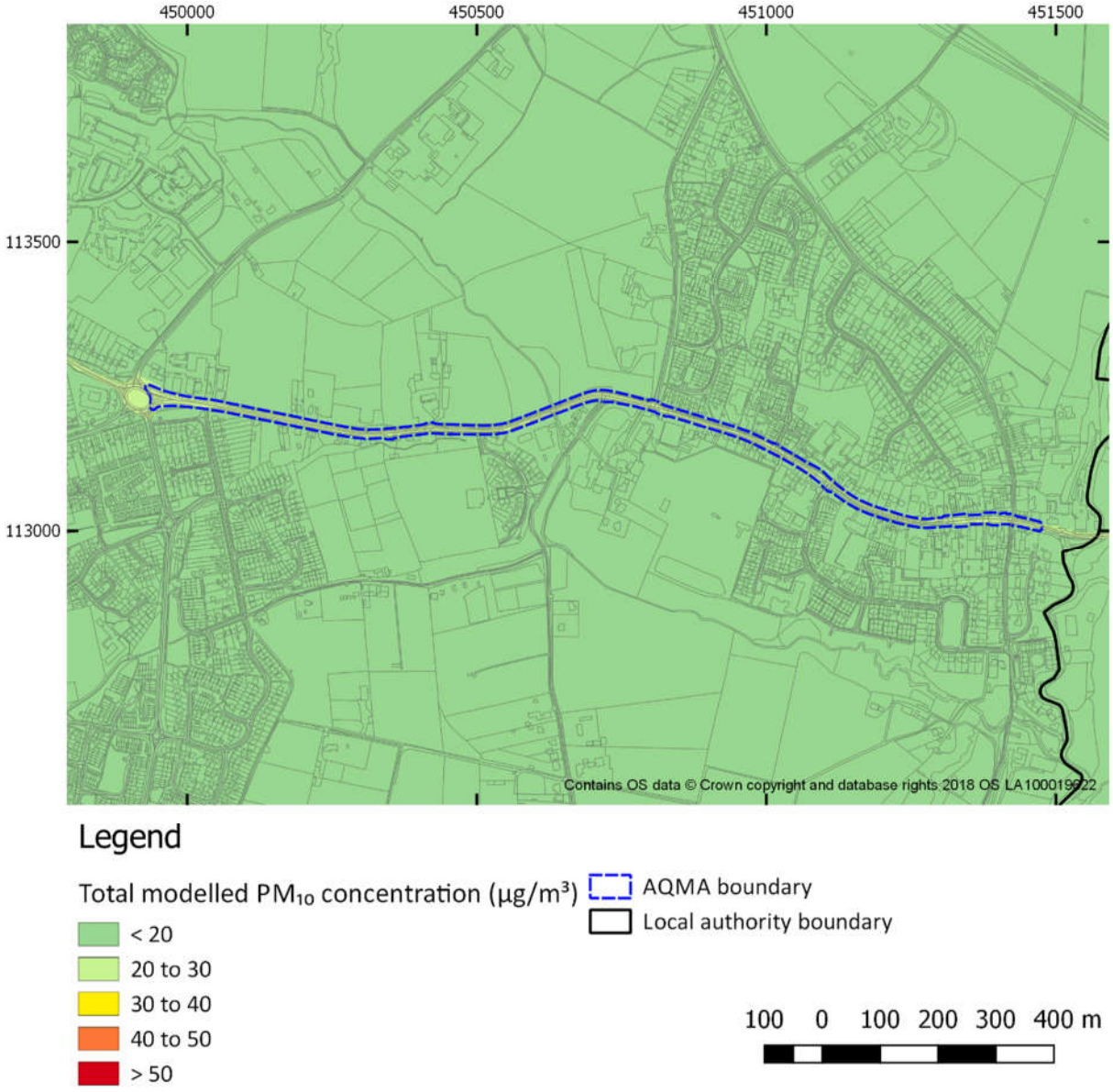


Figure 3-53 Annual mean PM_{10} concentration model results for 2036 Baseline AQMA No. 4 (High Street Botley)



4 $PM_{2.5}$ annual mean concentration

4.1 Full modelling domain

Figure 4-1 Annual mean $PM_{2.5}$ concentration model results for pseudo-2030 SGO C scenario

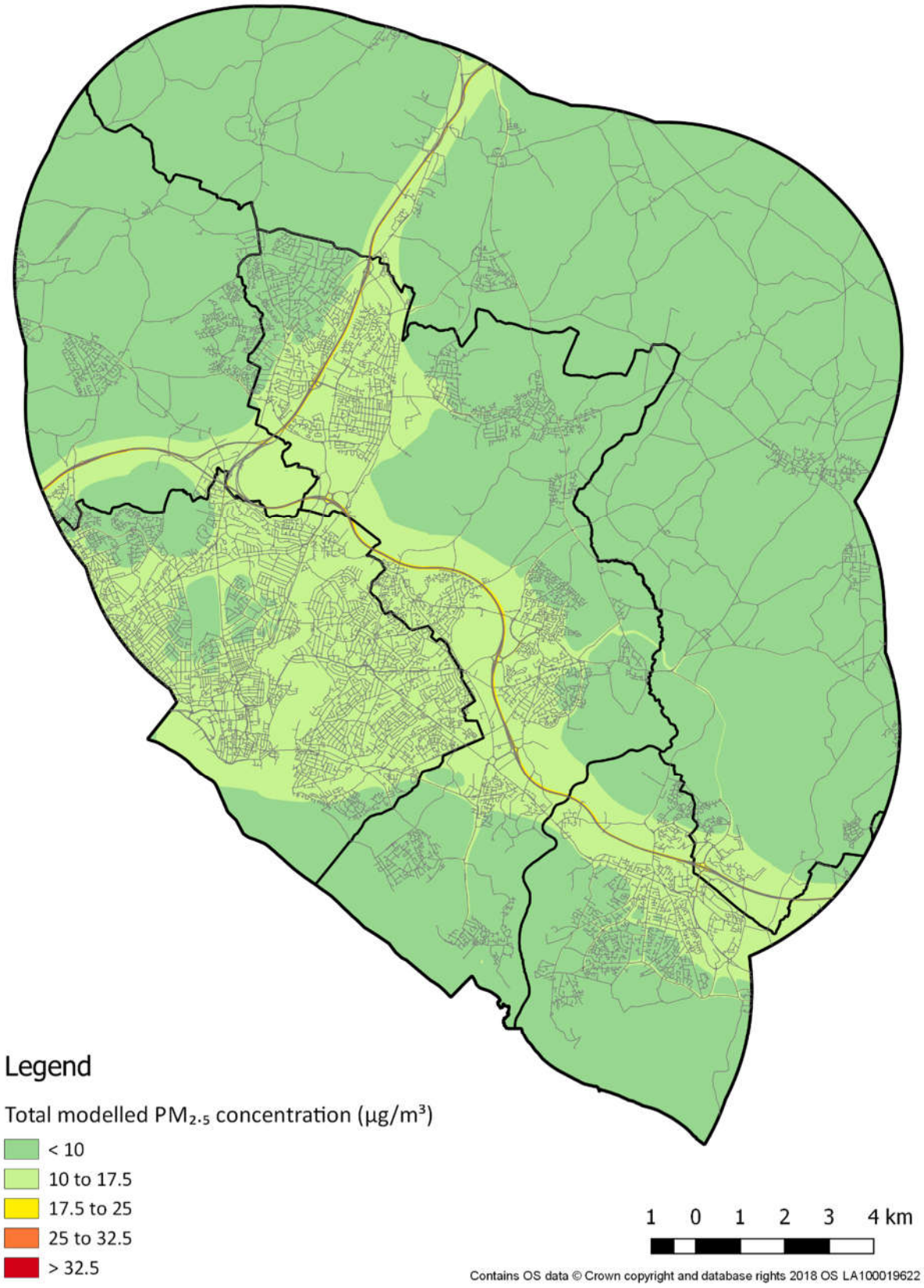


Figure 4-2 Annual mean $PM_{2.5}$ concentration model results for pseudo-2030 SGO D1 scenario

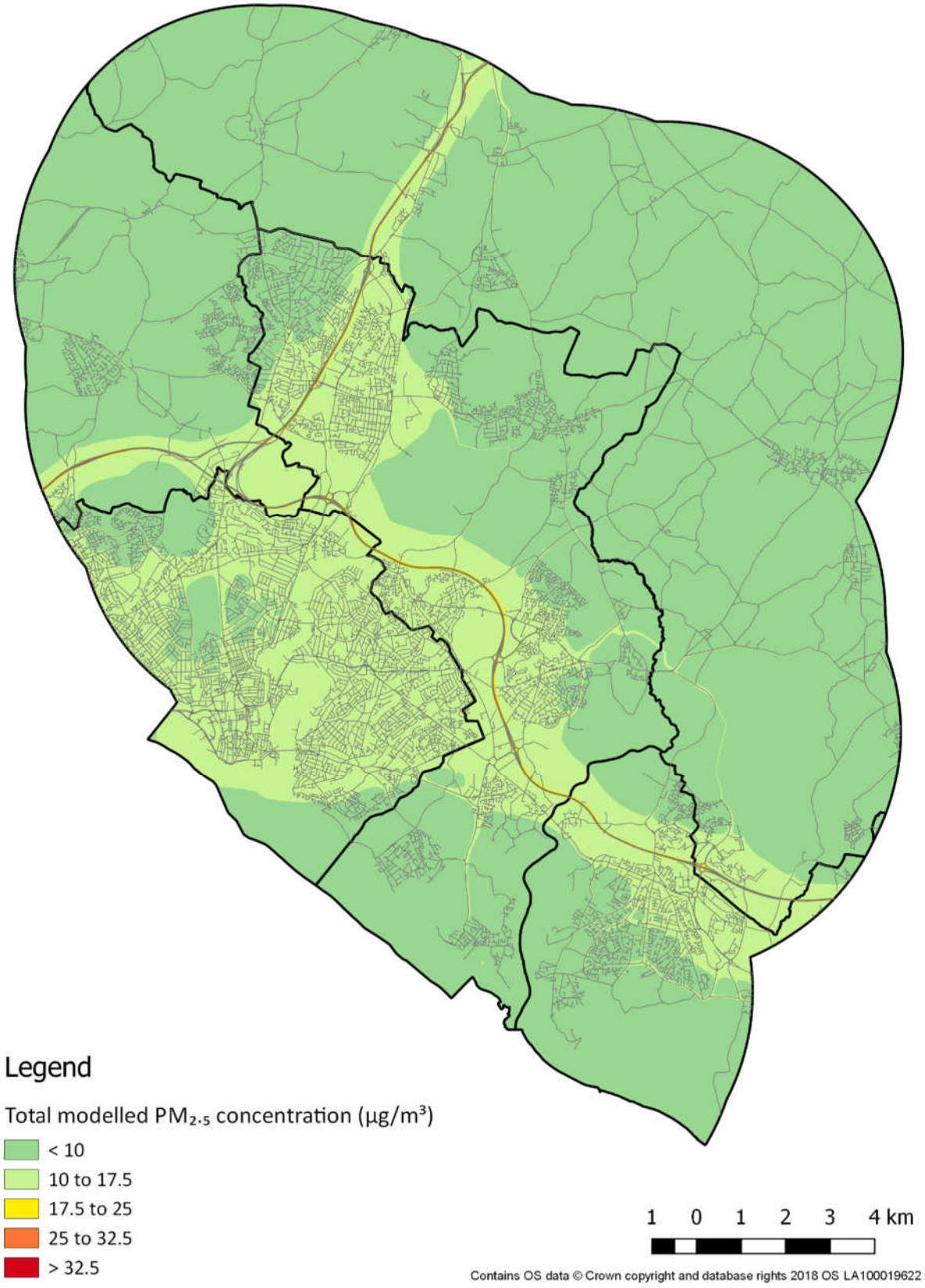


Figure 4-3 Annual mean $PM_{2.5}$ concentration model results for pseudo-2030 SGO D2 scenario

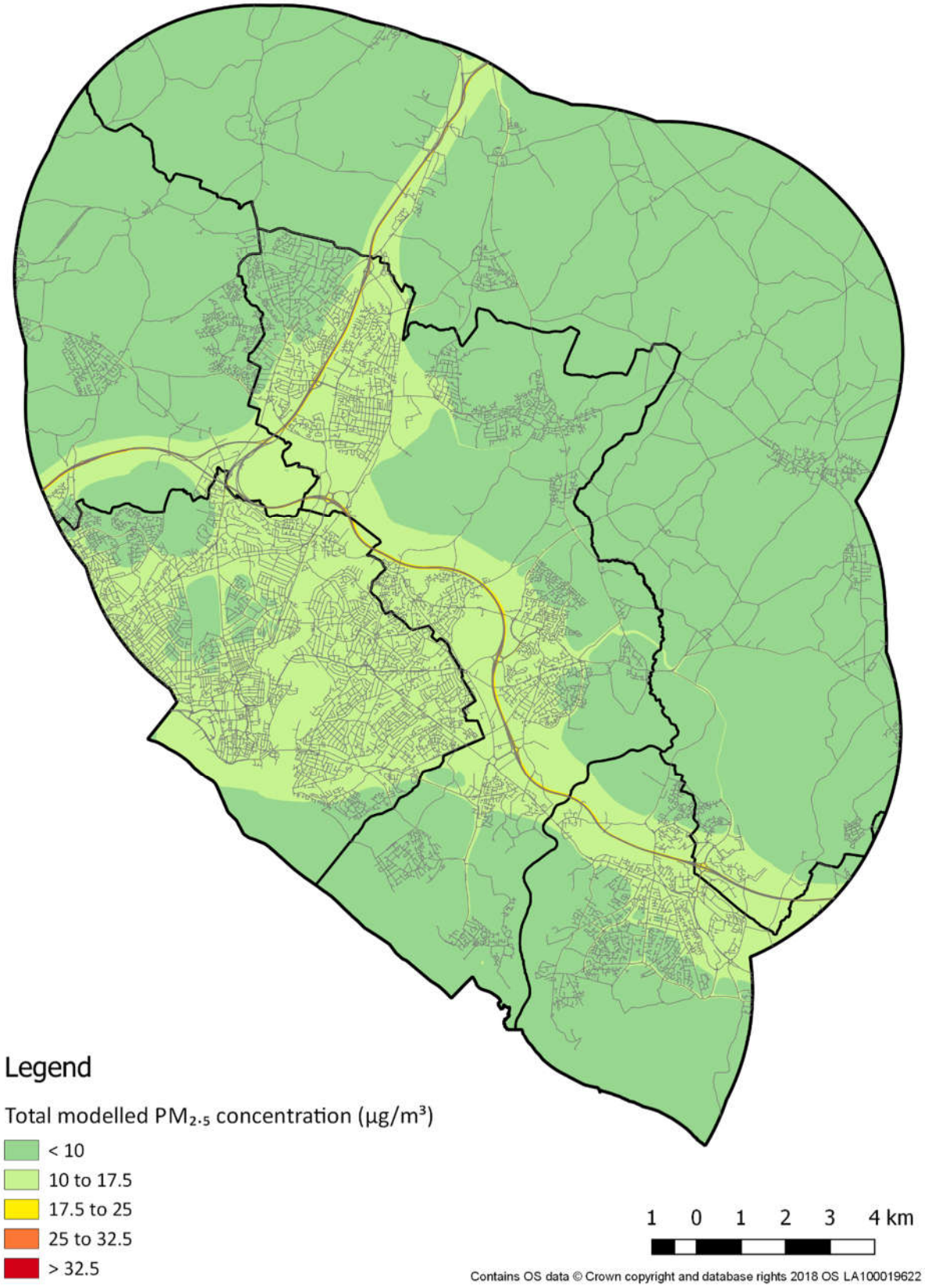


Figure 4-4 Annual mean $PM_{2.5}$ concentration model results for pseudo-2030 SGO E scenario

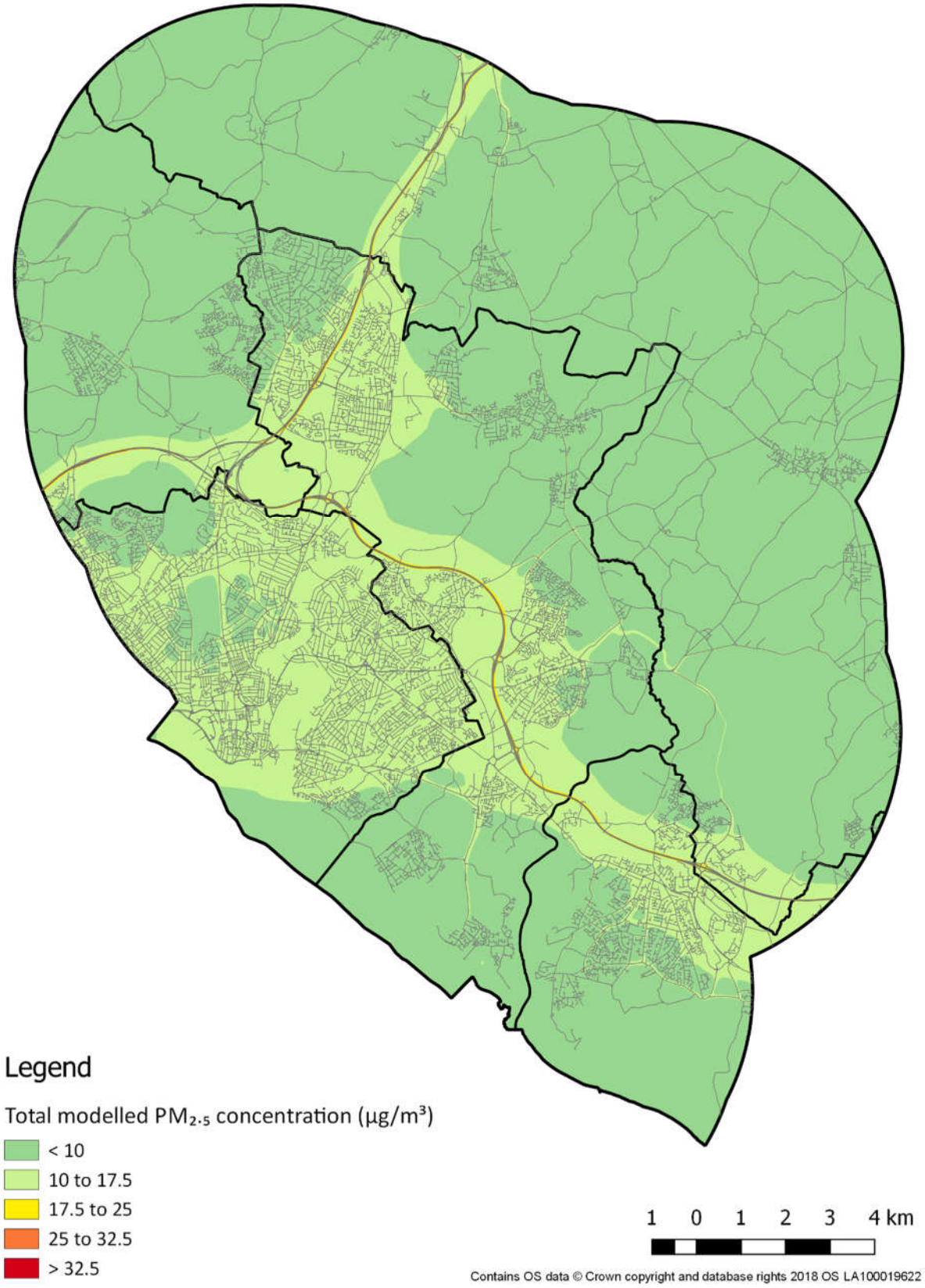


Figure 4-5 Annual mean $PM_{2.5}$ concentration model results for 2036 SGO C scenario

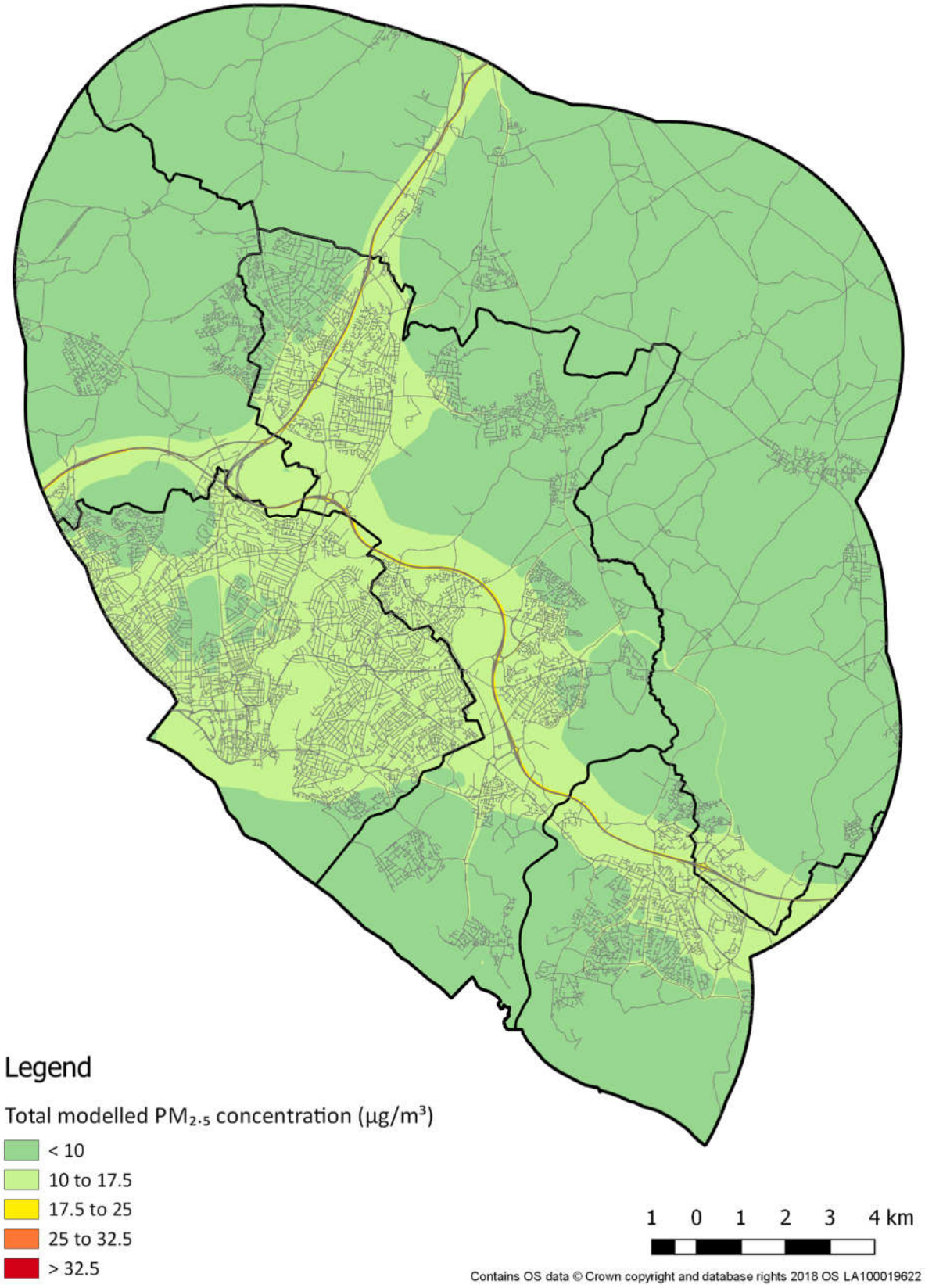


Figure 4-6 Annual mean $PM_{2.5}$ concentration model results for 2036 SGO D1 scenario

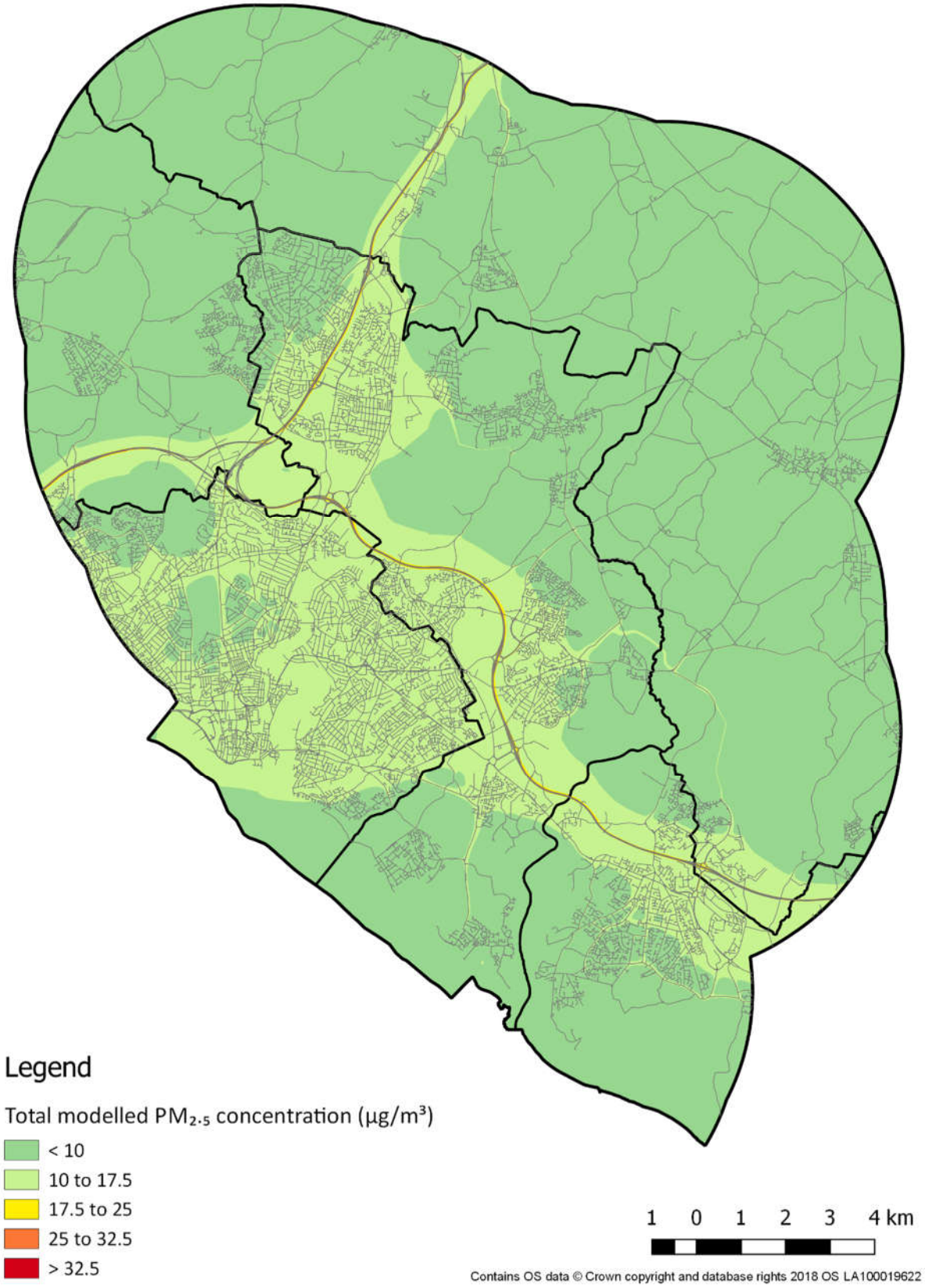


Figure 4-7 Annual mean $PM_{2.5}$ concentration model results for 2036 SGO D2 scenario

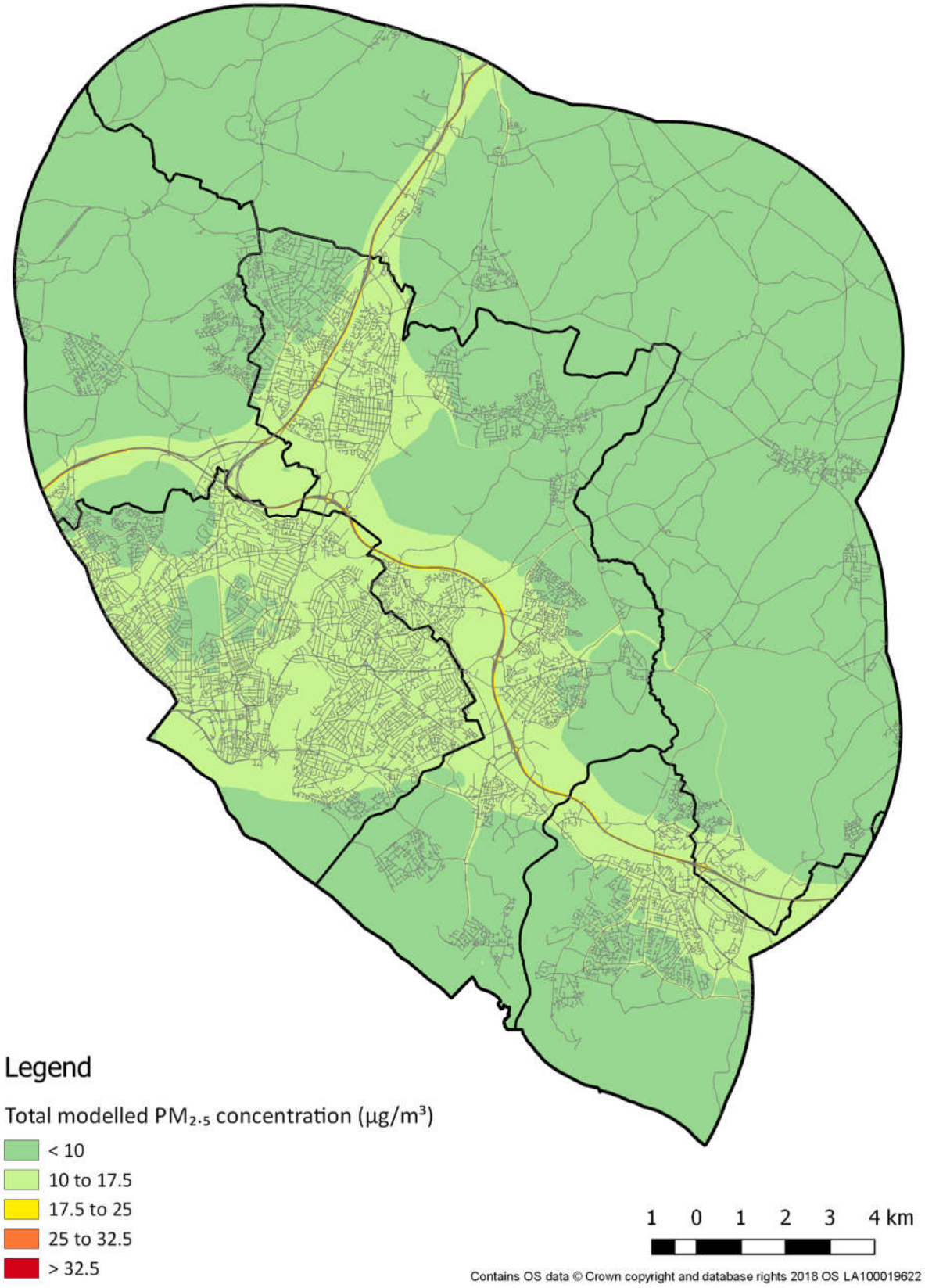
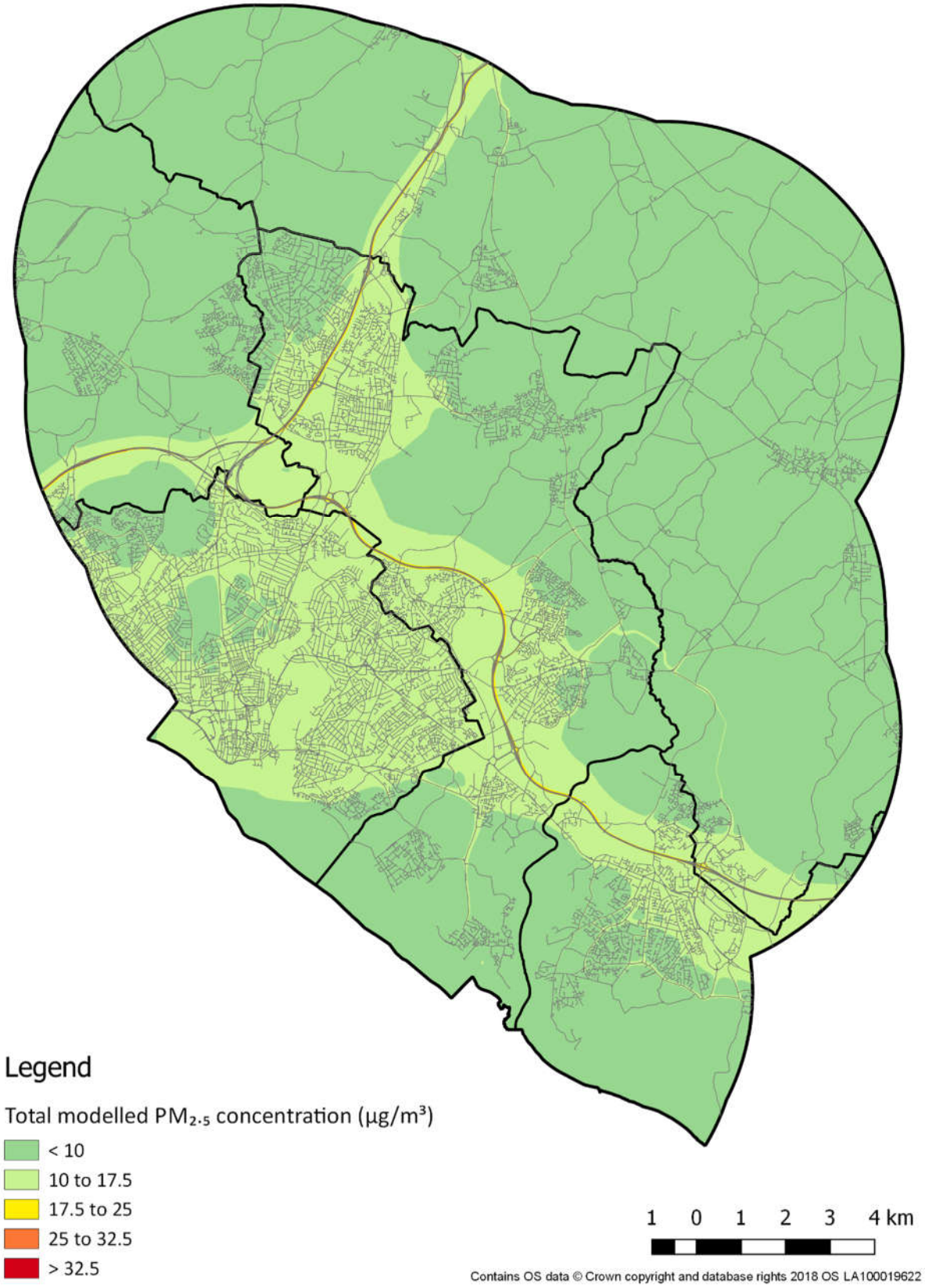


Figure 4-8 Annual mean $PM_{2.5}$ concentration model results for 2036 SGO E scenario



4.2 AQMA 1 and 2

Figure 4-9 Annual mean $PM_{2.5}$ concentration model results for pseudo-2030 SGO C scenario AQMA No. 1 (A335 / Eastleigh) (East)

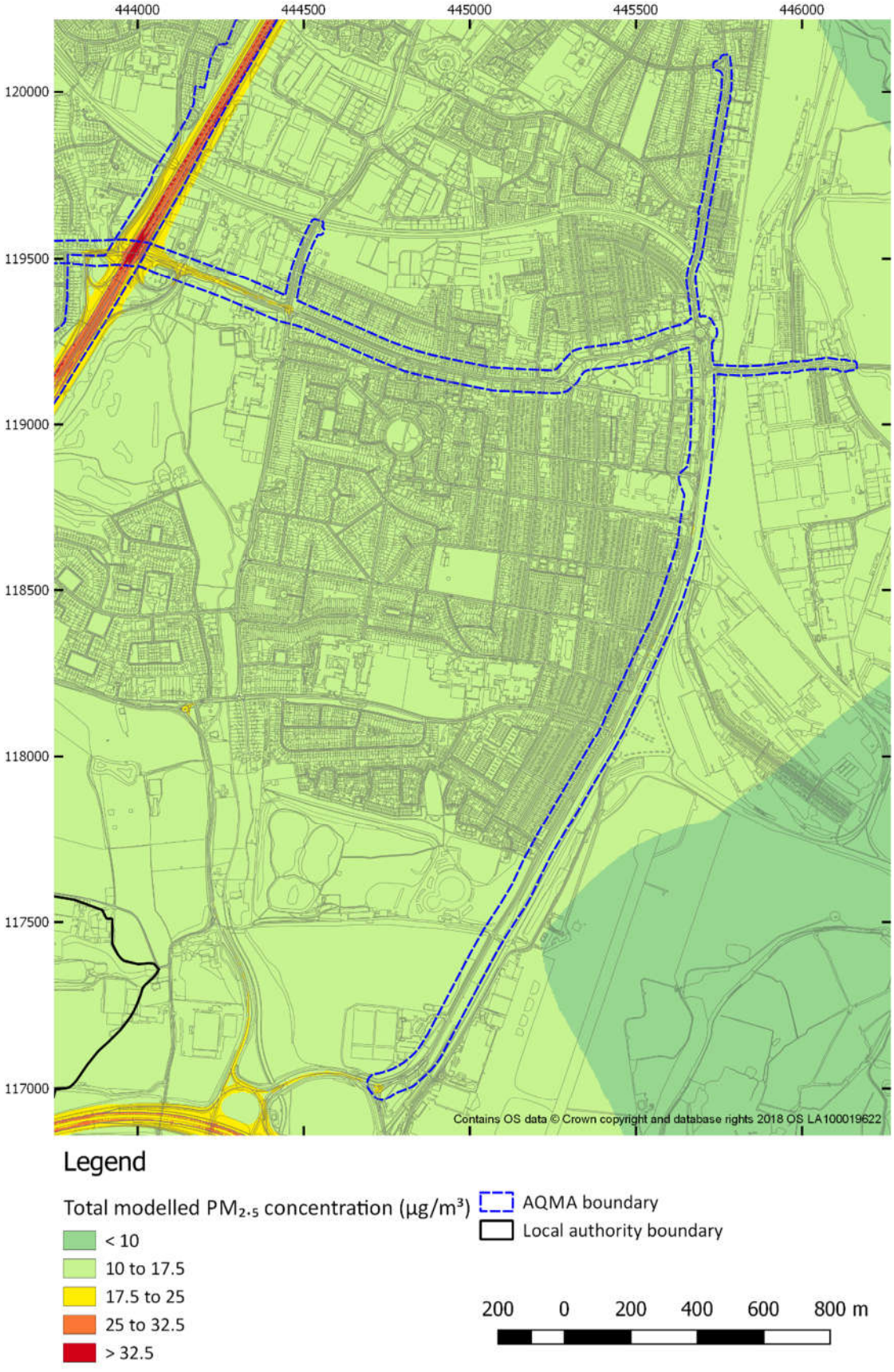


Figure 4-10 Annual mean $PM_{2.5}$ concentration model results for pseudo-2030 SGO D1 scenario AQMA No. 1 (A335 / Eastleigh) (East)

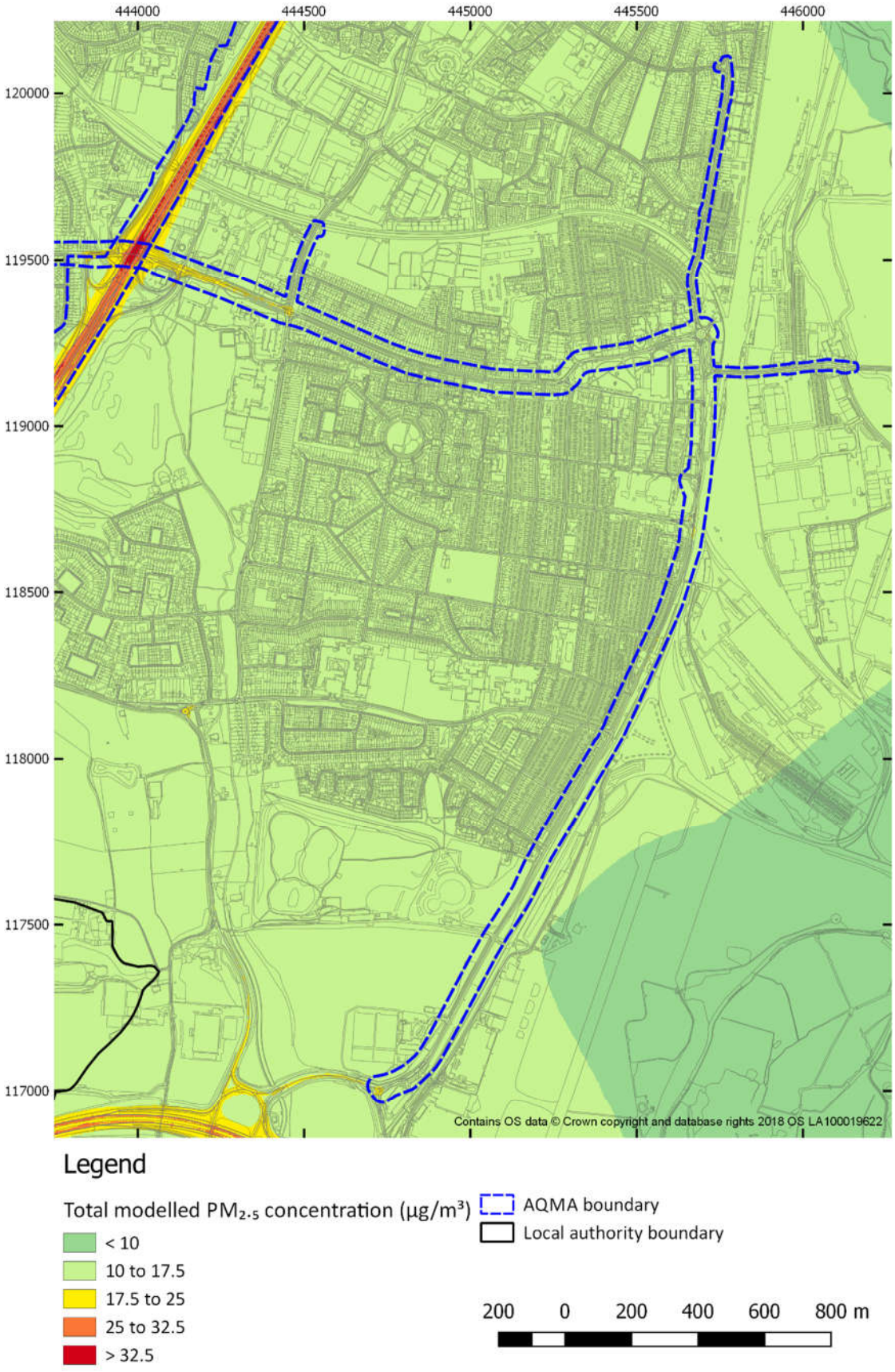


Figure 4-11 Annual mean $PM_{2.5}$ concentration model results for pseudo-2030 SGO D2 scenario AQMA No. 1 (A335 / Eastleigh) (East)

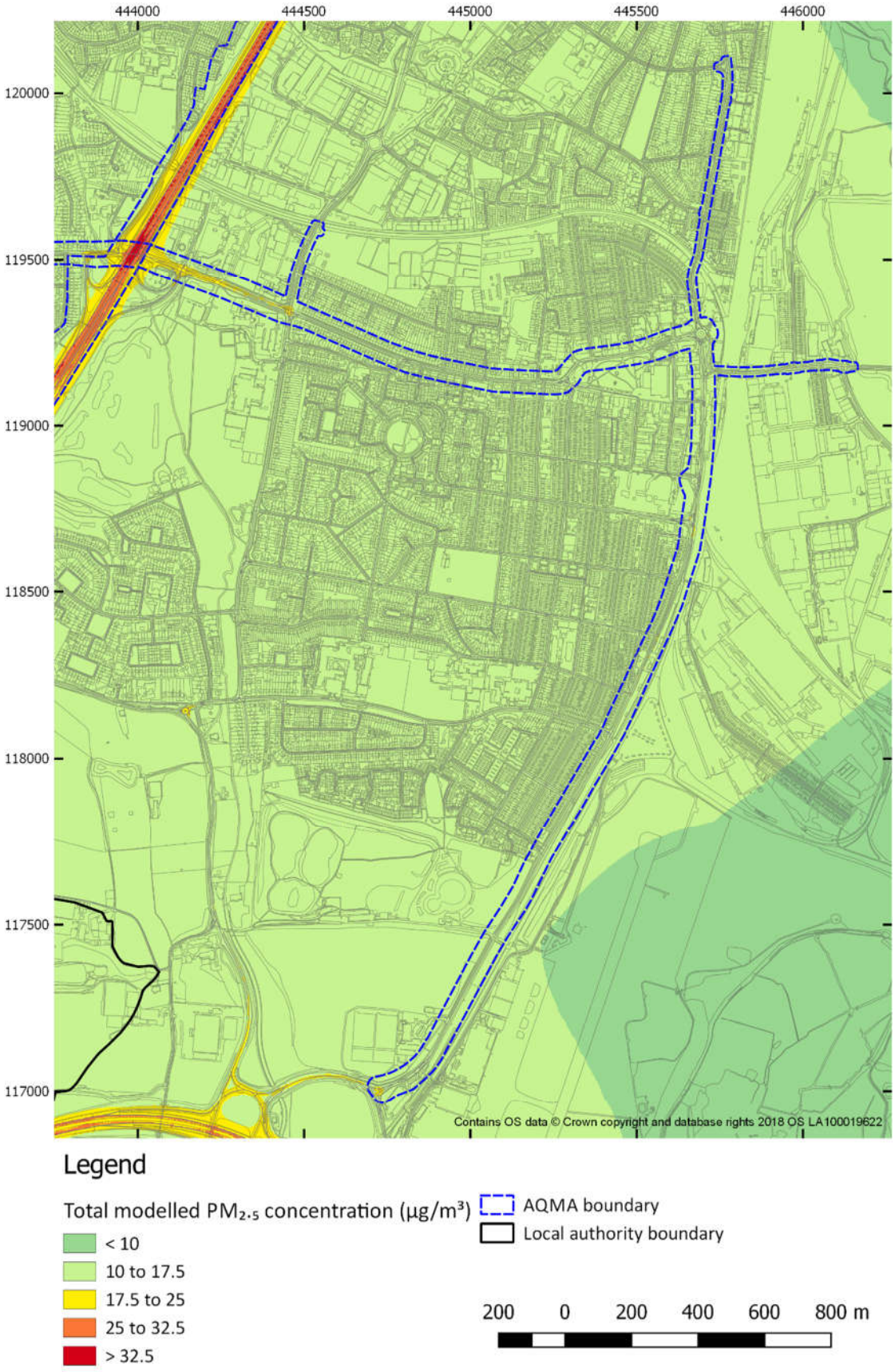


Figure 4-12 Annual mean $PM_{2.5}$ concentration model results for pseudo-2030 SGO E scenario AQMA No. 1 (A335 / Eastleigh) (East)

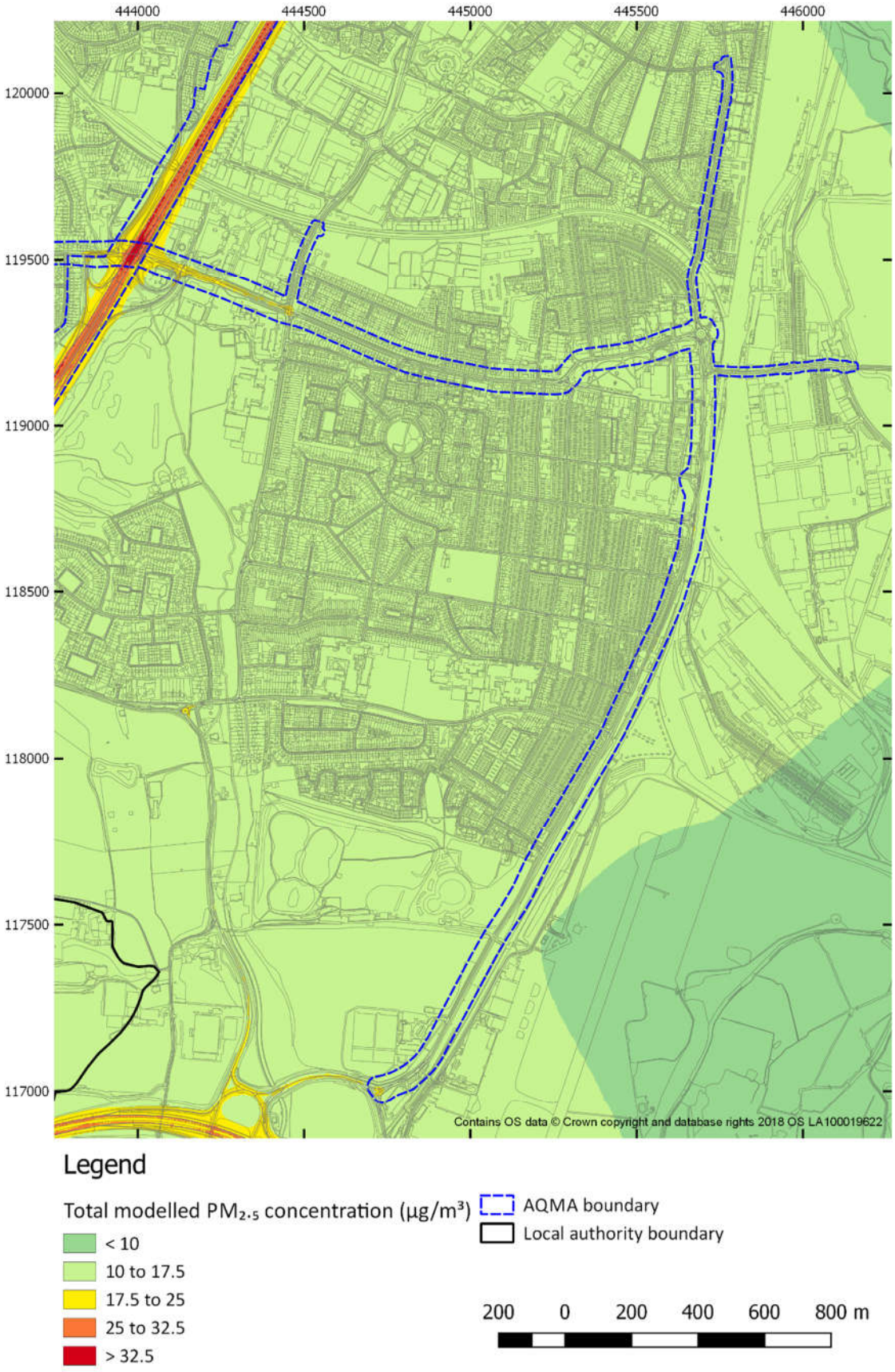


Figure 4-13 Annual mean $PM_{2.5}$ concentration model results for 2036 SGO C scenario AQMA No. 1 (A335 / Eastleigh) (East)

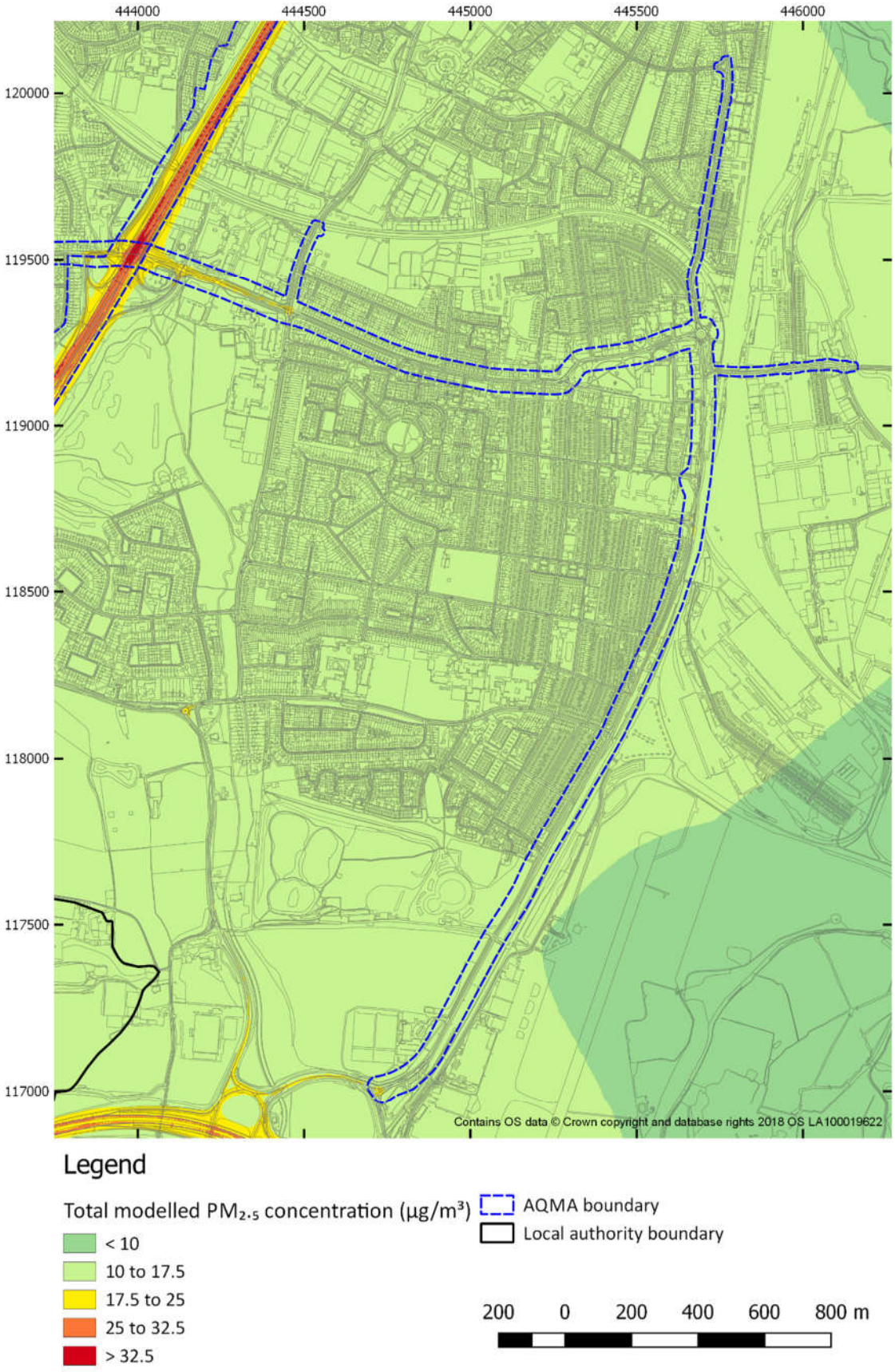


Figure 4-14 Annual mean $PM_{2.5}$ concentration model results for 2036 SGO D1 scenario AQMA No. 1 (A335 / Eastleigh) (East)

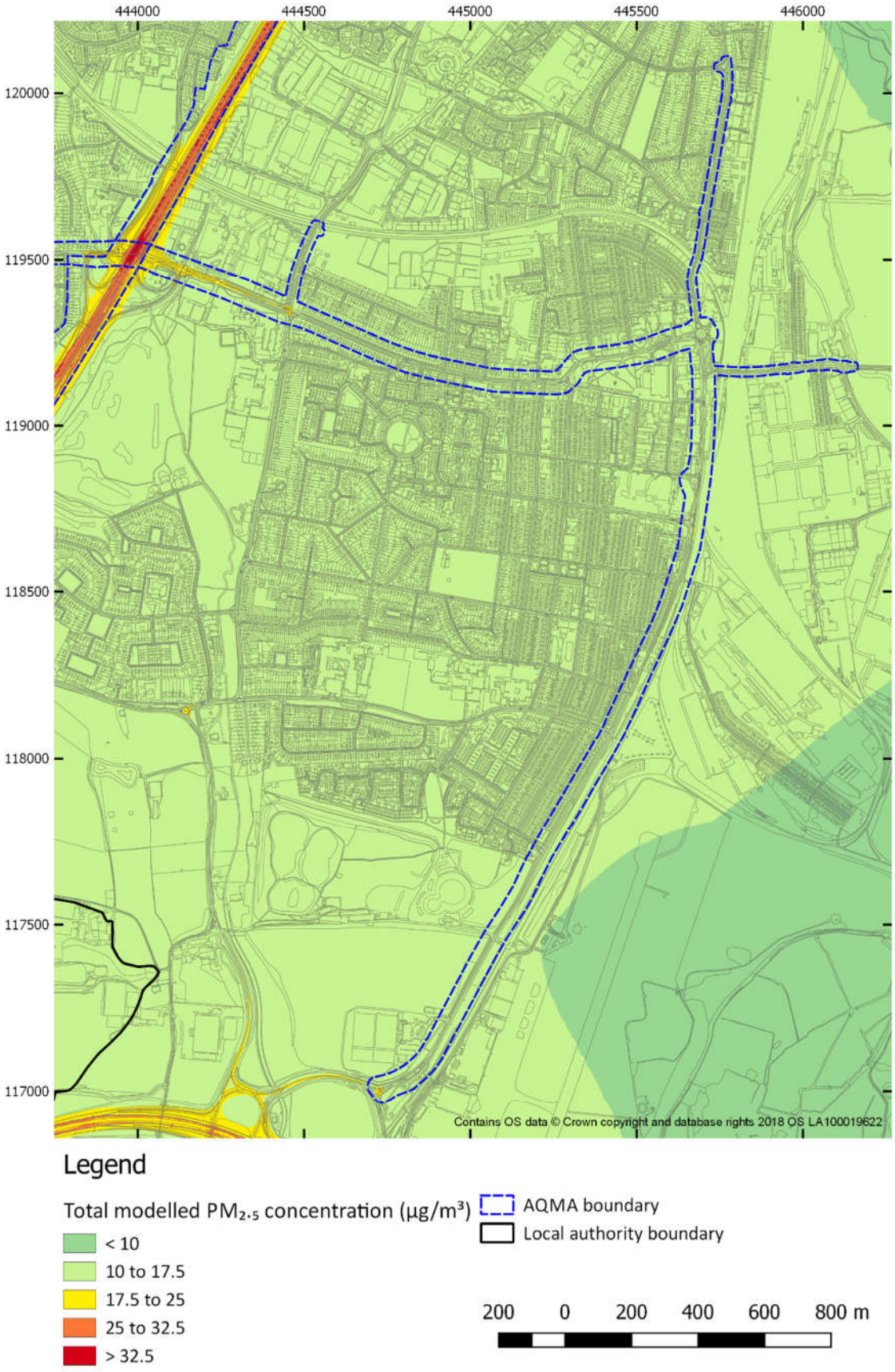


Figure 4-15 Annual mean $PM_{2.5}$ concentration model results for 2036 SGO D2 scenario AQMA No. 1 (A335 / Eastleigh) (East)

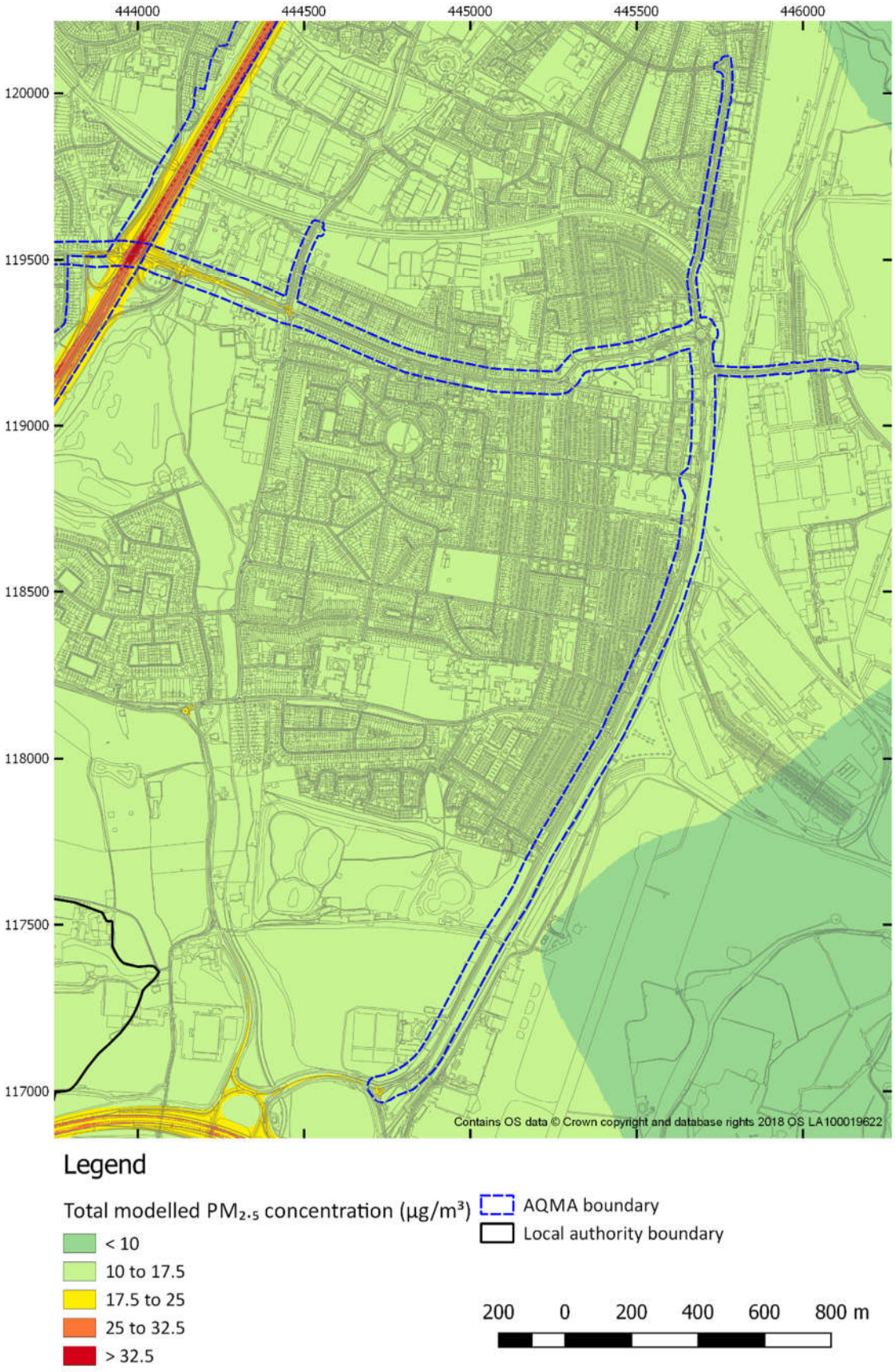


Figure 4-16 Annual mean $PM_{2.5}$ concentration model results for 2036 SGO E scenario AQMA No. 1 (A335 / Eastleigh) (East)

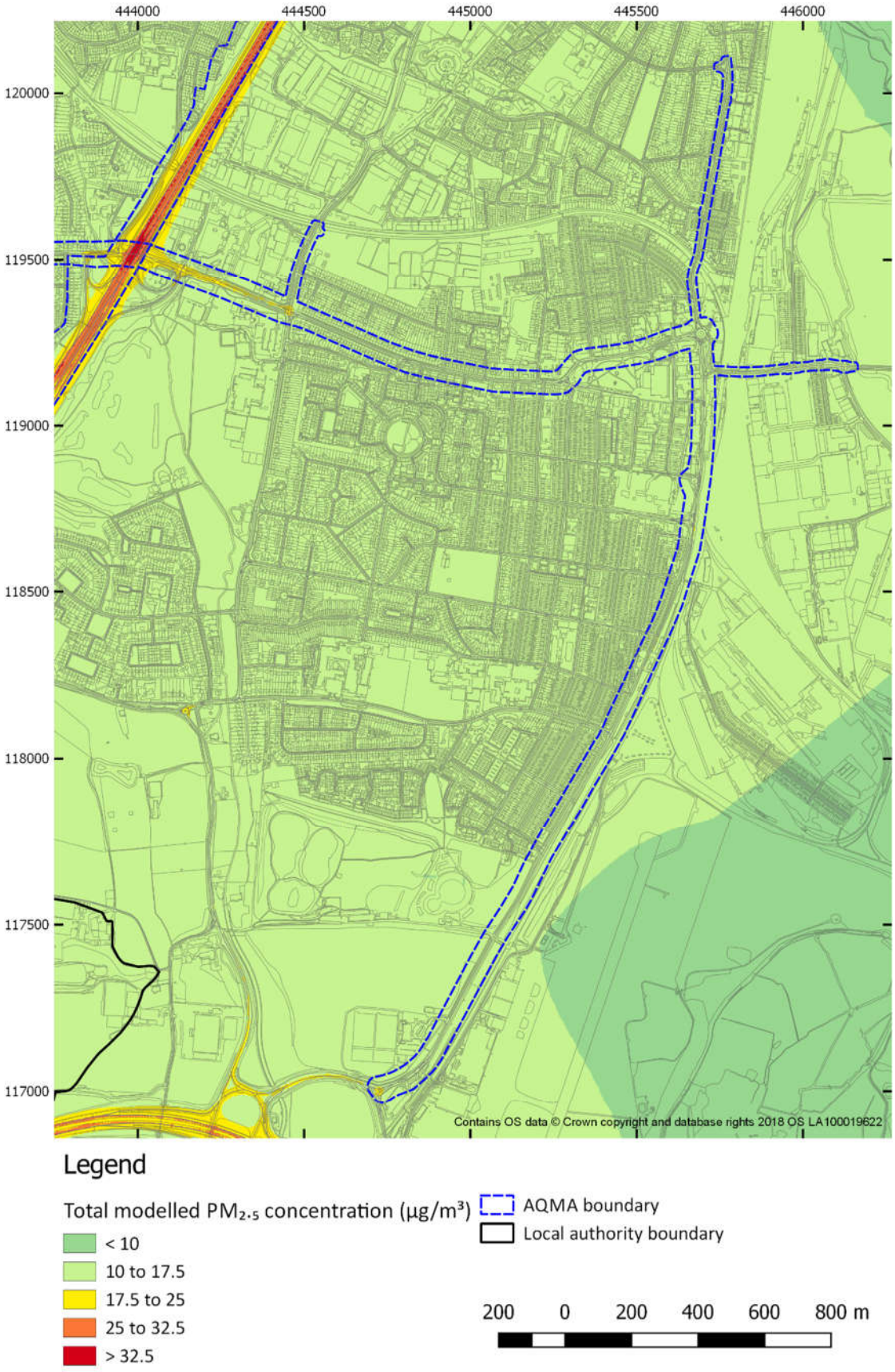


Figure 4-17 Annual mean $PM_{2.5}$ concentration model results for 2036 Baseline AQMA No. 1 (A335 / Eastleigh) (East)

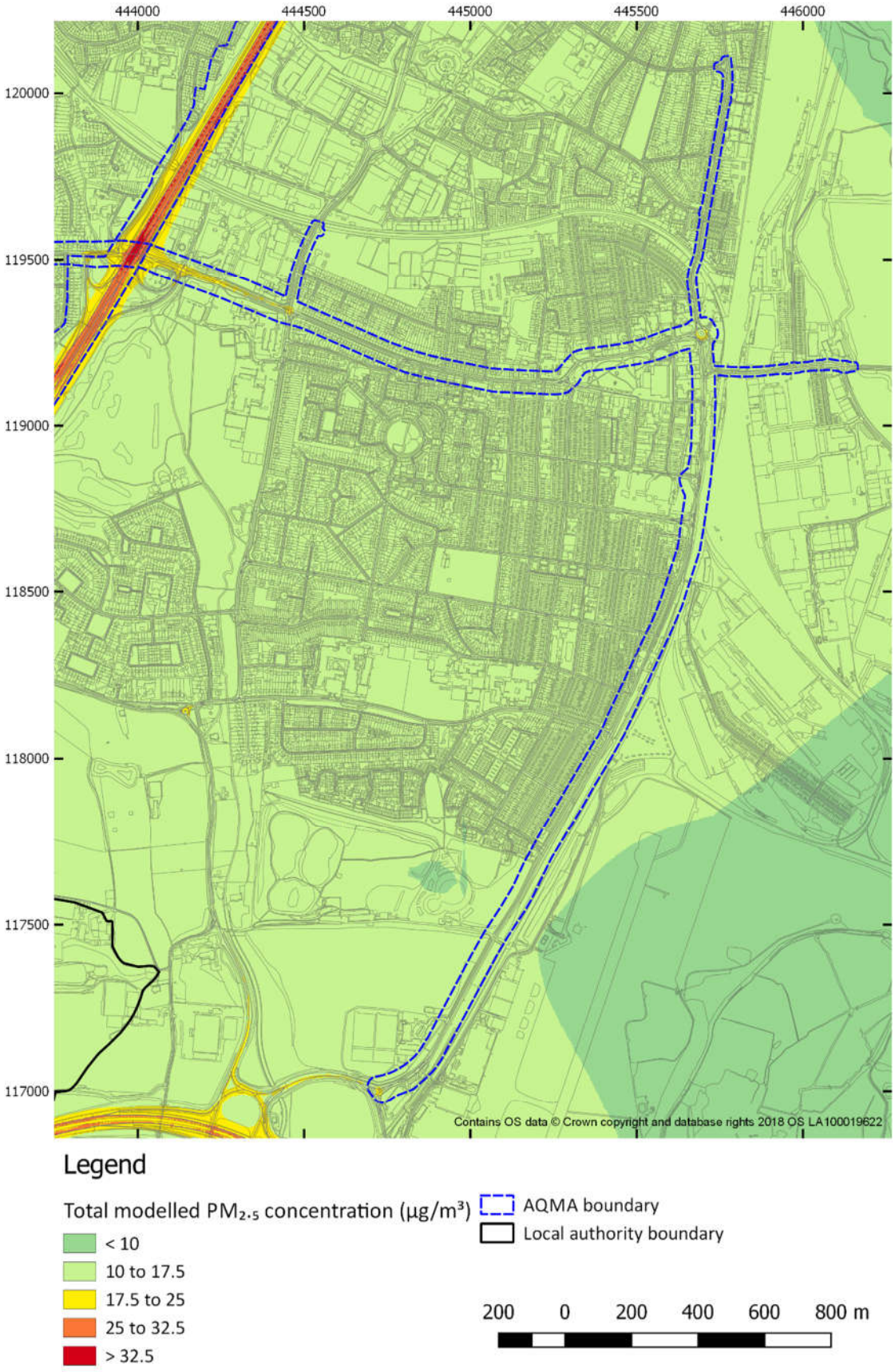


Figure 4-18 Annual mean $PM_{2.5}$ concentration model results for pseudo-2030 SGO C scenario AQMA No. 1 (A335 / Eastleigh) (West)

Figure 4-19 Annual mean $PM_{2.5}$ concentration model results for pseudo-2030 SGO D1 scenario AQMA No. 1 (A335 / Eastleigh) (West)

Figure 4-20 Annual mean $PM_{2.5}$ concentration model results for pseudo-2030 SGO D2 scenario AQMA No. 1 (A335 / Eastleigh) (West)

Figure 4-21 Annual mean $PM_{2.5}$ concentration model results for pseudo-2030 SGO E scenario AQMA No. 1 (A335 / Eastleigh) (West)

Figure 4-22 Annual mean $PM_{2.5}$ concentration model results for 2036 SGO C scenario AQMA No. 1 (A335 / Eastleigh) (West)

Figure 4-23 Annual mean $PM_{2.5}$ concentration model results for 2036 SGO D1 scenario AQMA No. 1 (A335 / Eastleigh) (West)

Figure 4-24 Annual mean $PM_{2.5}$ concentration model results for 2036 SGO D2 scenario AQMA No. 1 (A335 / Eastleigh) (West)

Figure 4-25 Annual mean $PM_{2.5}$ concentration model results for 2036 SGO E scenario AQMA No. 1 (A335 / Eastleigh) (West)

Figure 4-26 Annual mean $PM_{2.5}$ concentration model results for 2036 Baseline AQMA No. 1 (A335 / Eastleigh) (West)

Figure 4-27 Annual mean $PM_{2.5}$ concentration model results for pseudo-2030 SGO C scenario AQMA No. 2 (M3) (North)

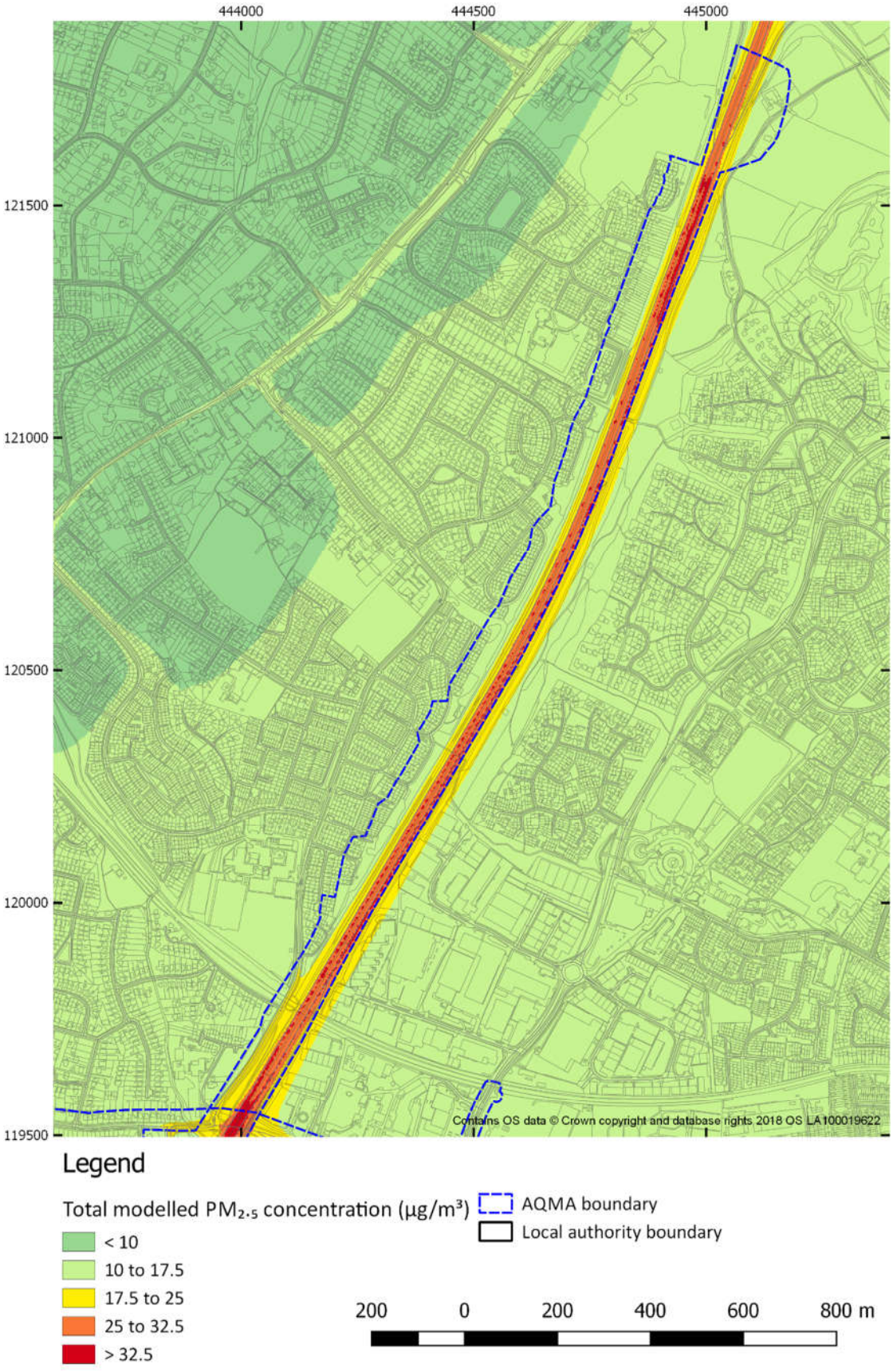


Figure 4-28 Annual mean $PM_{2.5}$ concentration model results for pseudo-2030 SGO D1 scenario AQMA No. 2 (M3) (North)

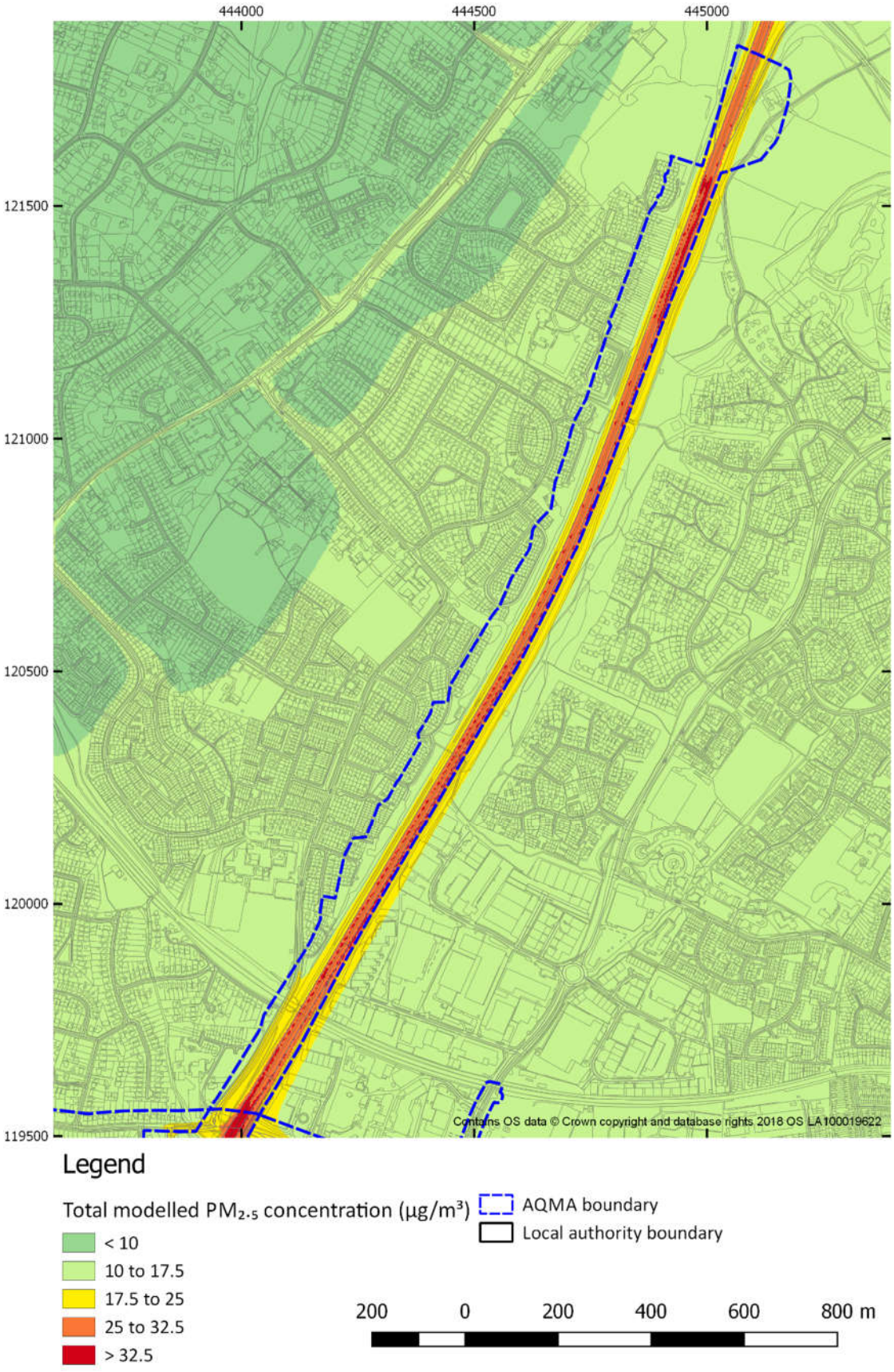


Figure 4-29 Annual mean $PM_{2.5}$ concentration model results for pseudo-2030 SGO D2 scenario AQMA No. 2 (M3) (North)

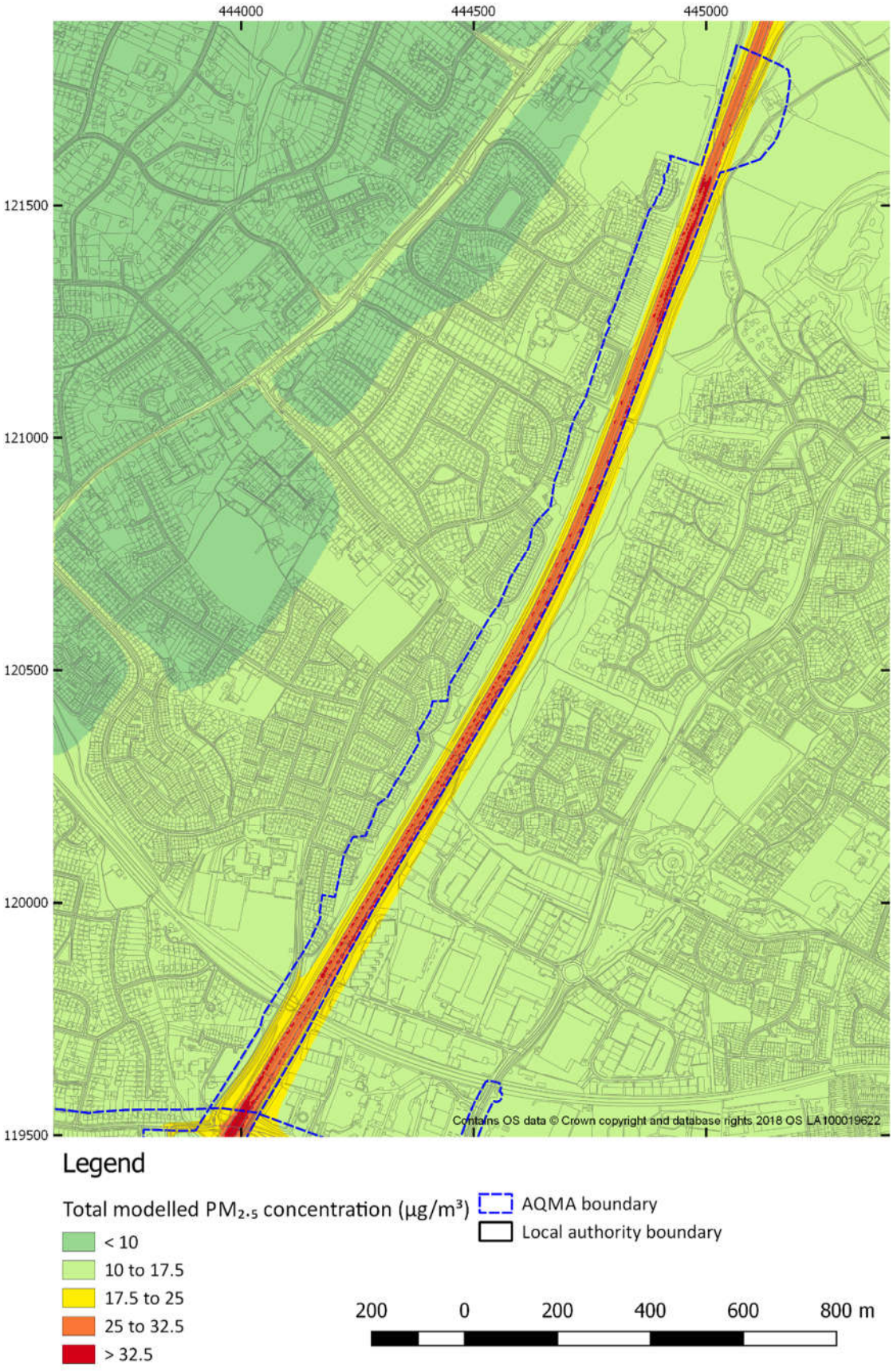


Figure 4-30 Annual mean $PM_{2.5}$ concentration model results for pseudo-2030 SGO E scenario AQMA No. 2 (M3) (North)

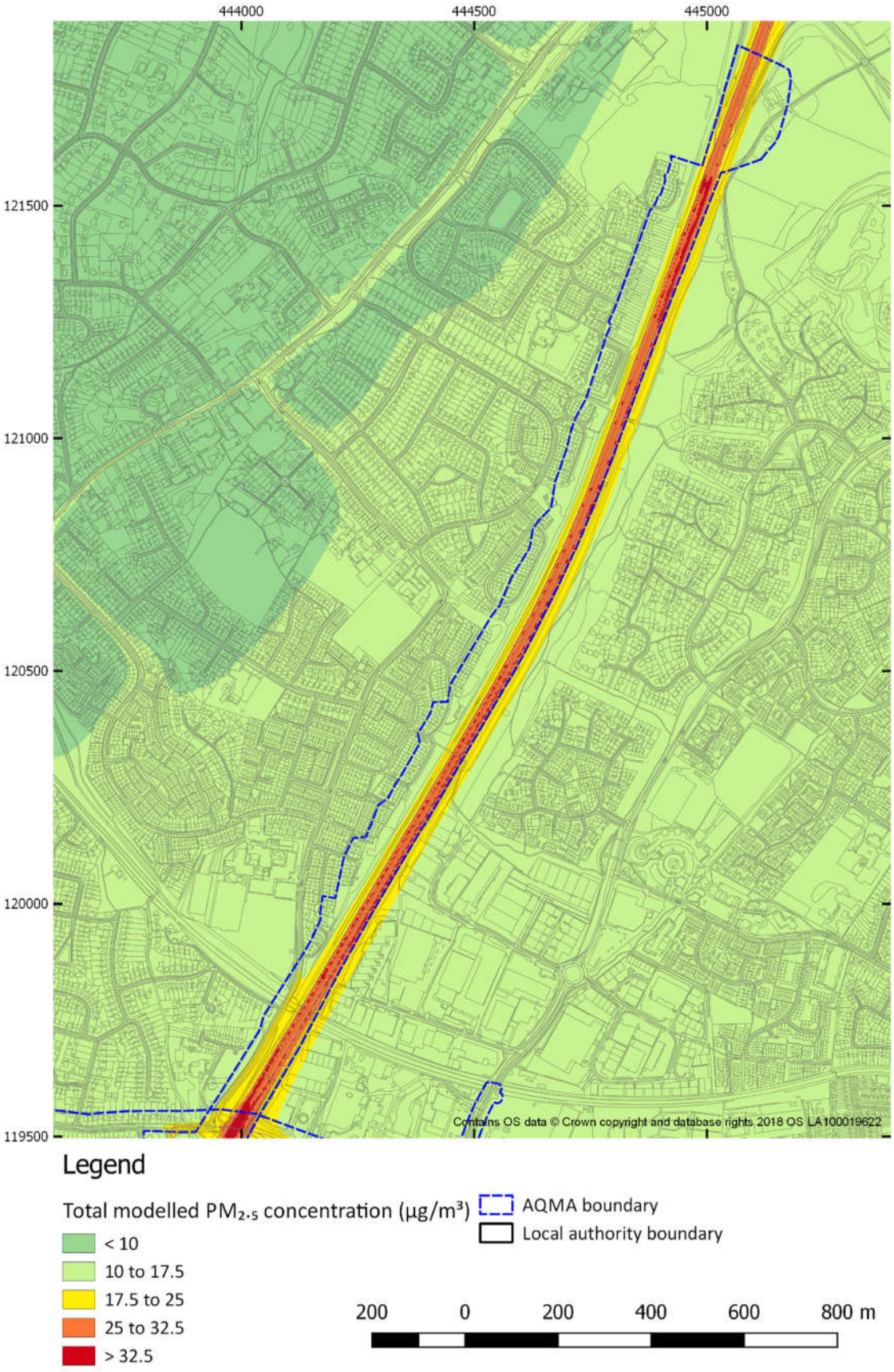


Figure 4-31 Annual mean $PM_{2.5}$ concentration model results for 2036 SGO C scenario AQMA No. 2 (M3) (North)

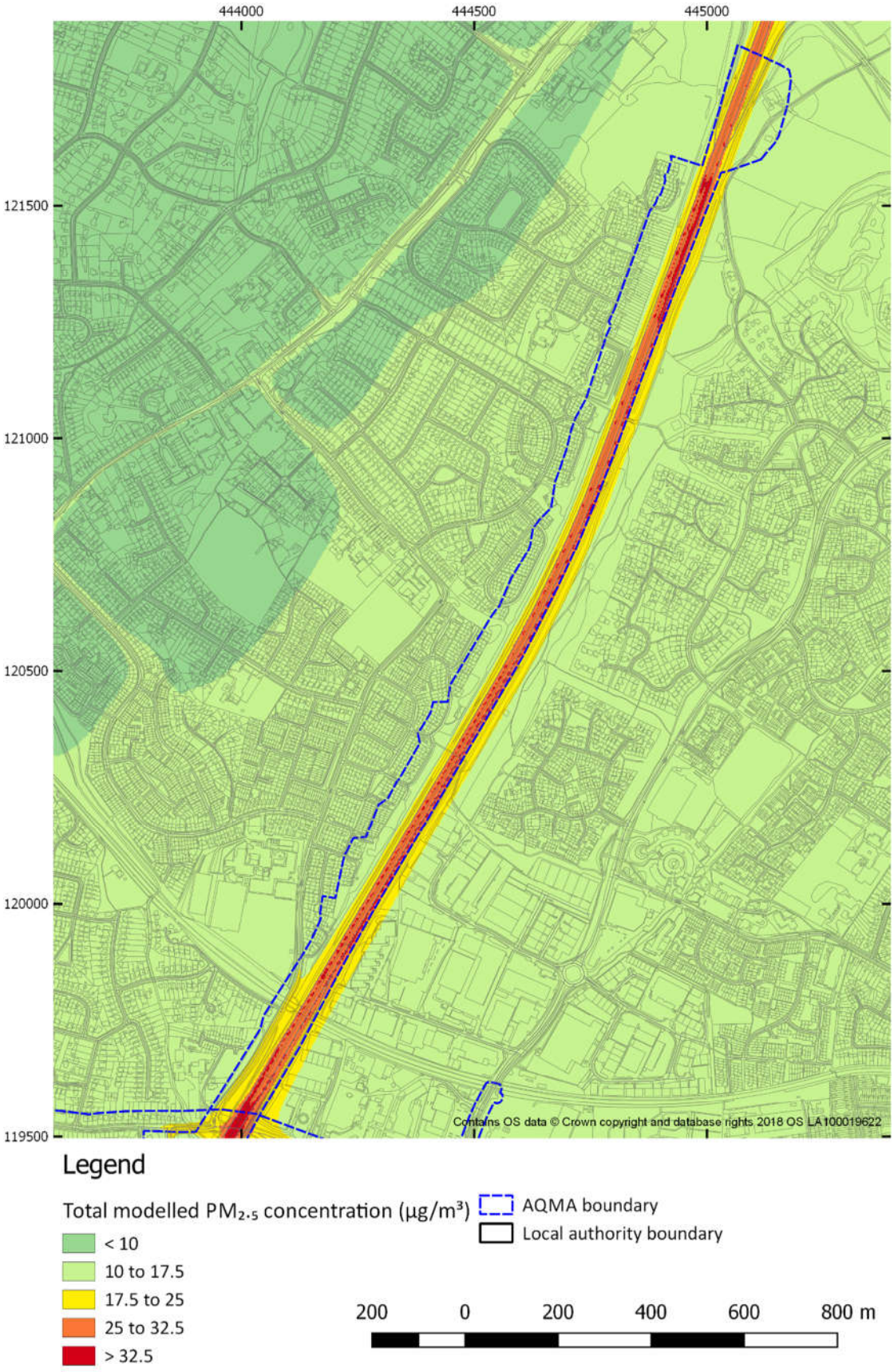


Figure 4-32 Annual mean $PM_{2.5}$ concentration model results for 2036 SGO D1 scenario AQMA No. 2 (M3) (North)

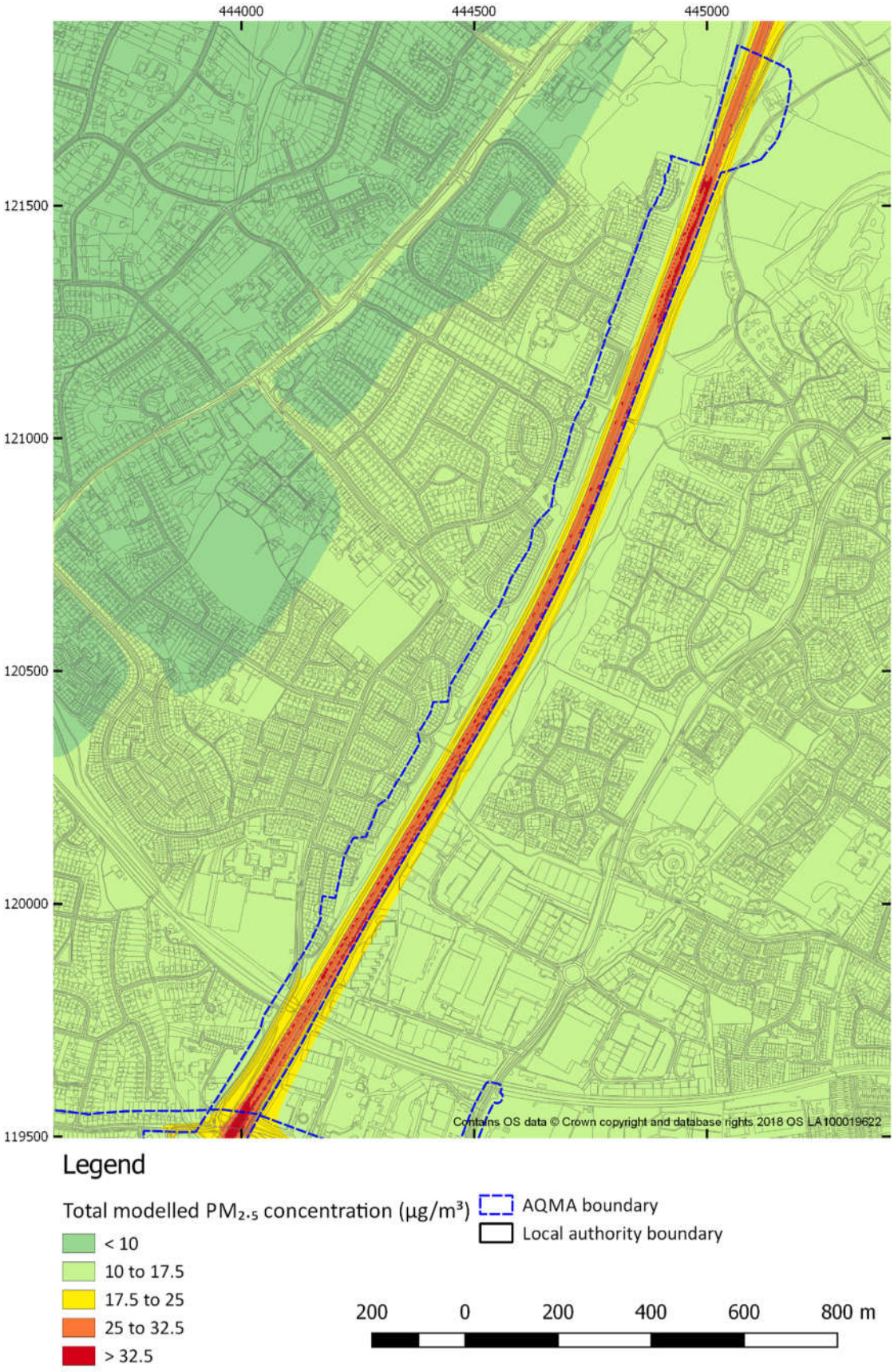


Figure 4-33 Annual mean $PM_{2.5}$ concentration model results for 2036 SGO D2 scenario AQMA No. 2 (M3) (North)

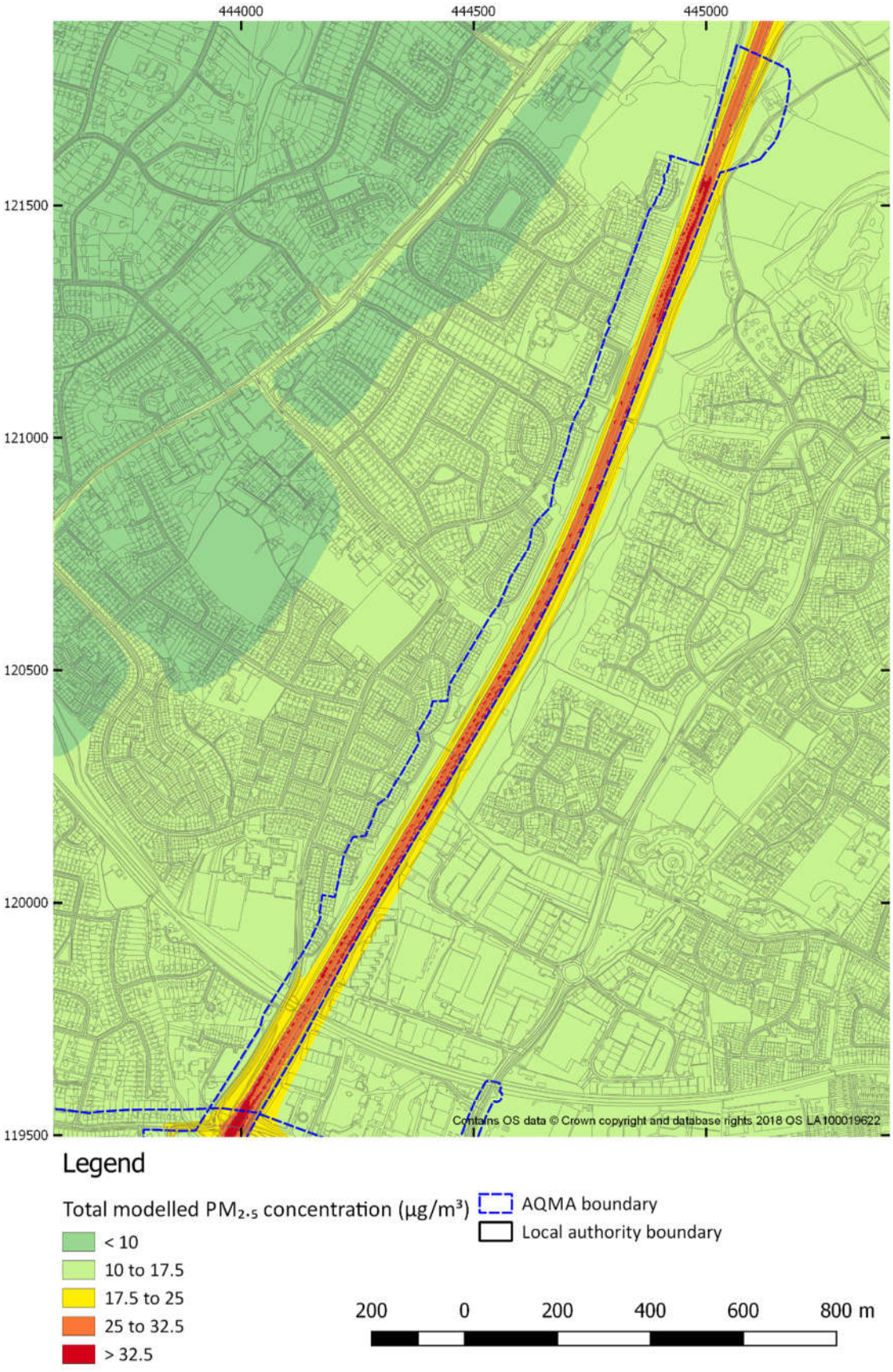


Figure 4-34 Annual mean $PM_{2.5}$ concentration model results for 2036 SGO E scenario AQMA No. 2 (M3) (North)

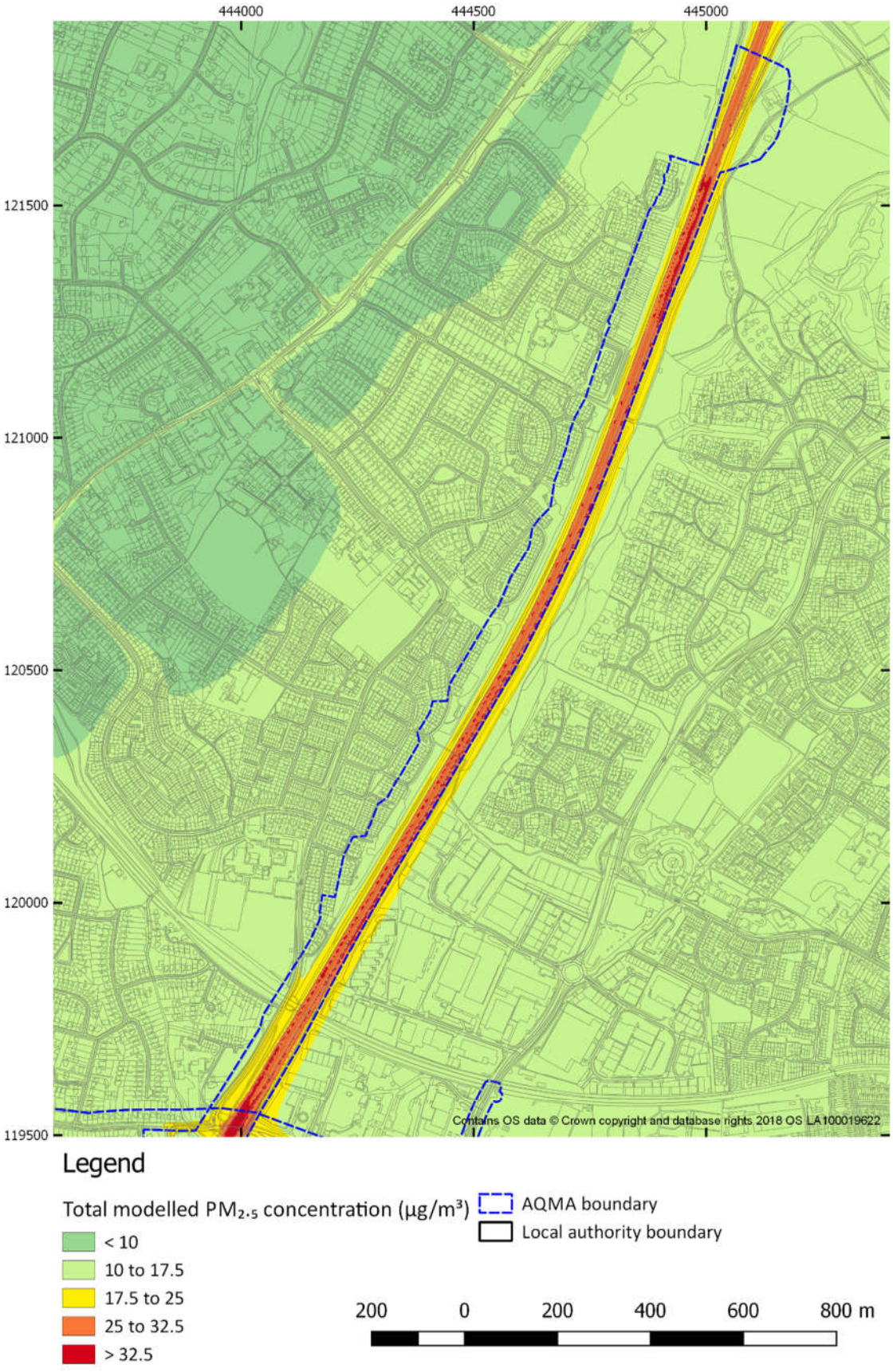
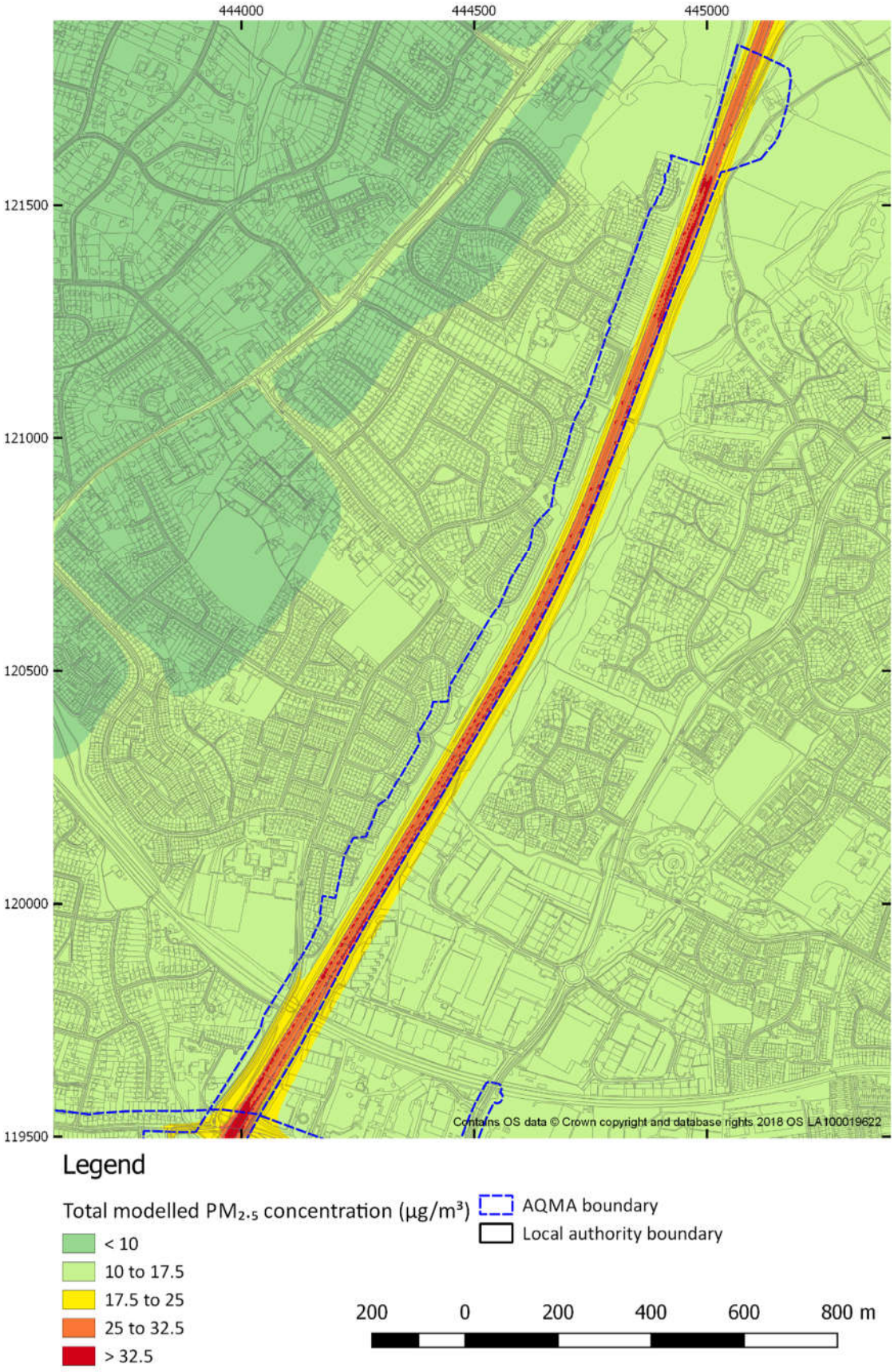


Figure 4-35 Annual mean $PM_{2.5}$ concentration model results for 2036 Baseline AQMA No. 2 (M3) (North)



4.3 AQMA 3

Figure 4-36 Annual mean $PM_{2.5}$ concentration model results for pseudo-2030 SGO C scenario AQMA No. 3 (Hamble Lane)

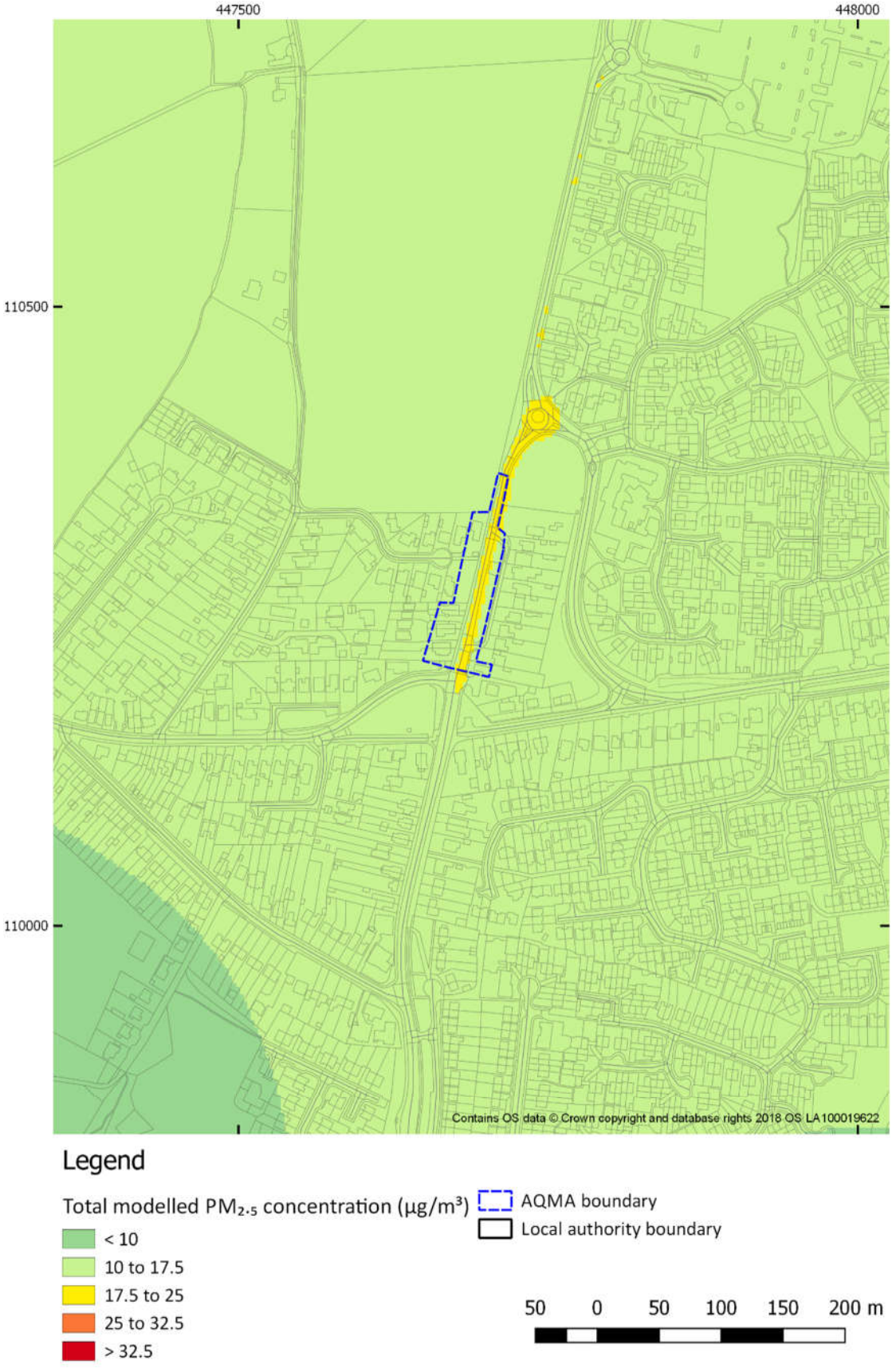


Figure 4-37 Annual mean $PM_{2.5}$ concentration model results for pseudo-2030 SGO D1 scenario AQMA No. 3 (Hamble Lane)

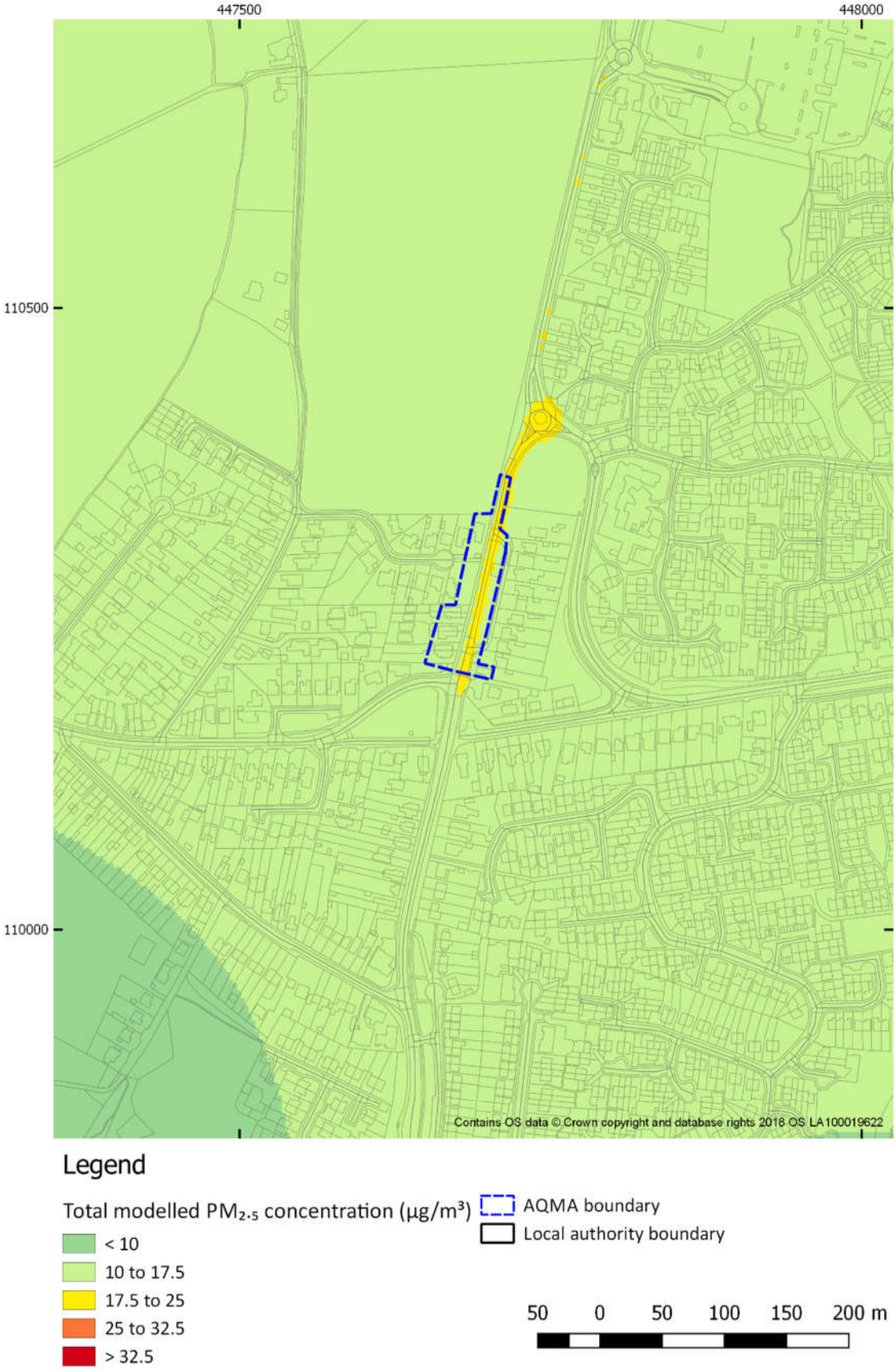


Figure 4-38 Annual mean $PM_{2.5}$ concentration model results for pseudo-2030 SGO D2 scenario AQMA No. 3 (Hamble Lane)

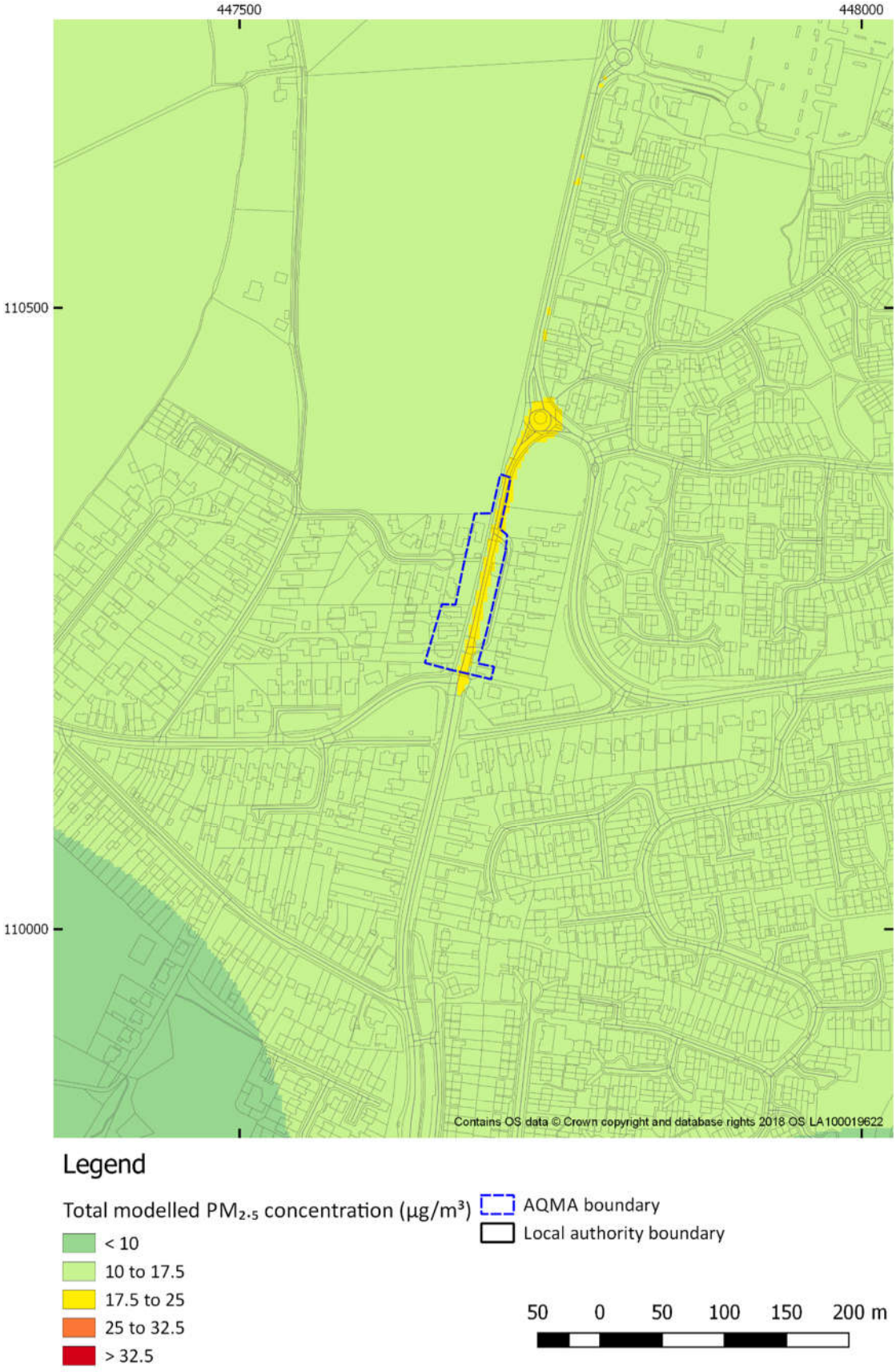


Figure 4-39 Annual mean $PM_{2.5}$ concentration model results for pseudo-2030 SGO E scenario AQMA No. 3 (Hamble Lane)

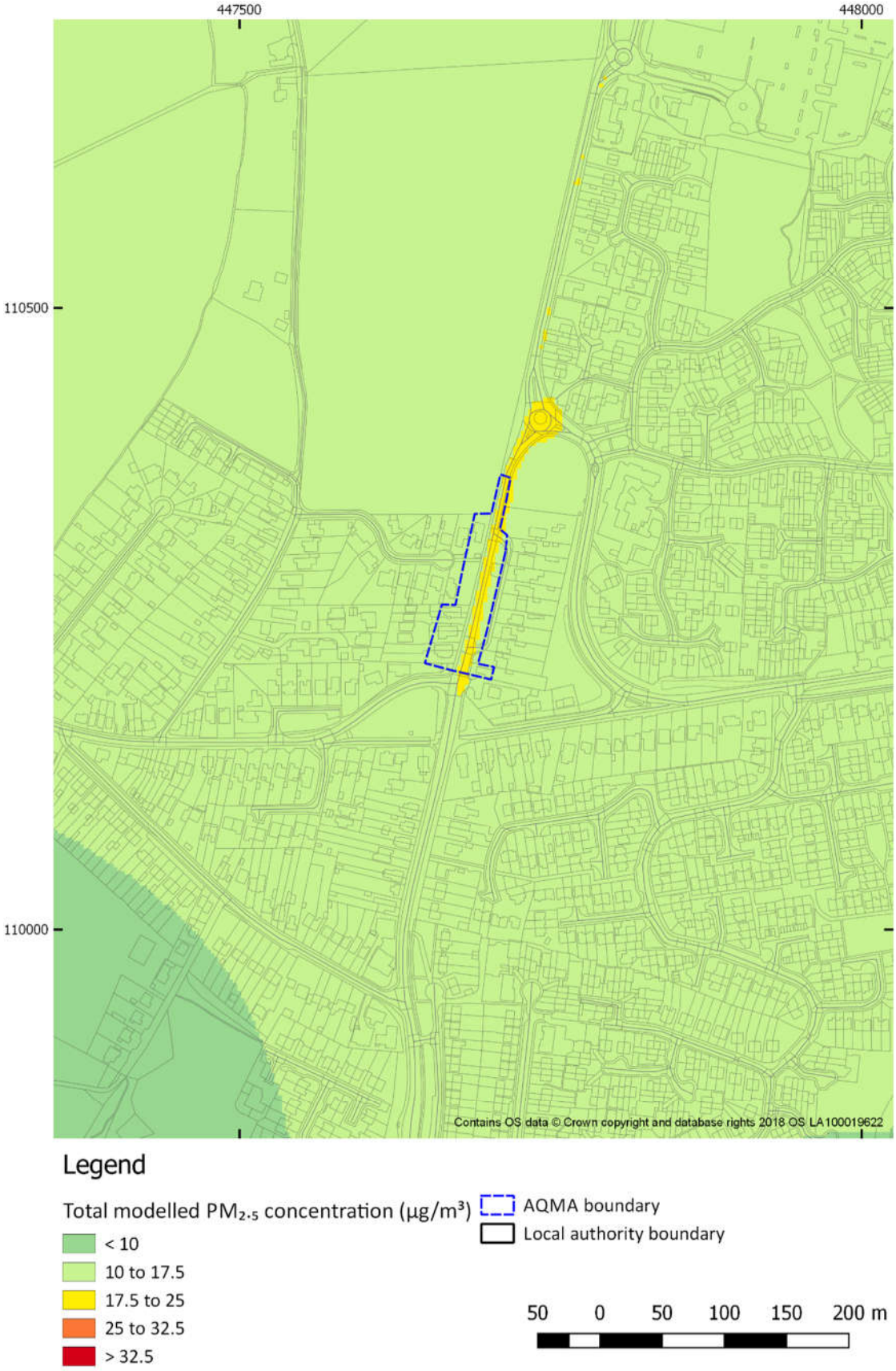


Figure 4-40 Annual mean $PM_{2.5}$ concentration model results for 2036 SGO C scenario AQMA No. 3 (Hamble Lane)

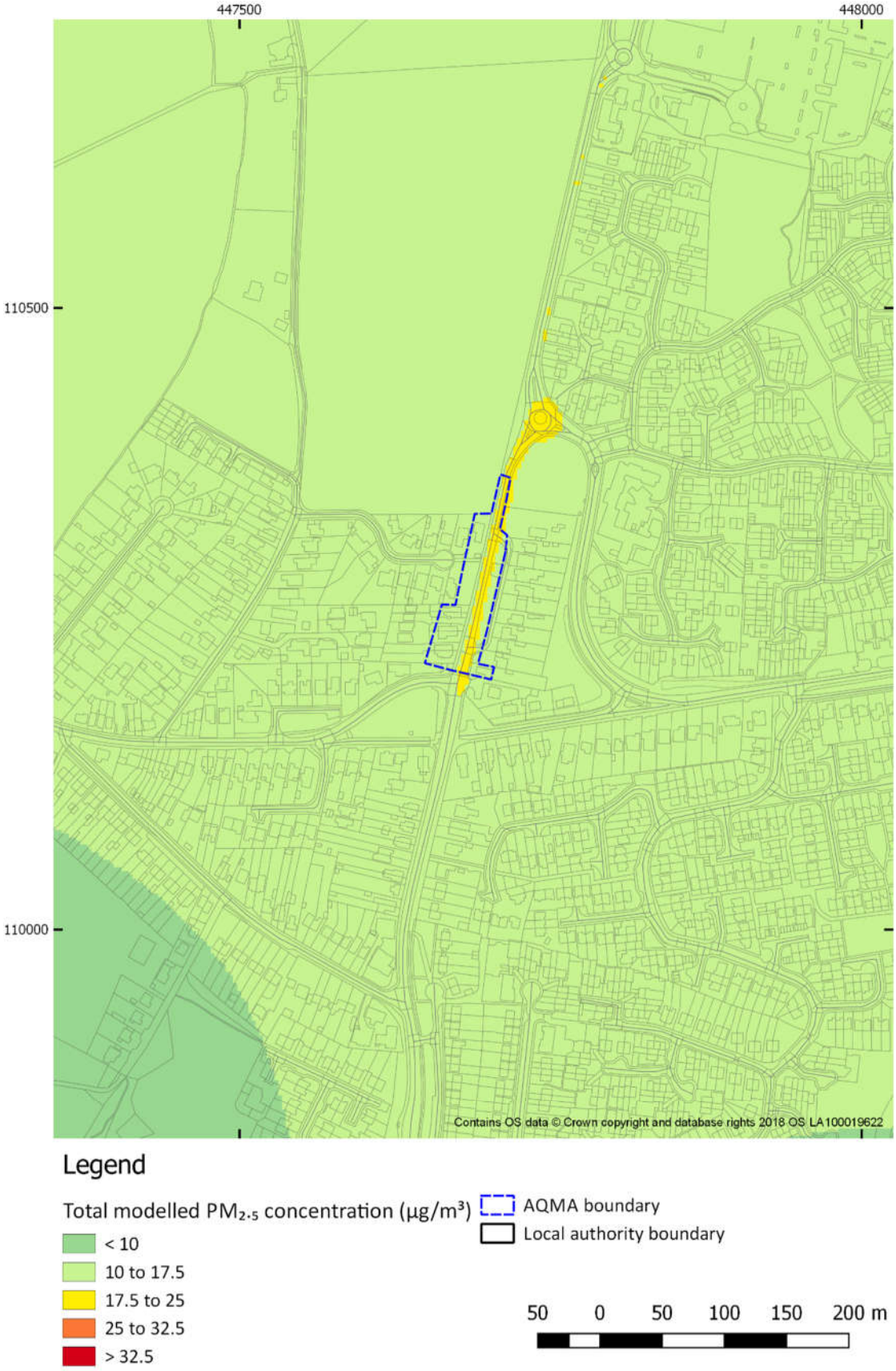


Figure 4-41 Annual mean $PM_{2.5}$ concentration model results for 2036 SGO D1 scenario AQMA No. 3 (Hamble Lane)

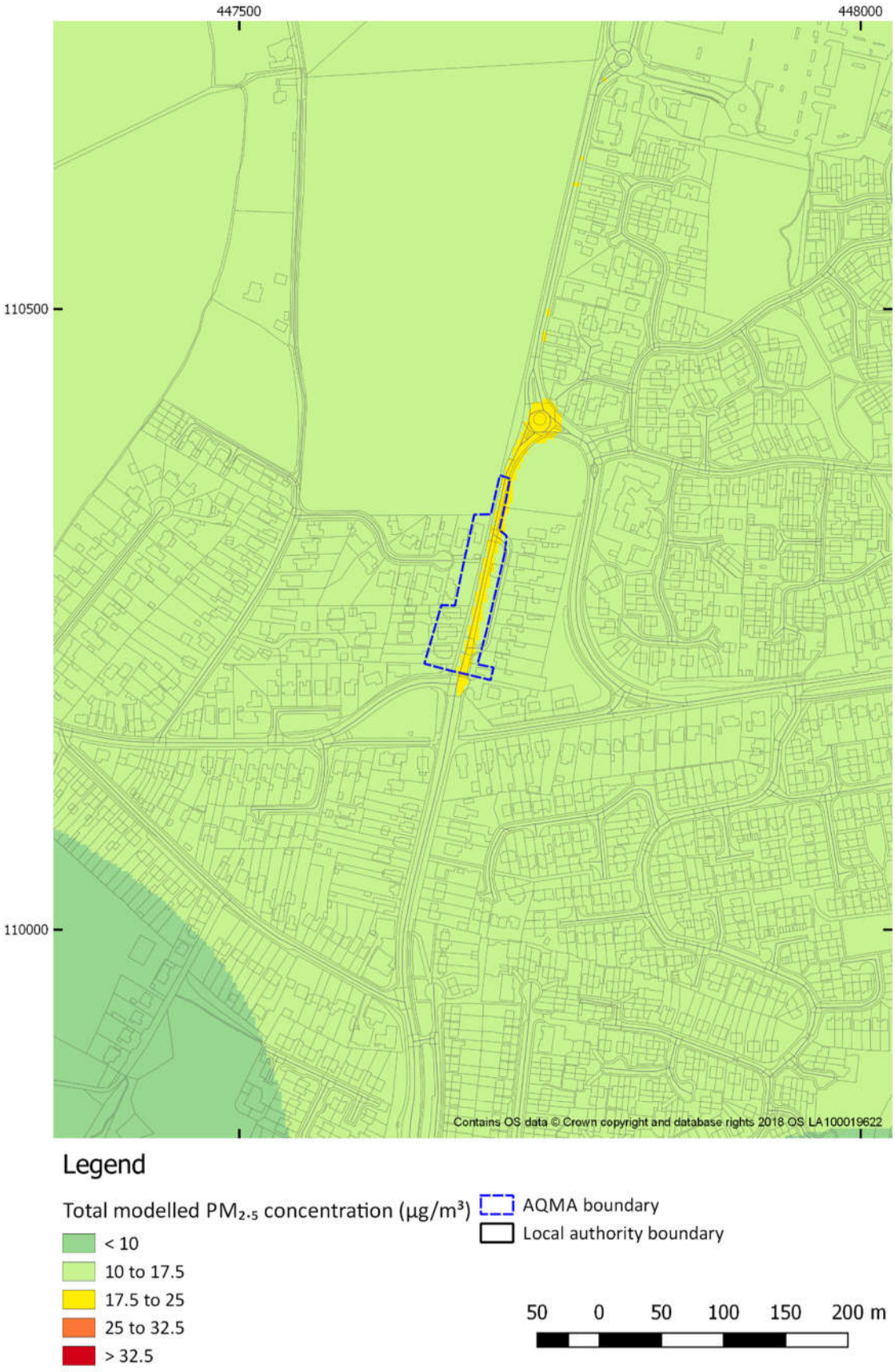


Figure 4-42 Annual mean $PM_{2.5}$ concentration model results for 2036 SGO D2 scenario AQMA No. 3 (Hamble Lane)

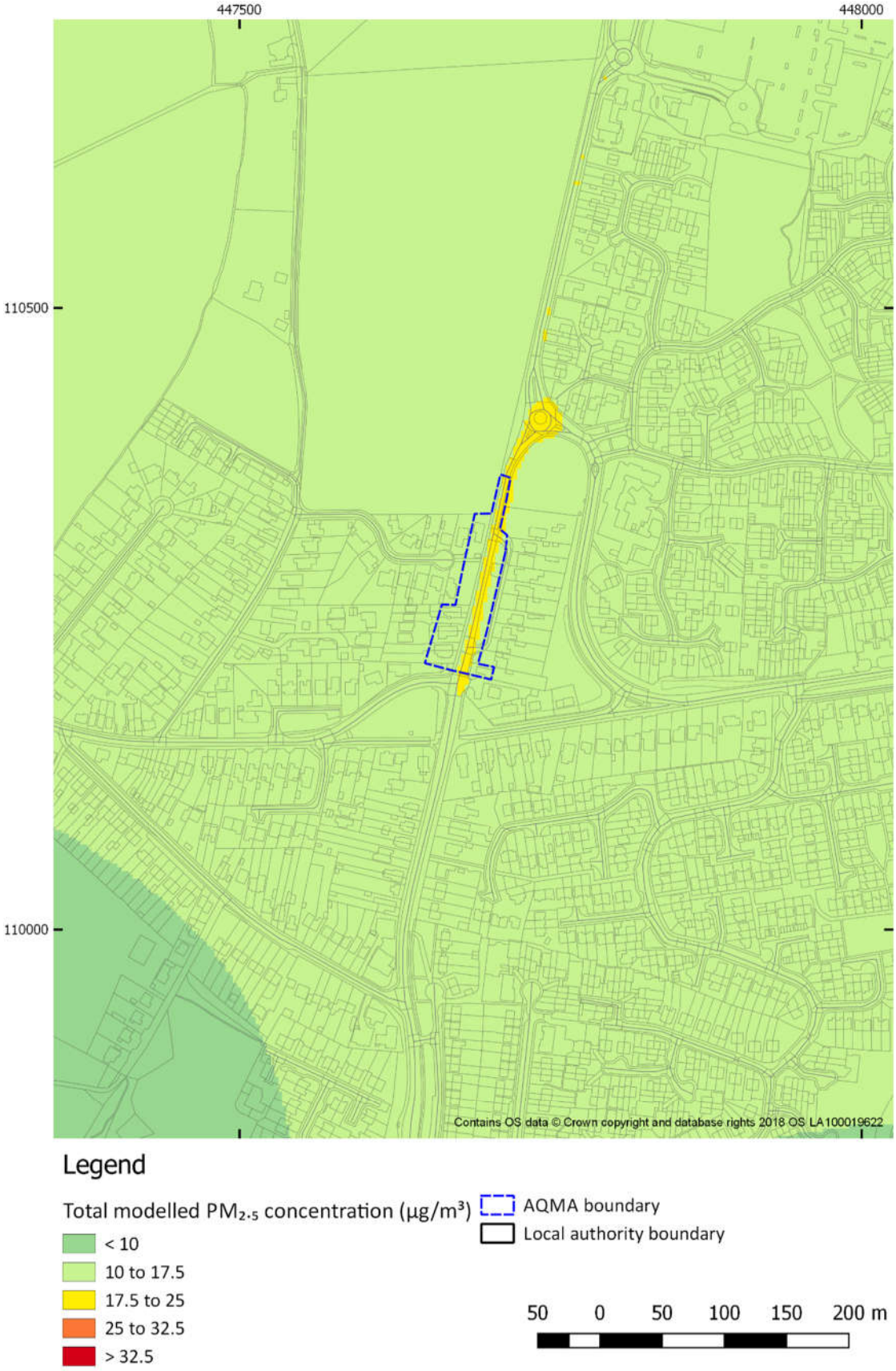


Figure 4-43 Annual mean $PM_{2.5}$ concentration model results for 2036 SGO E scenario AQMA No. 3 (Hamble Lane)

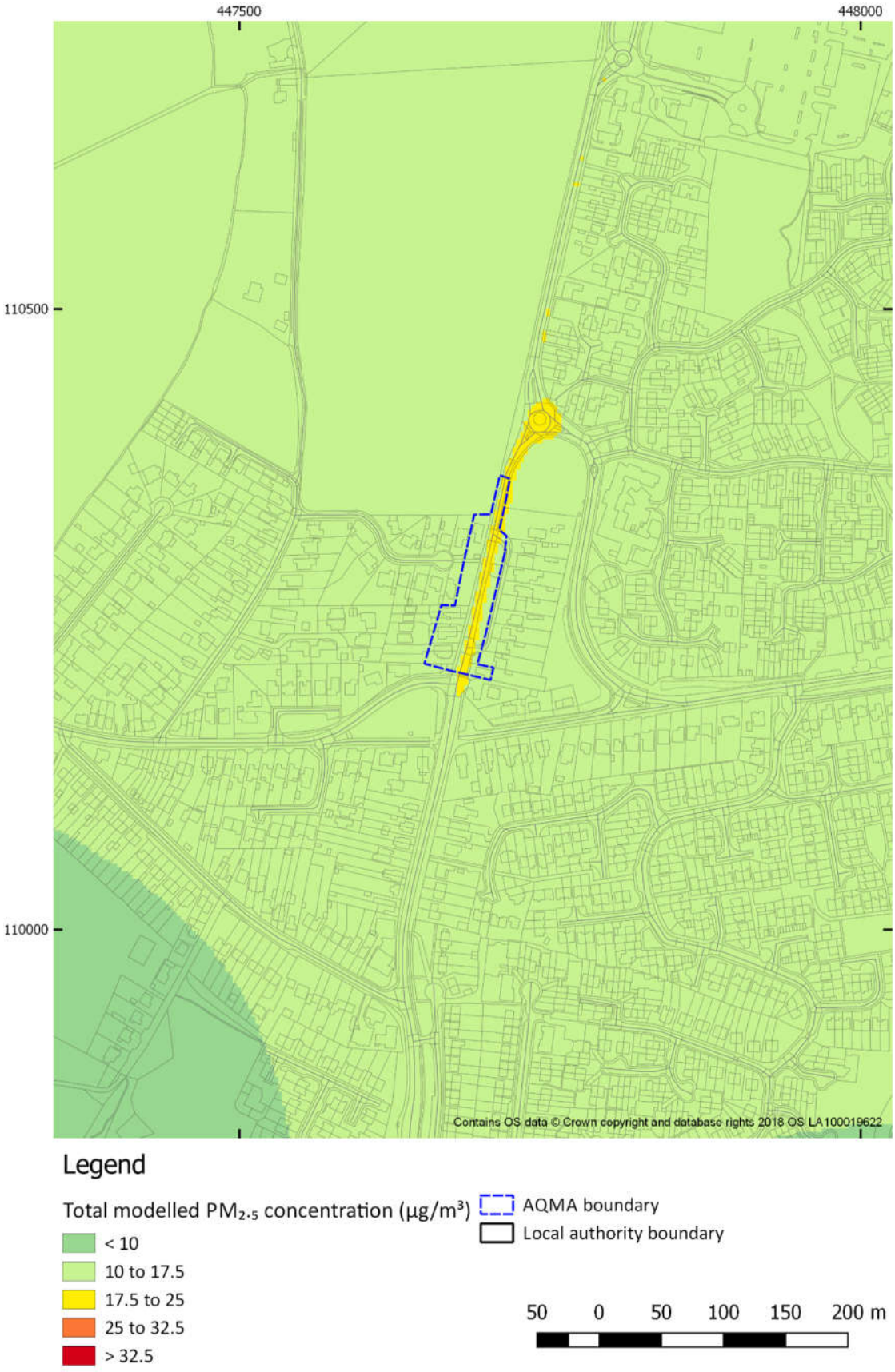
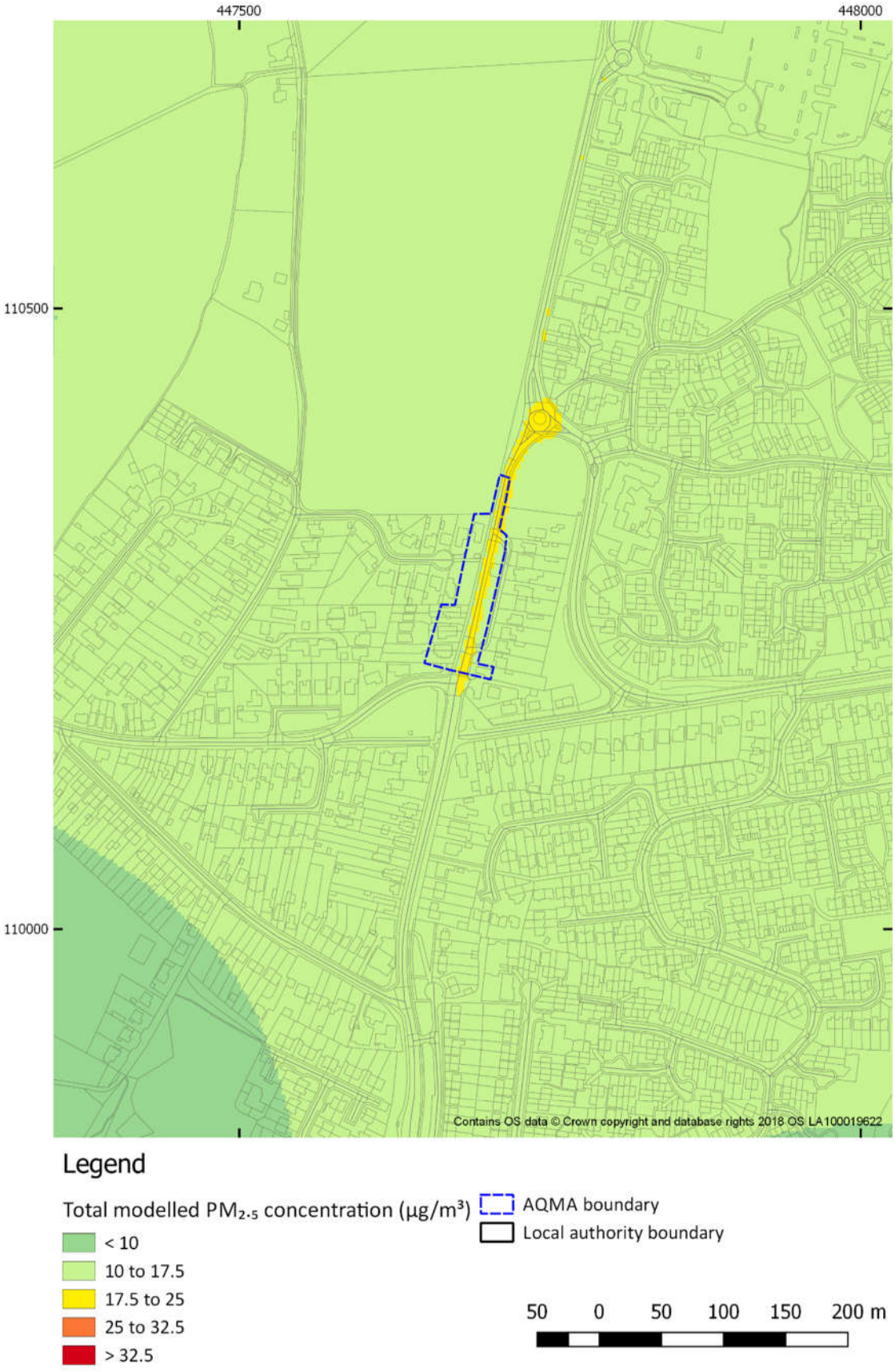


Figure 4-44 Annual mean $PM_{2.5}$ concentration model results for 2036 Baseline AQMA No. 3 (Hamble Lane)



4.4 AQMA 4

Figure 4-45 Annual mean $PM_{2.5}$ concentration model results for pseudo-2030 SGO C scenario AQMA No. 4 (High Street Botley)

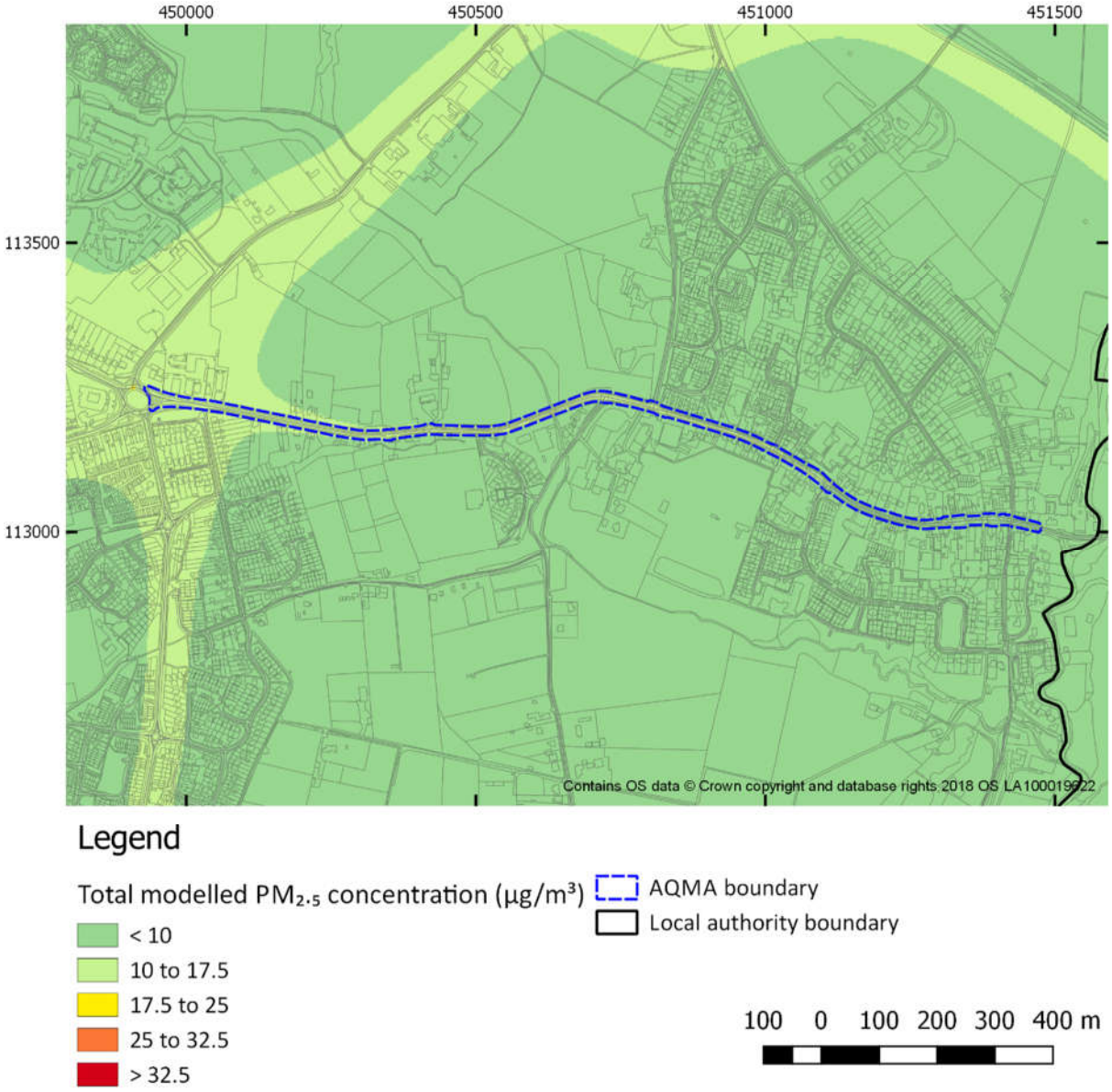


Figure 4-46 Annual mean $PM_{2.5}$ concentration model results for pseudo-2030 SGO D1 scenario AQMA No. 4 (High Street Botley)

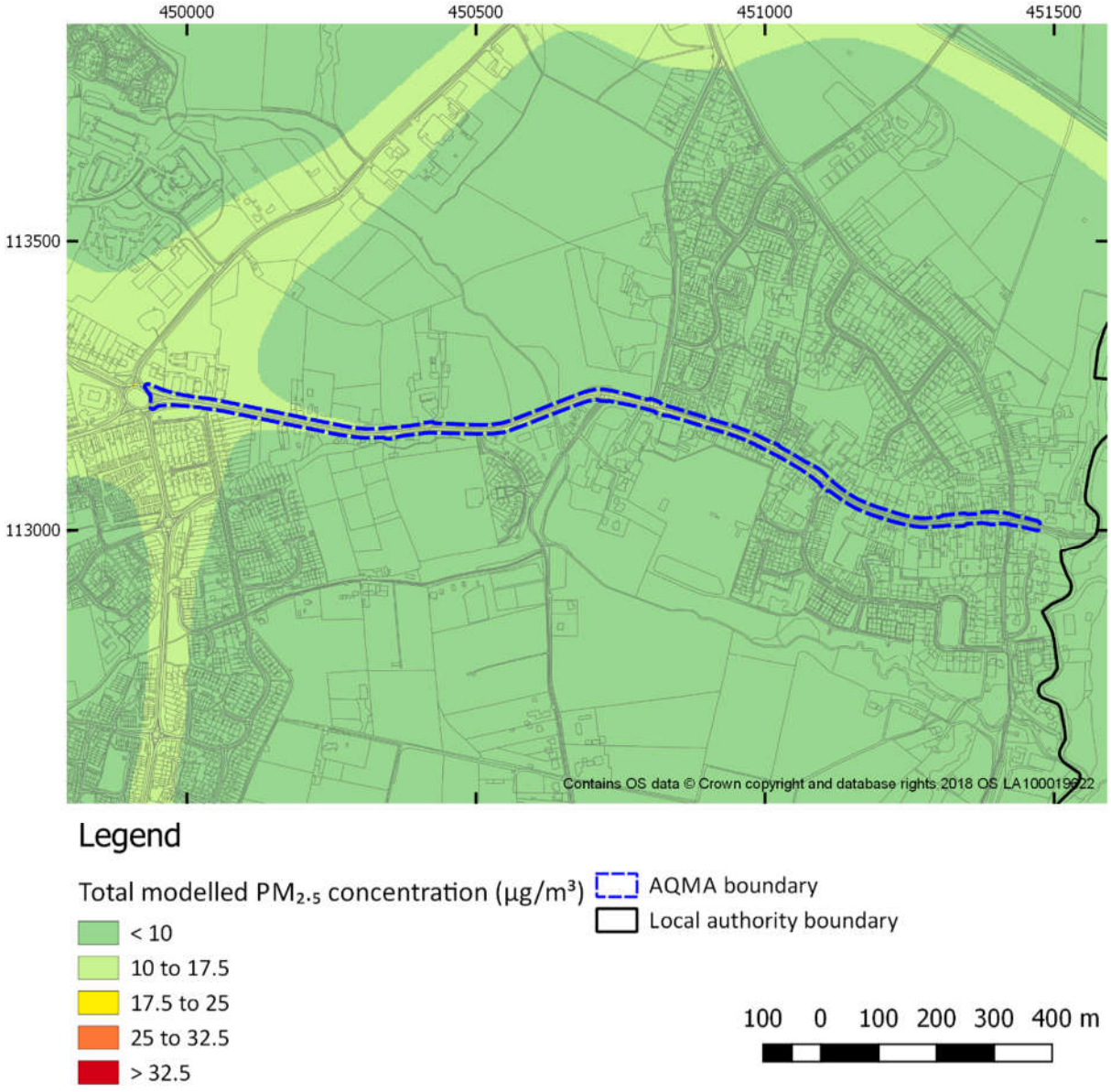


Figure 4-47 Annual mean $PM_{2.5}$ concentration model results for pseudo-2030 SGO D2 scenario AQMA No. 4 (High Street Botley)

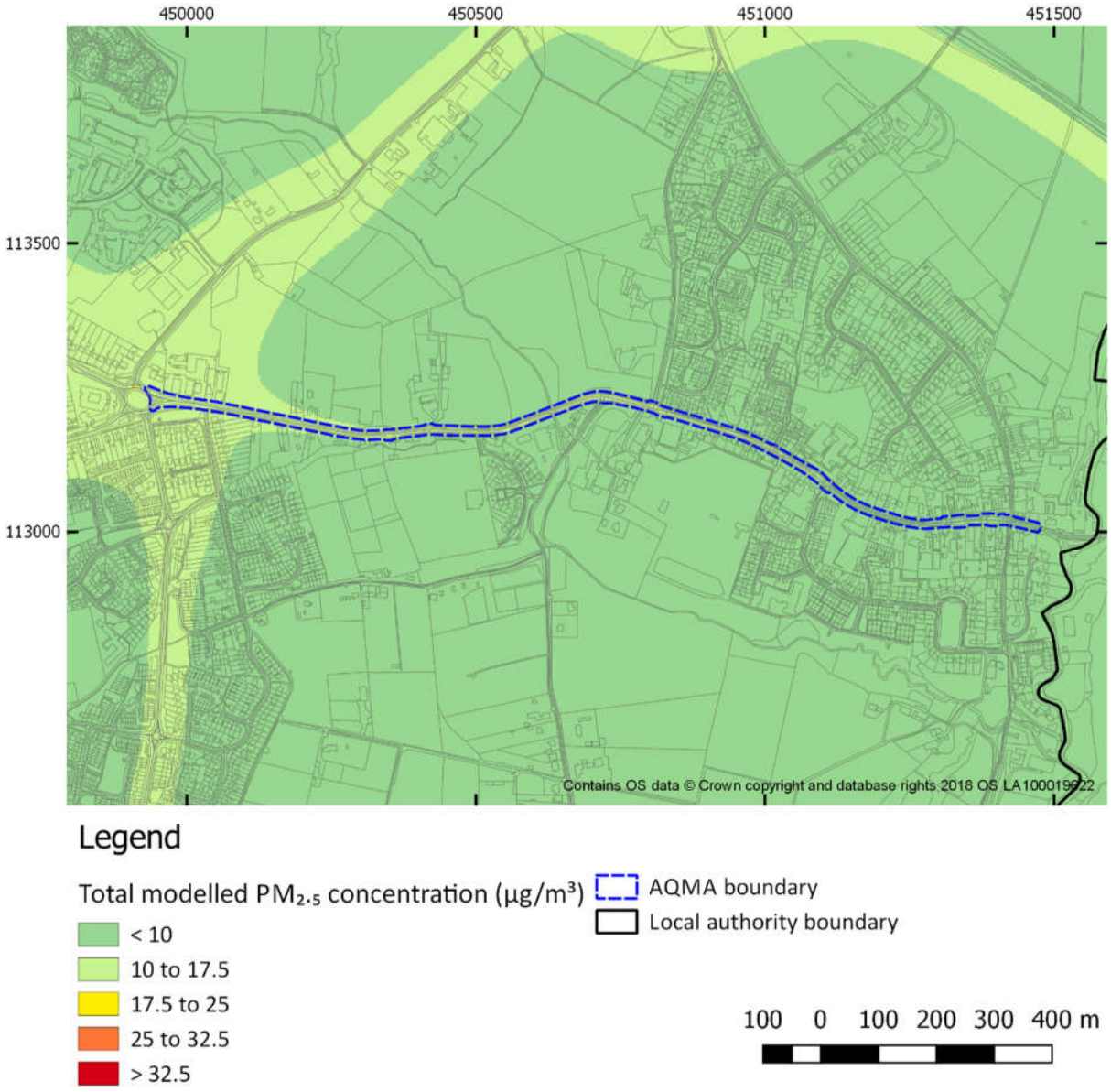


Figure 4-48 Annual mean $PM_{2.5}$ concentration model results for pseudo-2030 SGO E scenario AQMA No. 4 (High Street Botley)

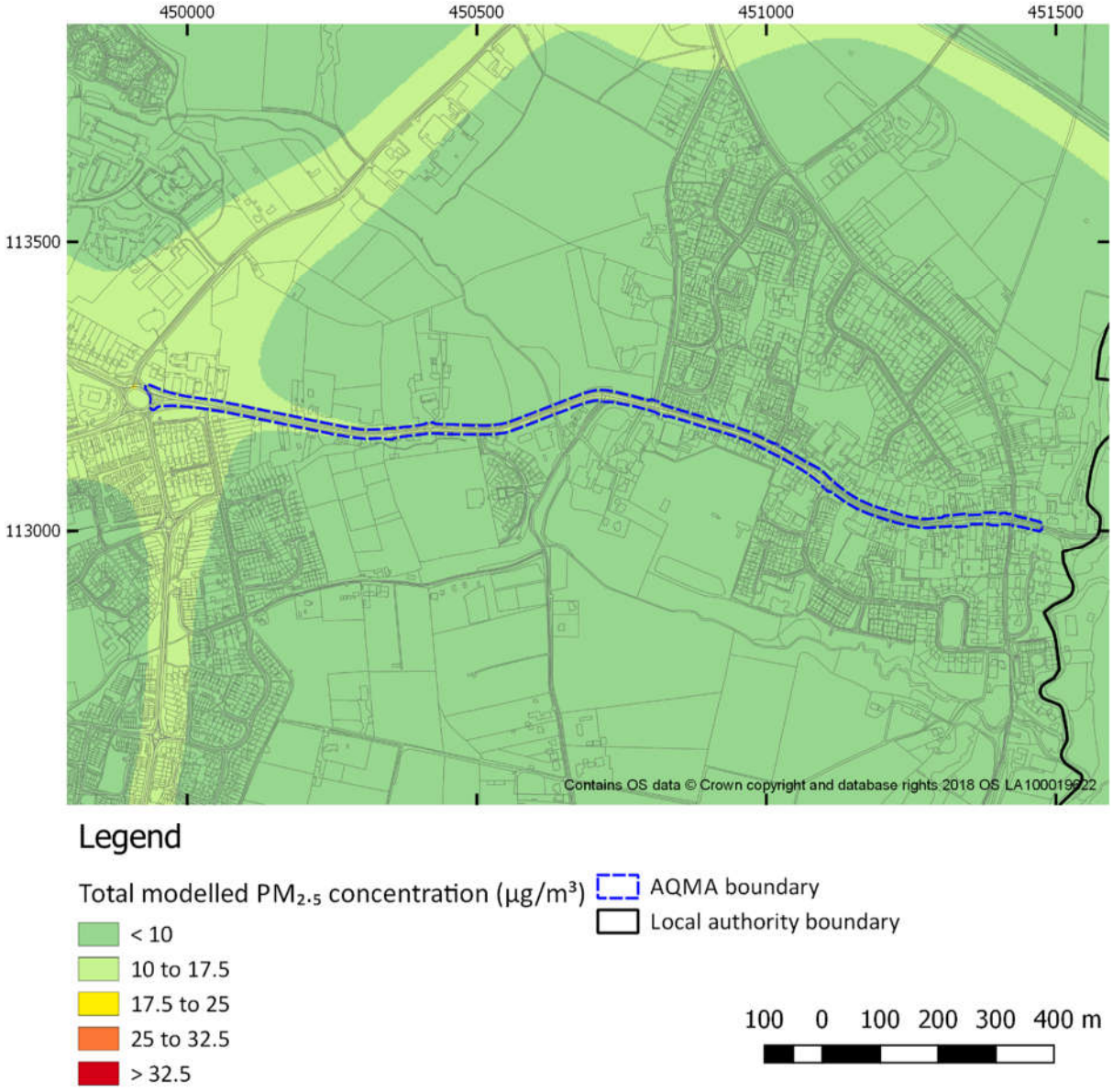


Figure 4-49 Annual mean $PM_{2.5}$ concentration model results for 2036 SGO C scenario AQMA No. 4 (High Street Botley)

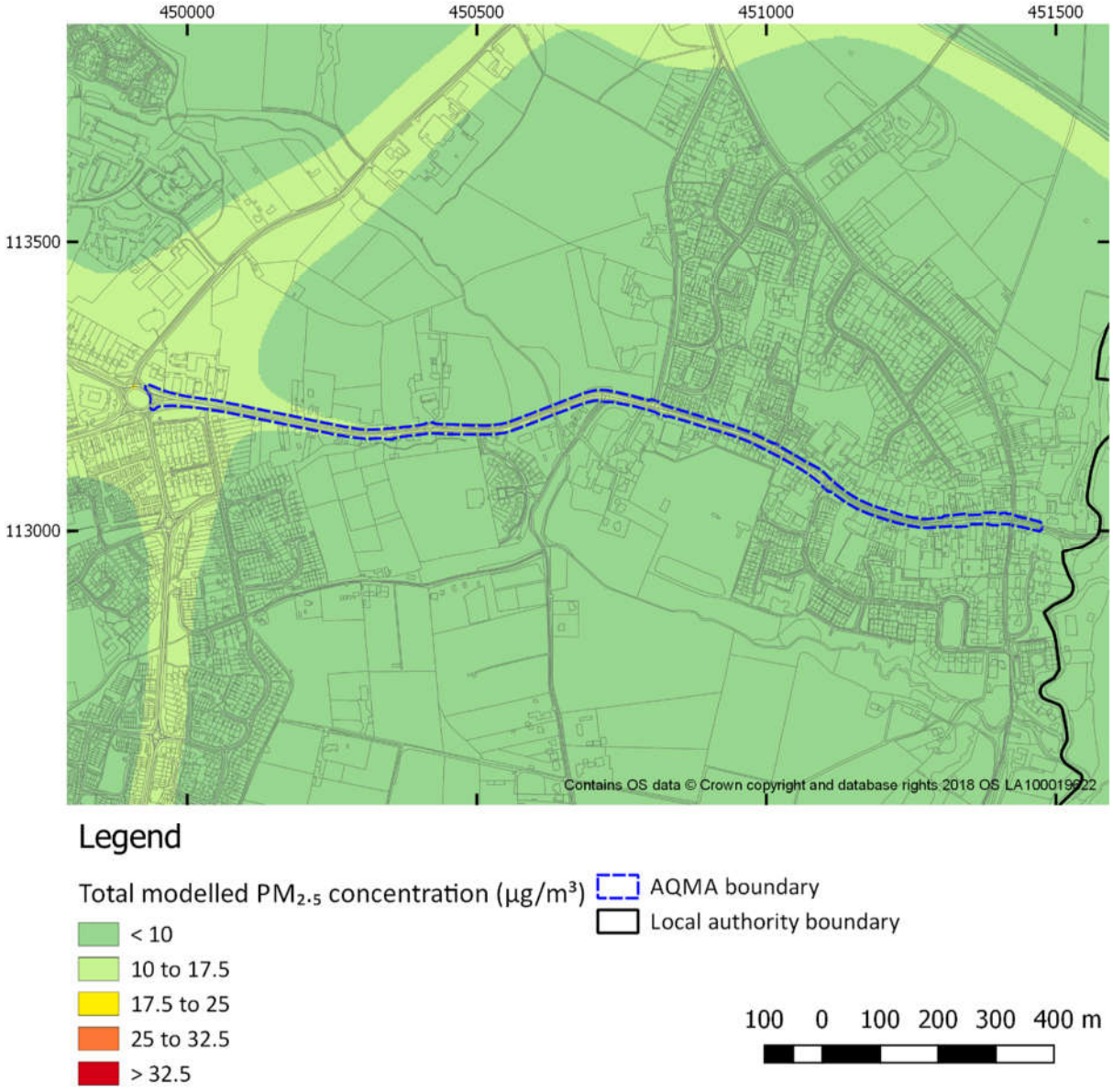


Figure 4-50 Annual mean $PM_{2.5}$ concentration model results for 2036 SGO D1 scenario AQMA No. 4 (High Street Botley)

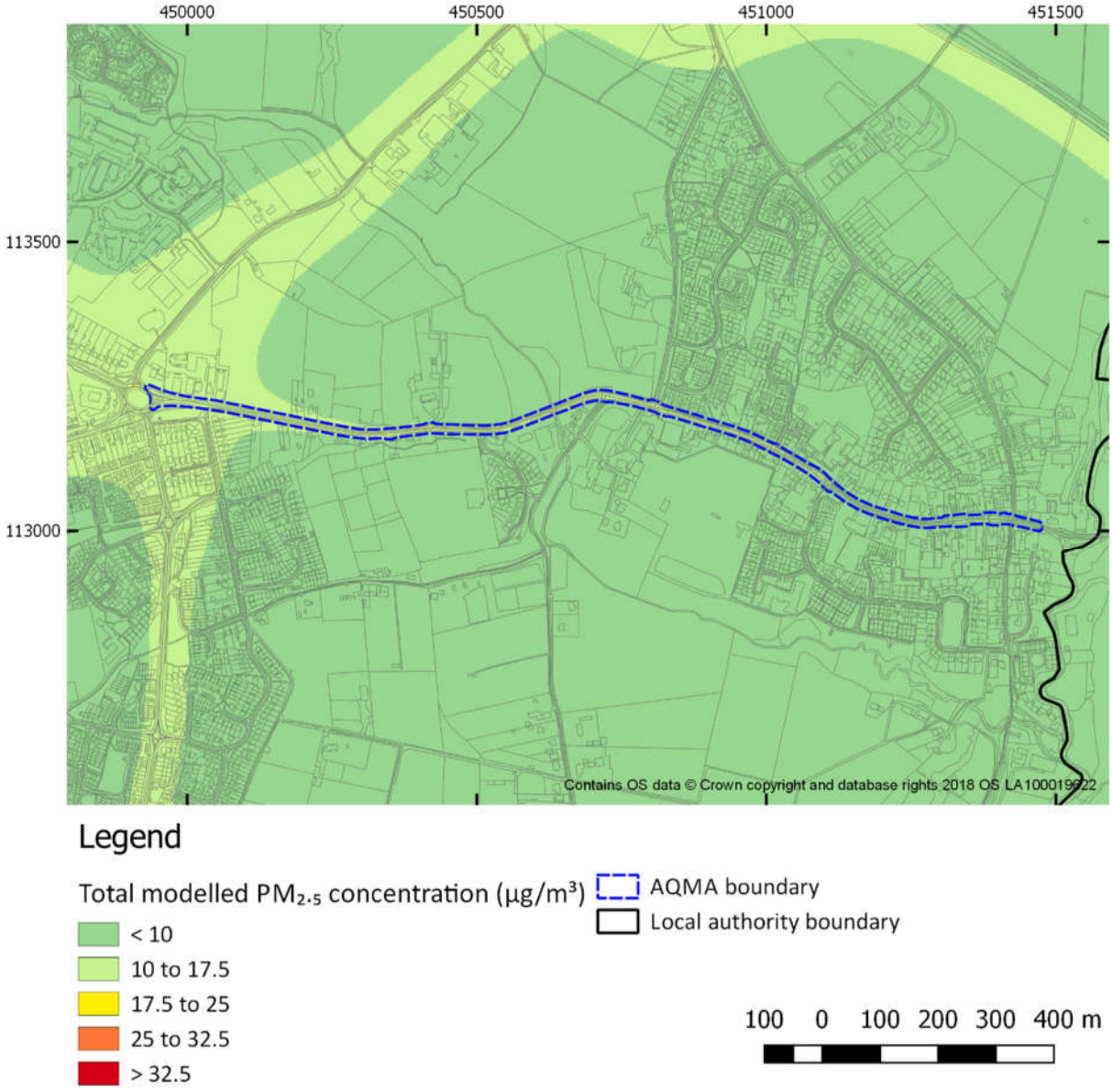


Figure 4-51 Annual mean $PM_{2.5}$ concentration model results for 2036 SGO D2 scenario AQMA No. 4 (High Street Botley)

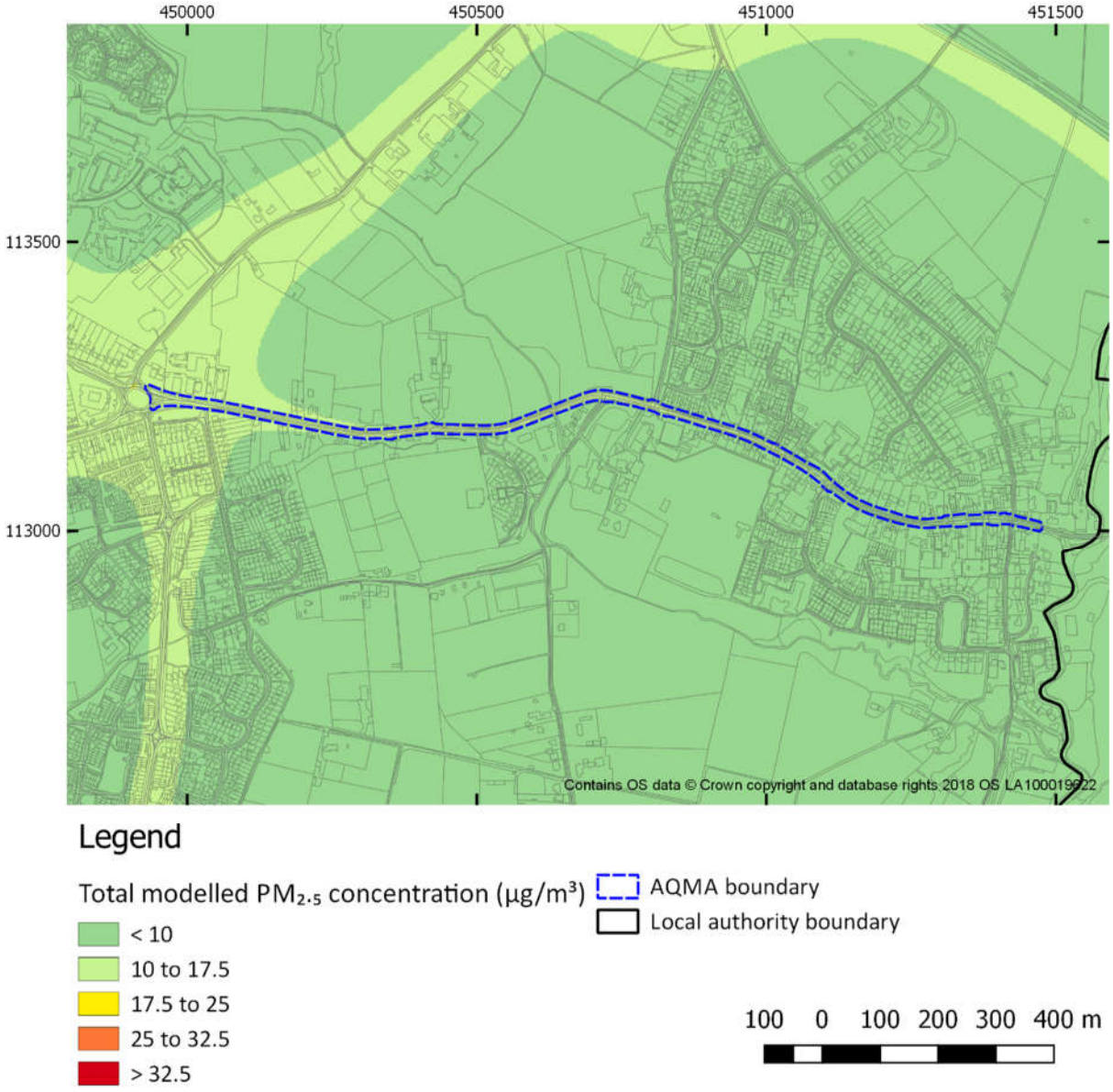


Figure 4-52 Annual mean $PM_{2.5}$ concentration model results for 2036 SGO E scenario AQMA No. 4 (High Street Botley)

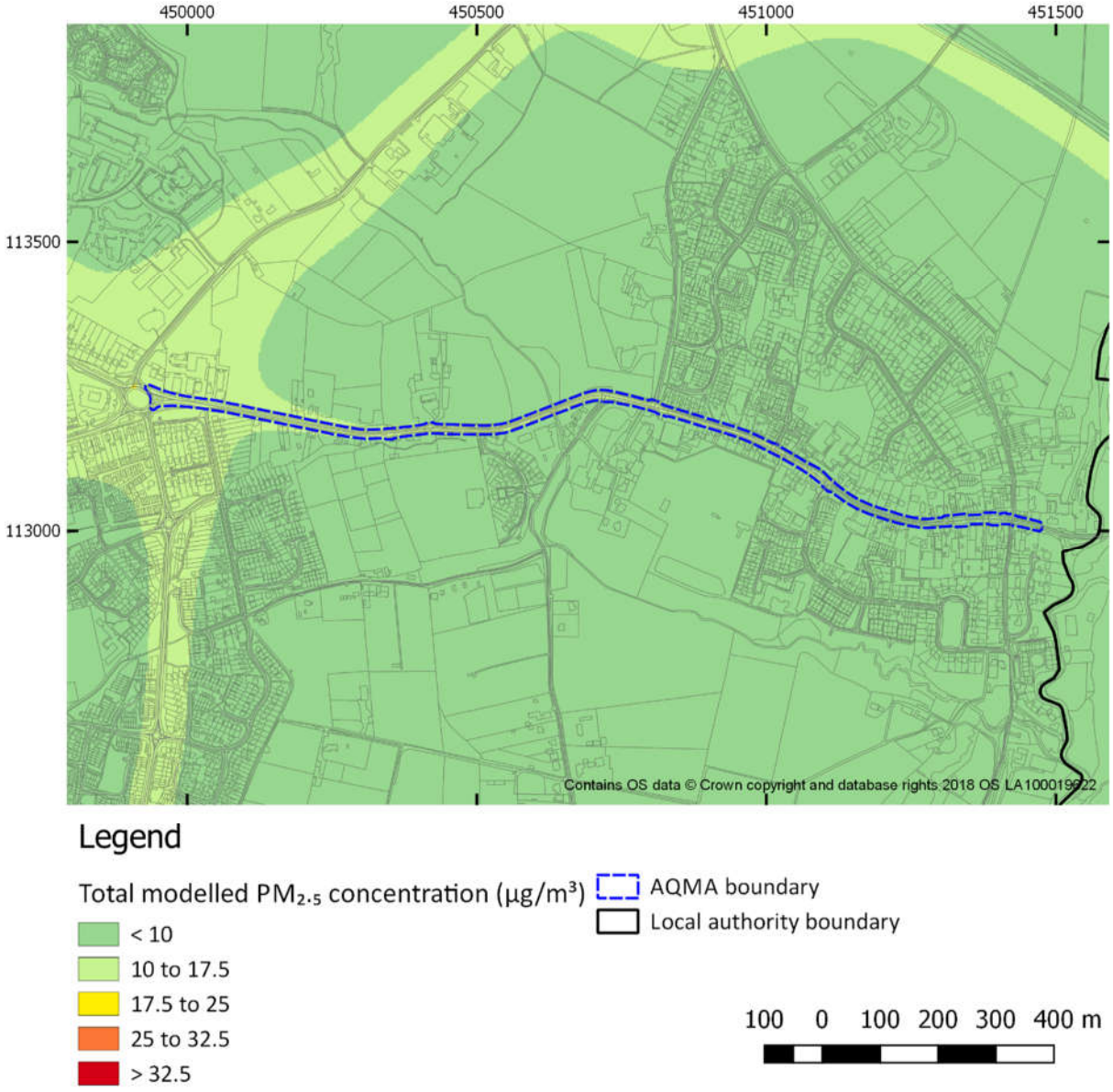
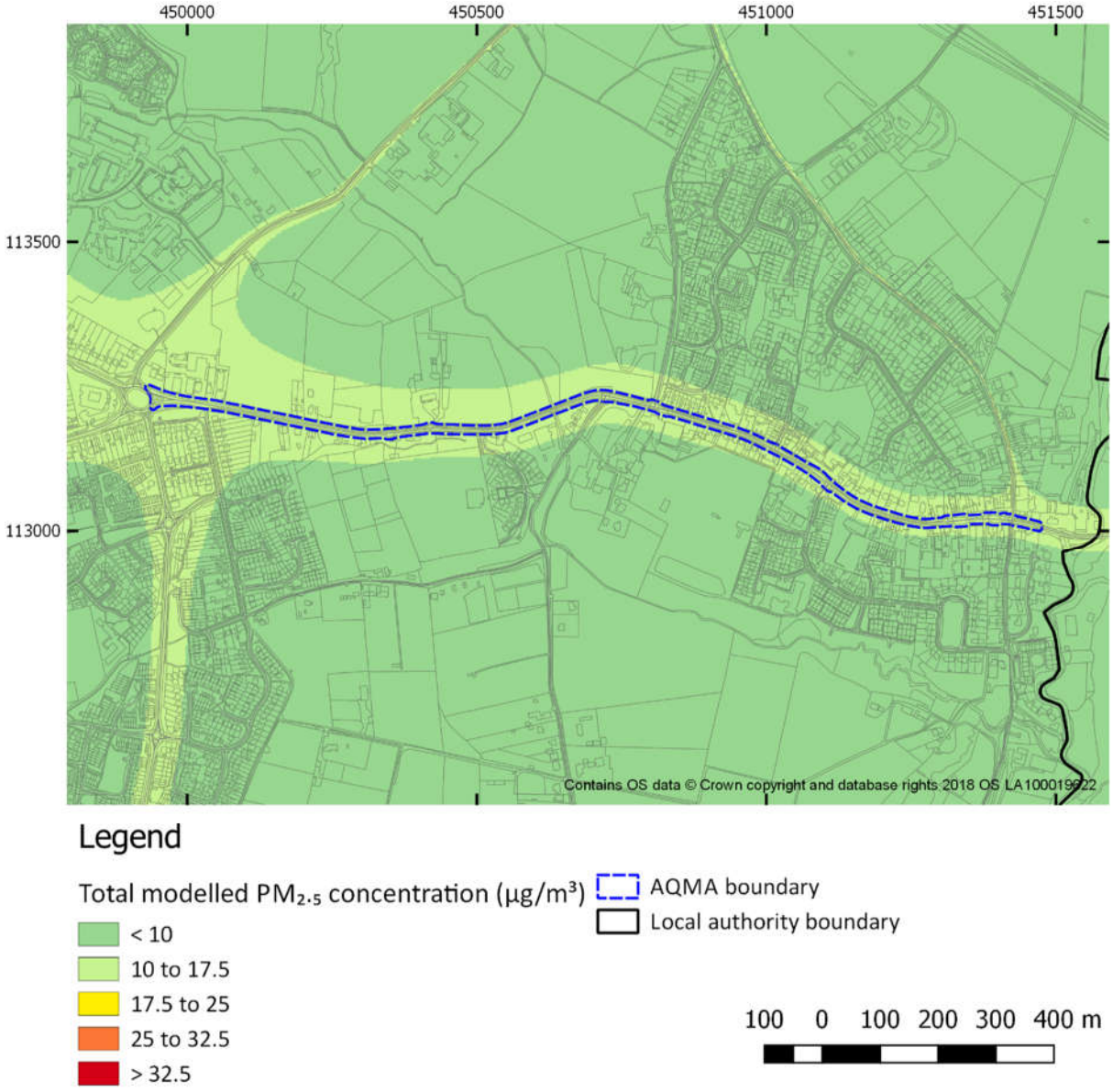


Figure 4-53 Annual mean $PM_{2.5}$ concentration model results for 2036 Baseline AQMA No. 4 (High Street Botley)



5 99.8th percentile of NO2 hourly mean concentrations

5.1 Full modelling domain

Figure 5-1 Short term NO_2 concentration model results for pseudo-2030 SGO C scenario

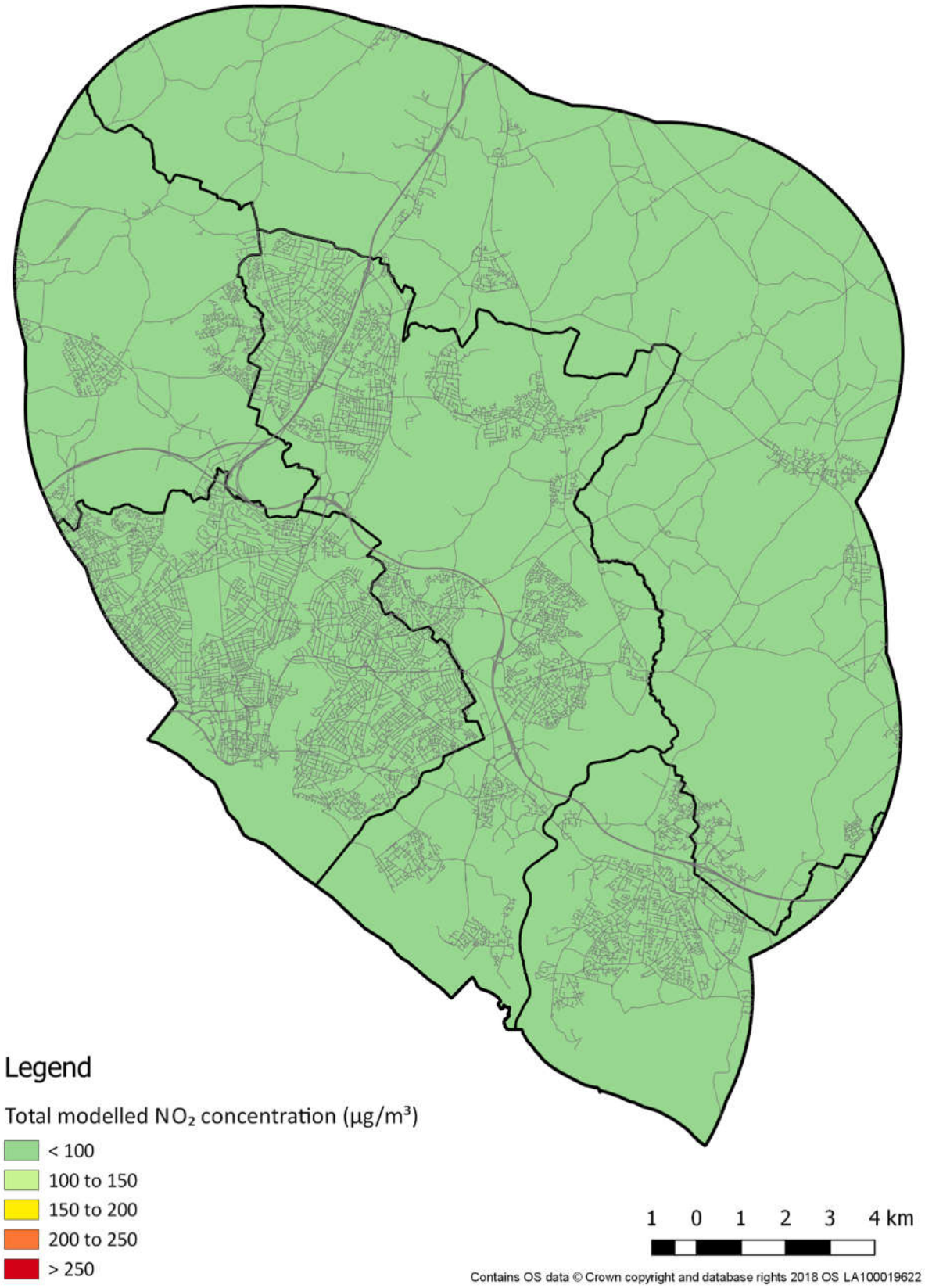


Figure 5-2 Short term NO_2 concentration model results for pseudo-2030 SGO D1 scenario

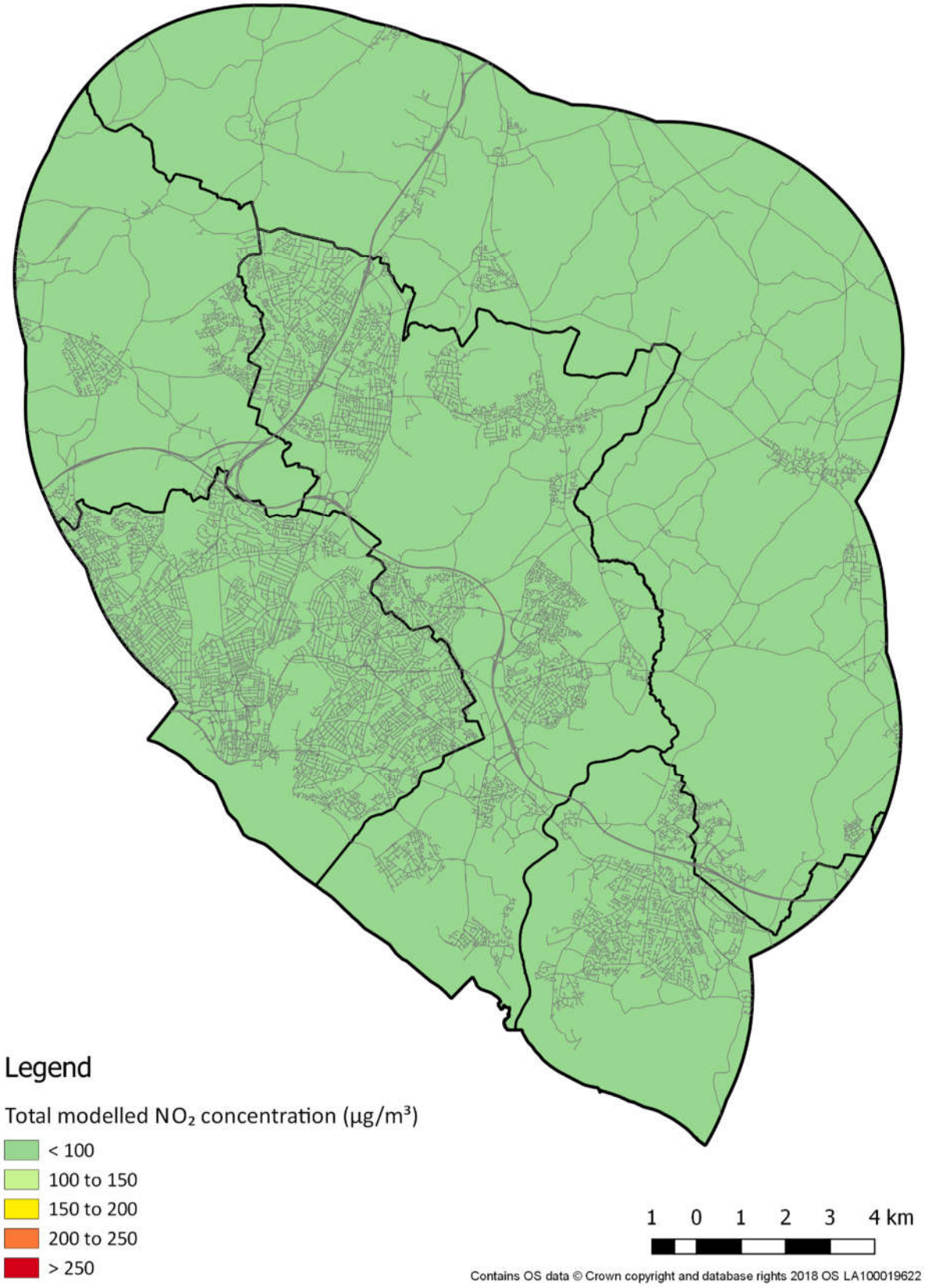


Figure 5-3 Short term NO_2 concentration model results for pseudo-2030 SGO D2 scenario

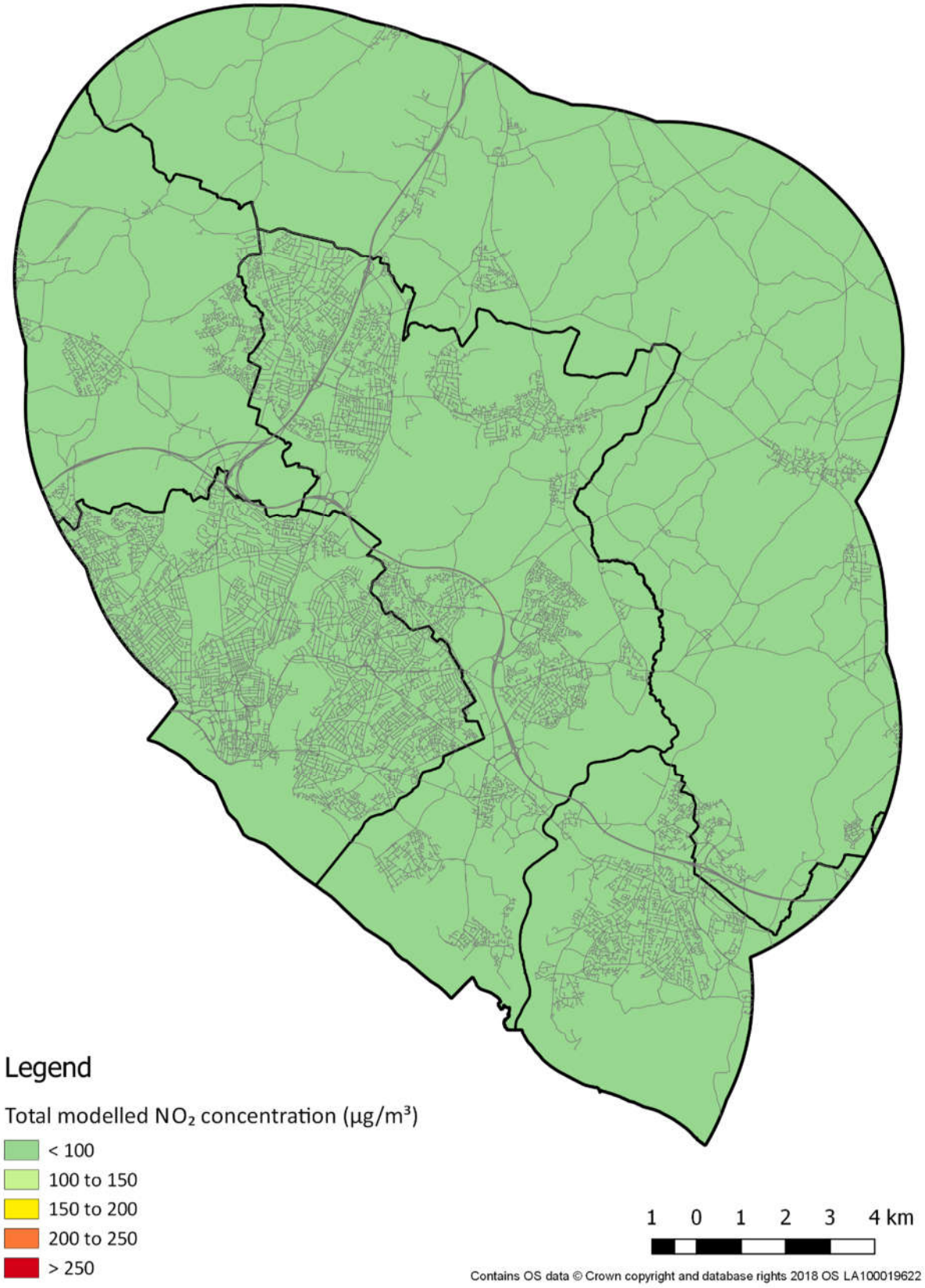


Figure 5-4 Short term NO_2 concentration model results for pseudo-2030 SGO E scenario

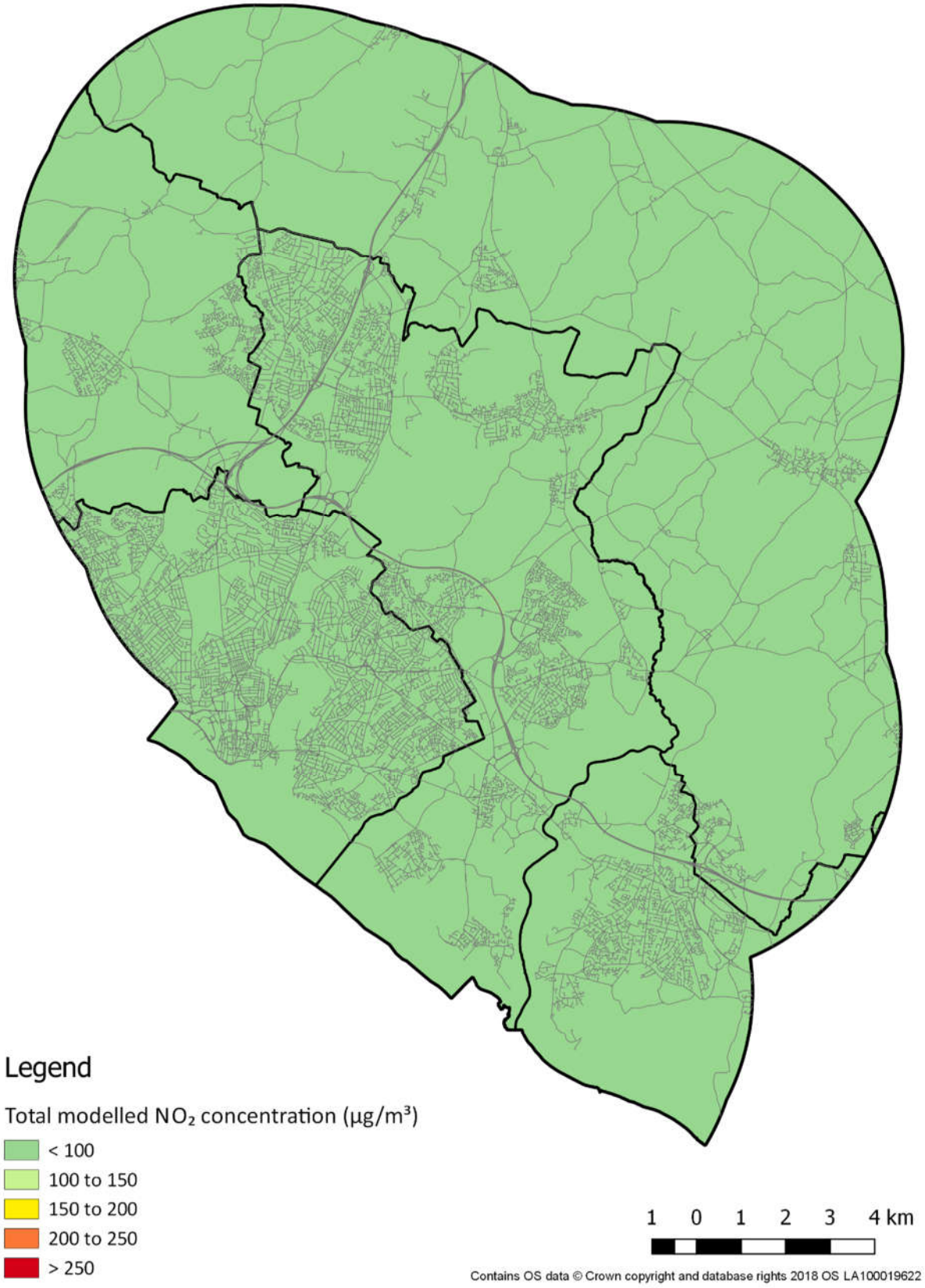


Figure 5-5 Short term NO_2 concentration model results for 2036 SGO C scenario

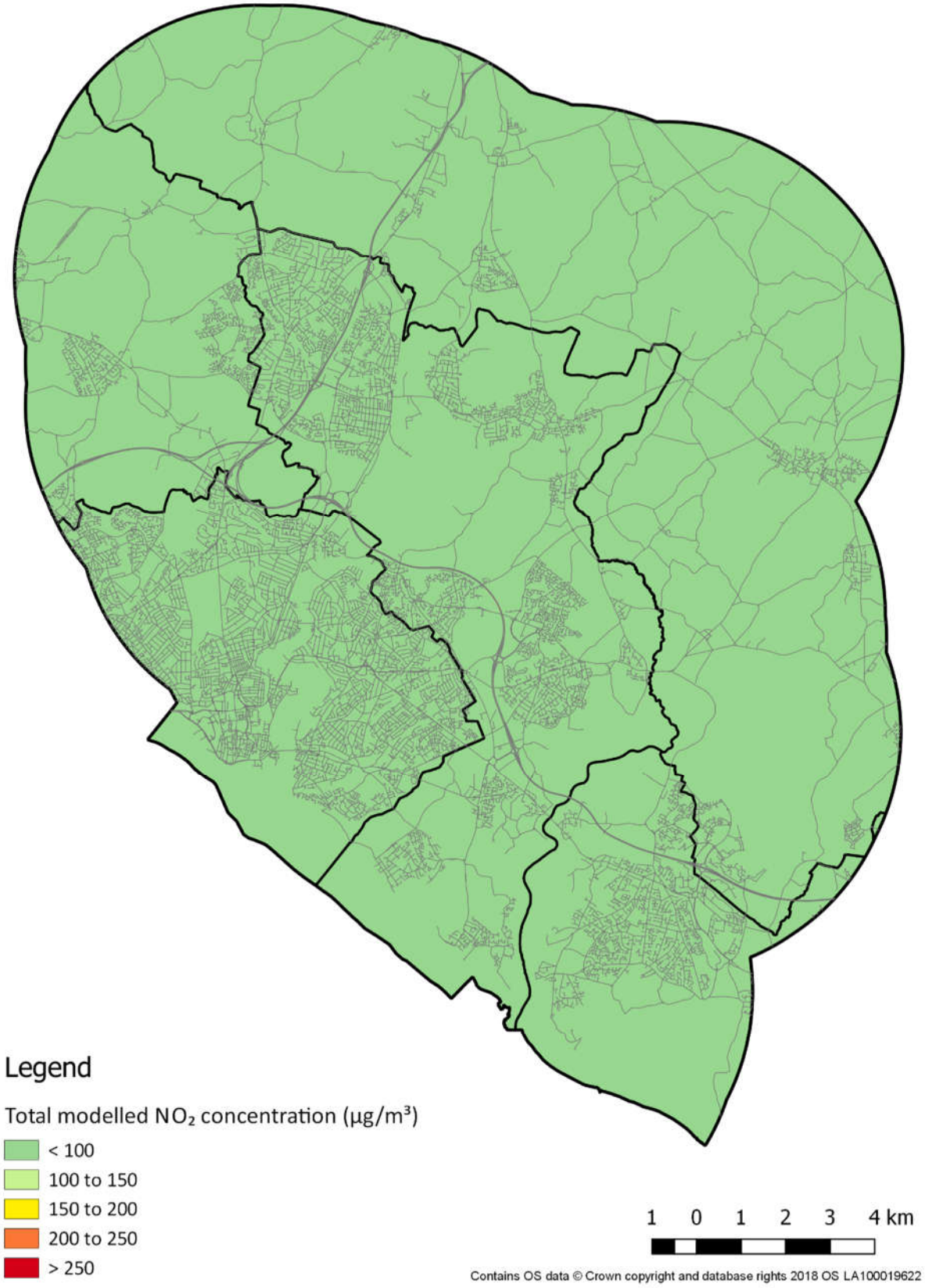


Figure 5-6 Short term NO_2 concentration model results for 2036 SGO D1 scenario

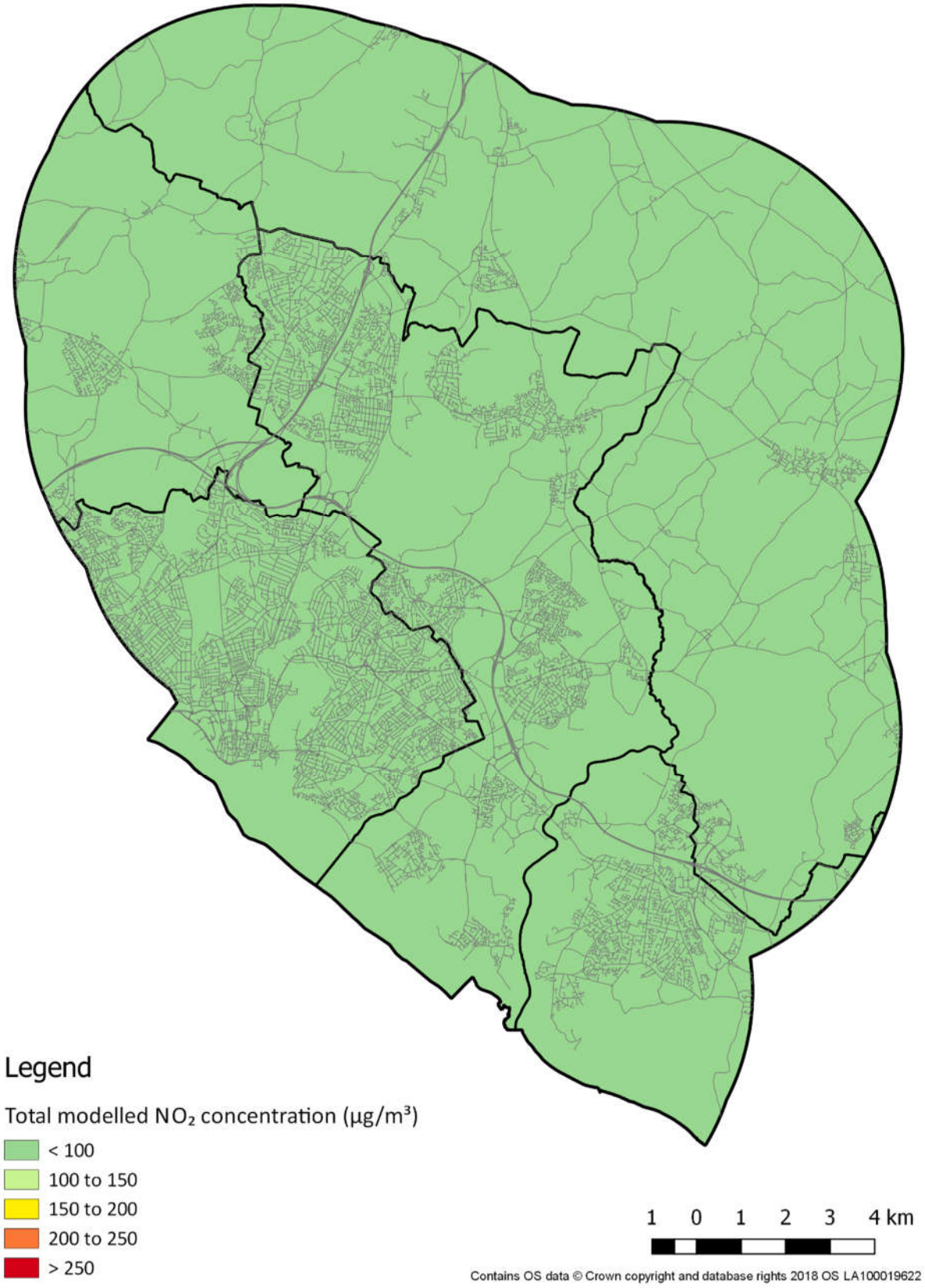


Figure 5-7 Short term NO_2 concentration model results for 2036 SGO D2 scenario

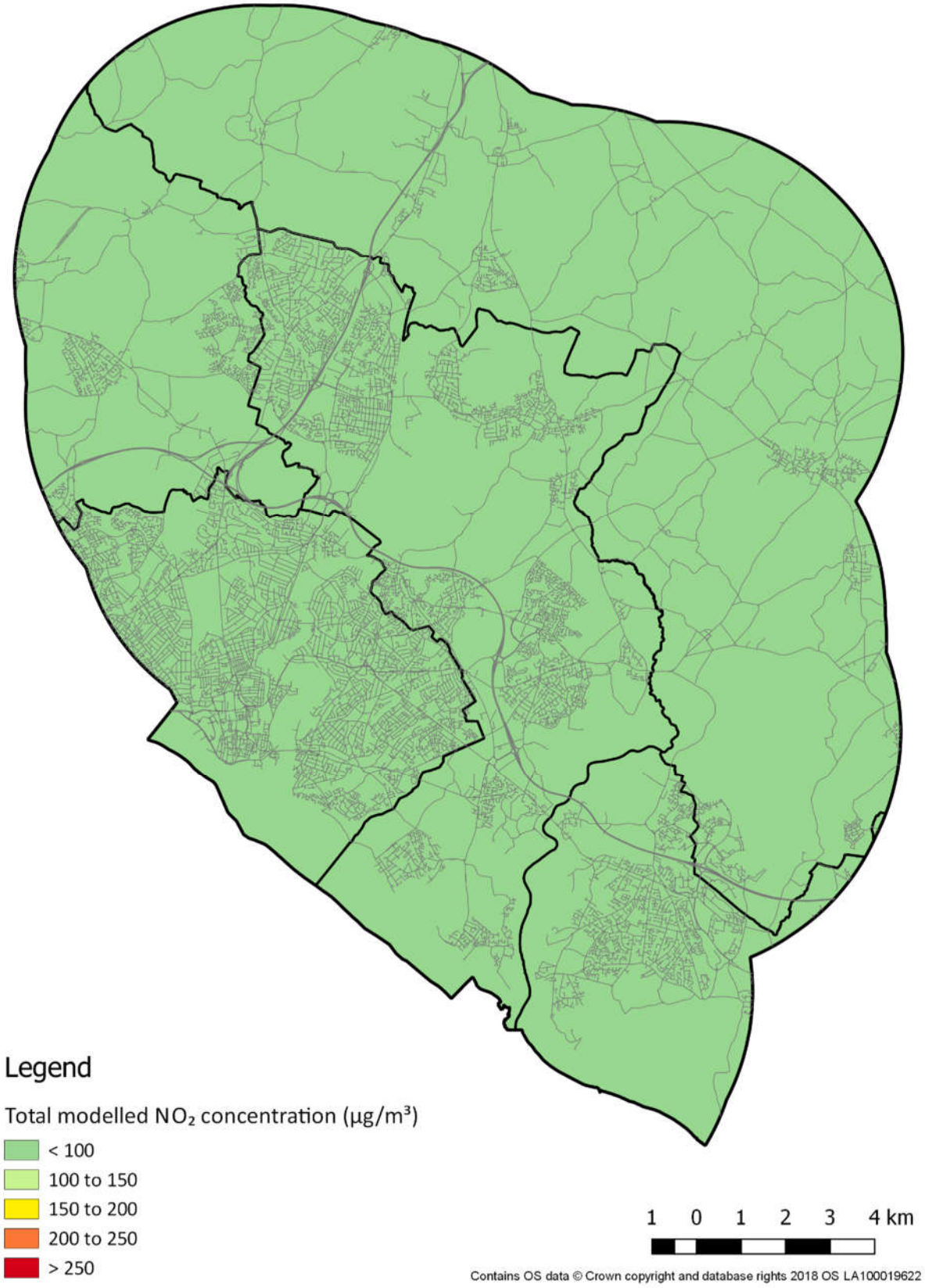
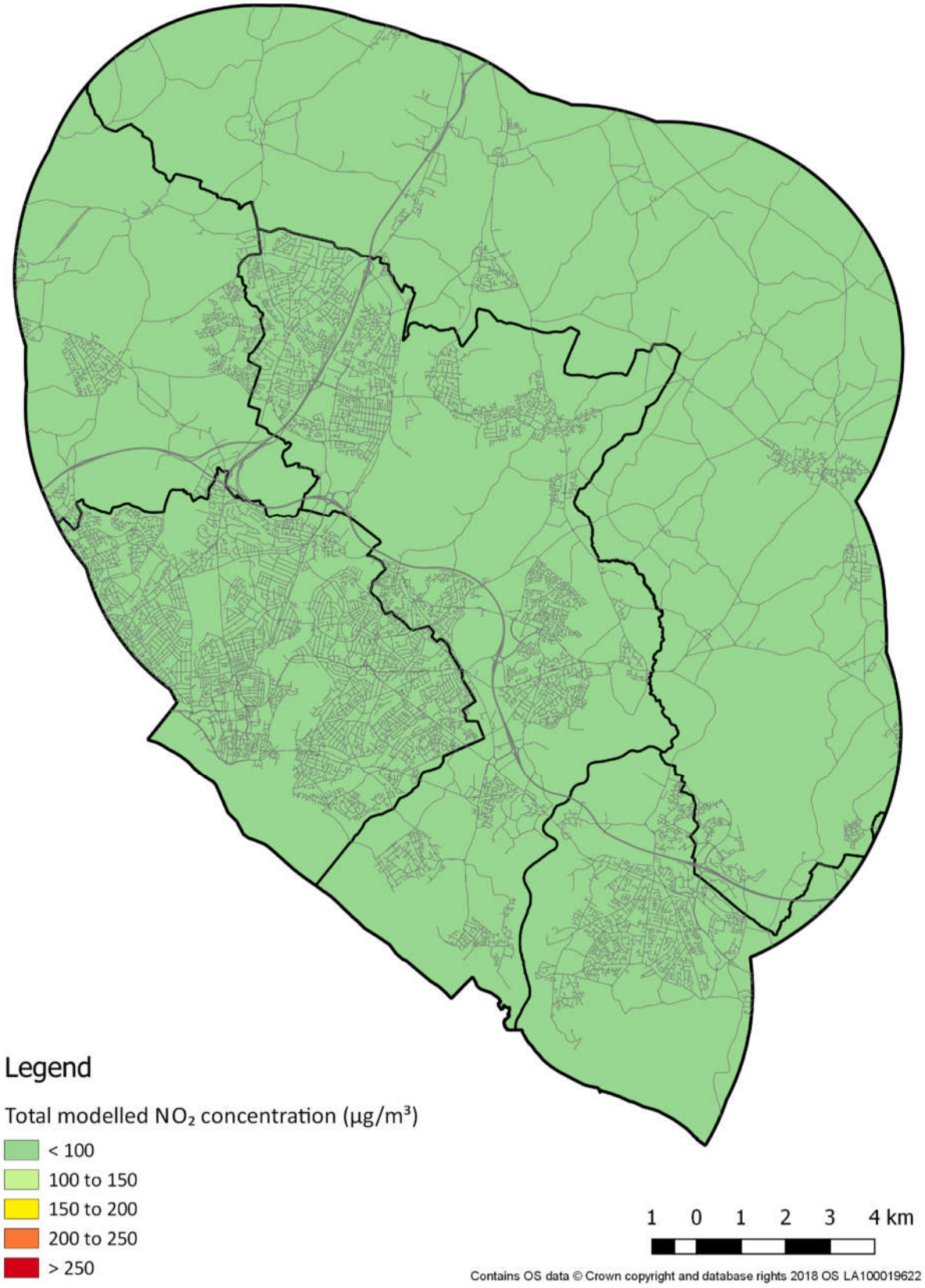


Figure 5-8 Short term NO_2 concentration model results for 2036 SGO E scenario



5.2 AQMA 1 and 2

Figure 5-9 Short term NO_2 concentration model results for pseudo-2030 SGO C scenario AQMA No. 1 (A335 / Eastleigh) (East)

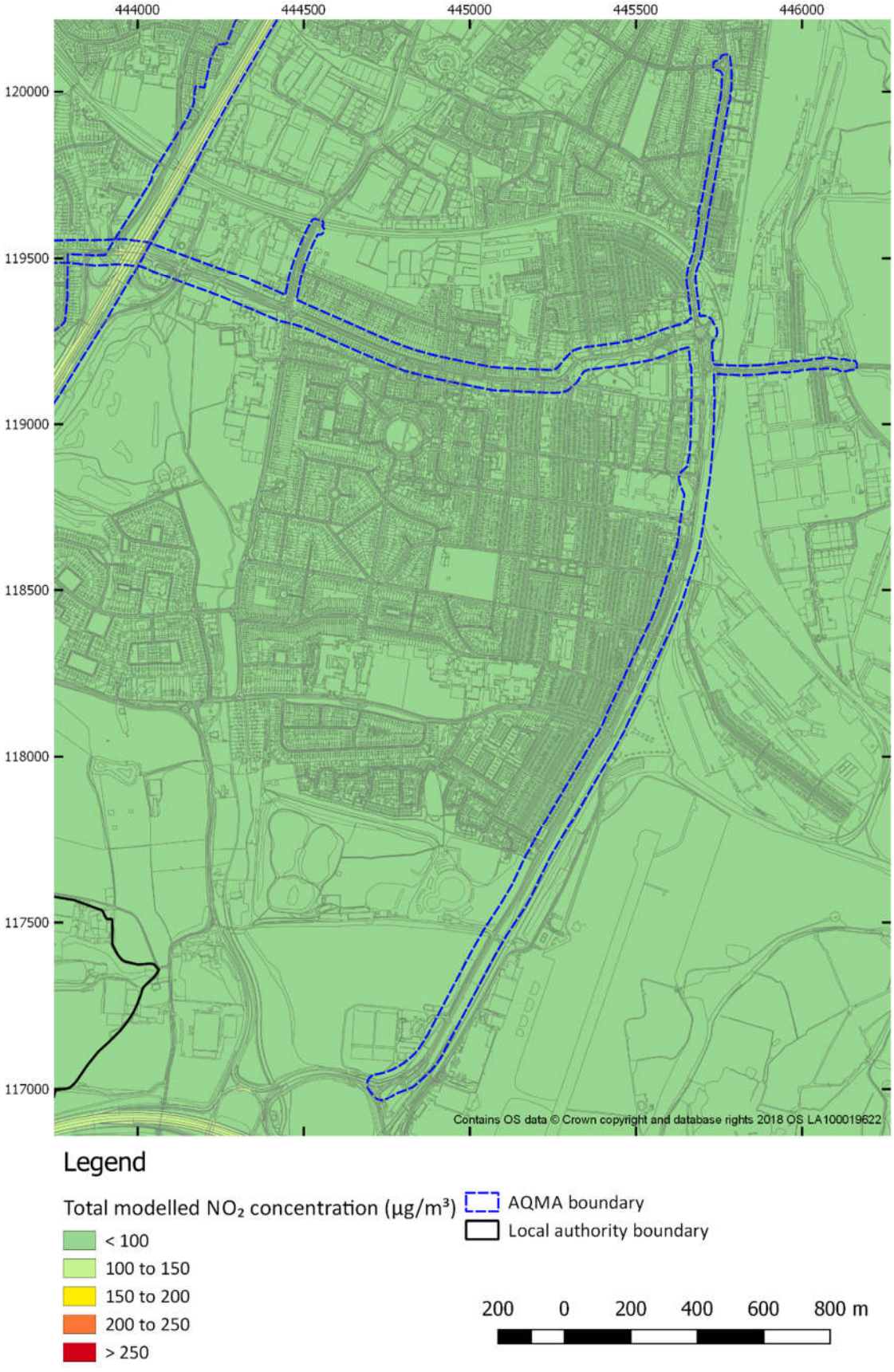


Figure 5-10 Short term NO_2 concentration model results for pseudo-2030 SGO D1 scenario AQMA No. 1 (A335 / Eastleigh) (East)

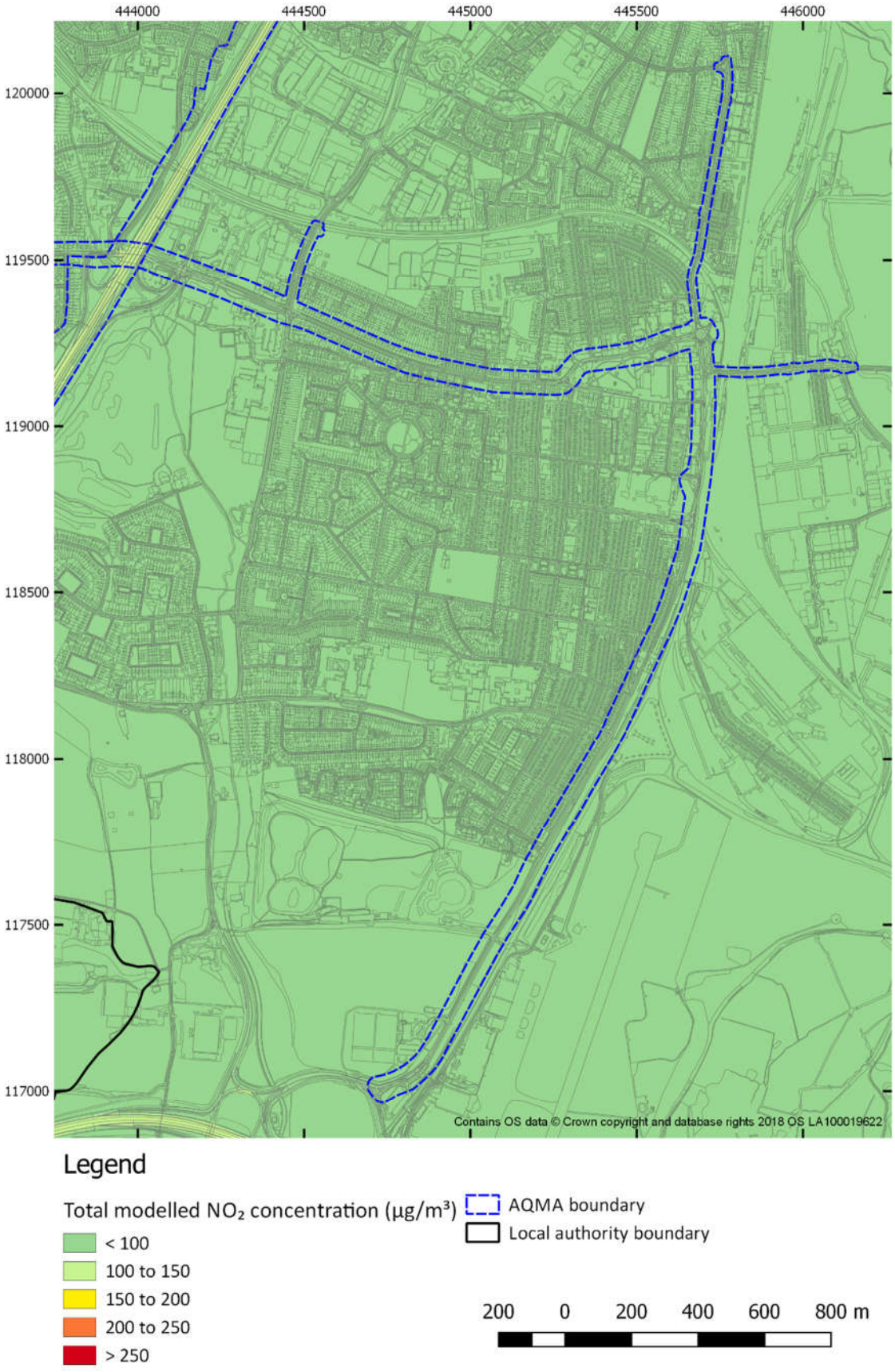


Figure 5-11 Short term NO_2 concentration model results for pseudo-2030 SGO D2 scenario AQMA No. 1 (A335 / Eastleigh) (East)

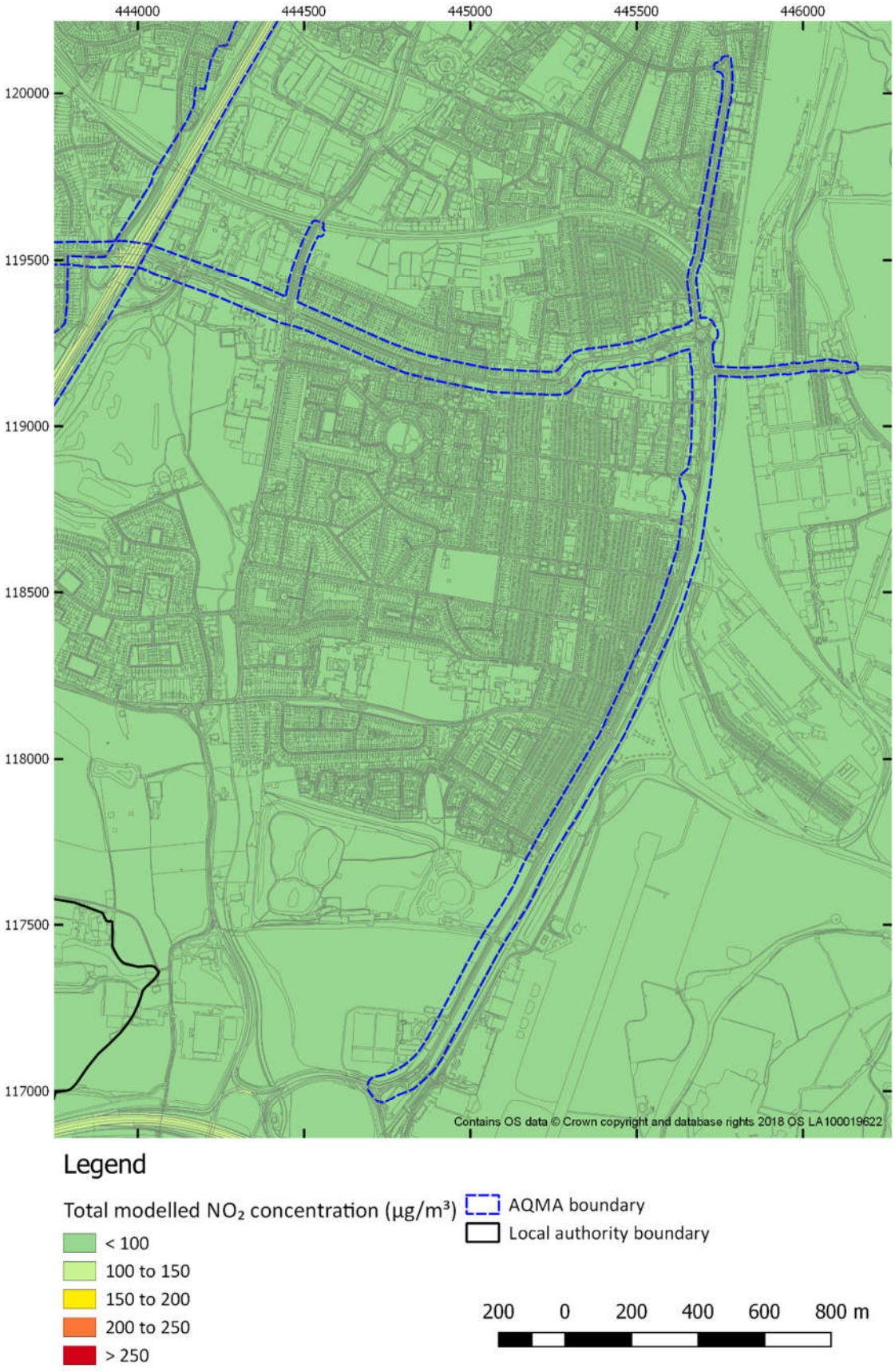


Figure 5-12 Short term NO_2 concentration model results for pseudo-2030 SGO E scenario AQMA No. 1 (A335 / Eastleigh) (East)

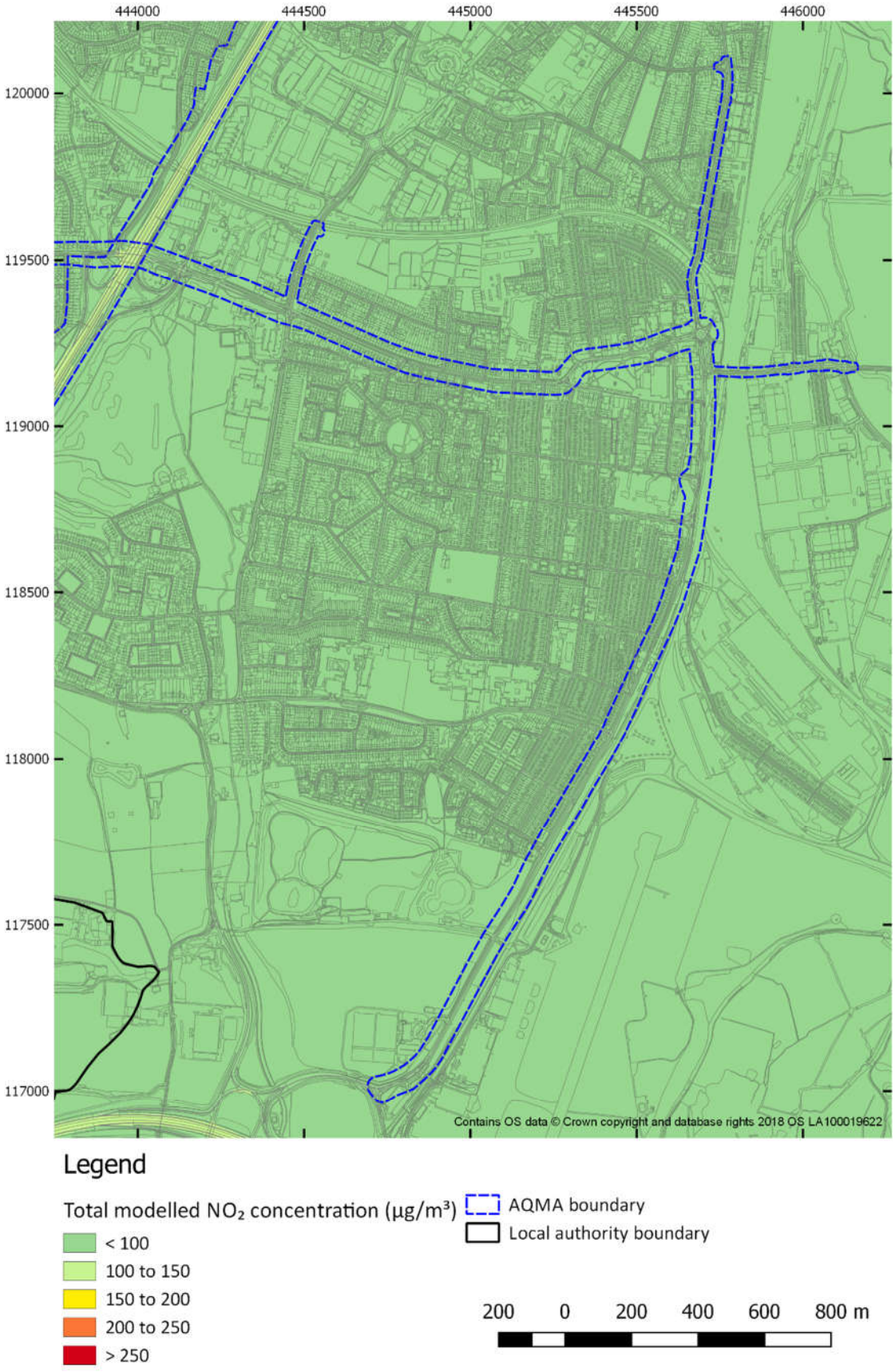


Figure 5-13 Short term NO_2 concentration model results for 2036 SGO C scenario AQMA No. 1 (A335 / Eastleigh) (East)

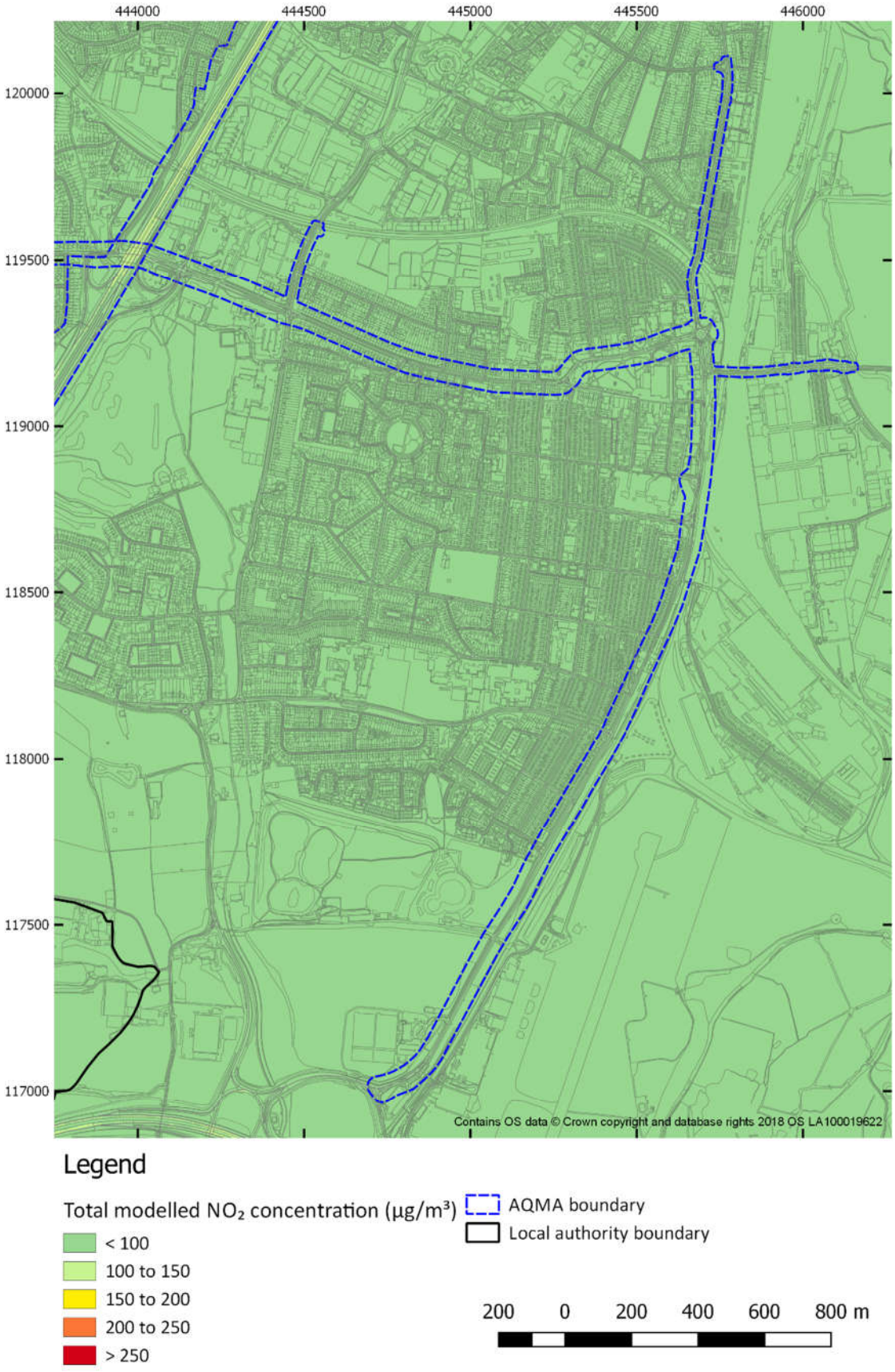


Figure 5-14 Short term NO_2 concentration model results for 2036 SGO D1 scenario AQMA No. 1 (A335 / Eastleigh) (East)

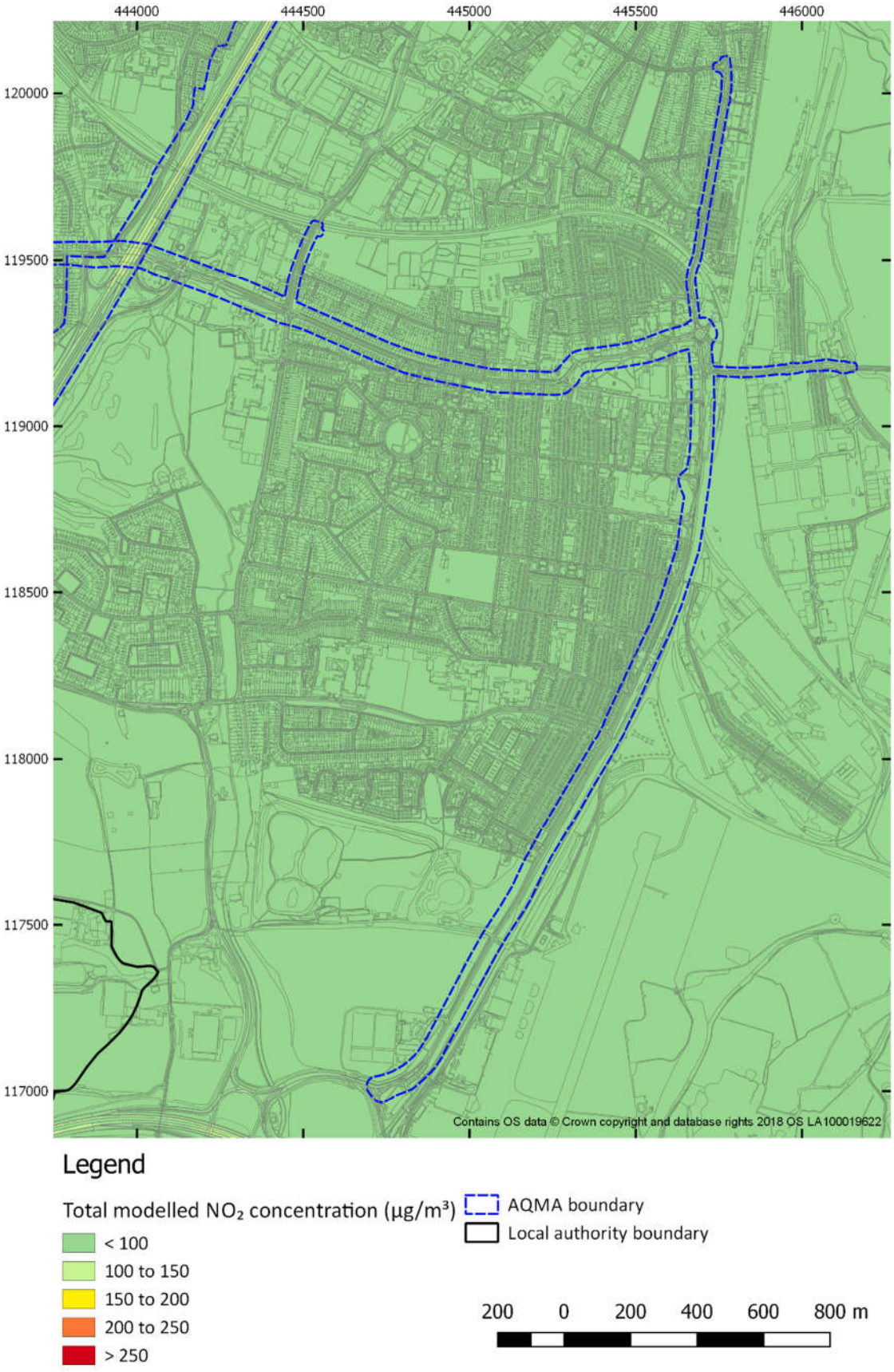


Figure 5-15 Short term NO_2 concentration model results for 2036 SGO D2 scenario AQMA No. 1 (A335 / Eastleigh) (East)

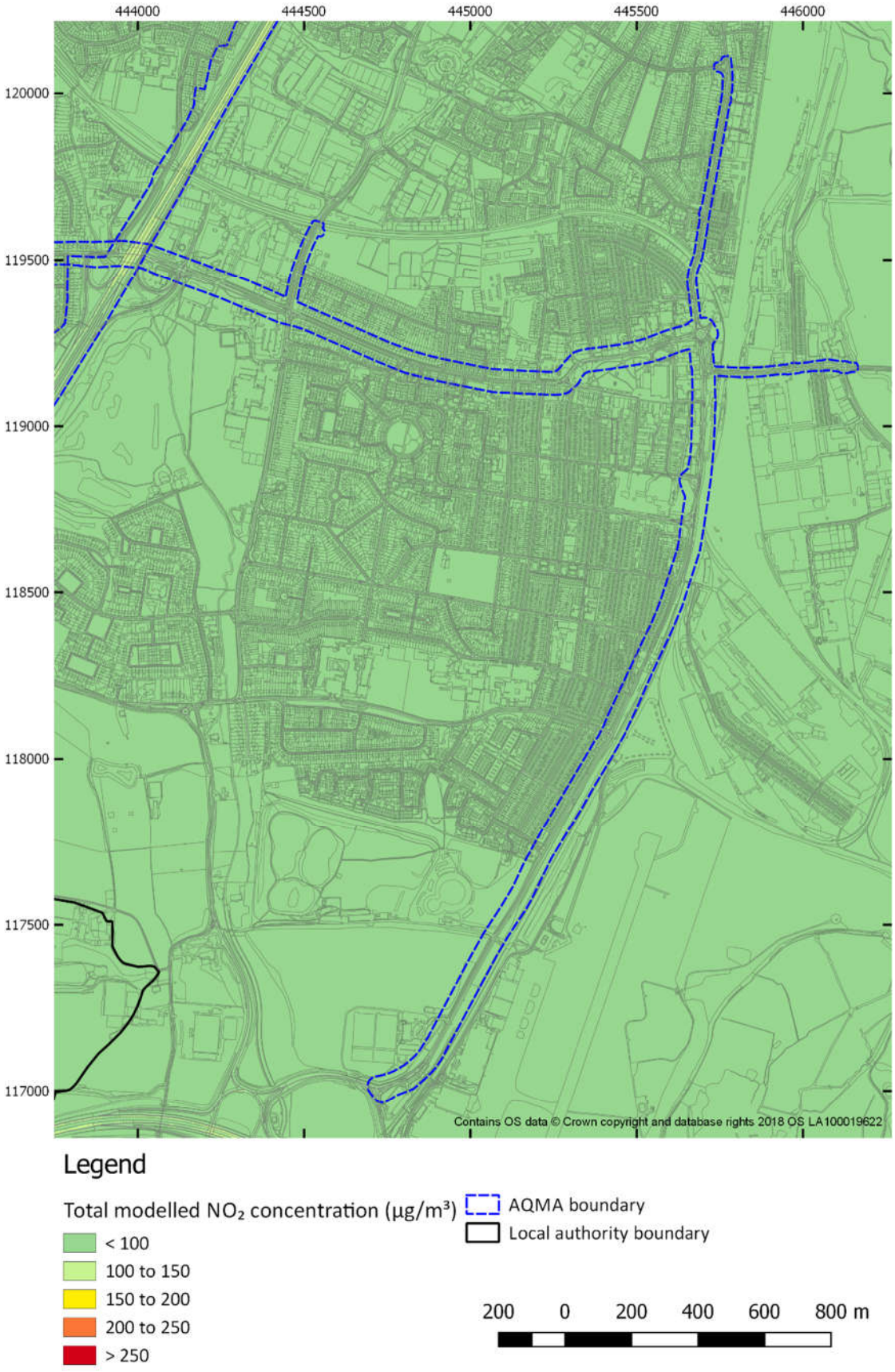


Figure 5-16 Short term NO_2 concentration model results for 2036 SGO E scenario AQMA No. 1 (A335 / Eastleigh) (East)

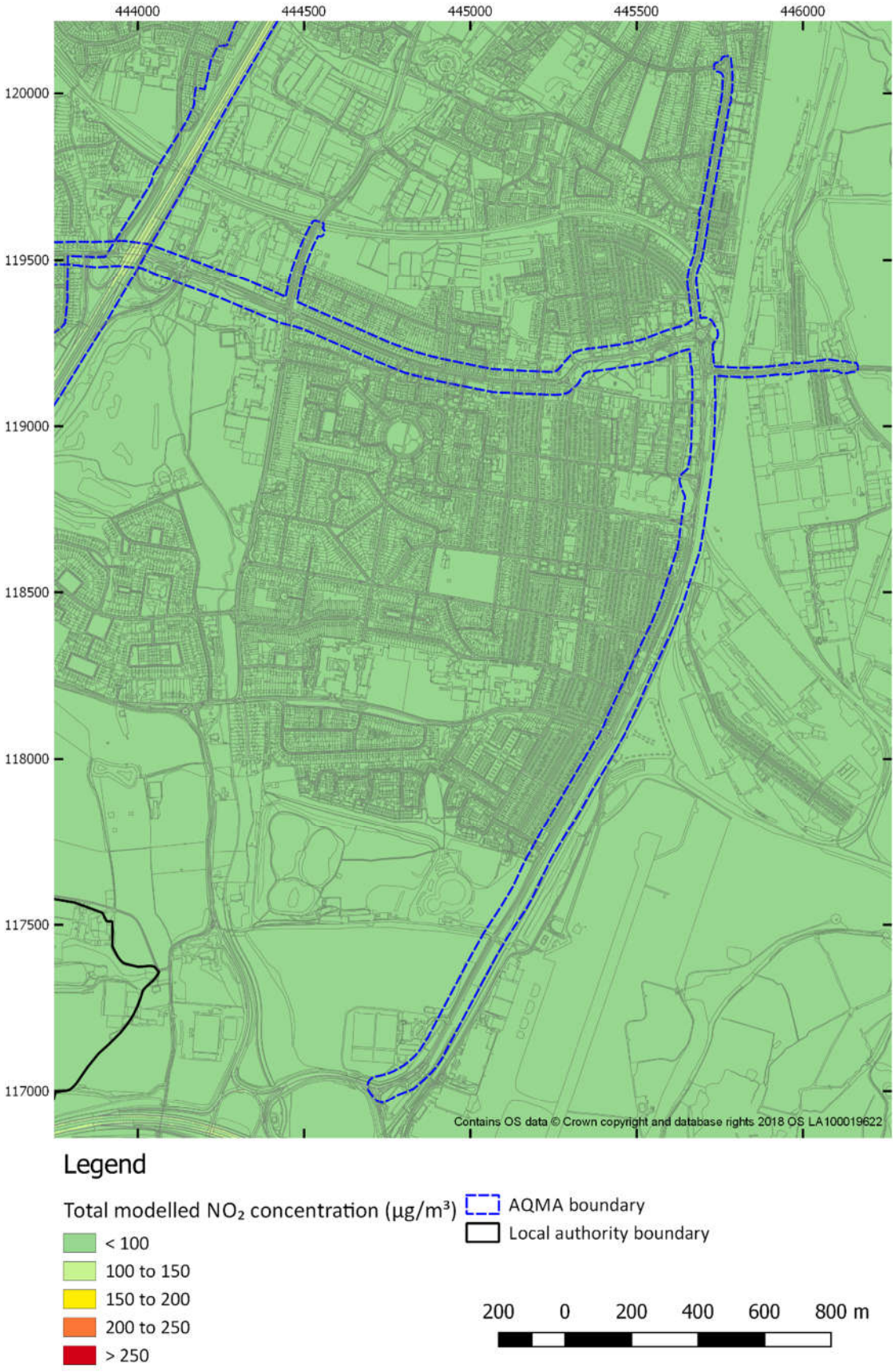


Figure 5-17 Short term NO_2 concentration model results for 2036 Baseline AQMA No. 1 (A335 / Eastleigh) (East)

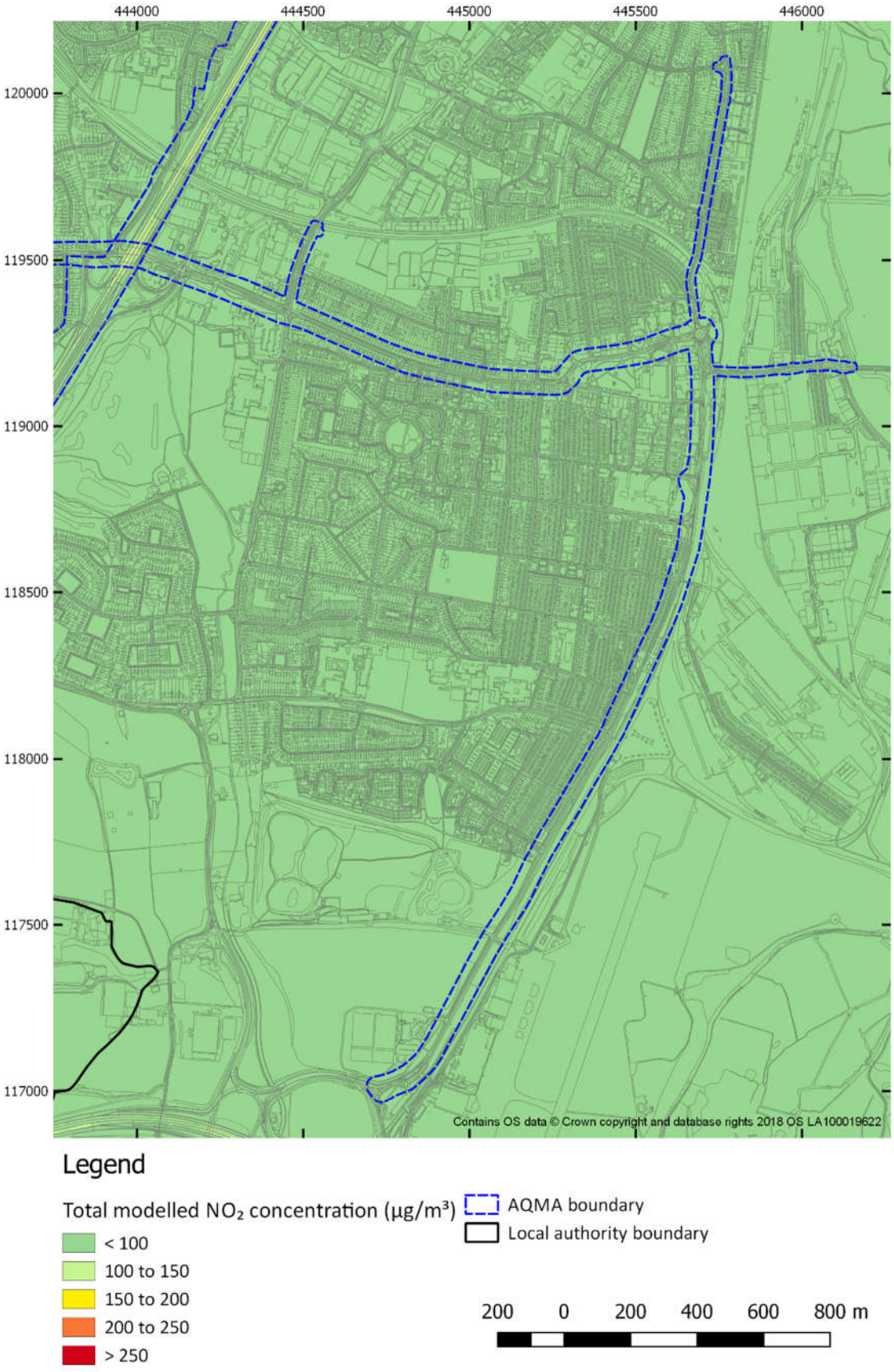


Figure 5-18 Short term NO_2 concentration model results for pseudo-2030 SGO C scenario AQMA No. 1 (A335 / Eastleigh) (West)

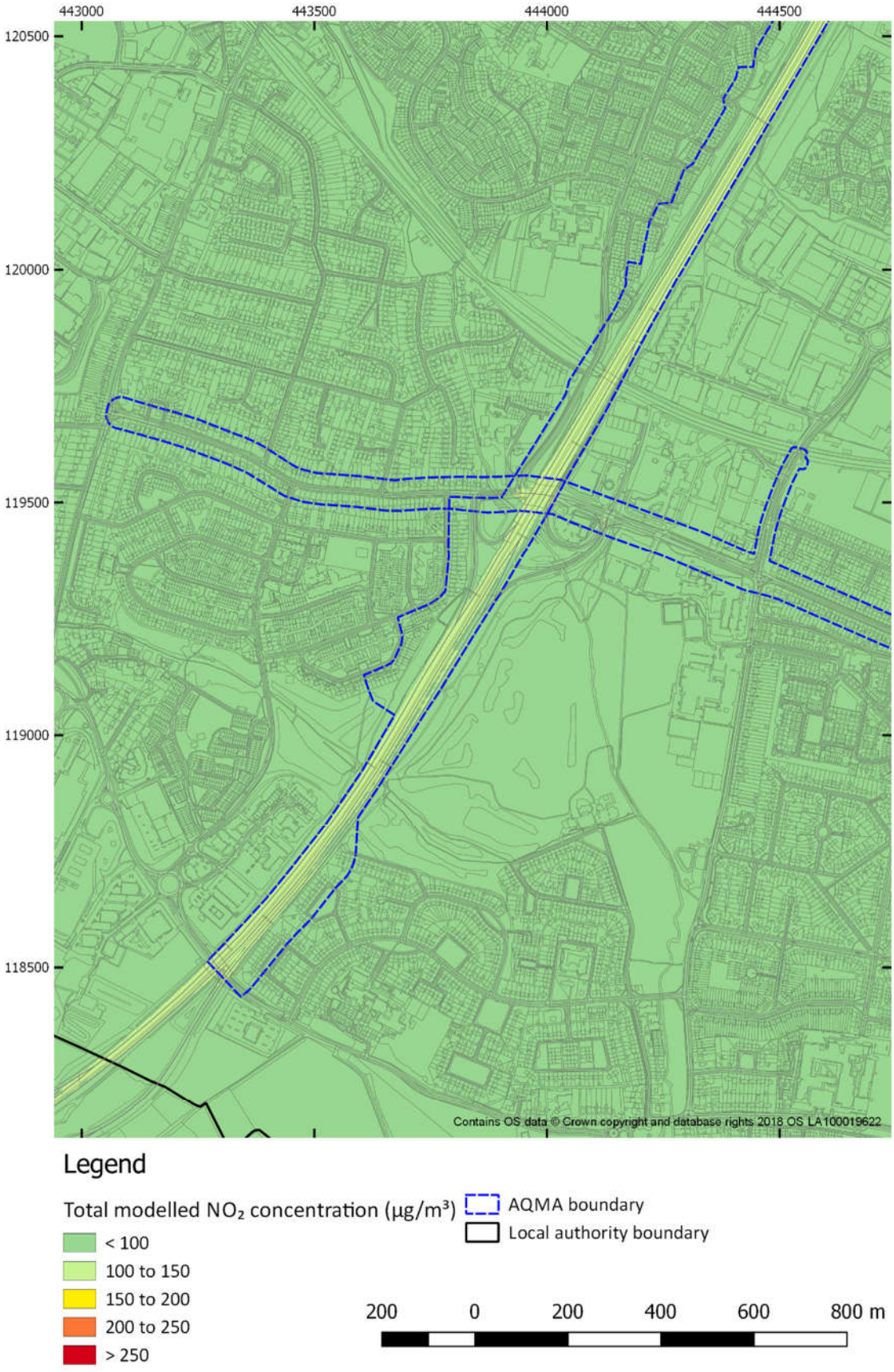


Figure 5-19 Short term NO_2 concentration model results for pseudo-2030 SGO D1 scenario AQMA No. 1 (A335 / Eastleigh) (West)

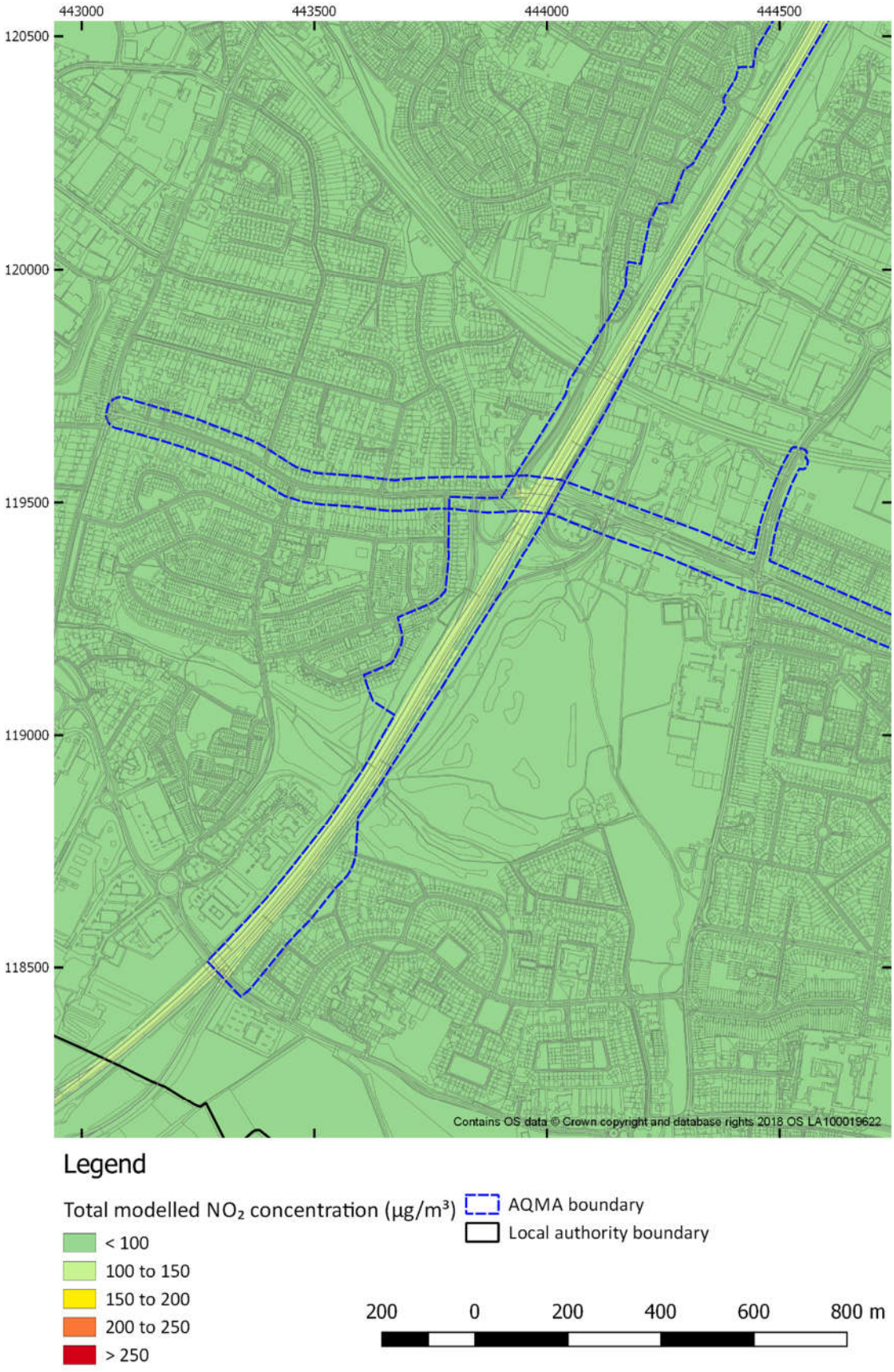


Figure 5-20 Short term NO_2 concentration model results for pseudo-2030 SGO D2 scenario AQMA No. 1 (A335 / Eastleigh) (West)

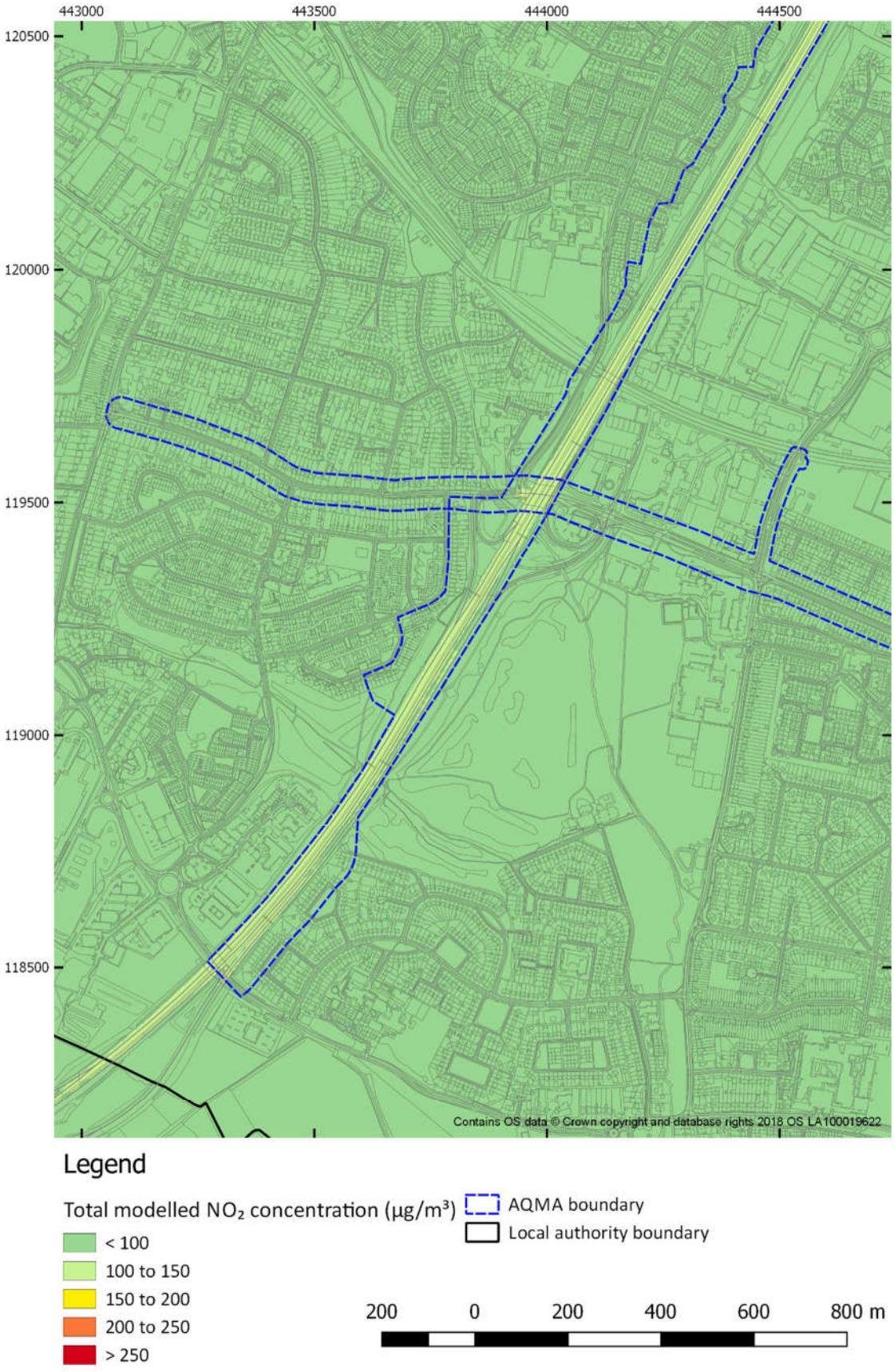


Figure 5-21 Short term NO_2 concentration model results for pseudo-2030 SGO E scenario AQMA No. 1 (A335 / Eastleigh) (West)

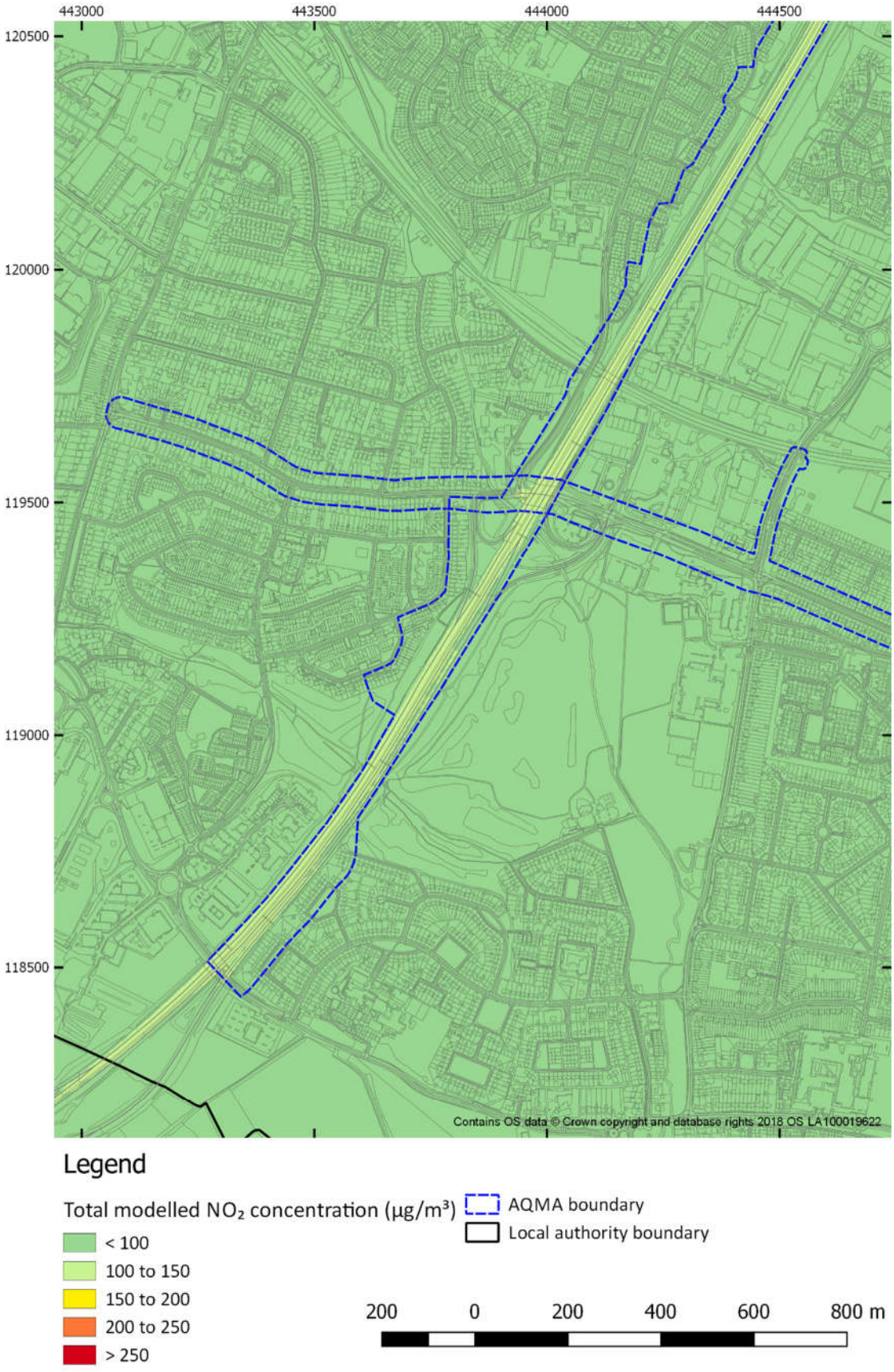


Figure 5-22 Short term NO_2 concentration model results for 2036 SGO C scenario AQMA No. 1 (A335 / Eastleigh) (West)

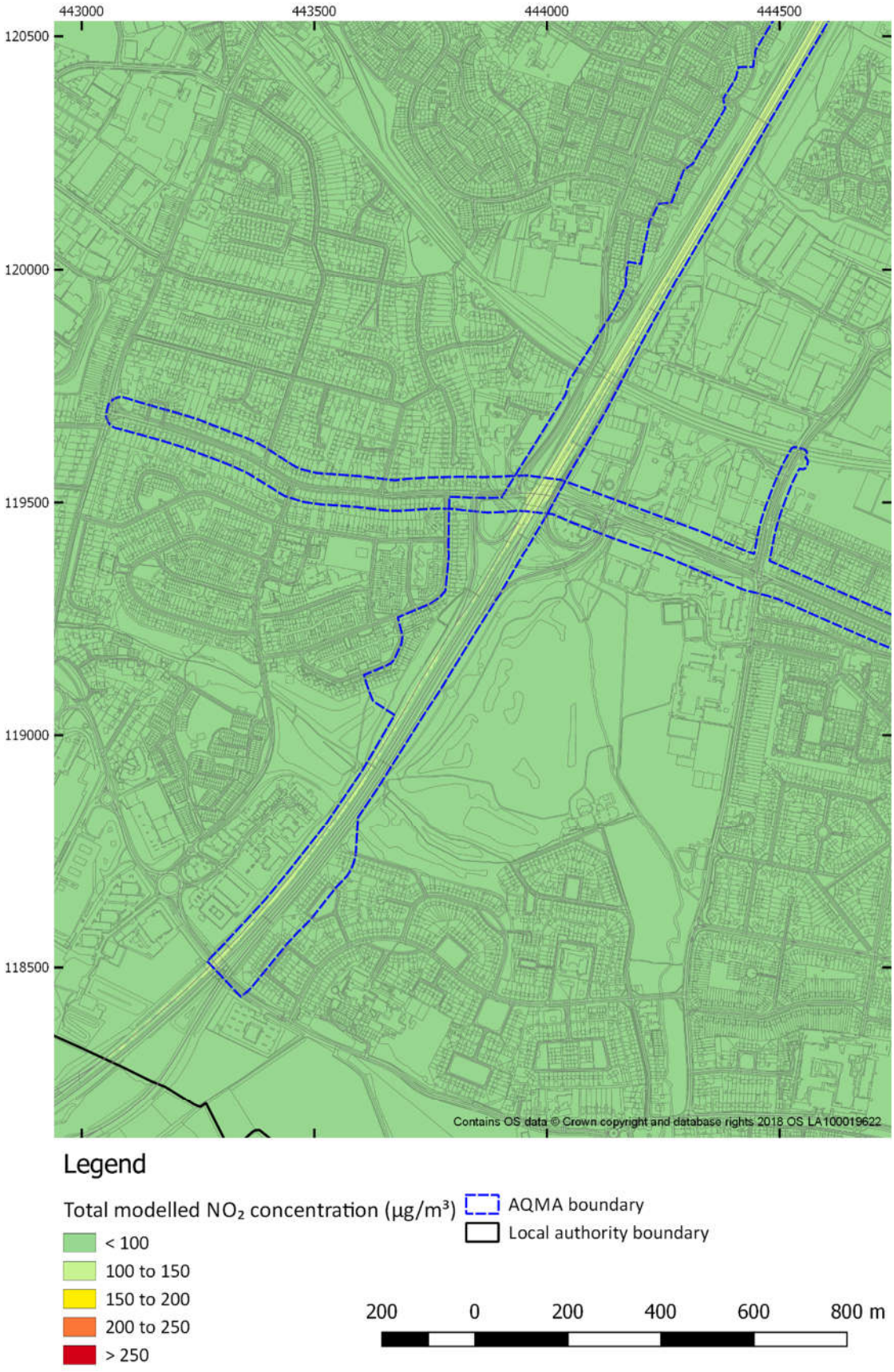


Figure 5-23 Short term NO_2 concentration model results for 2036 SGO D1 scenario AQMA No. 1 (A335 / Eastleigh) (West)

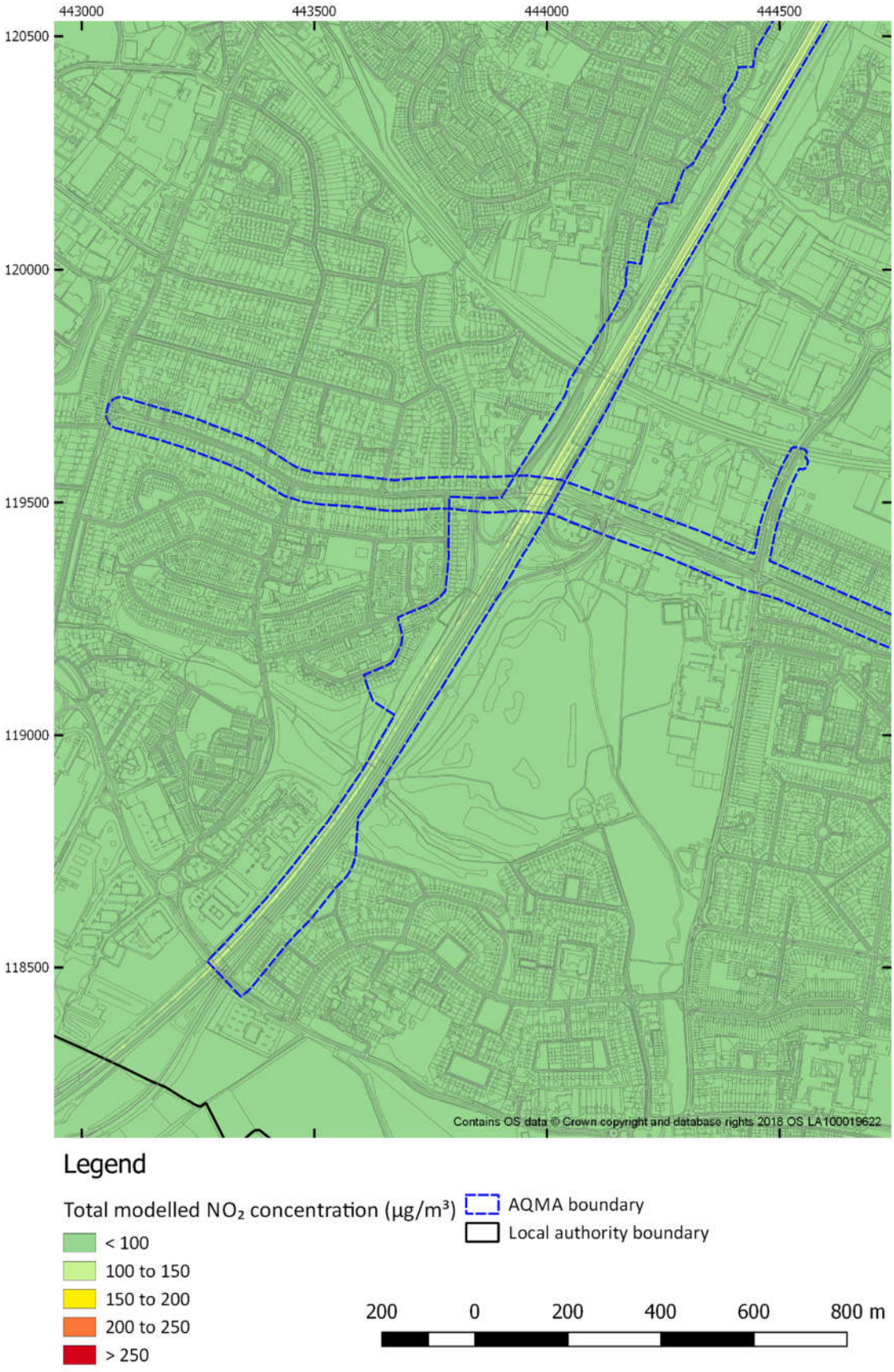


Figure 5-24 Short term NO_2 concentration model results for 2036 SGO D2 scenario AQMA No. 1 (A335 / Eastleigh) (West)

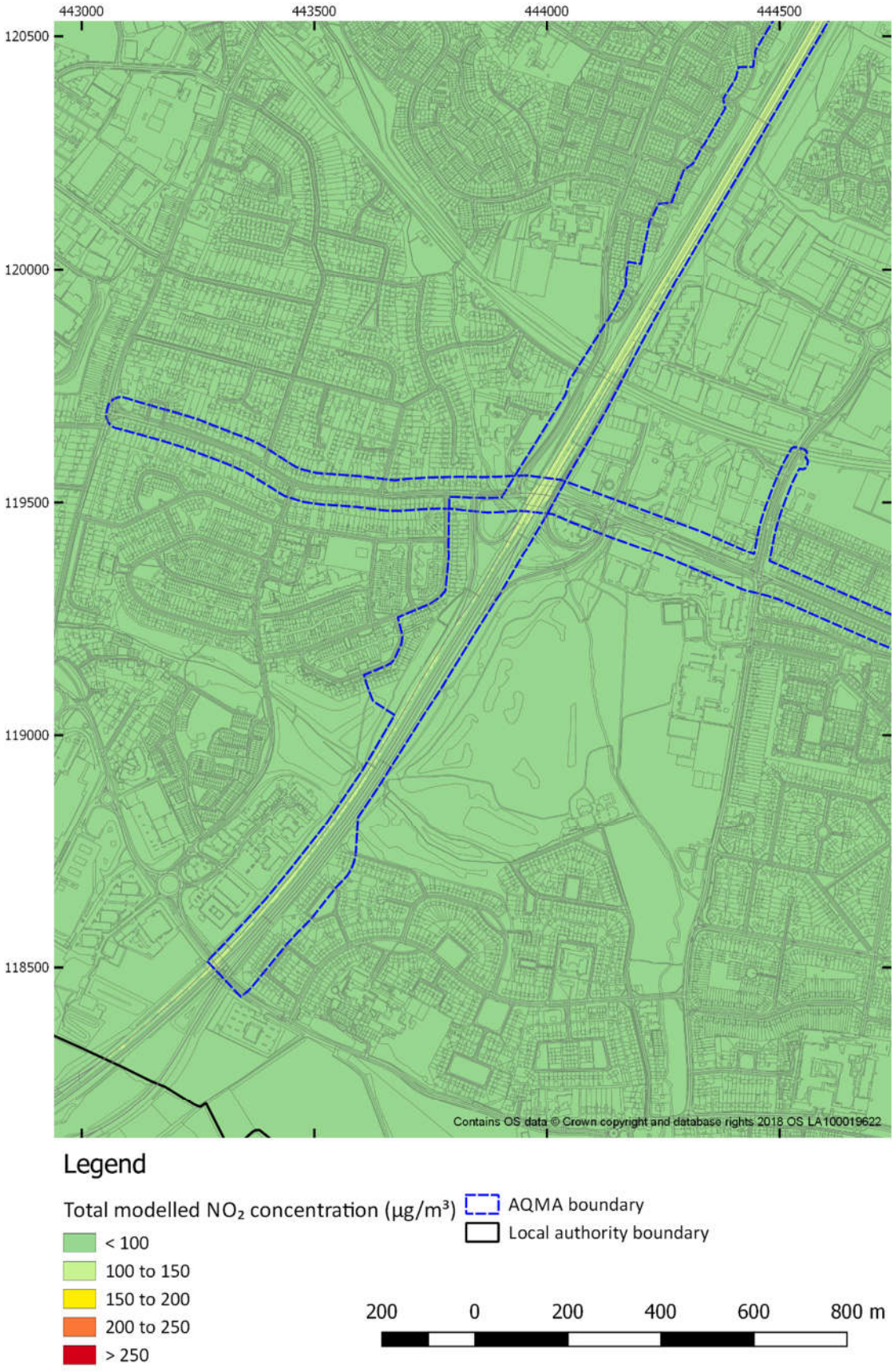


Figure 5-25 Short term NO_2 concentration model results for 2036 SGO E scenario AQMA No. 1 (A335 / Eastleigh) (West)

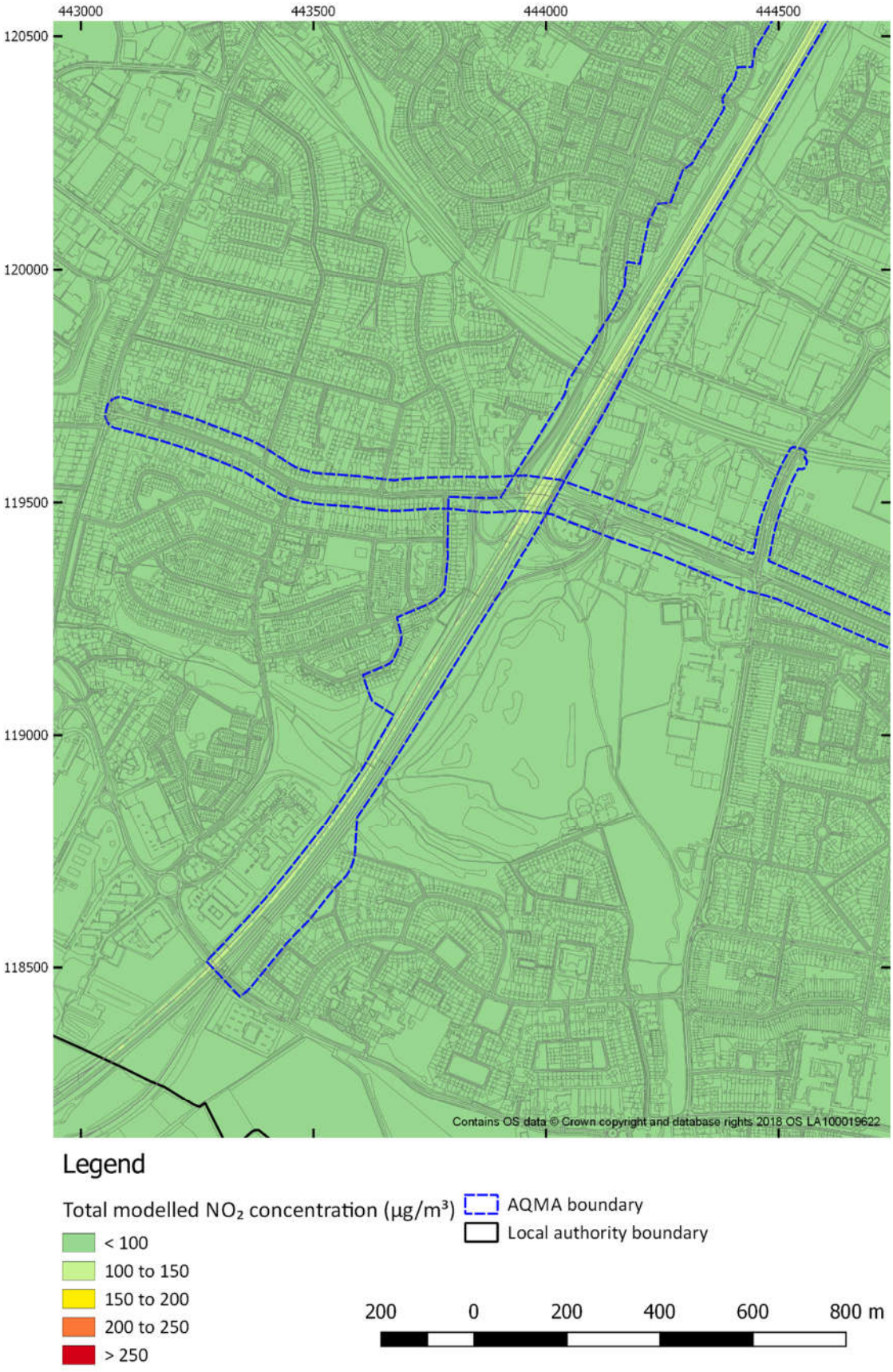


Figure 5-26 Short term NO_2 concentration model results for 2036 Baseline AQMA No. 1 (A335 / Eastleigh) (West)

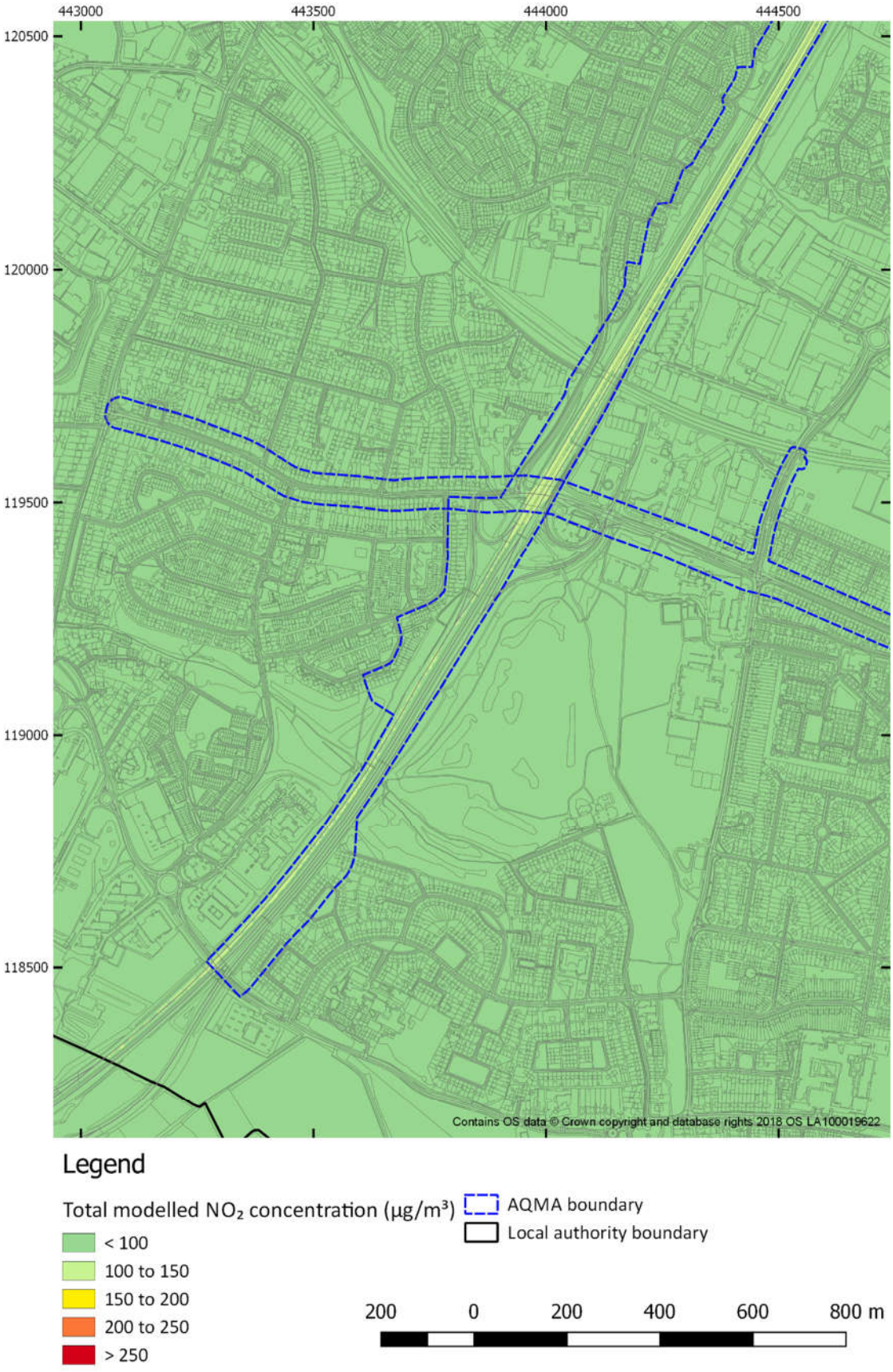


Figure 5-27 Short term NO_2 concentration model results for pseudo-2030 SGO C scenario AQMA No. 2 (M3) (North)

Figure 5-28 Short term NO_2 concentration model results for pseudo-2030 SGO D1 scenario AQMA No. 2 (M3) (North)

Figure 5-29 Short term NO_2 concentration model results for pseudo-2030 SGO D2 scenario AQMA No. 2 (M3) (North)

Figure 5-30 Short term NO_2 concentration model results for pseudo-2030 SGO E scenario AQMA No. 2 (M3) (North)

Figure 5-31 Short term NO_2 concentration model results for 2036 SGO C scenario AQMA No. 2 (M3) (North)

Figure 5-32 Short term NO_2 concentration model results for 2036 SGO D1 scenario AQMA No. 2 (M3) (North)

Figure 5-33 Short term NO_2 concentration model results for 2036 SGO D2 scenario AQMA No. 2 (M3) (North)

Figure 5-34 Short term NO_2 concentration model results for 2036 SGO E scenario AQMA No. 2 (M3) (North)

Figure 5-35 Short term NO_2 concentration model results for 2036 Baseline AQMA No. 2 (M3) (North)

5.3 AQMA 3

Figure 5-36 Short term NO_2 concentration model results for pseudo-2030 SGO C scenario AQMA No. 3 (Hamble Lane)

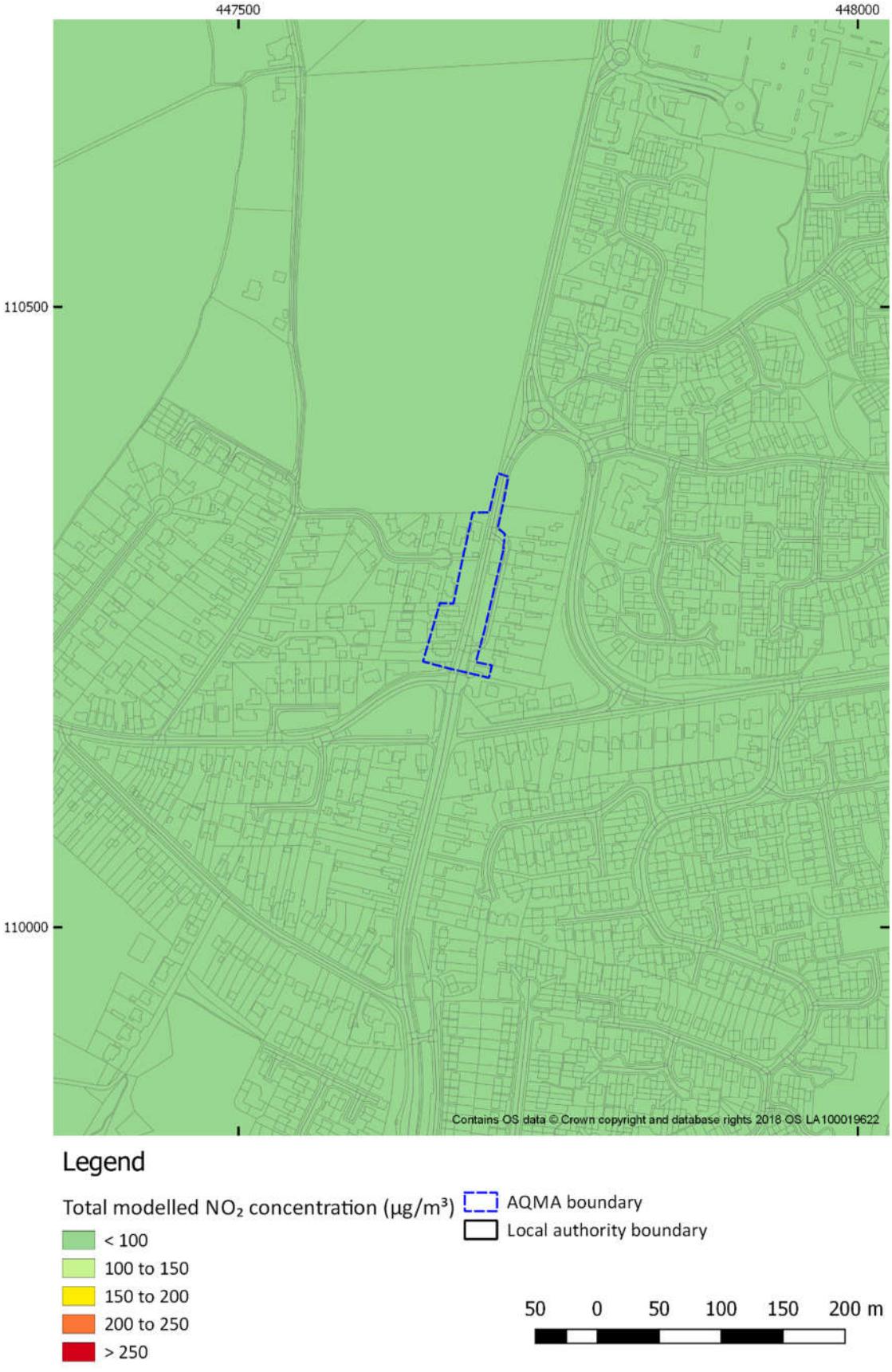


Figure 5-37 Short term NO_2 concentration model results for pseudo-2030 SGO D1 scenario AQMA No. 3 (Hamble Lane)

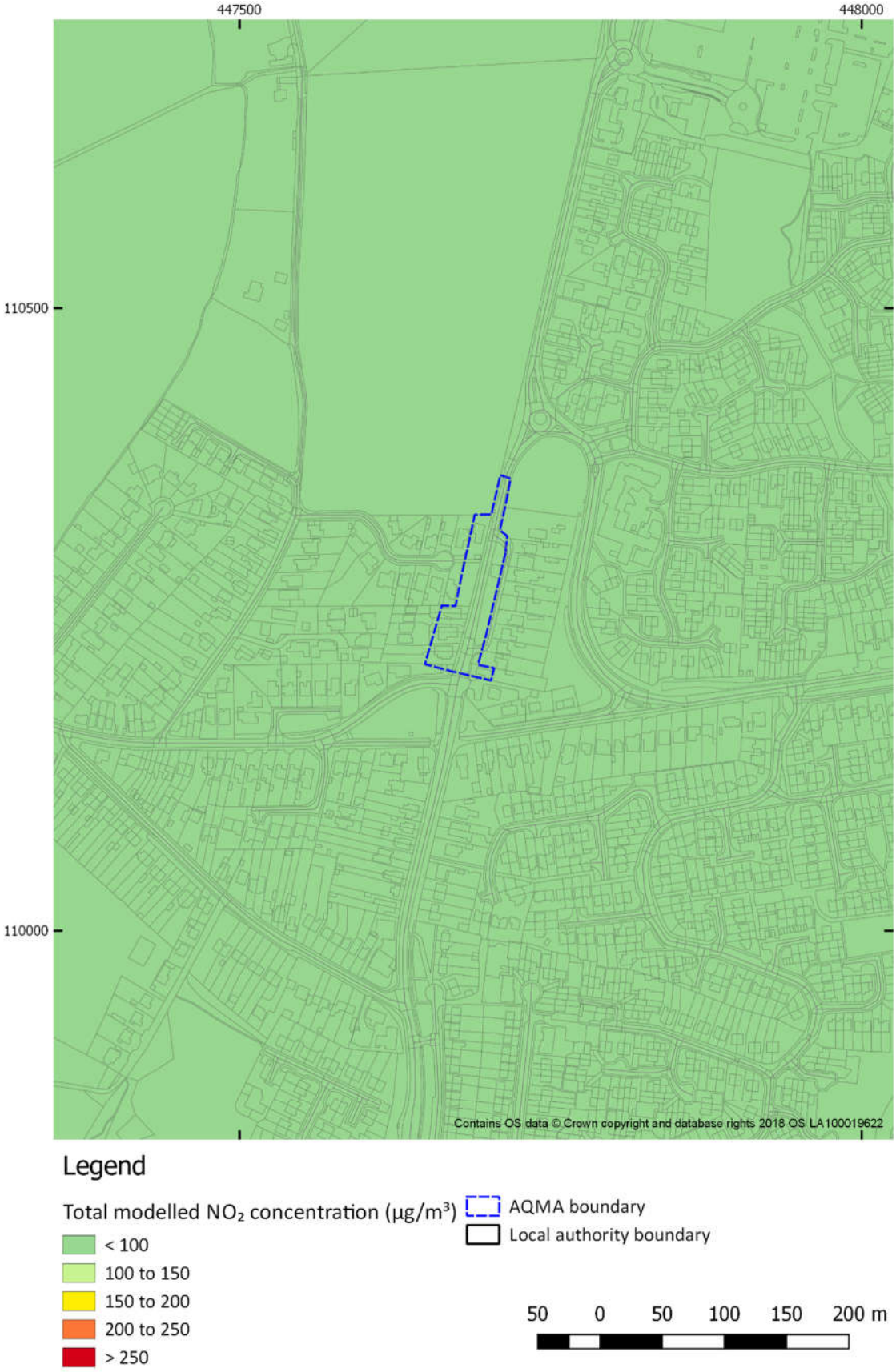


Figure 5-38 Short term NO_2 concentration model results for pseudo-2030 SGO D2 scenario AQMA No. 3 (Hamble Lane)

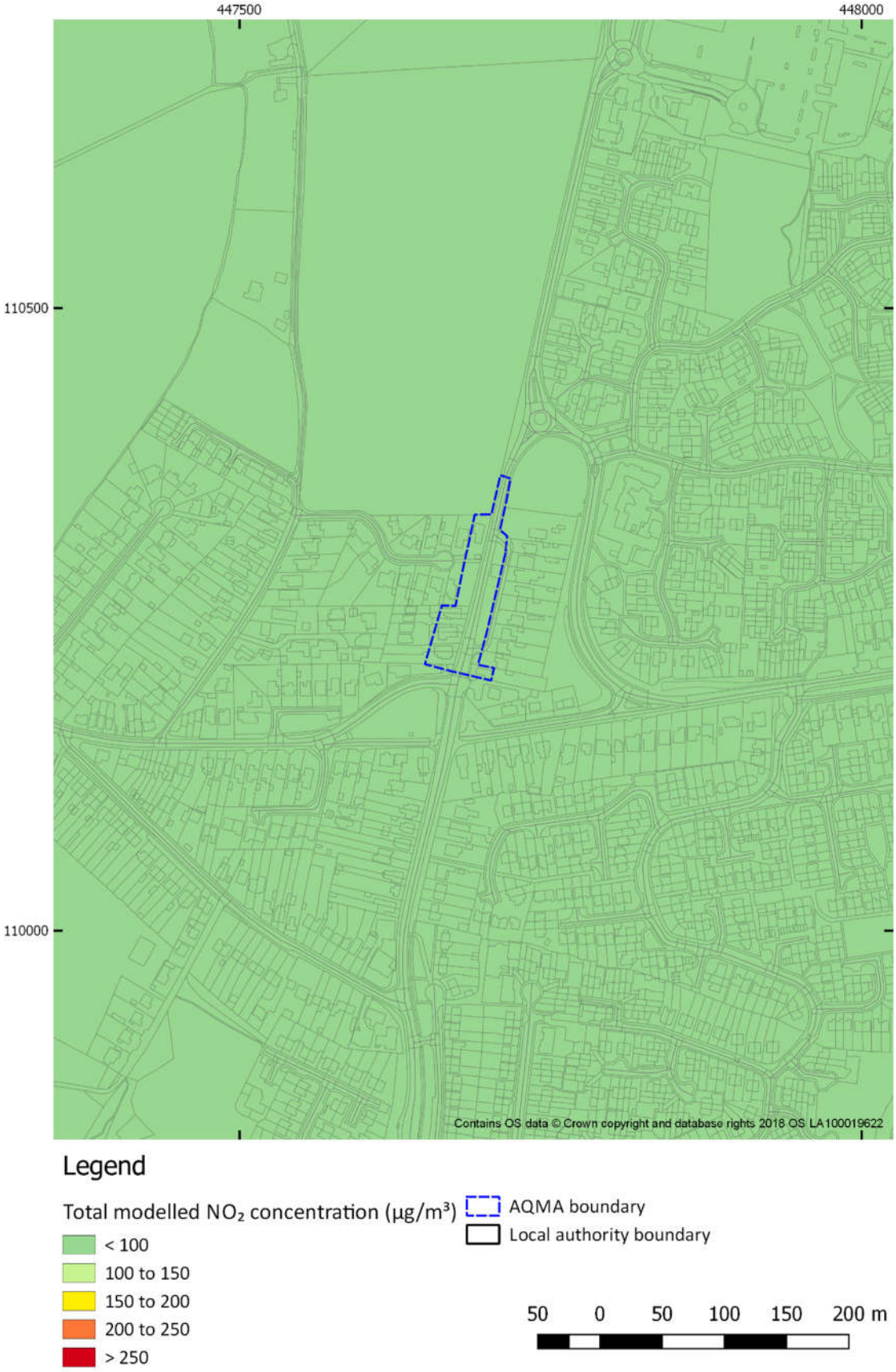


Figure 5-39 Short term NO_2 concentration model results for pseudo-2030 SGO E scenario AQMA No. 3 (Hamble Lane)

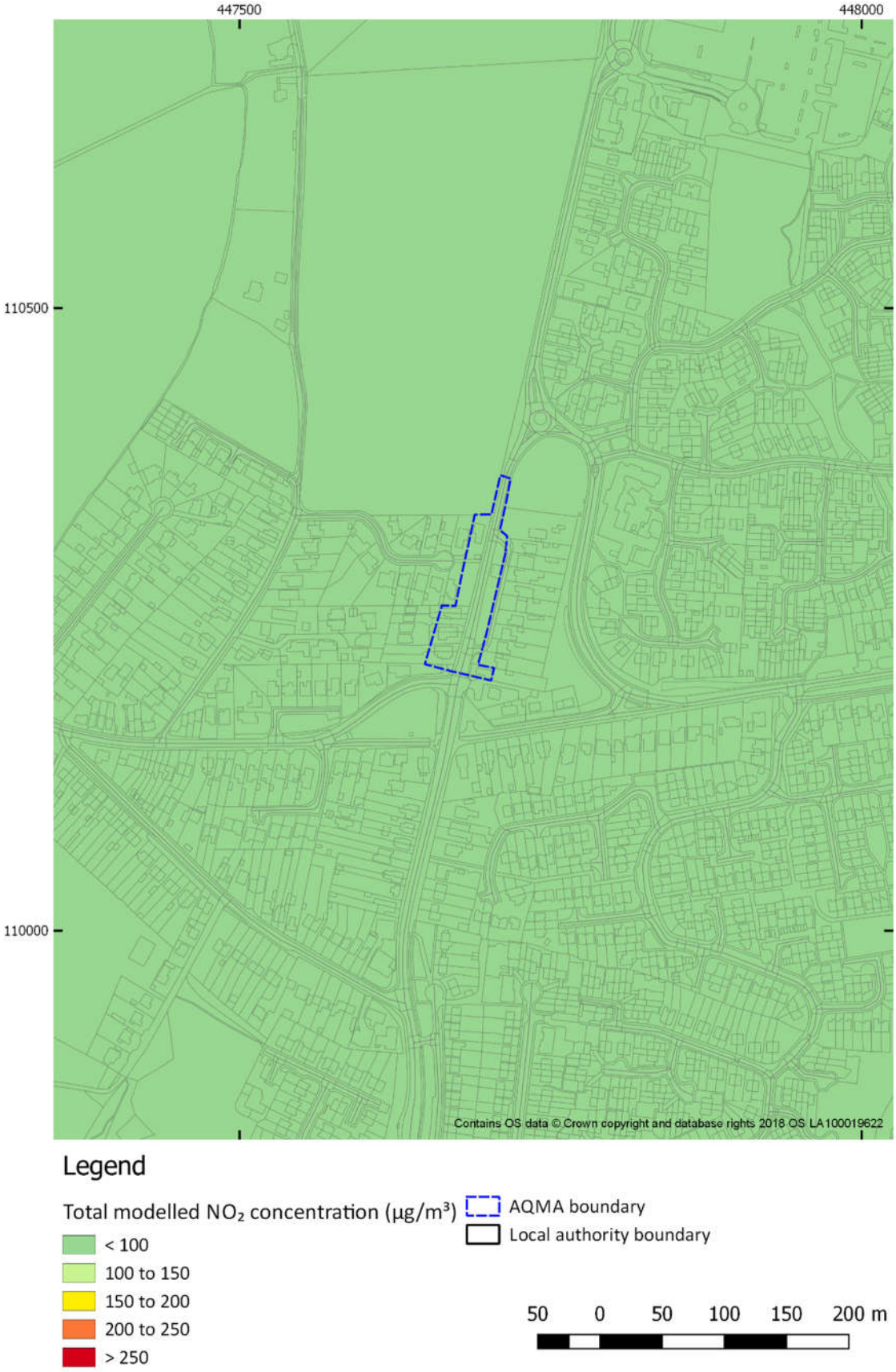


Figure 5-40 Short term NO_2 concentration model results for 2036 SGO C scenario AQMA No. 3 (Hamble Lane)

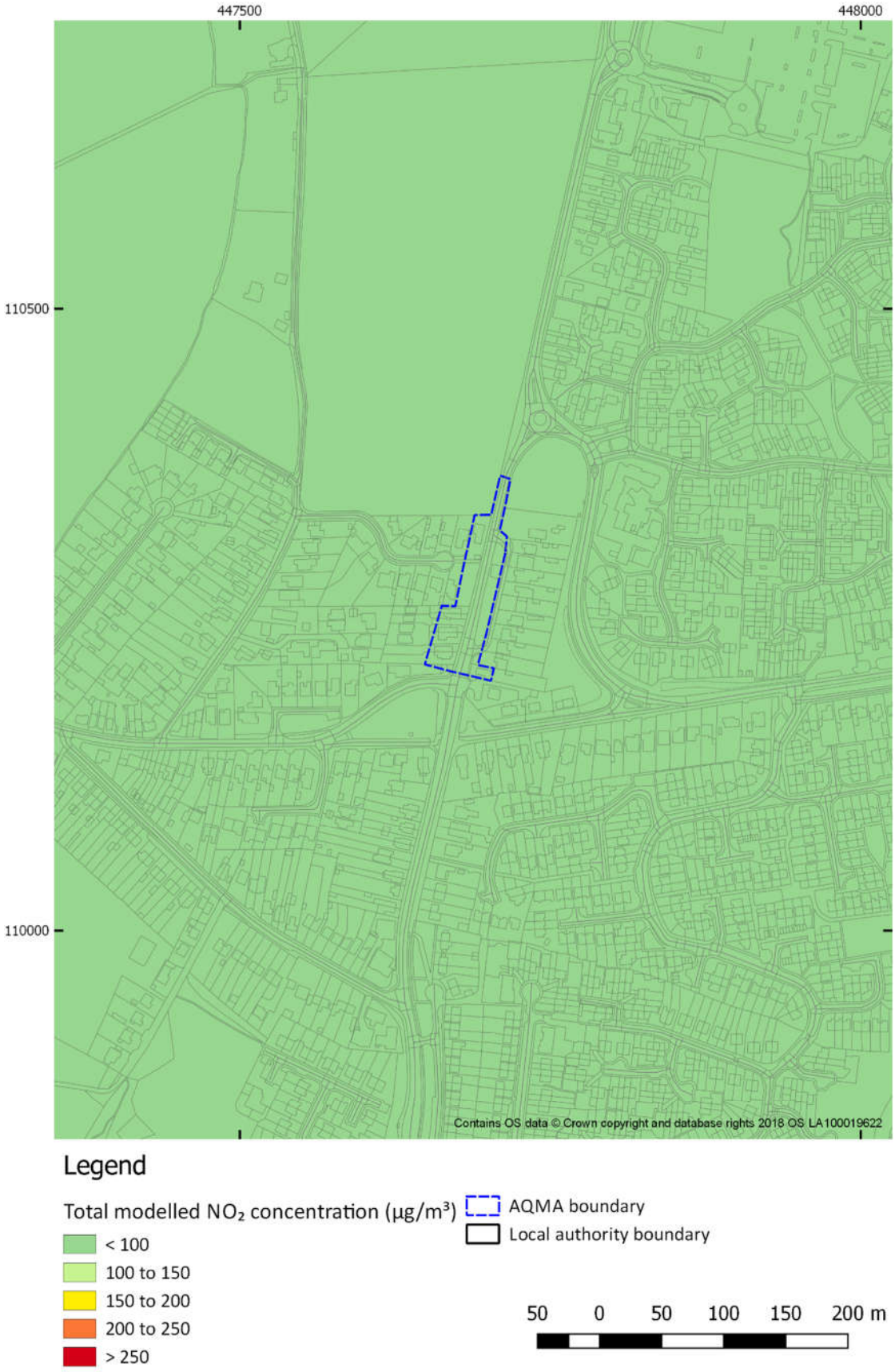


Figure 5-41 Short term NO_2 concentration model results for 2036 SGO D1 scenario AQMA No. 3 (Hamble Lane)

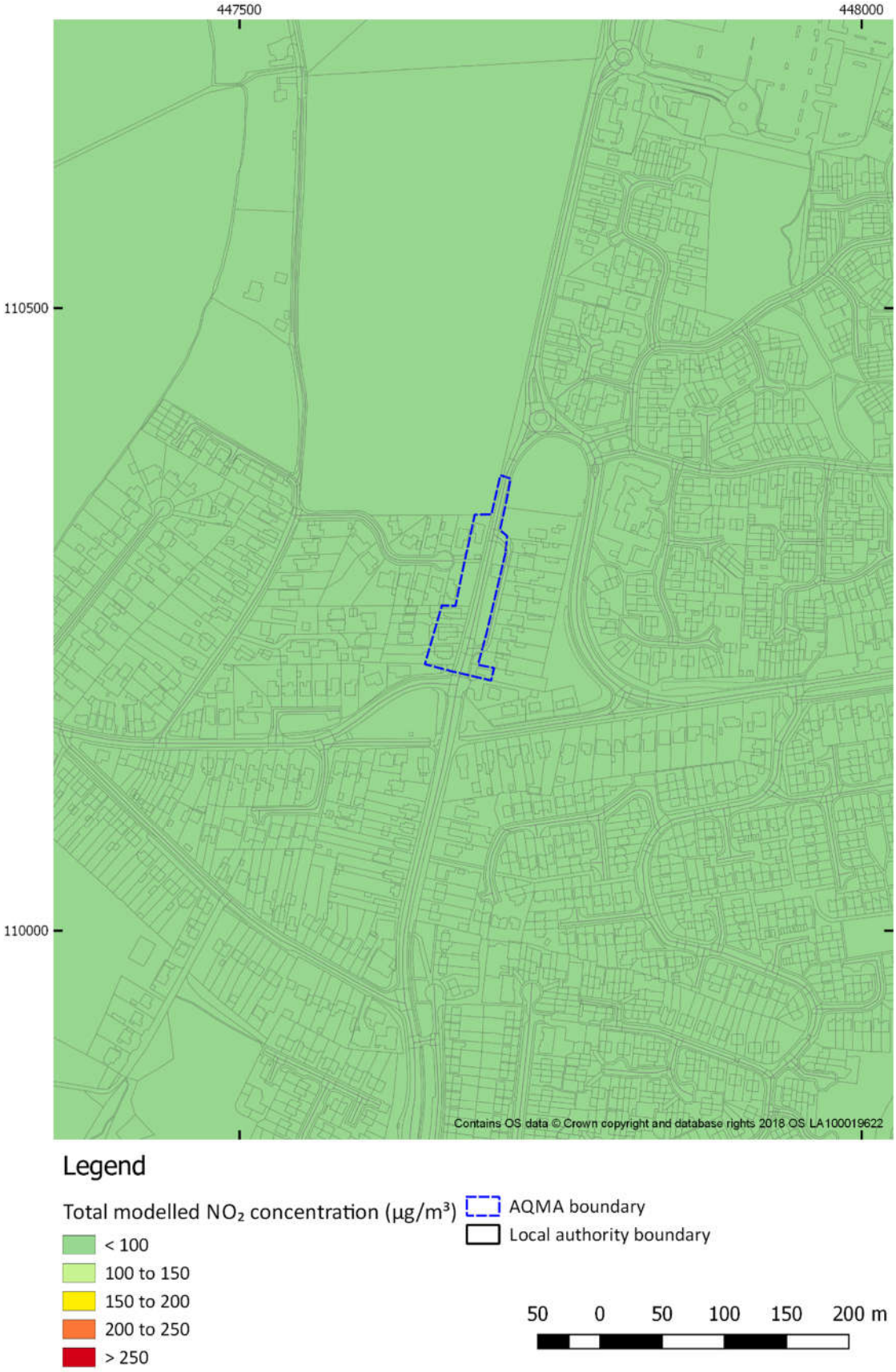


Figure 5-42 Short term NO_2 concentration model results for 2036 SGO D2 scenario AQMA No. 3 (Hamble Lane)

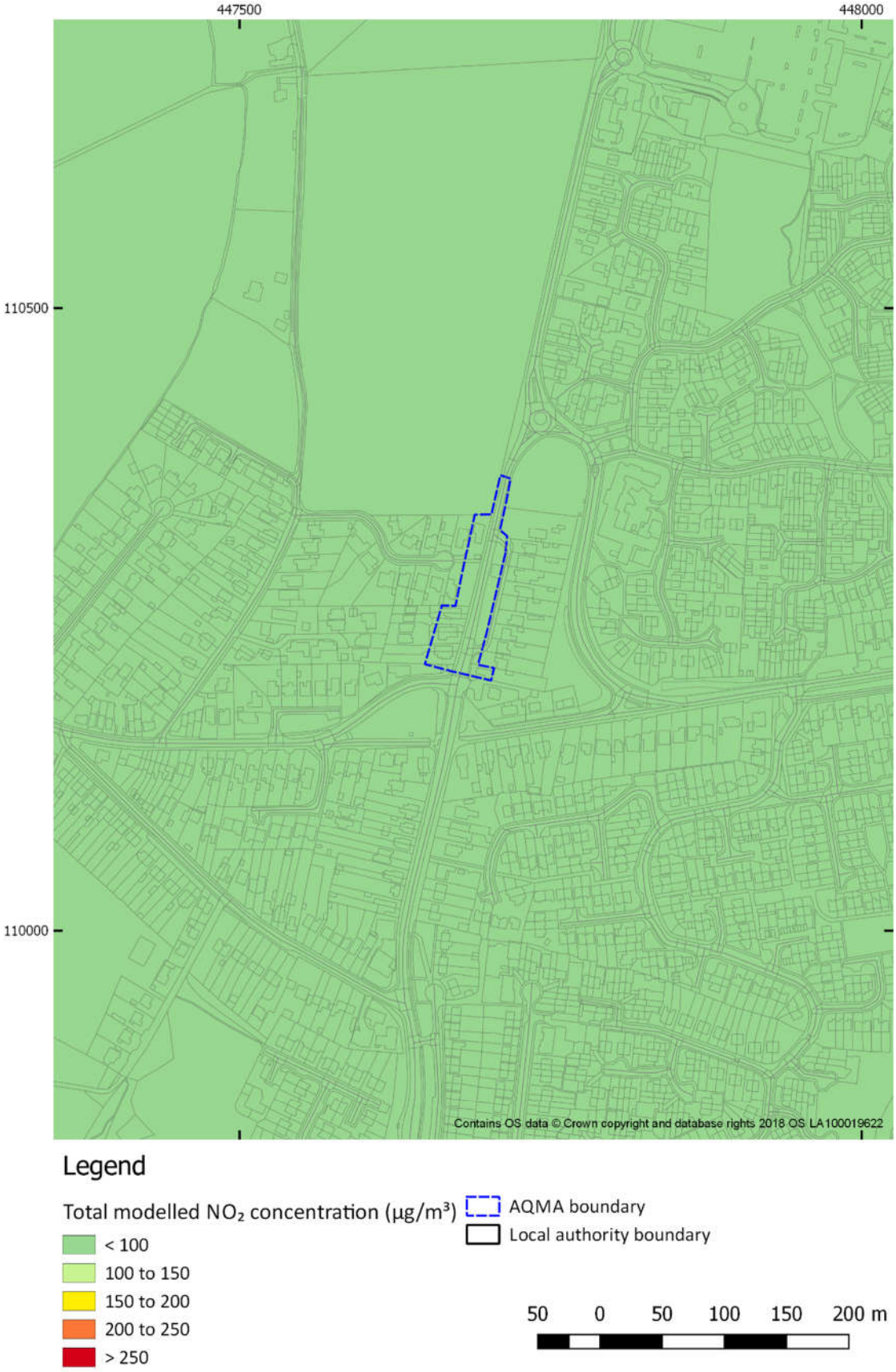


Figure 5-43 Short term NO_2 concentration model results for 2036 SGO E scenario AQMA No. 3 (Hamble Lane)

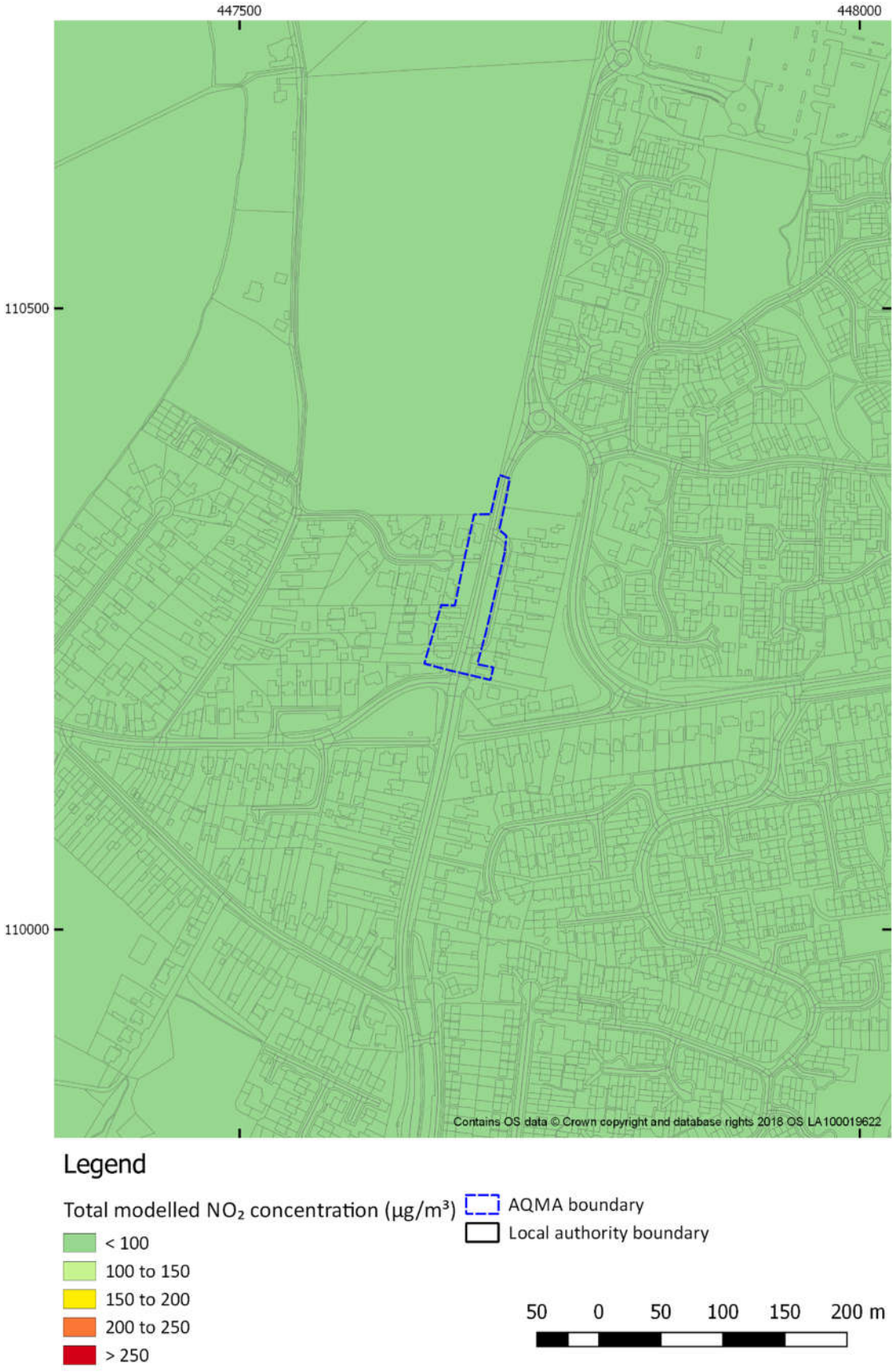
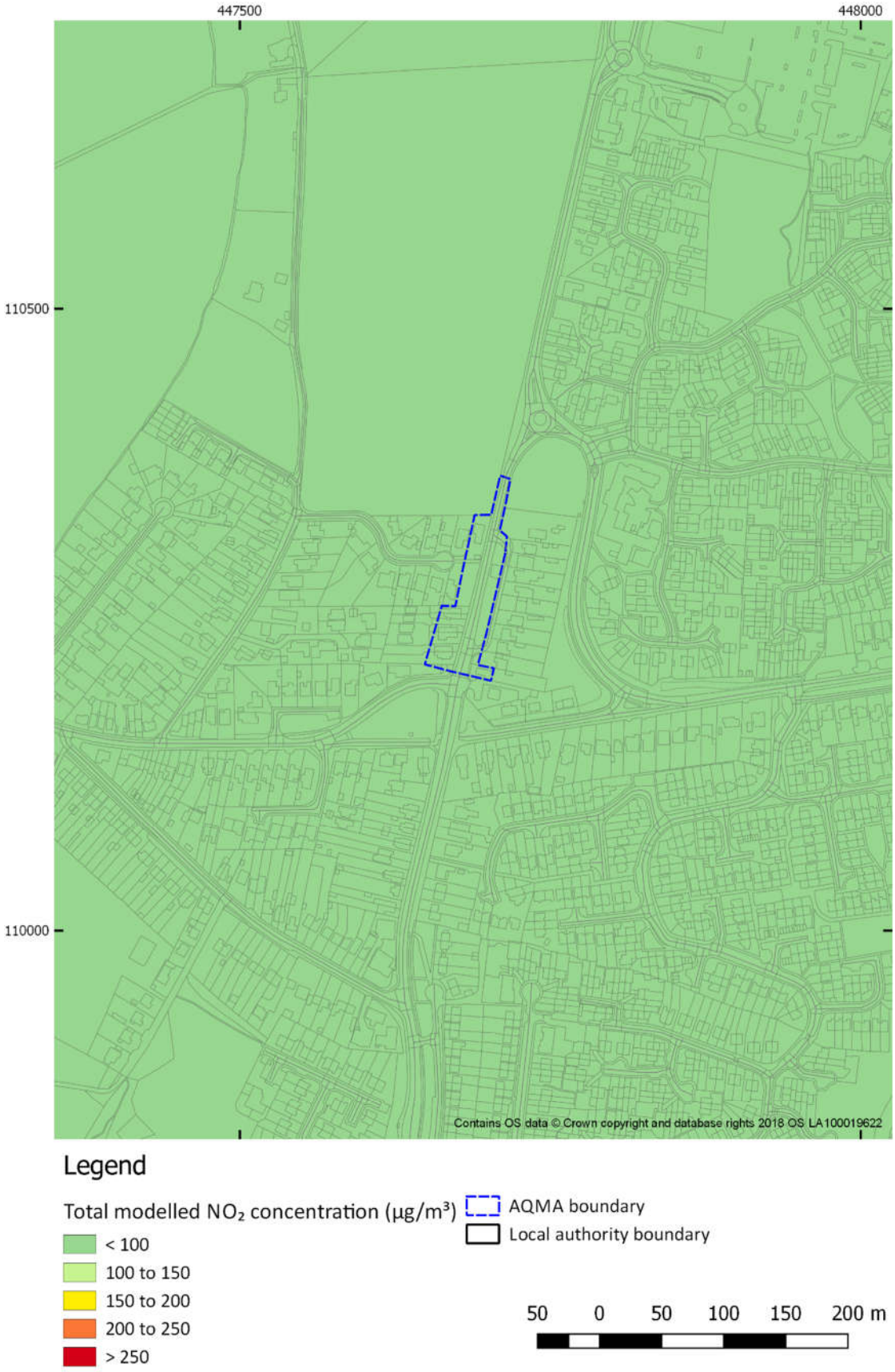


Figure 5-44 Short term NO_2 concentration model results for 2036 Baseline AQMA No. 3 (Hamble Lane)



5.4 AQMA 4

Figure 5-45 Short term NO_2 concentration model results for pseudo-2030 SGO C scenario AQMA No. 4 (High Street Botley)

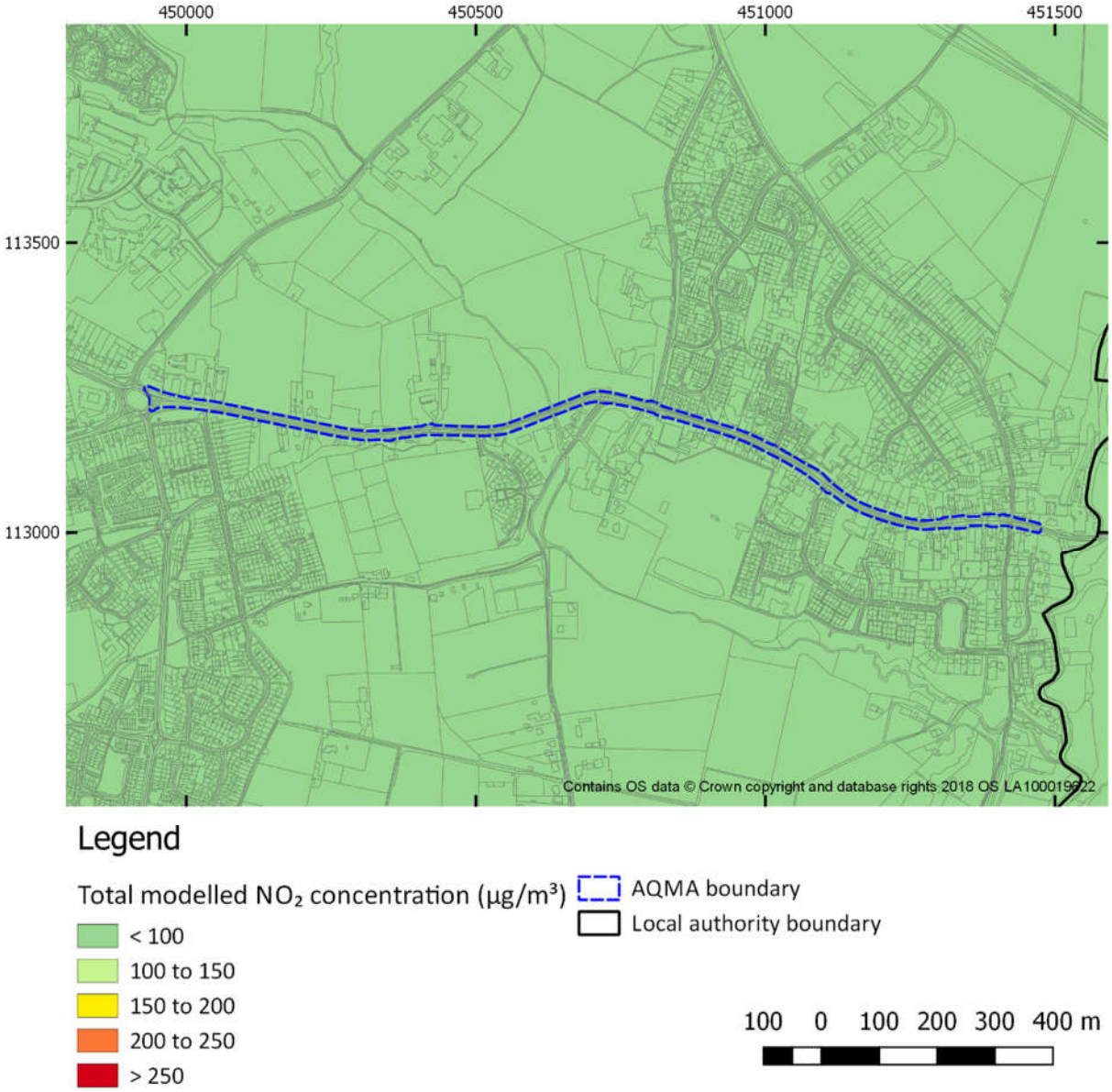


Figure 5-46 Short term NO_2 concentration model results for pseudo-2030 SGO D1 scenario AQMA No. 4 (High Street Botley)

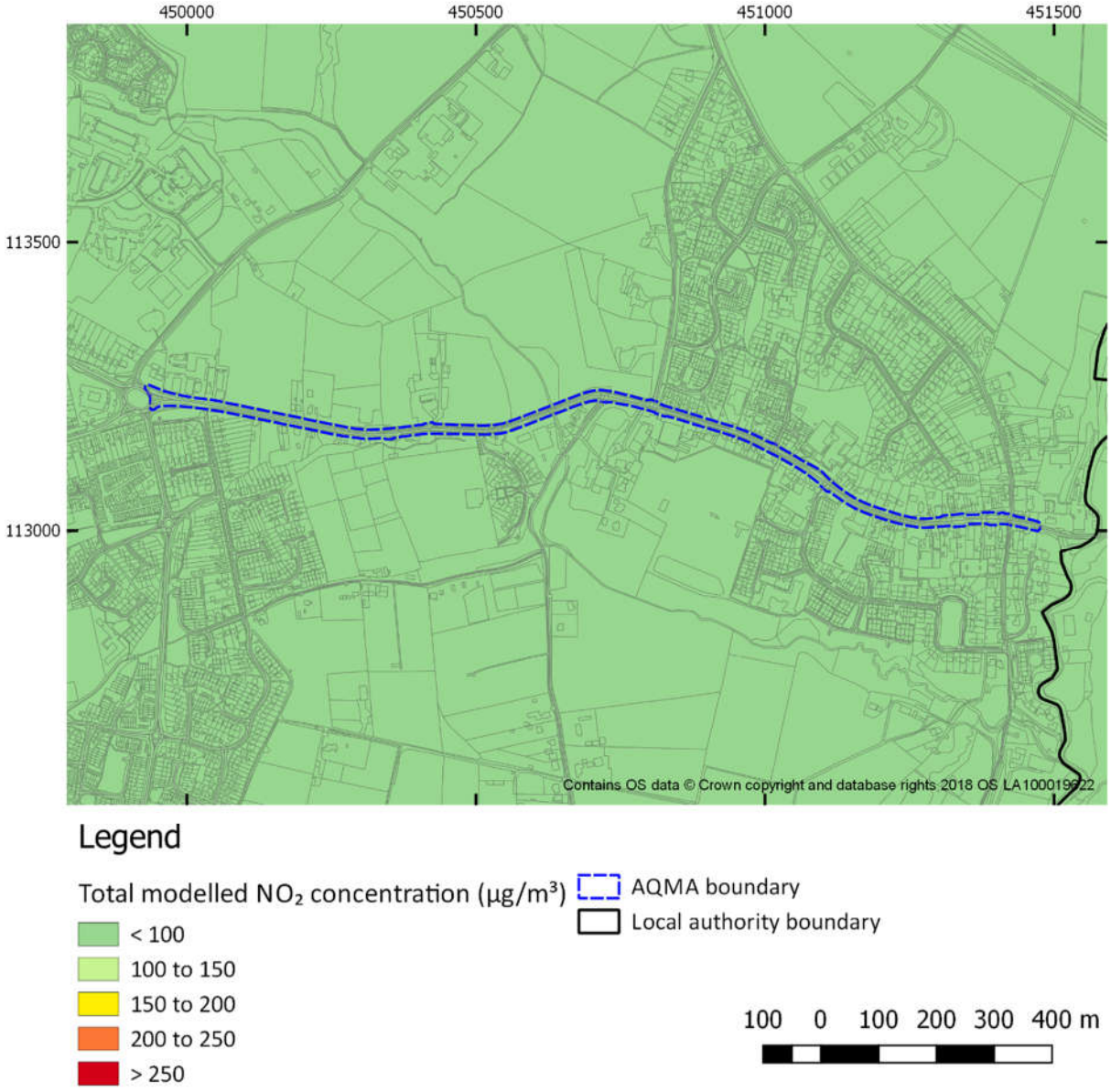


Figure 5-47 Short term NO_2 concentration model results for pseudo-2030 SGO D2 scenario AQMA No. 4 (High Street Botley)

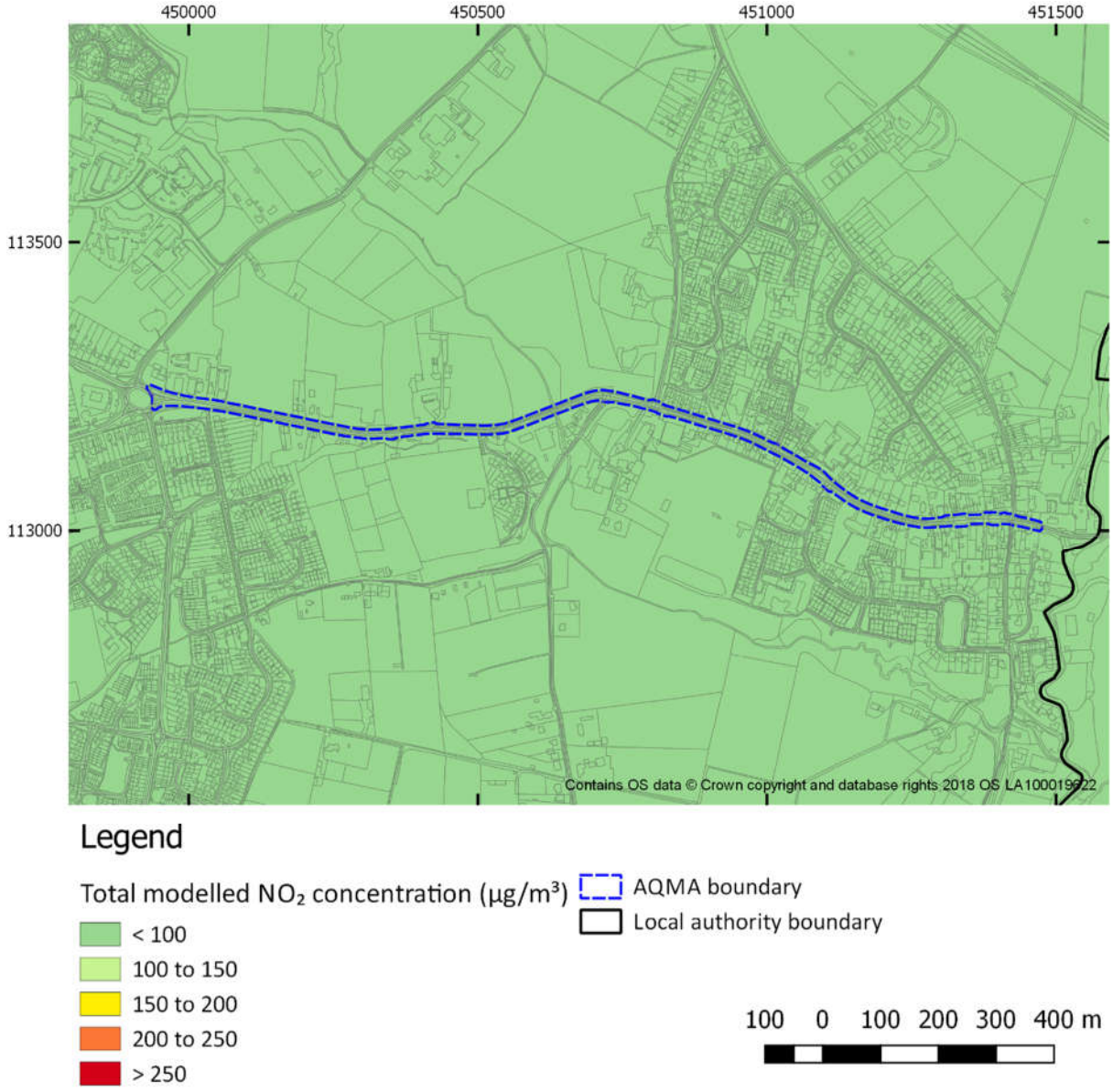


Figure 5-48 Short term NO_2 concentration model results for pseudo-2030 SGO E scenario AQMA No. 4 (High Street Botley)

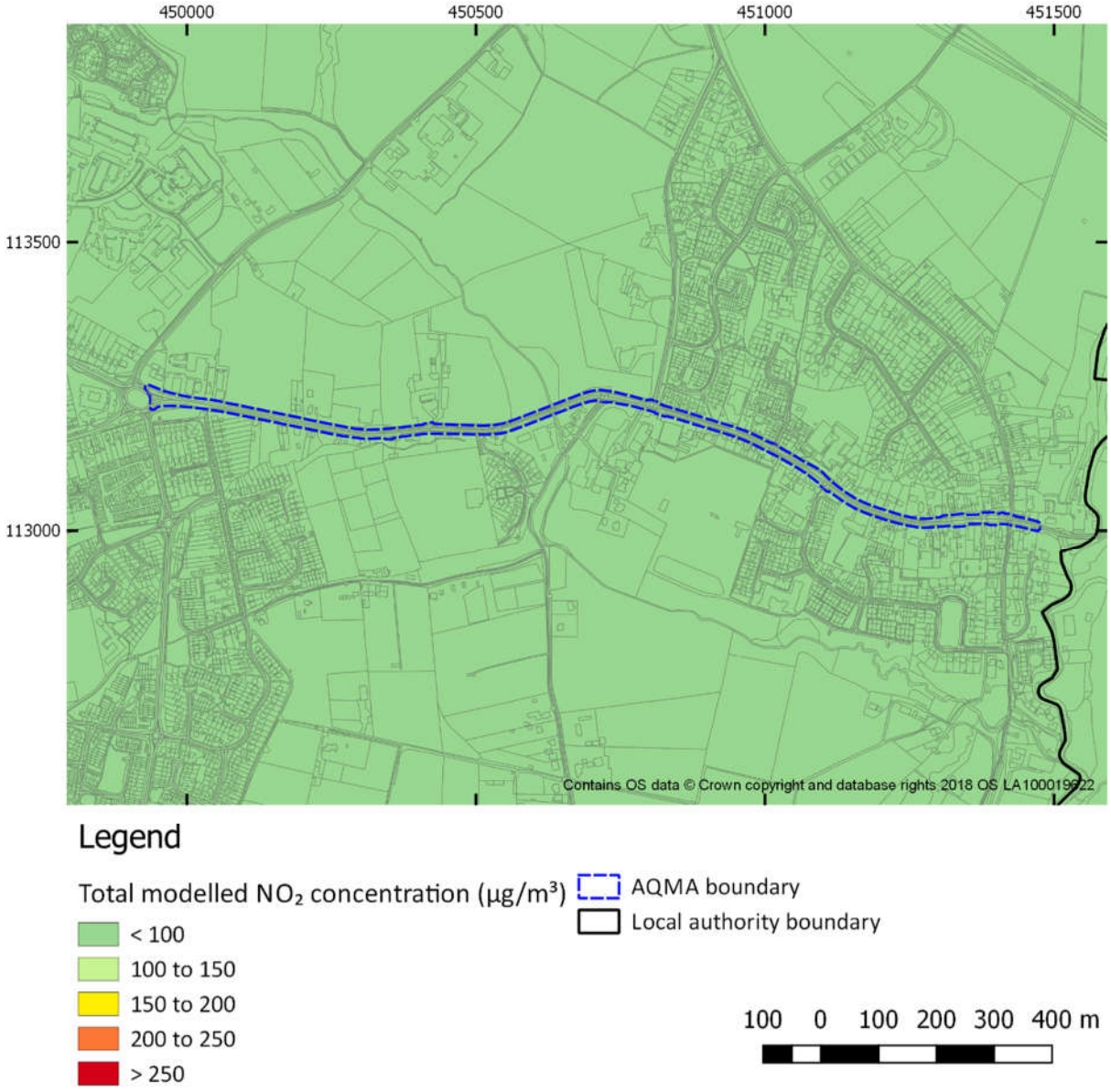


Figure 5-49 Short term NO_2 concentration model results for 2036 SGO C scenario AQMA No. 4 (High Street Botley)

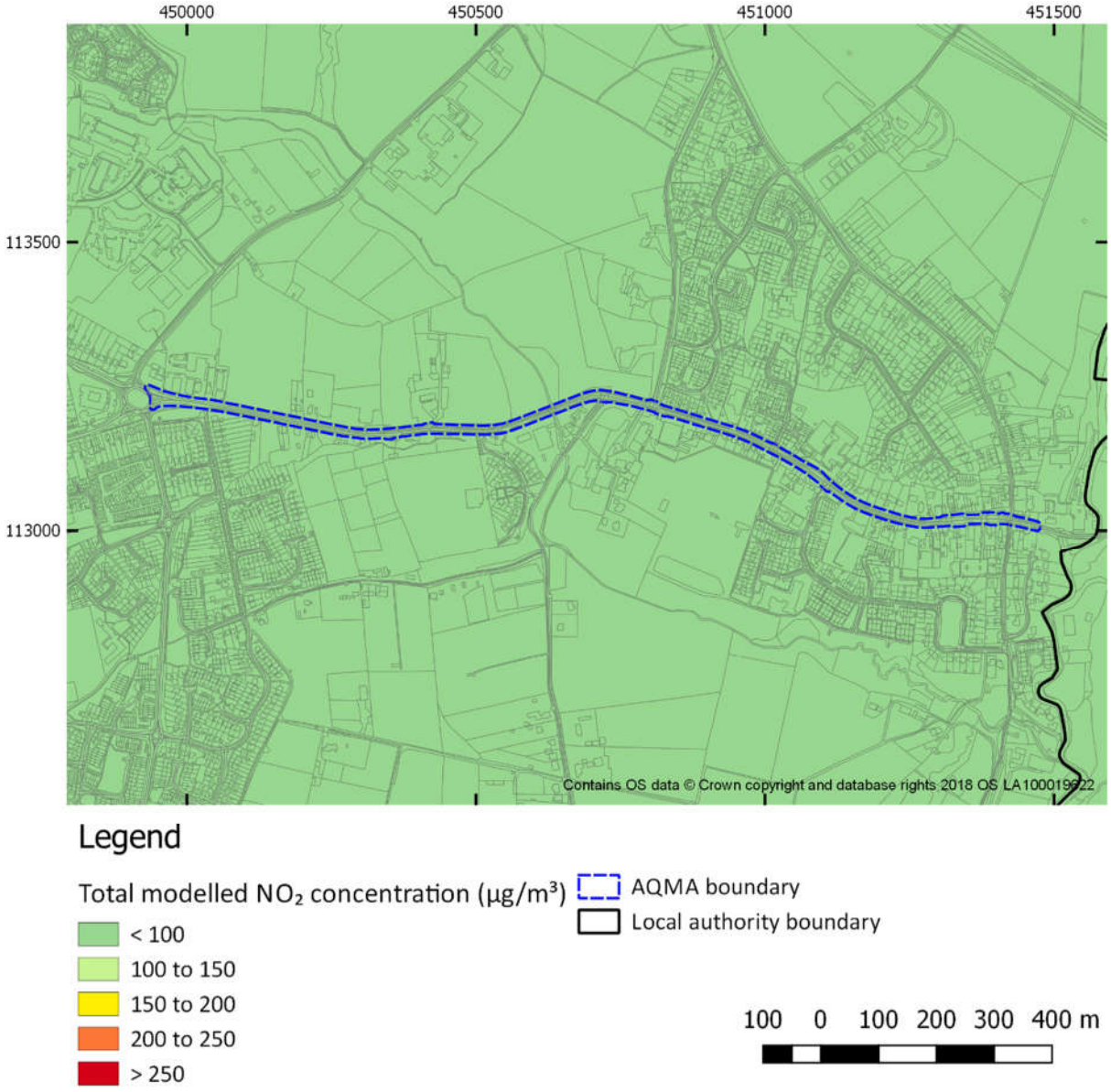


Figure 5-50 Short term NO_2 concentration model results for 2036 SGO D1 scenario AQMA No. 4 (High Street Botley)

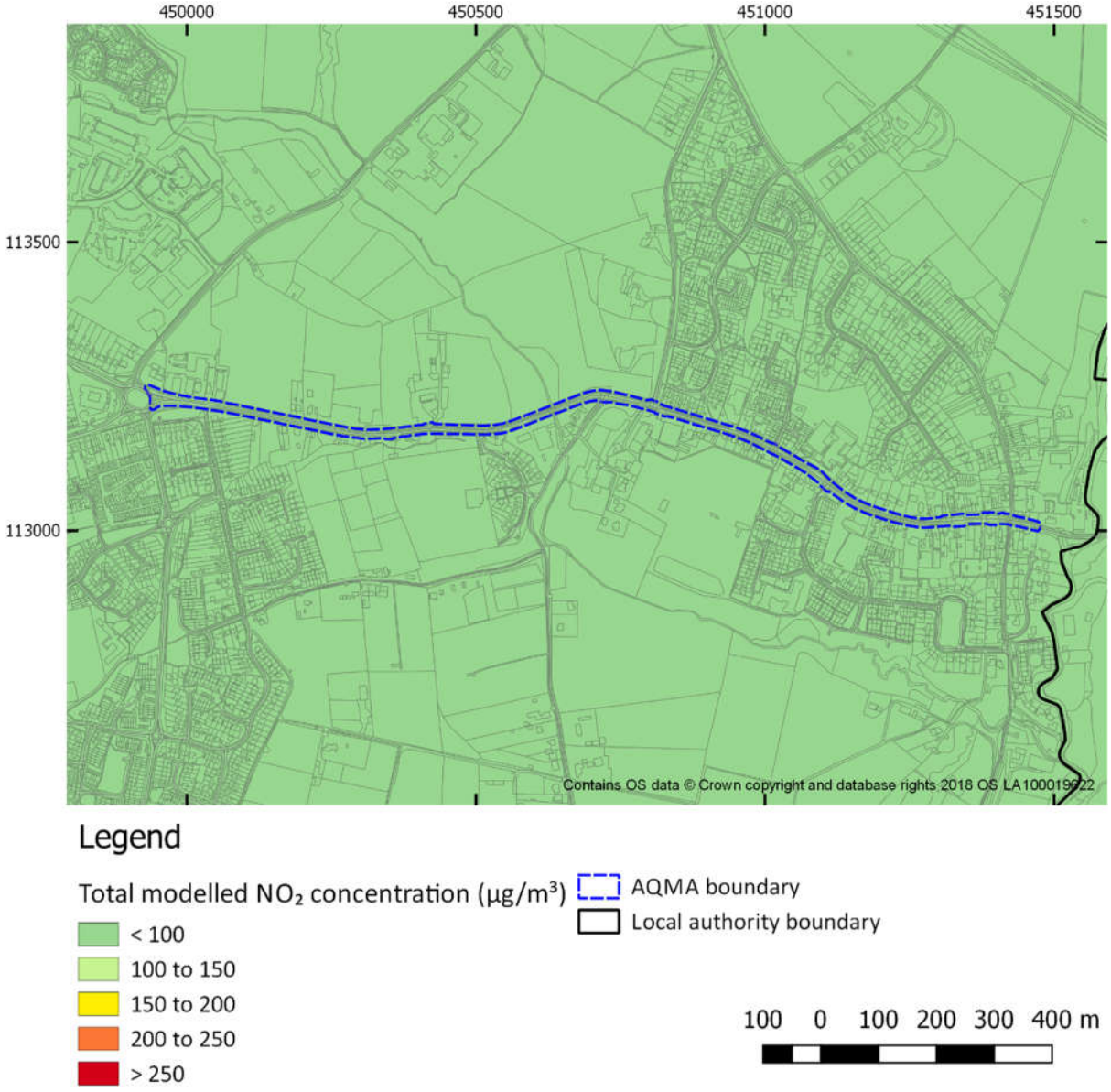


Figure 5-51 Short term NO_2 concentration model results for 2036 SGO D2 scenario AQMA No. 4 (High Street Botley)

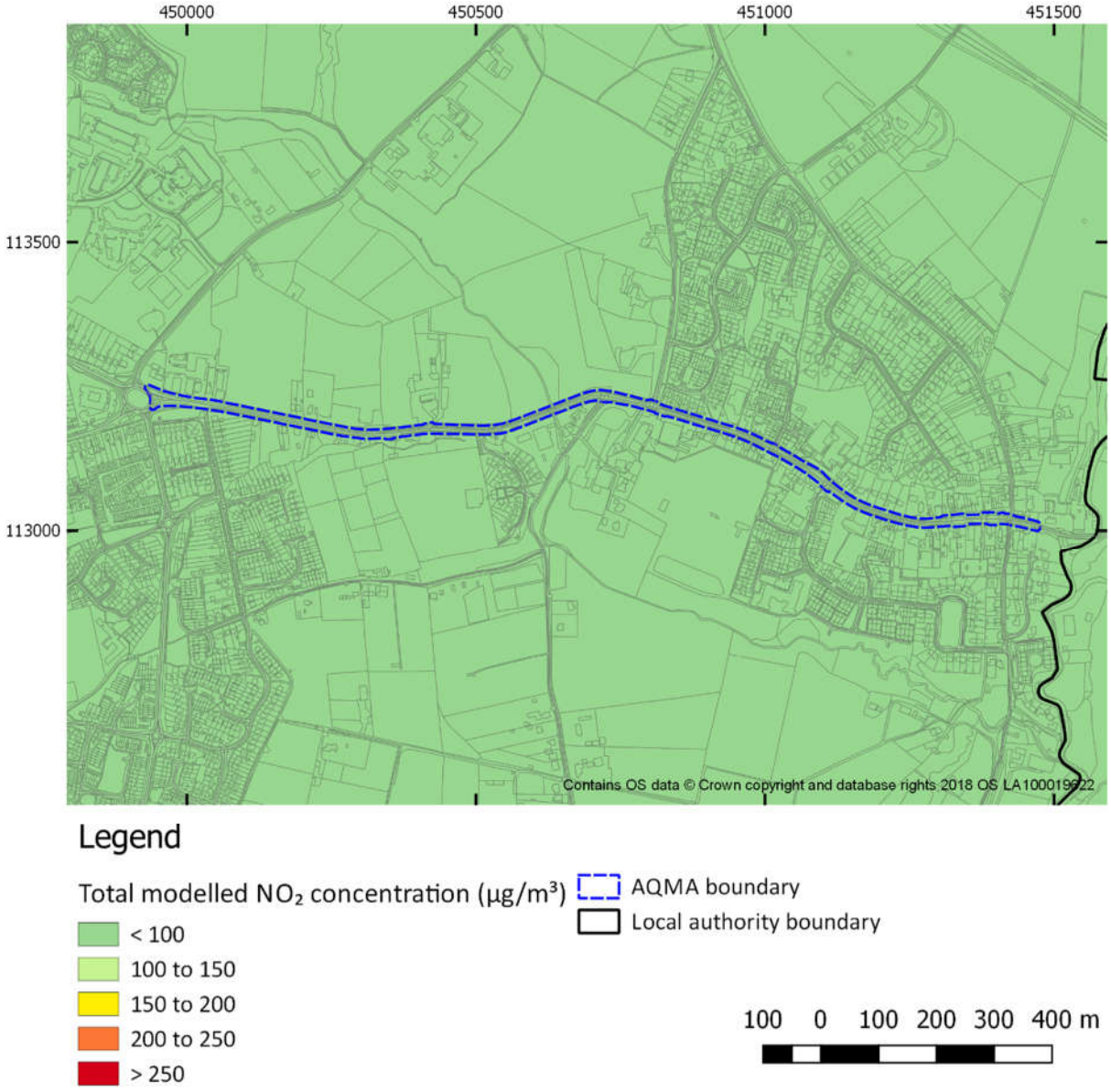


Figure 5-52 Short term NO_2 concentration model results for 2036 SGO E scenario AQMA No. 4 (High Street Botley)

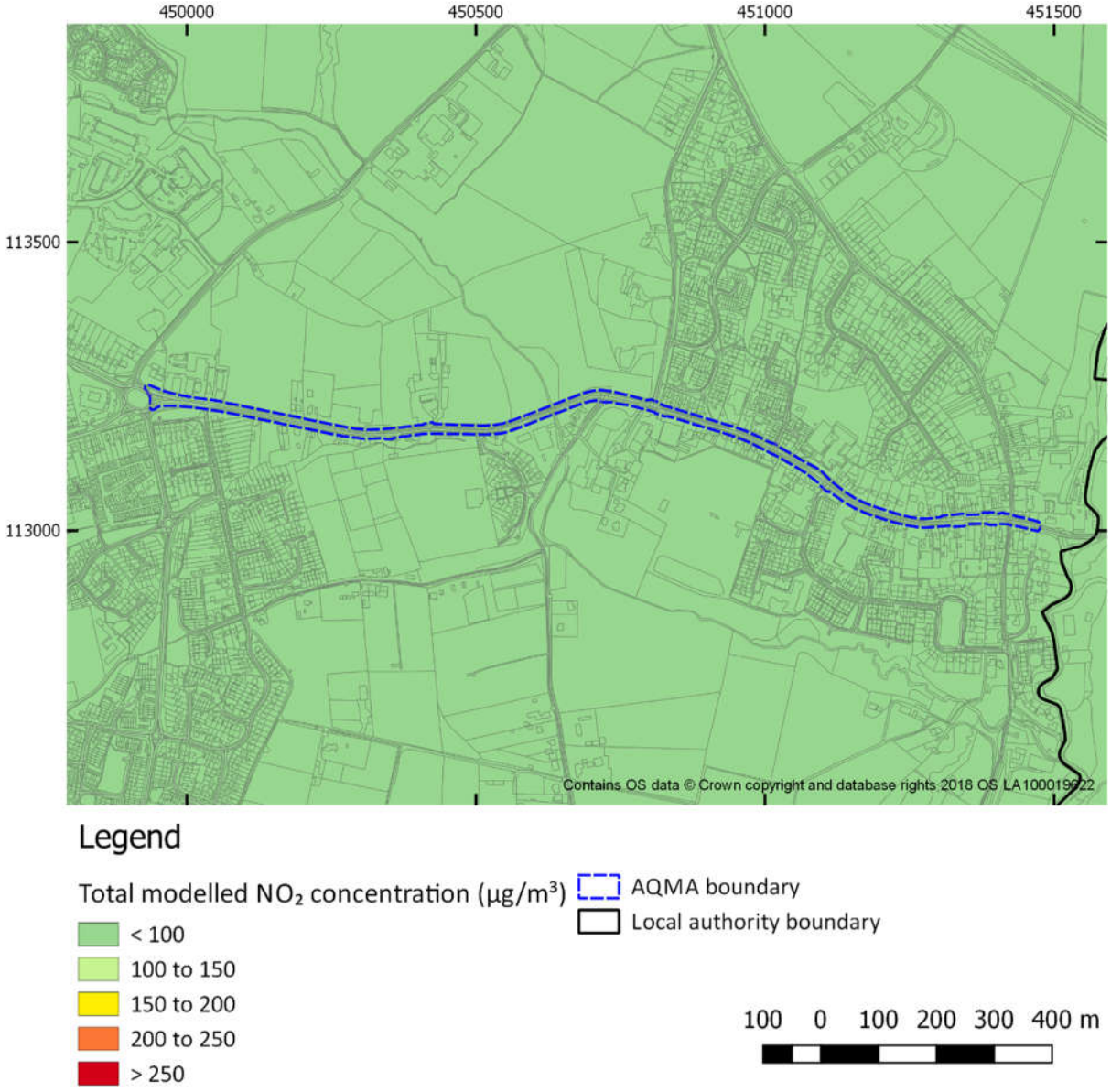
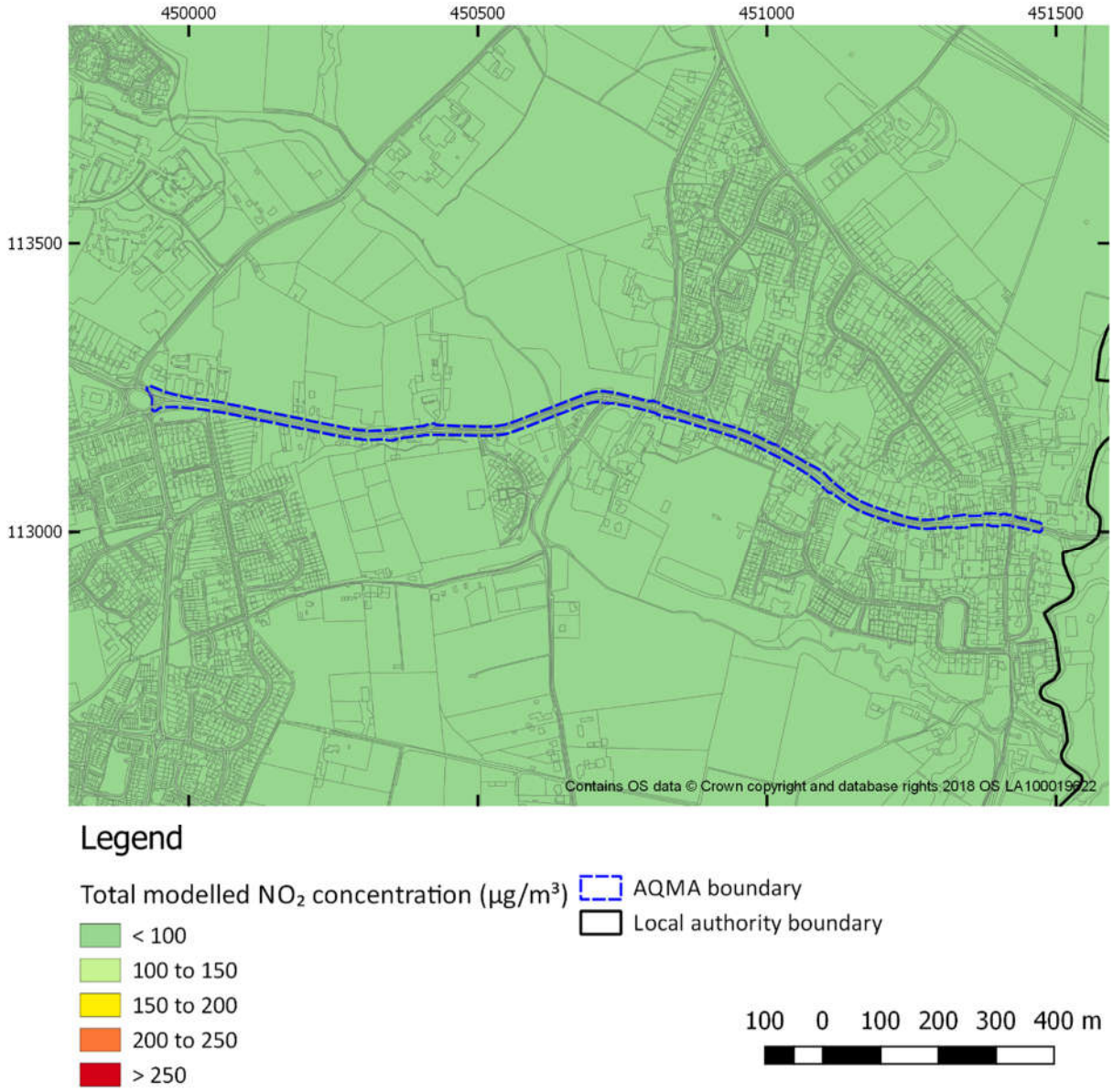


Figure 5-53 Short term NO_2 concentration model results for 2036 Baseline AQMA No. 4 (High Street Botley)



6 90.4th percentile of PM_{10} daily mean concentrations

6.1 Full modelling domain

Figure 6-1 Short term PM_{10} concentration model results for pseudo-2030 SGO C scenario

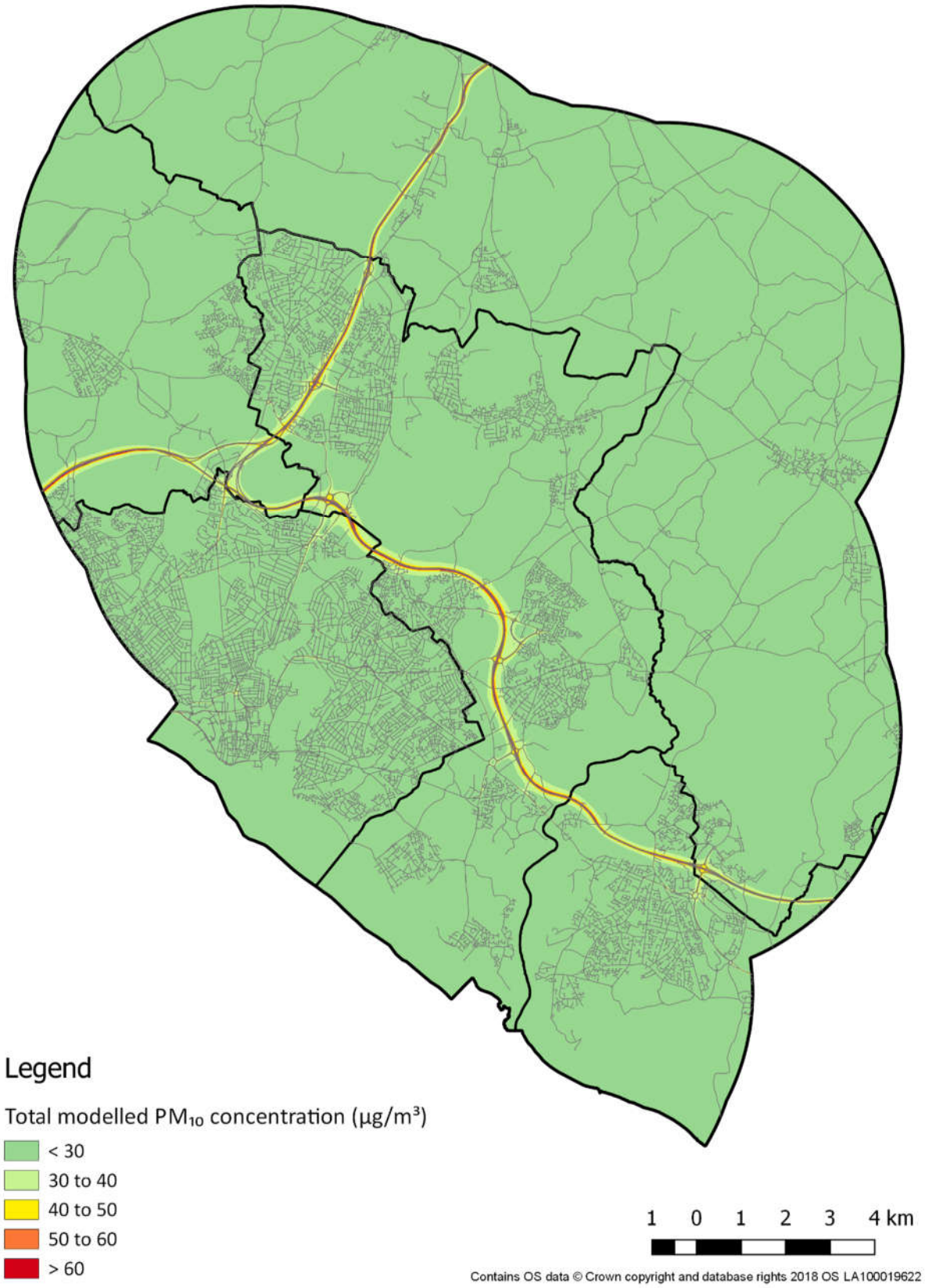


Figure 6-2 Short term PM_{10} concentration model results for pseudo-2030 SGO D1 scenario

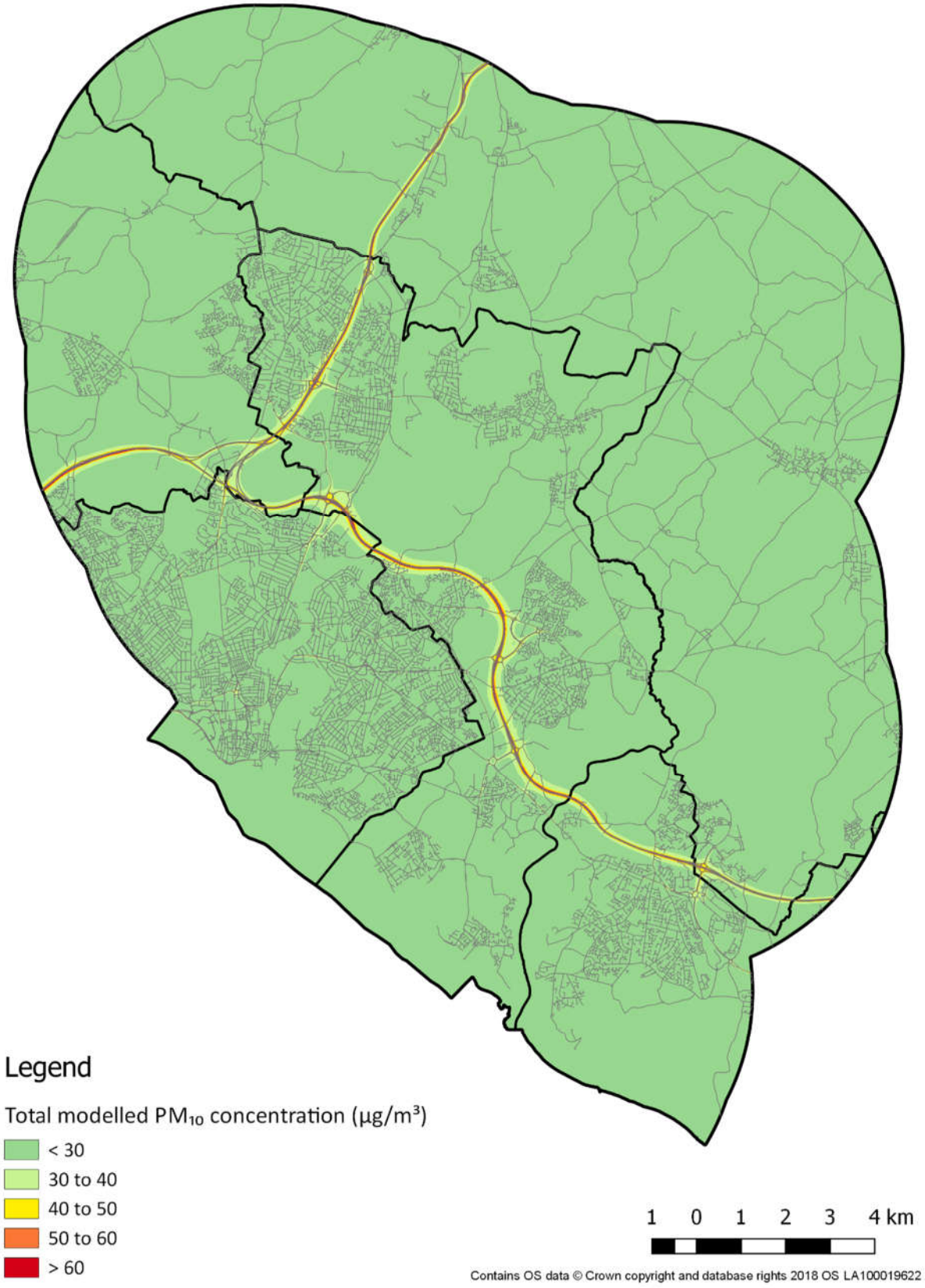


Figure 6-3 Short term PM_{10} concentration model results for pseudo-2030 SGO D2 scenario

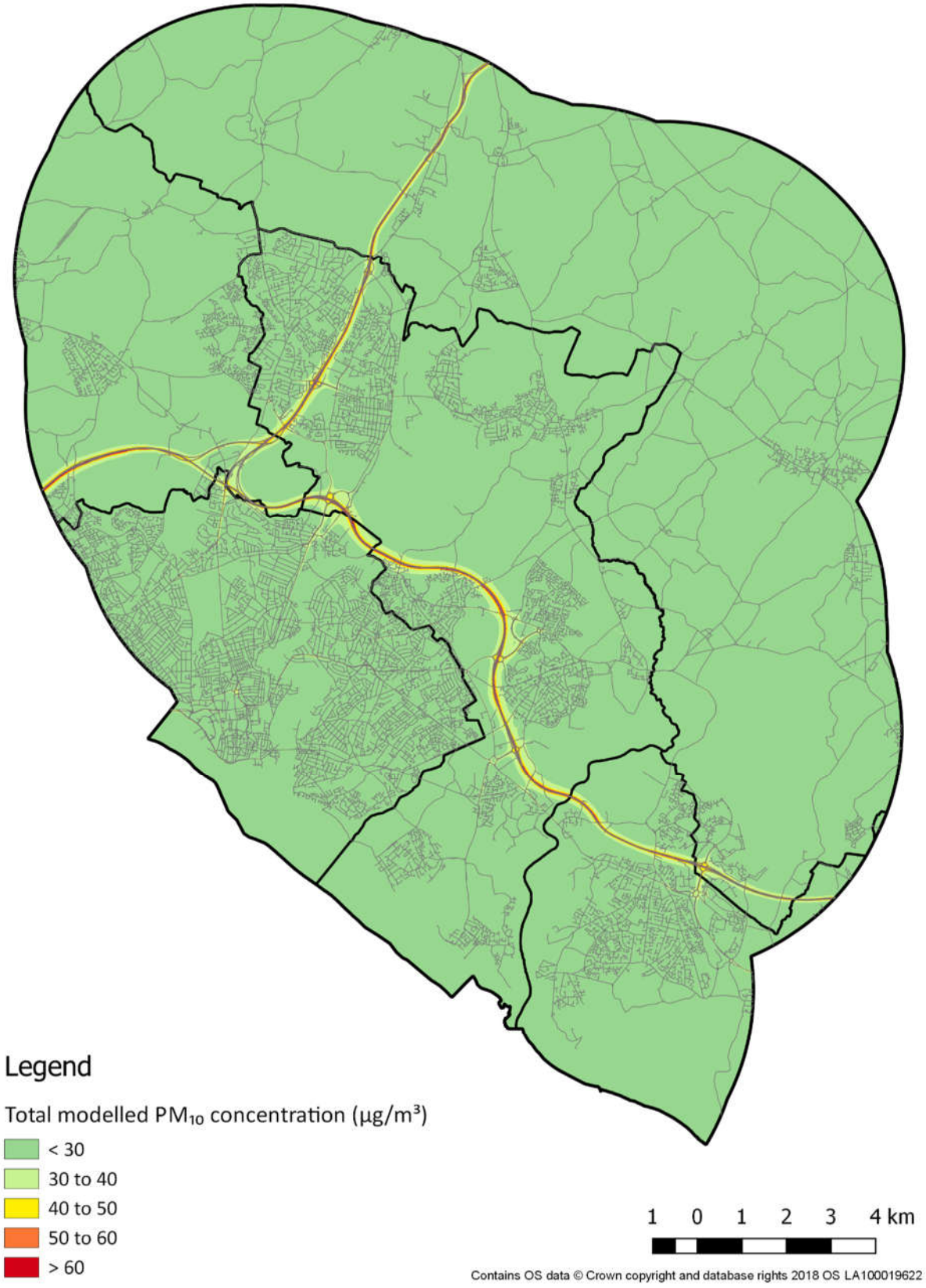


Figure 6-4 Short term PM_{10} concentration model results for pseudo-2030 SGO E scenario

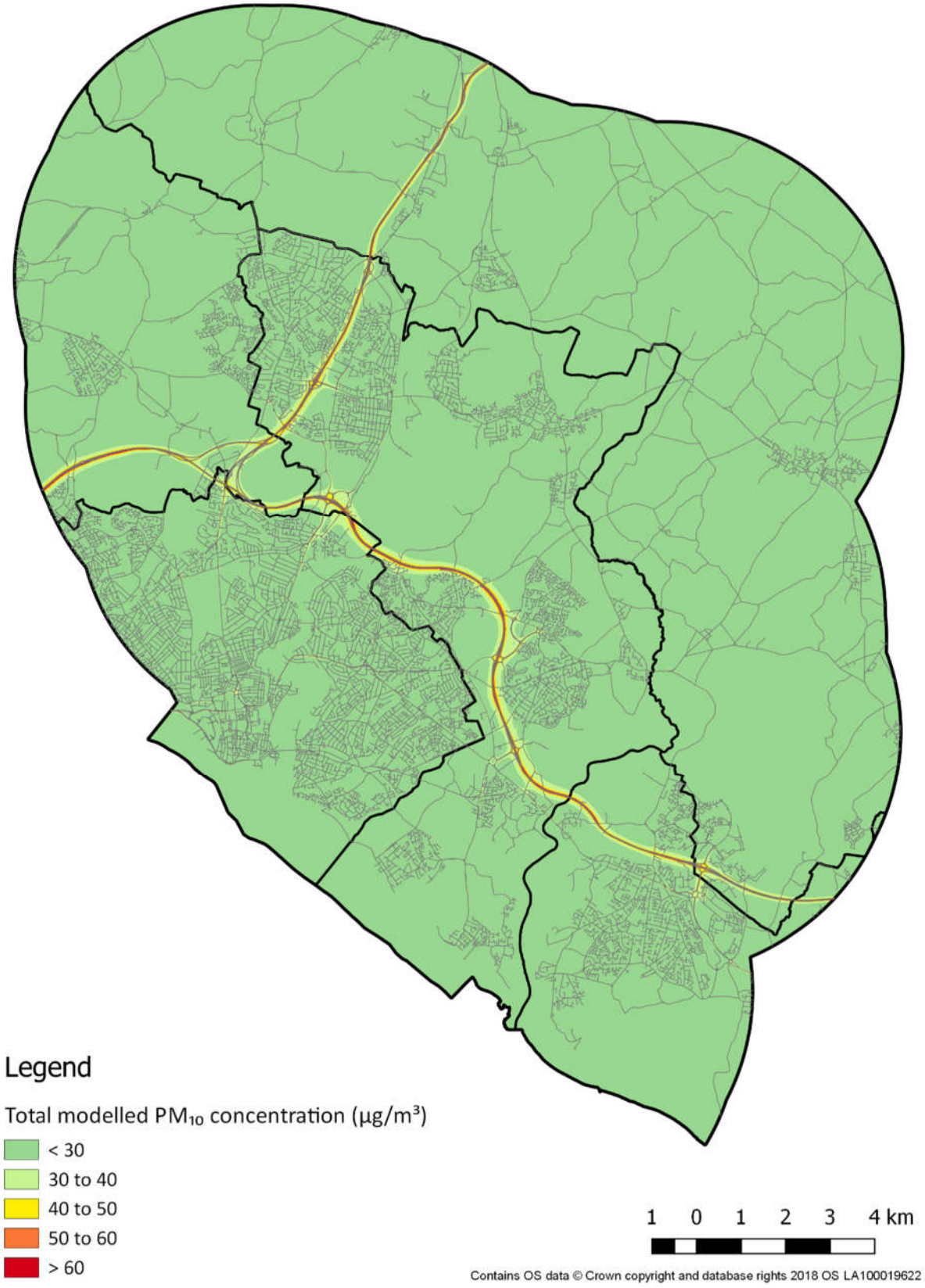


Figure 6-5 Short term PM_{10} concentration model results for 2036 SGO C scenario

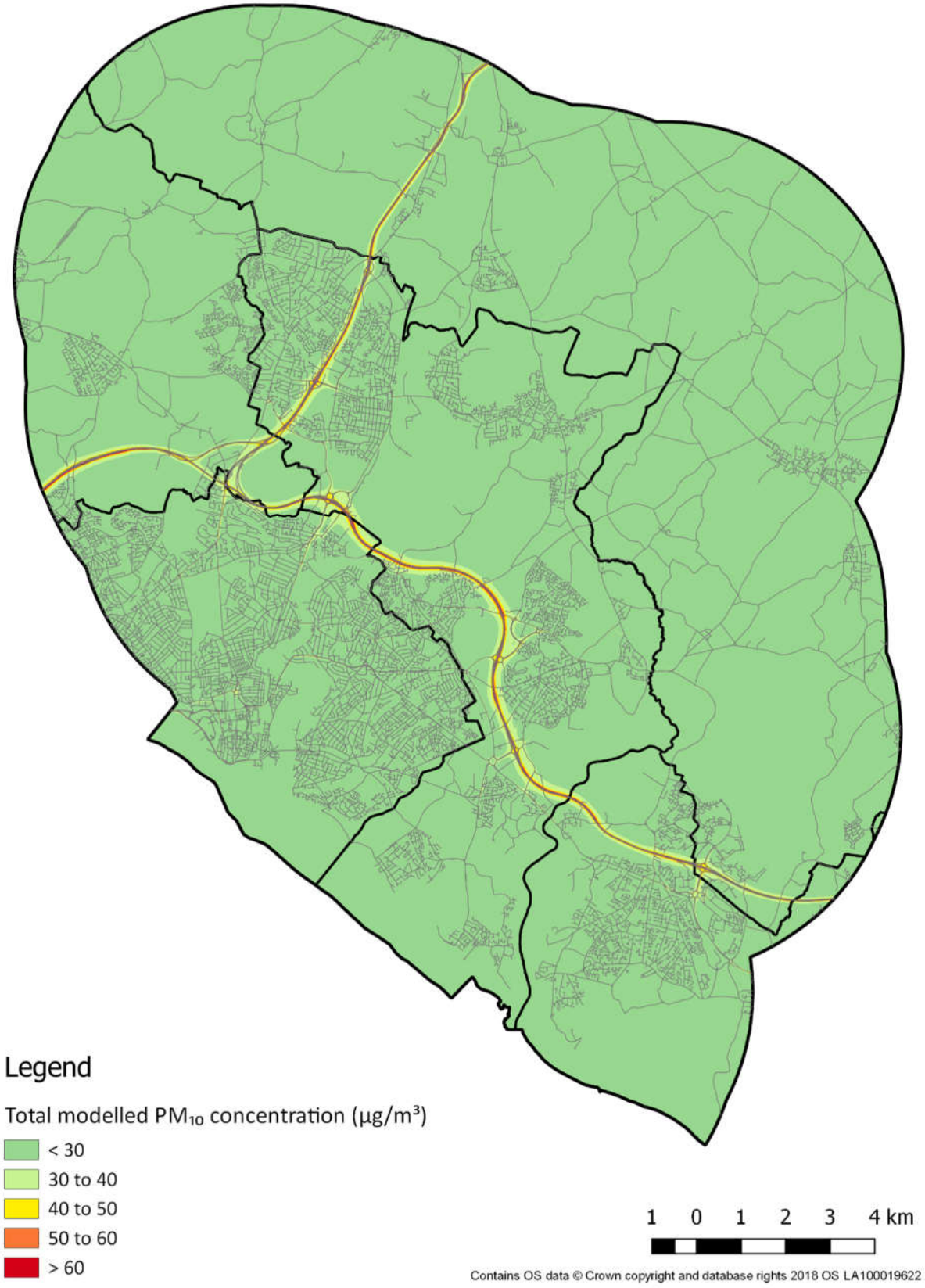


Figure 6-6 Short term PM_{10} concentration model results for 2036 SGO D1 scenario

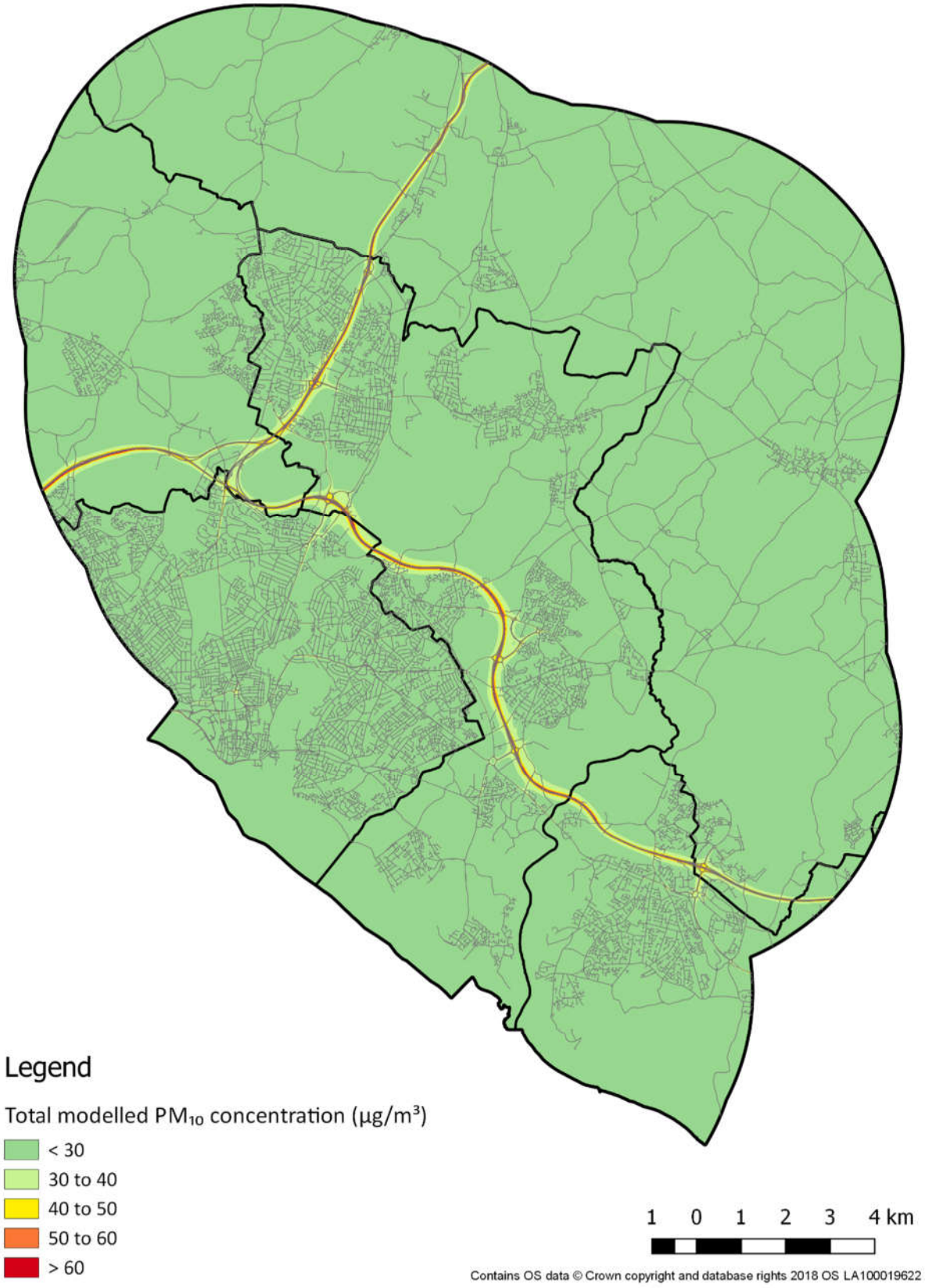


Figure 6-7 Short term PM_{10} concentration model results for 2036 SGO D2 scenario

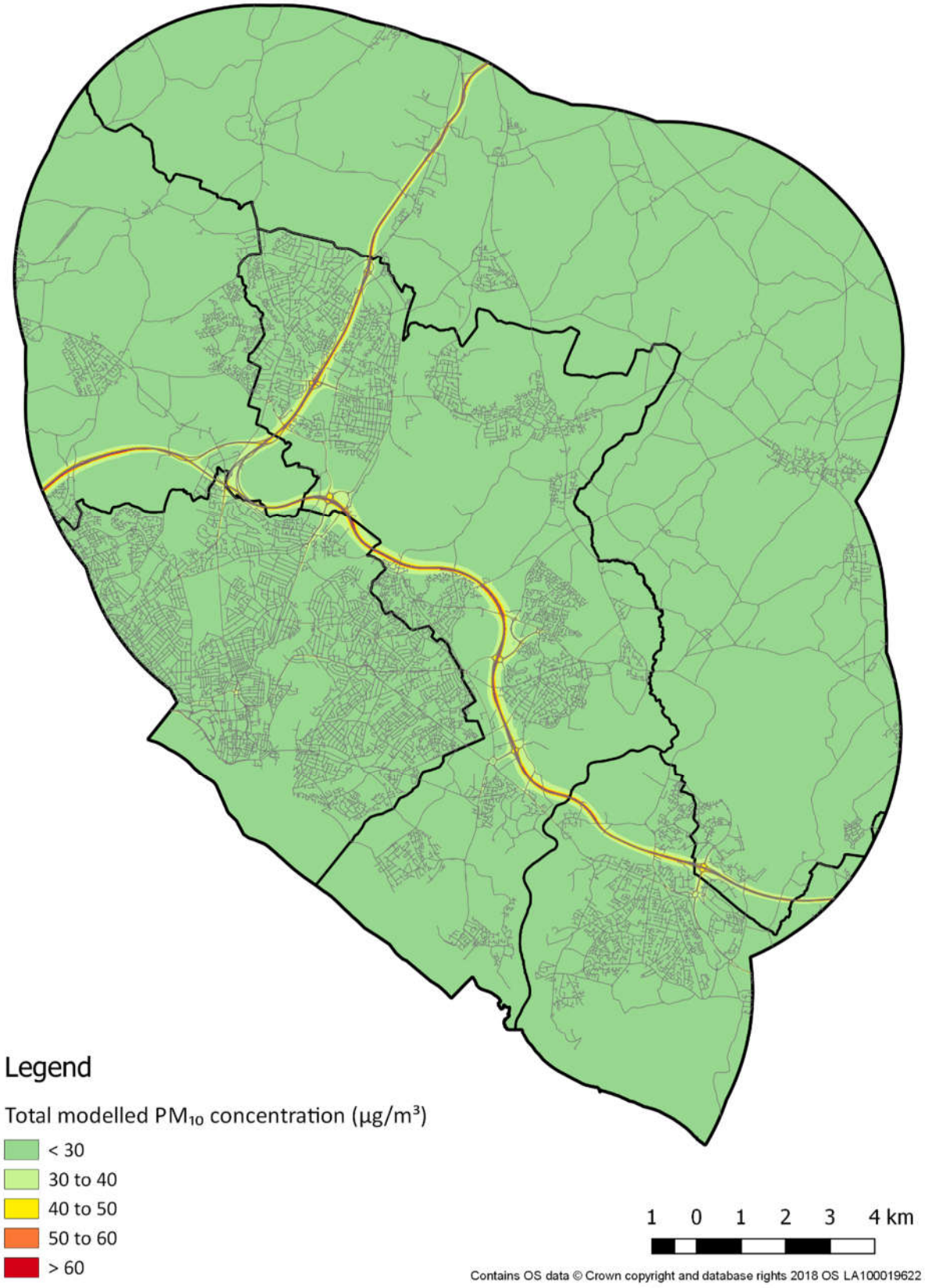
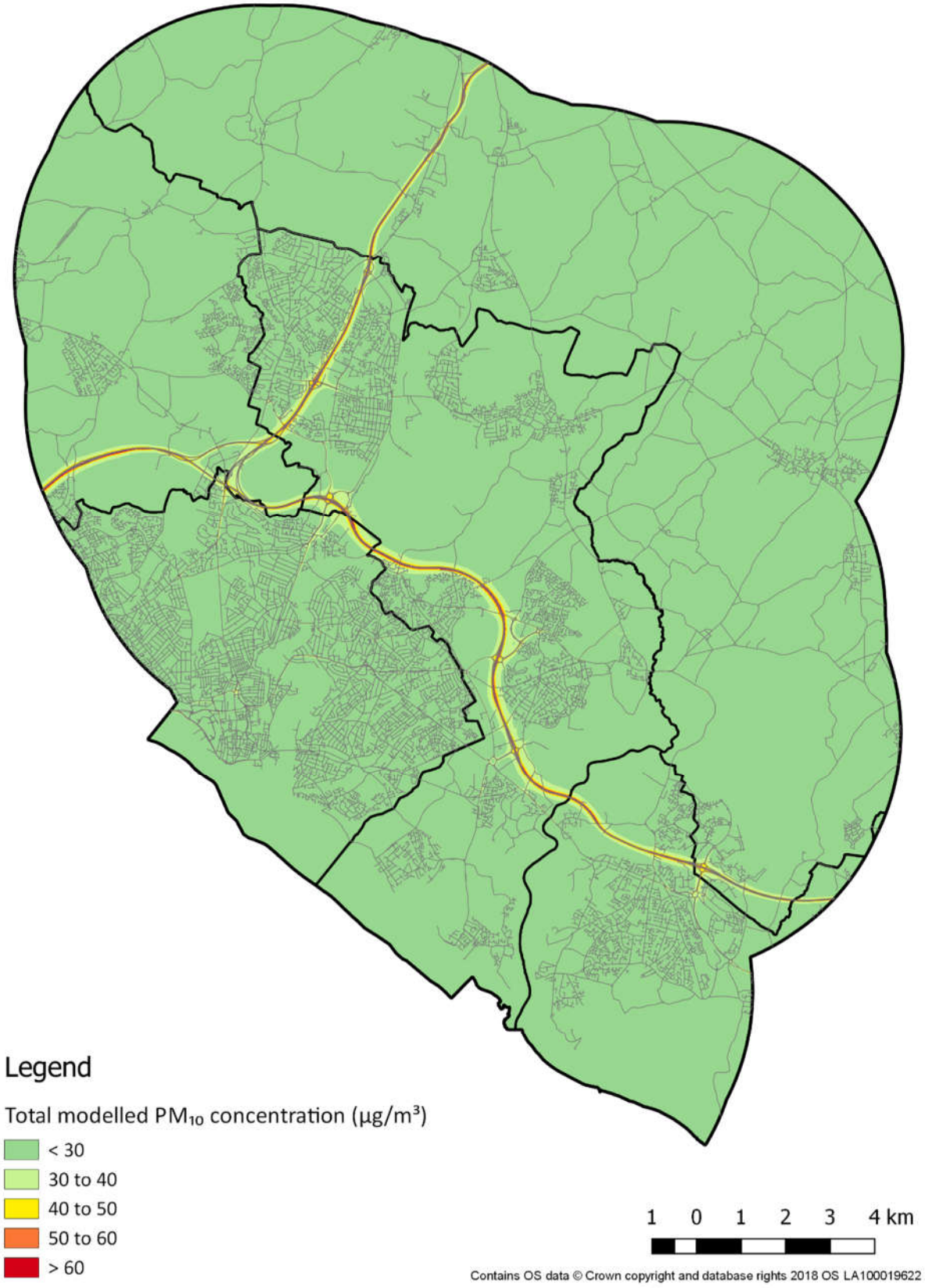


Figure 6-8 Short term PM_{10} concentration model results for 2036 SGO E scenario



6.2 AQMA 1 and 2

Figure 6-9 Short term PM_{10} concentration model results for pseudo-2030 SGO C scenario AQMA No. 1 (A335 / Eastleigh) (East)

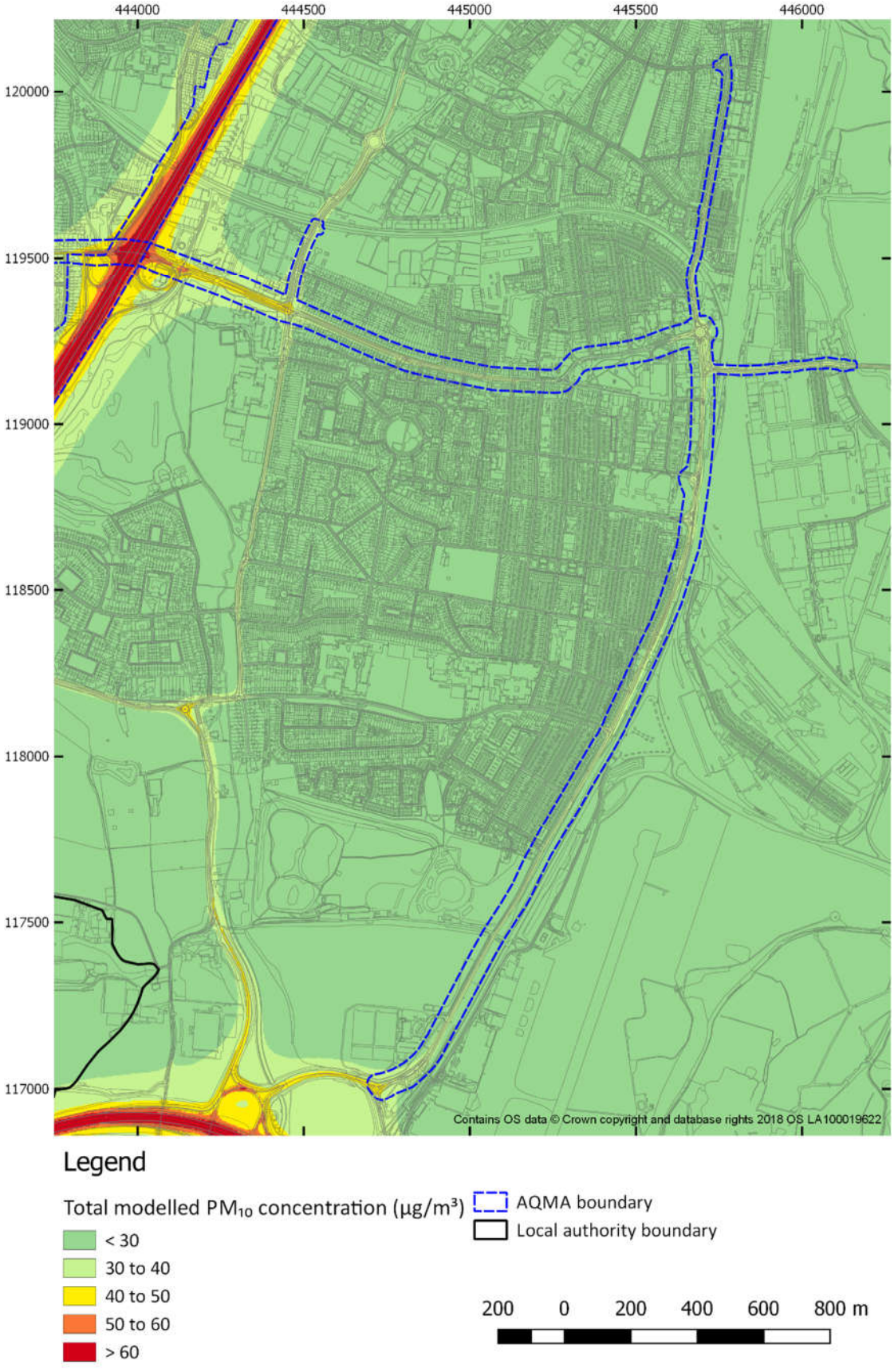


Figure 6-10 Short term PM_{10} concentration model results for pseudo-2030 SGO D1 scenario AQMA No. 1 (A335 / Eastleigh) (East)

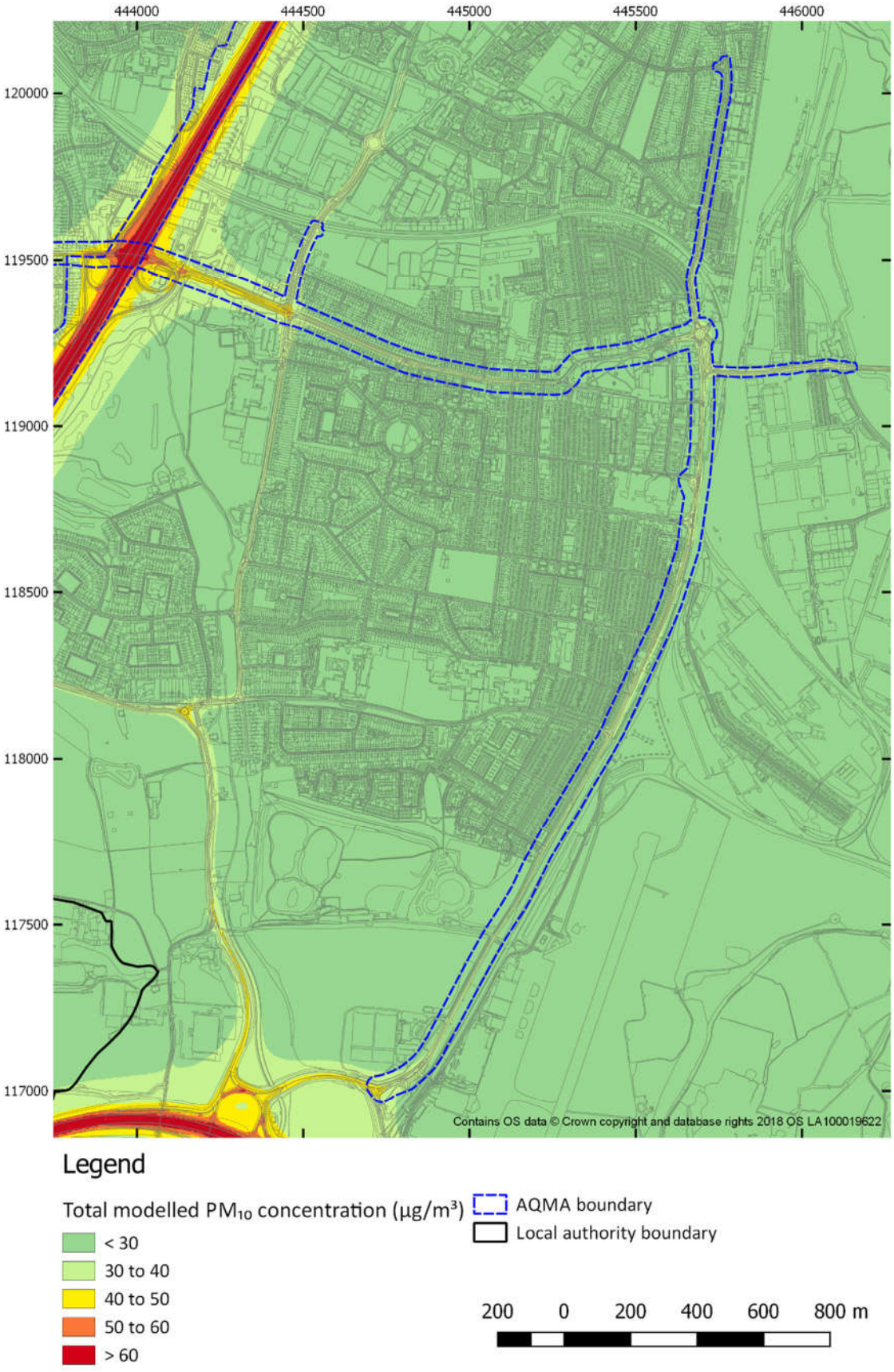


Figure 6-11 Short term PM_{10} concentration model results for pseudo-2030 SGO D2 scenario AQMA No. 1 (A335 / Eastleigh) (East)

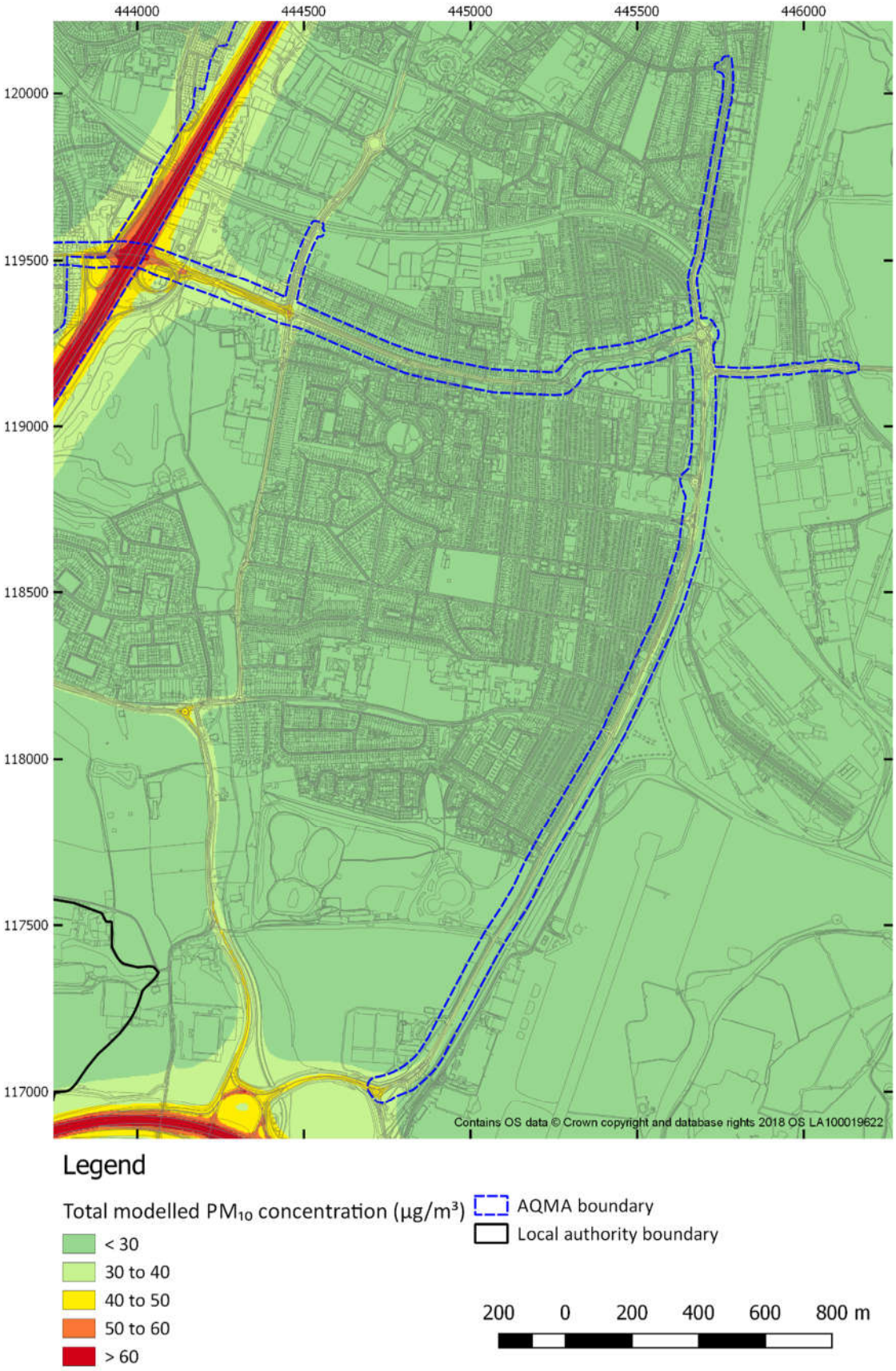


Figure 6-12 Short term PM_{10} concentration model results for pseudo-2030 SGO E scenario AQMA No. 1 (A335 / Eastleigh) (East)

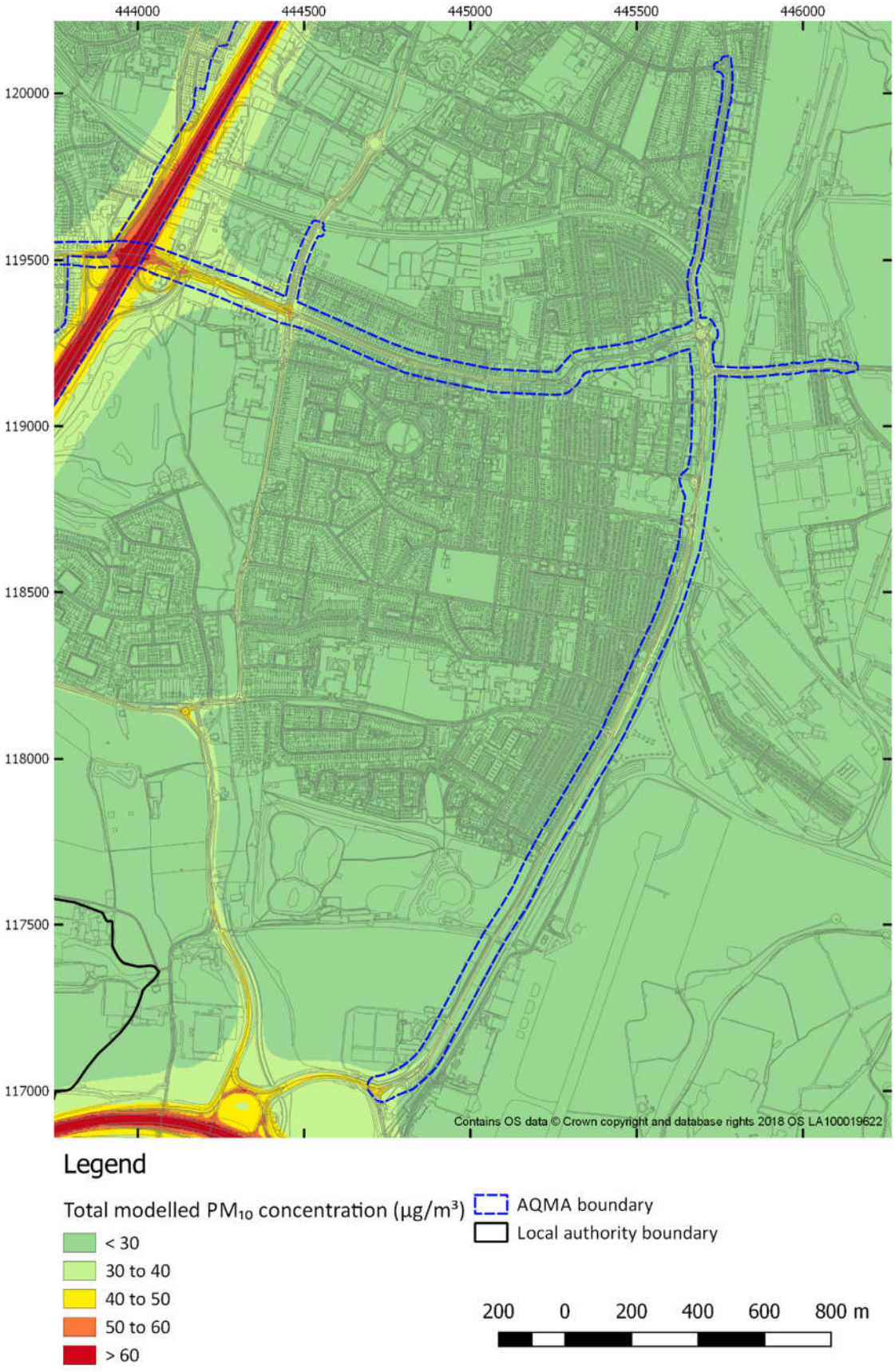


Figure 6-13 Short term PM_{10} concentration model results for 2036 SGO C scenario AQMA No. 1 (A335 / Eastleigh) (East)

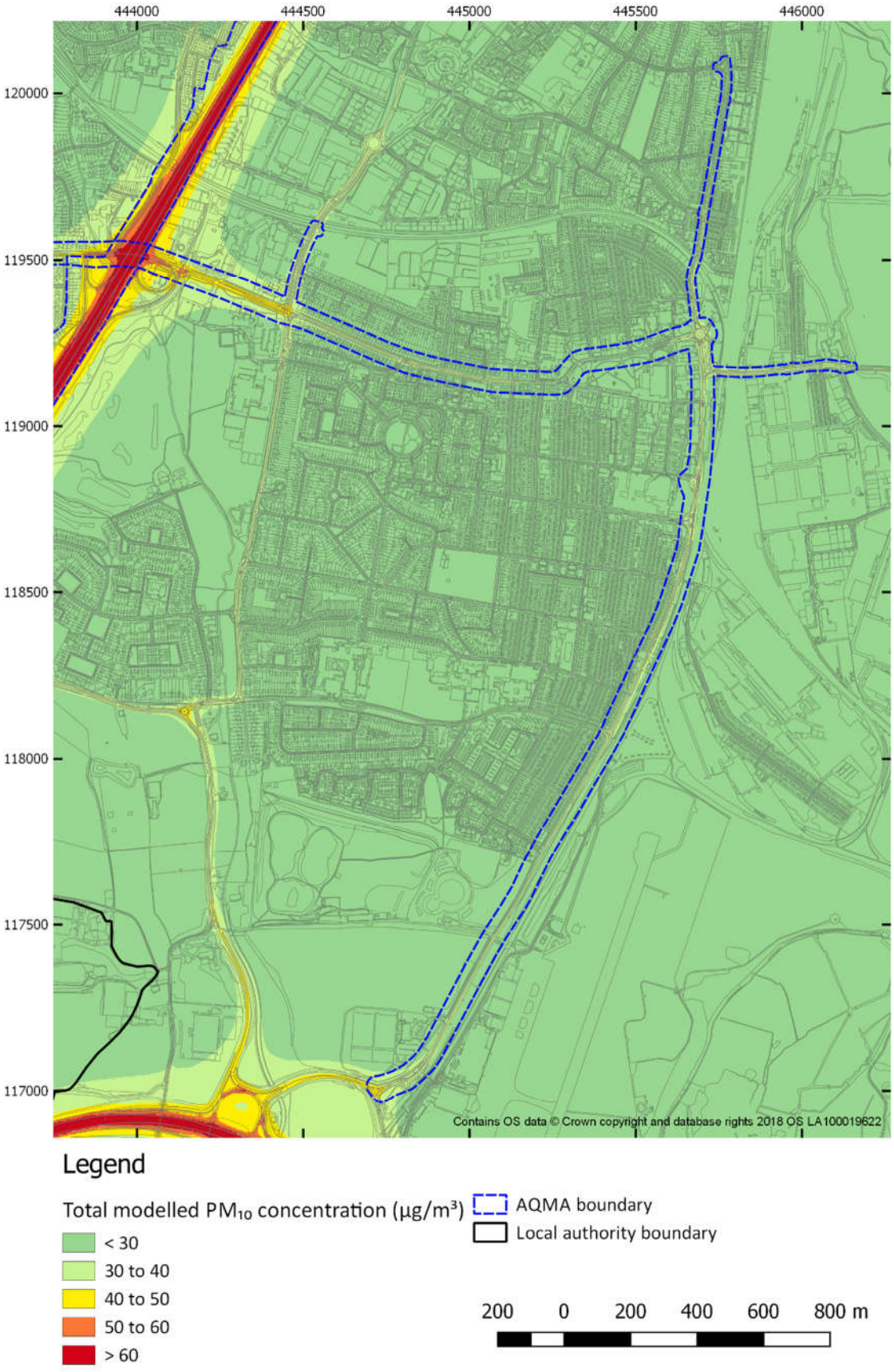


Figure 6-14 Short term PM_{10} concentration model results for 2036 SGO D1 scenario AQMA No. 1 (A335 / Eastleigh) (East)

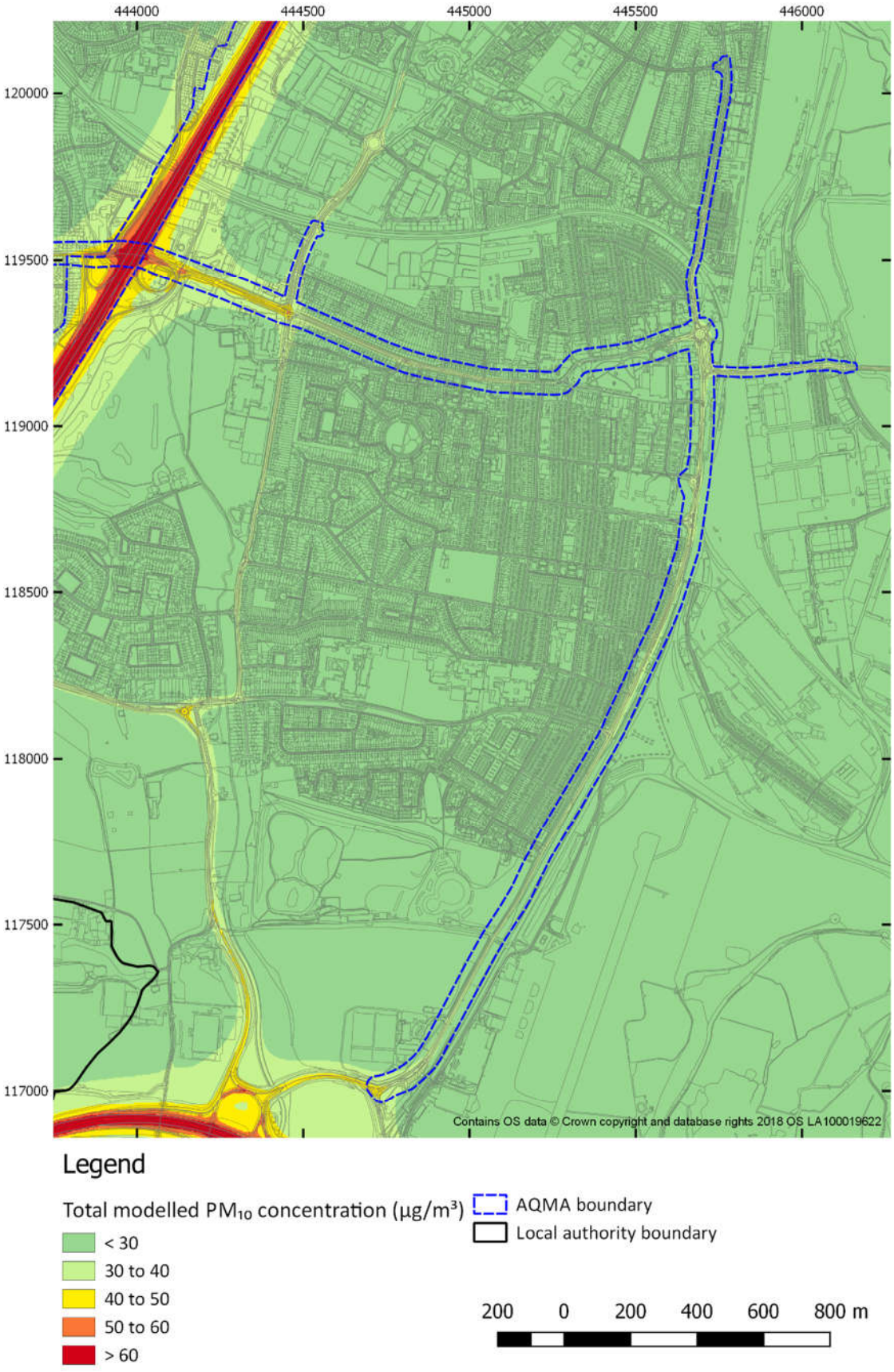


Figure 6-15 Short term PM_{10} concentration model results for 2036 SGO D2 scenario AQMA No. 1 (A335 / Eastleigh) (East)

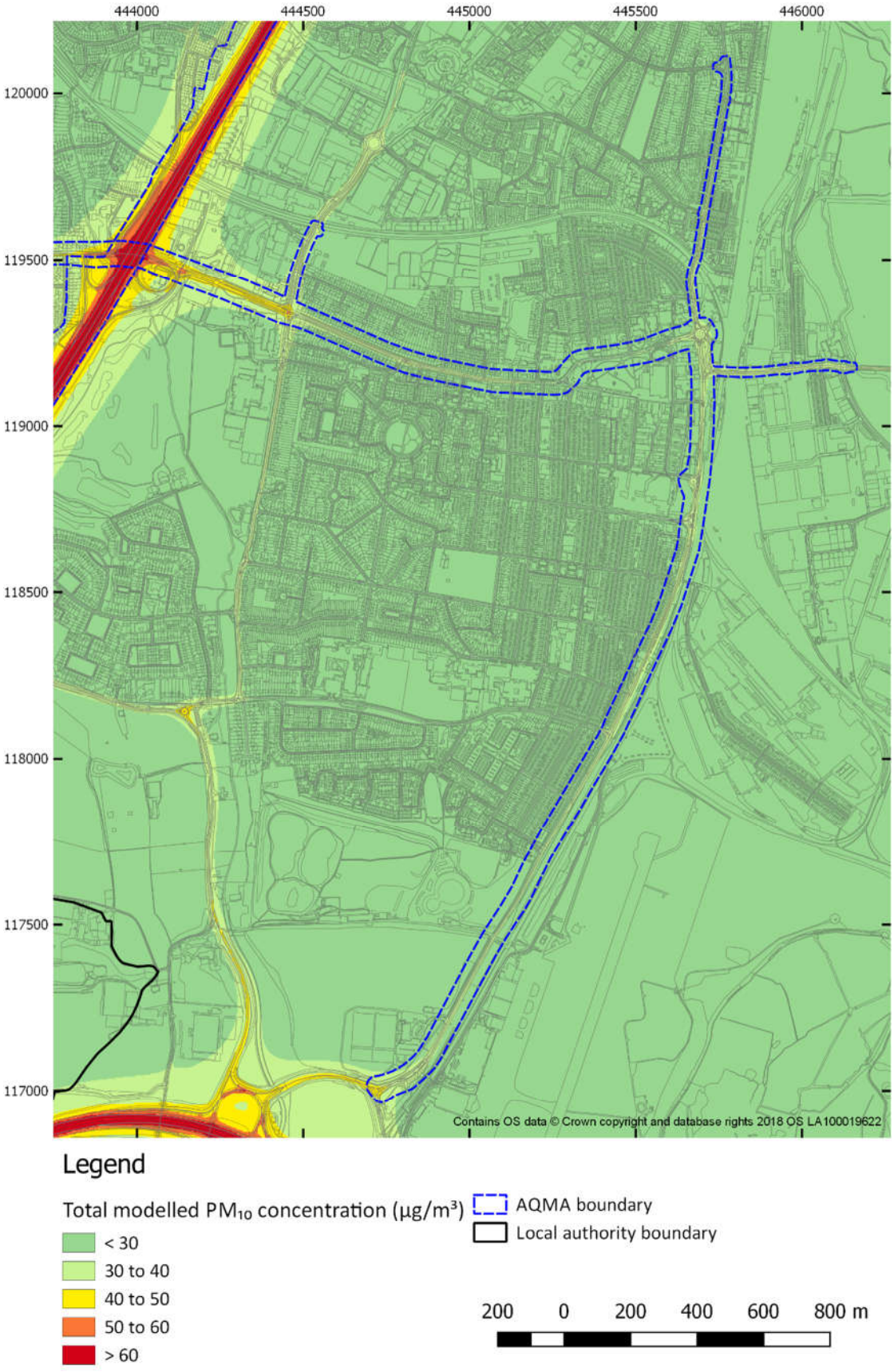


Figure 6-16 Short term PM_{10} concentration model results for 2036 SGO E scenario AQMA No. 1 (A335 / Eastleigh) (East)

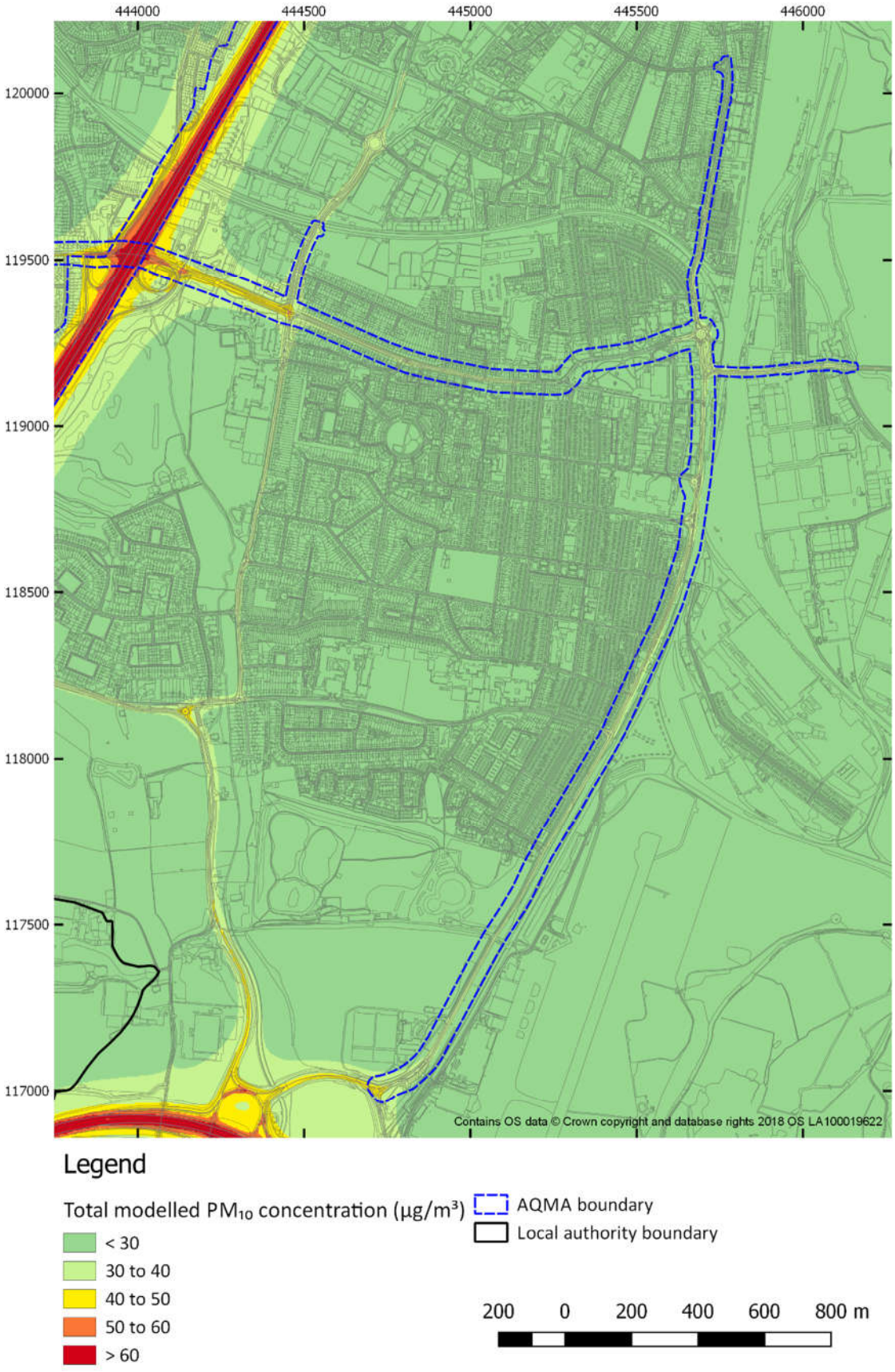


Figure 6-17 Short term PM_{10} concentration model results for 2036 Baseline AQMA No. 1 (A335 / Eastleigh) (East)

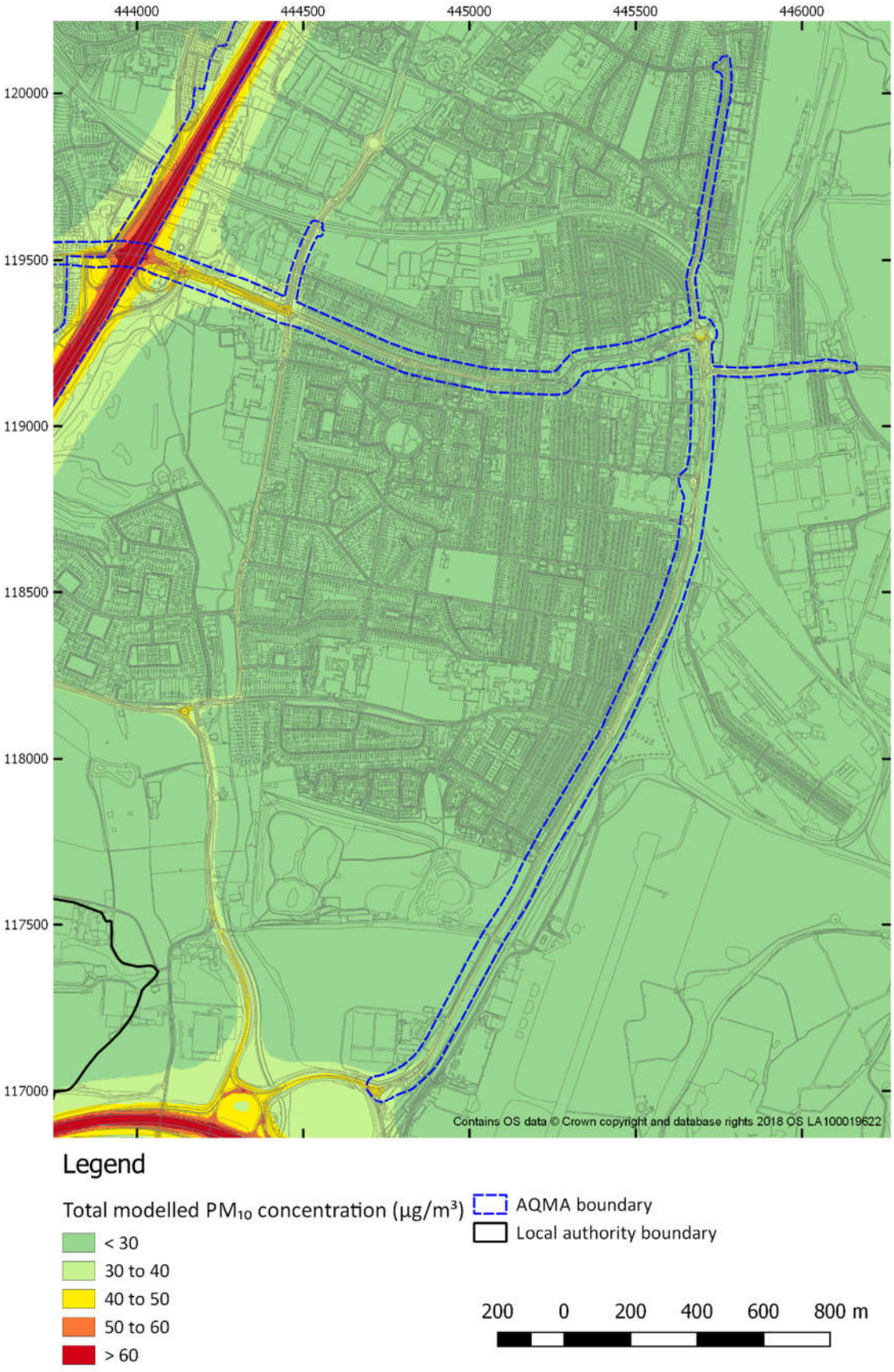


Figure 6-18 Short term PM_{10} concentration model results for pseudo-2030 SGO C scenario AQMA No. 1 (A335 / Eastleigh) (West)

Figure 6-19 Short term PM_{10} concentration model results for pseudo-2030 SGO D1 scenario AQMA No. 1 (A335 / Eastleigh) (West)

Figure 6-20 Short term PM_{10} concentration model results for pseudo-2030 SGO D2 scenario AQMA No. 1 (A335 / Eastleigh) (West)

Figure 6-21 Short term PM_{10} concentration model results for pseudo-2030 SGO E scenario AQMA No. 1 (A335 / Eastleigh) (West)

Figure 6-22 Short term PM_{10} concentration model results for 2036 SGO C scenario AQMA No. 1 (A335 / Eastleigh) (West)

Figure 6-23 Short term PM_{10} concentration model results for 2036 SGO D1 scenario AQMA No. 1 (A335 / Eastleigh) (West)

Figure 6-24 Short term PM_{10} concentration model results for 2036 SGO D2 scenario AQMA No. 1 (A335 / Eastleigh) (West)

Figure 6-25 Short term PM_{10} concentration model results for 2036 SGO E scenario AQMA No. 1 (A335 / Eastleigh) (West)

Figure 6-26 Short term PM_{10} concentration model results for 2036 Baseline AQMA No. 1 (A335 / Eastleigh) (West)

Figure 6-27 Short term PM_{10} concentration model results for pseudo-2030 SGO C scenario AQMA No. 2 (M3) (North)

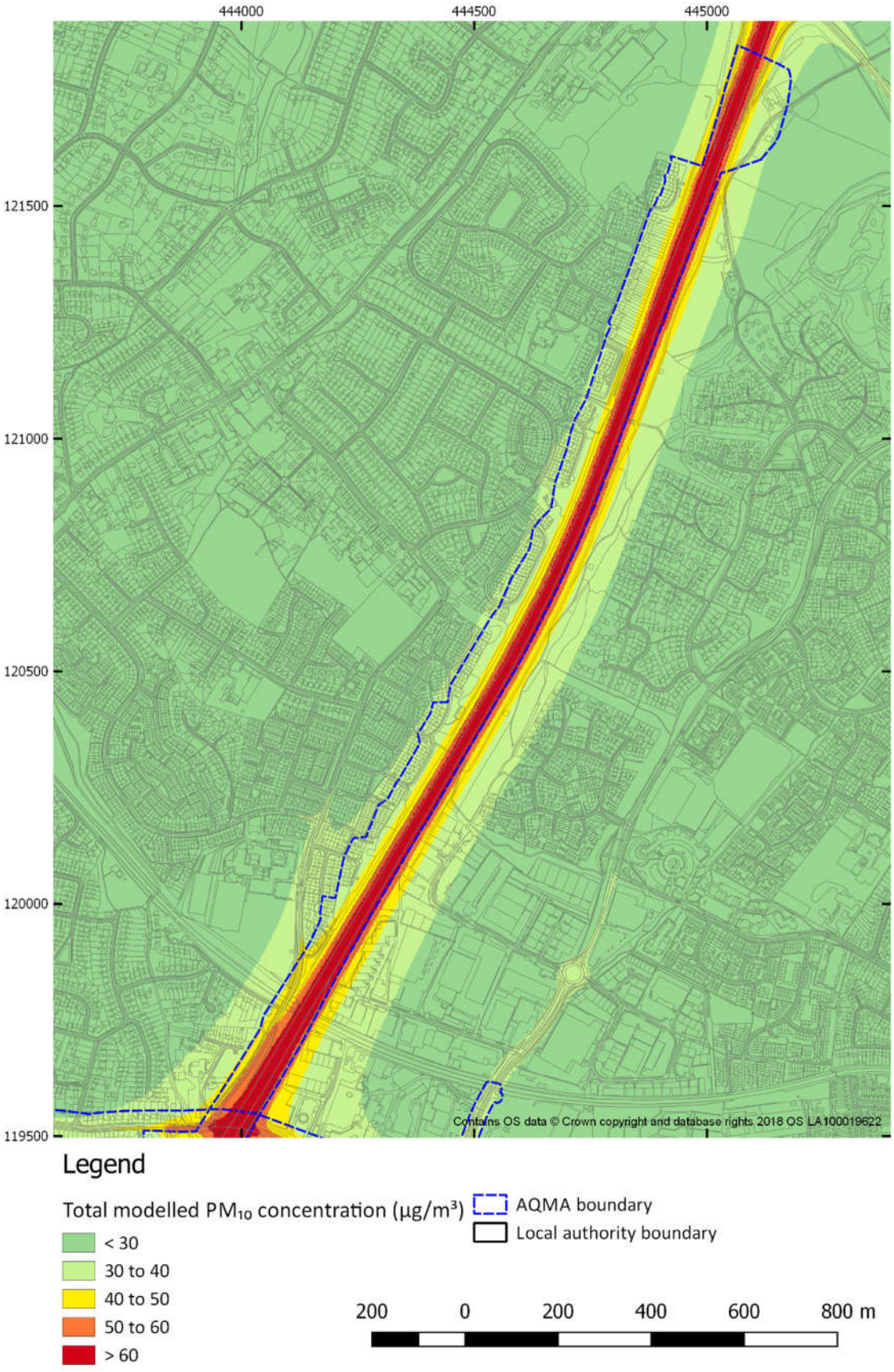


Figure 6-28 Short term PM_{10} concentration model results for pseudo-2030 SGO D1 scenario AQMA No. 2 (M3) (North)

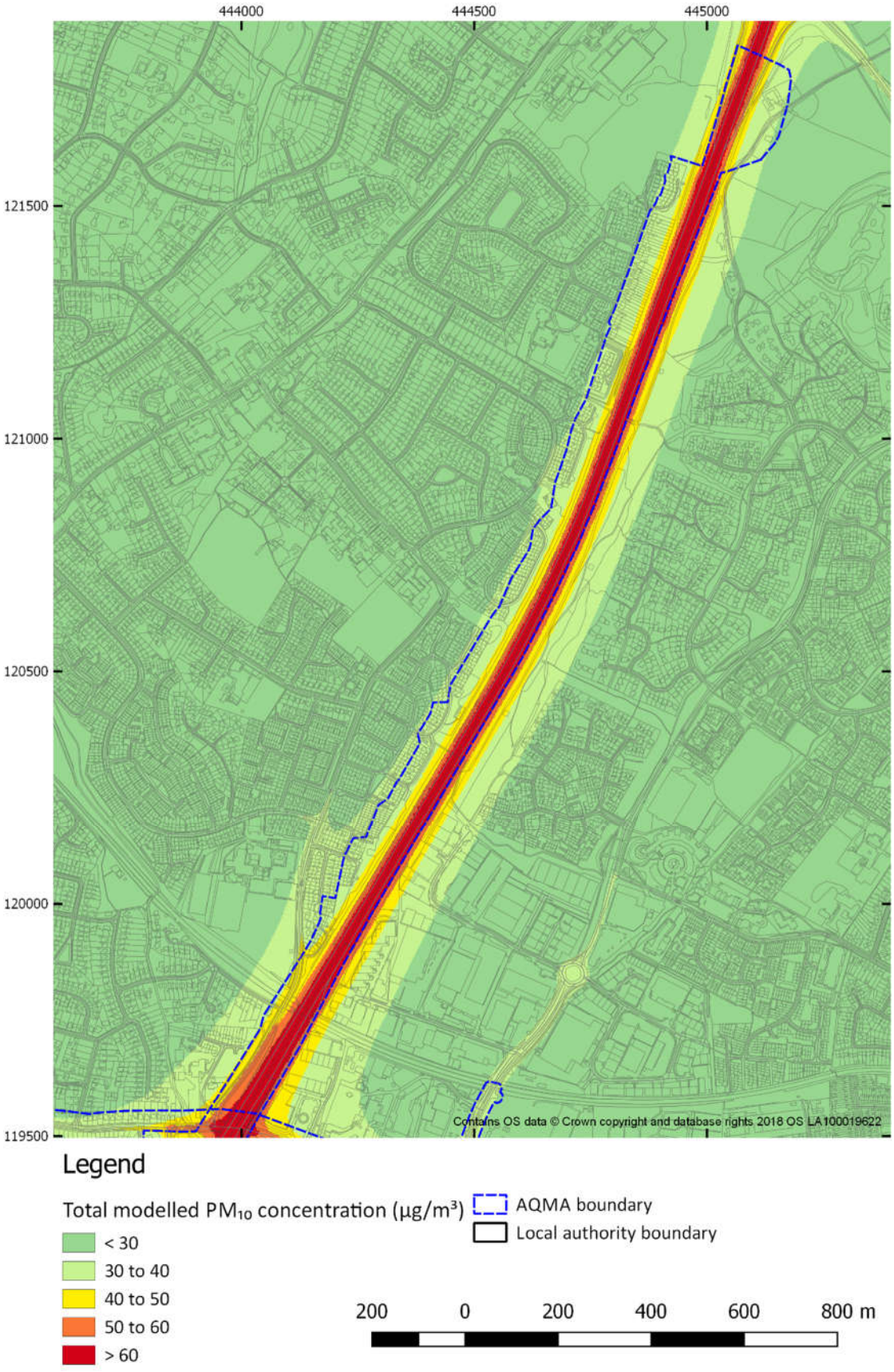


Figure 6-29 Short term PM_{10} concentration model results for pseudo-2030 SGO D2 scenario AQMA No. 2 (M3) (North)

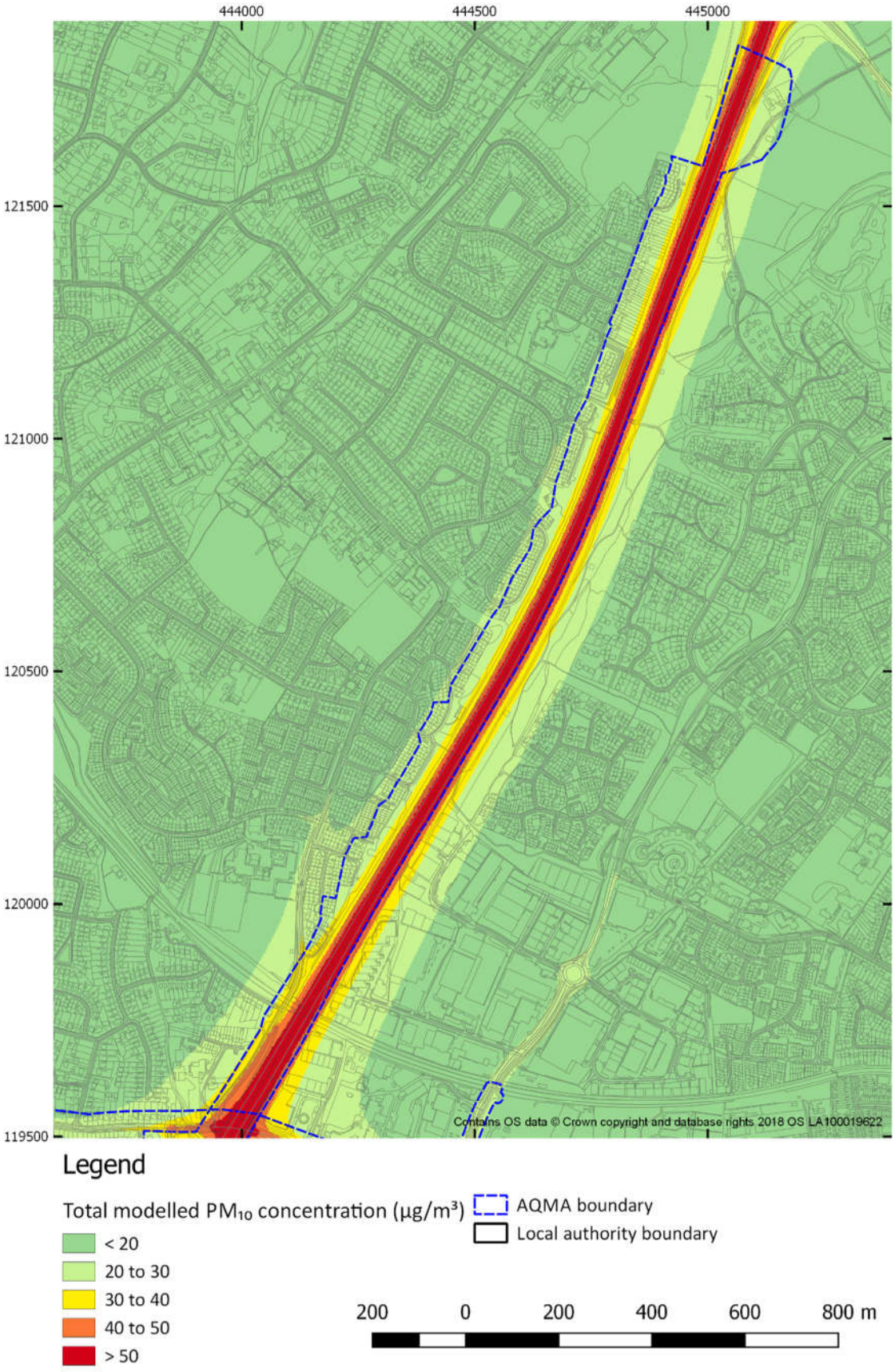


Figure 6-30 Short term PM_{10} concentration model results for pseudo-2030 SGO E scenario AQMA No. 2 (M3) (North)

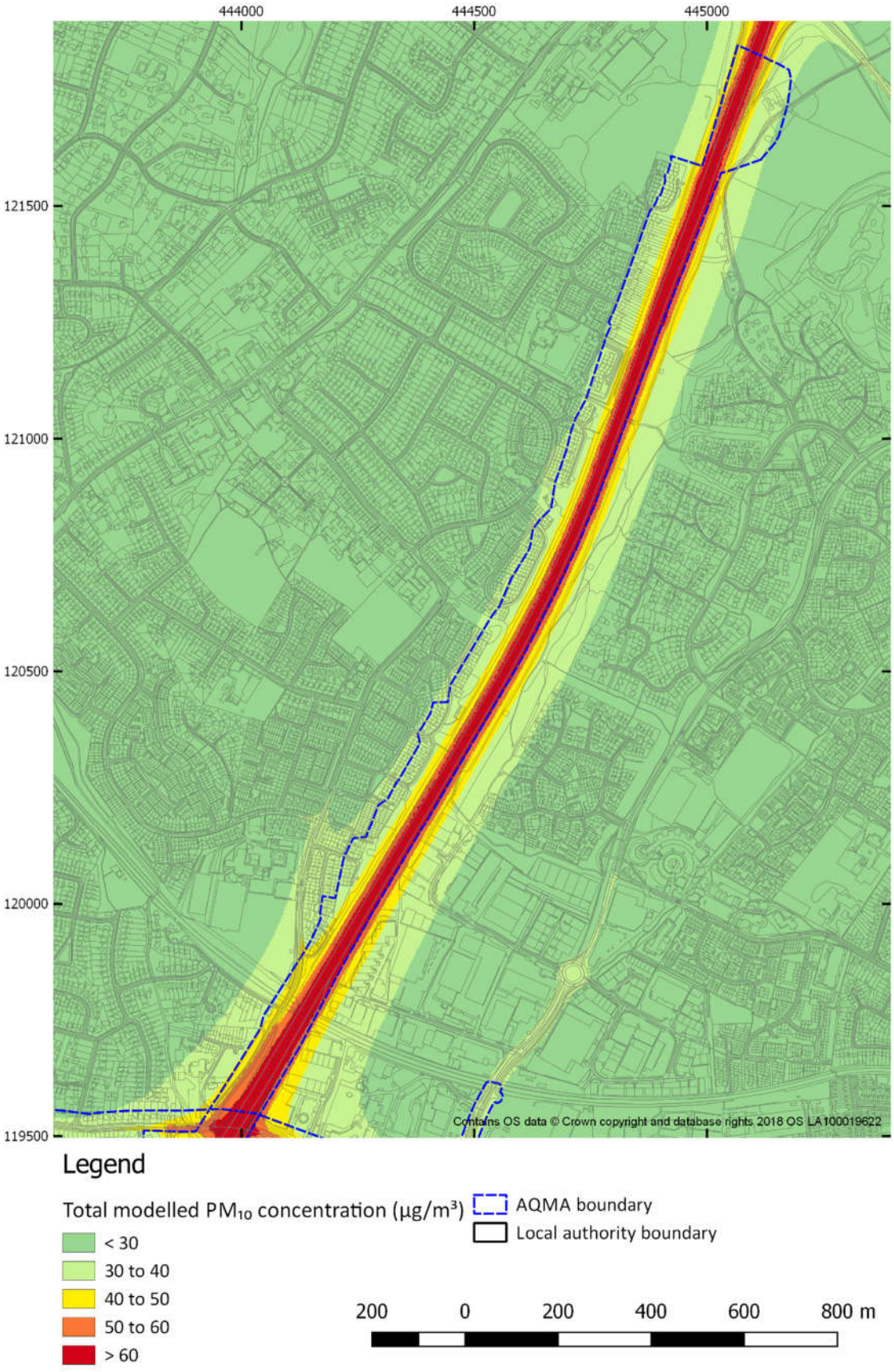


Figure 6-31 Short term PM_{10} concentration model results for 2036 SGO C scenario AQMA No. 2 (M3) (North)

Figure 6-32 Short term PM_{10} concentration model results for 2036 SGO D1 scenario AQMA No. 2 (M3) (North)

Figure 6-33 Short term PM_{10} concentration model results for 2036 SGO D2 scenario AQMA No. 2 (M3) (North)

Figure 6-34 Short term PM_{10} concentration model results for 2036 SGO E scenario AQMA No. 2 (M3) (North)

Figure 6-35 Short term PM_{10} concentration model results for 2036 Baseline AQMA No. 2 (M3) (North)

6.3 AQMA 3

Figure 6-36 Short term PM_{10} concentration model results for pseudo-2030 SGO C scenario AQMA No. 3 (Hamble Lane)

Figure 6-37 Short term PM_{10} concentration model results for pseudo-2030 SGO D1 scenario AQMA No. 3 (Hamble Lane)

Figure 6-38 Short term PM_{10} concentration model results for pseudo-2030 SGO D2 scenario AQMA No. 3 (Hamble Lane)

Figure 6-39 Short term PM_{10} concentration model results for pseudo-2030 SGO E scenario AQMA No. 3 (Hamble Lane)

Figure 6-40 Short term PM_{10} concentration model results for 2036 SGO C scenario AQMA No. 3 (Hamble Lane)

Figure 6-41 Short term PM_{10} concentration model results for 2036 SGO D1 scenario AQMA No. 3 (Hamble Lane)

Figure 6-42 Short term PM_{10} concentration model results for 2036 SGO D2 scenario AQMA No. 3 (Hamble Lane)

Figure 6-43 Short term PM_{10} concentration model results for 2036 SGO E scenario AQMA No. 3 (Hamble Lane)

Figure 6-44 Short term PM_{10} concentration model results for 2036 Baseline AQMA No. 3 (Hamble Lane)

6.4 AQMA 4

Figure 6-45 Short term PM_{10} concentration model results for pseudo-2030 SGO C scenario AQMA No. 4 (High Street Botley)

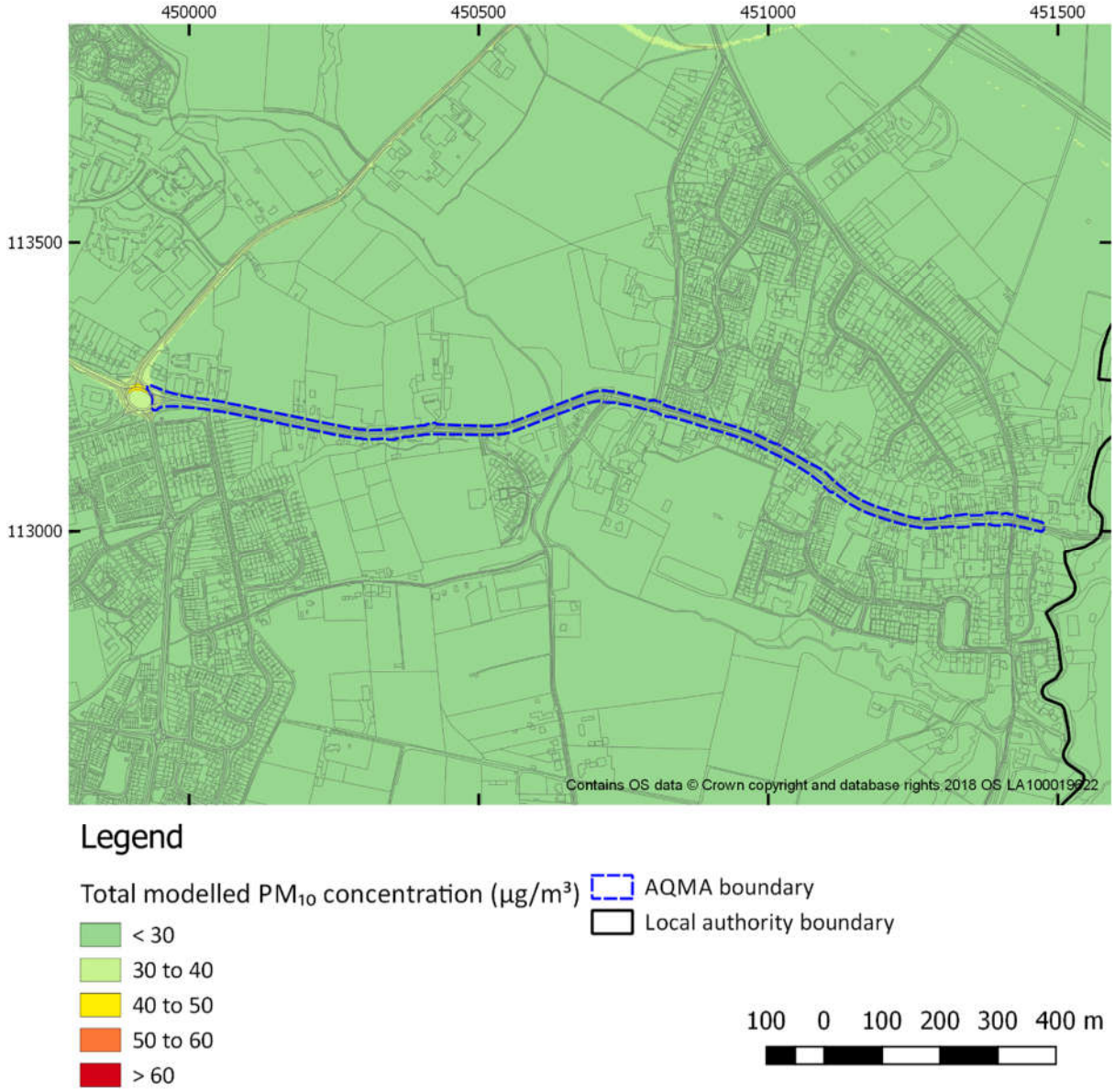


Figure 6-46 Short term PM_{10} concentration model results for pseudo-2030 SGO D1 scenario AQMA No. 4 (High Street Botley)

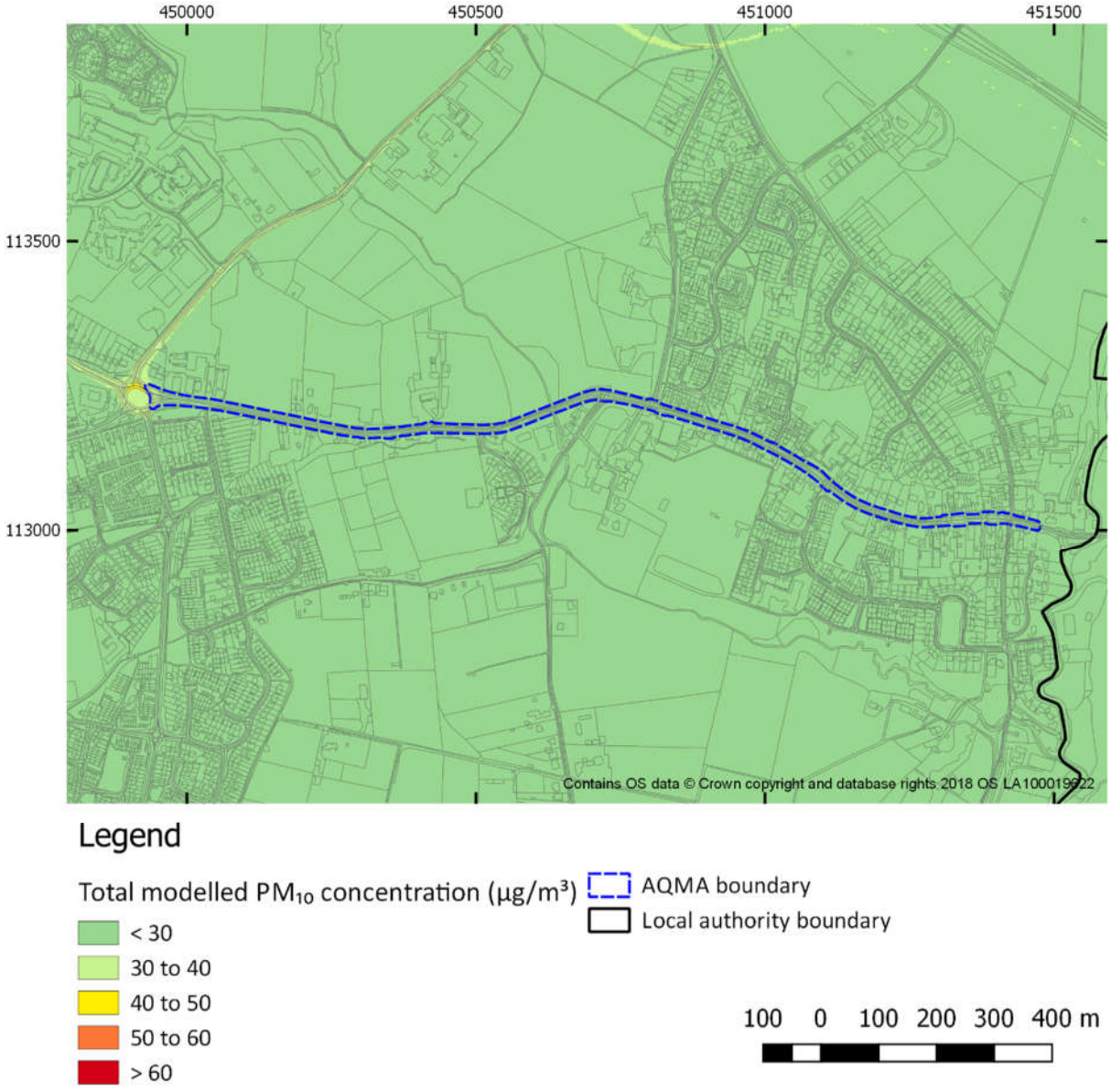


Figure 6-47 Short term PM_{10} concentration model results for pseudo-2030 SGO D2 scenario AQMA No. 4 (High Street Botley)

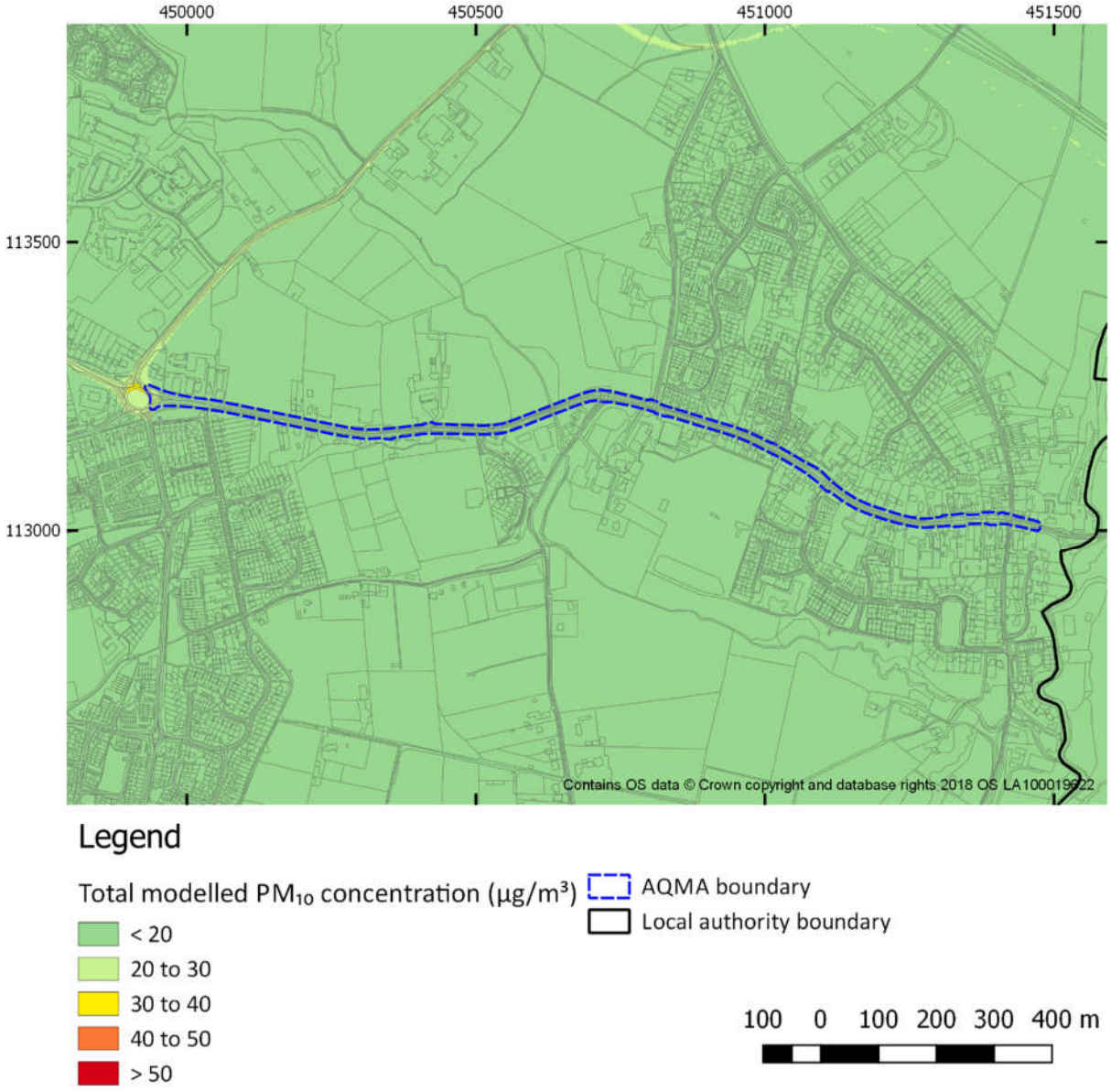


Figure 6-48 Short term PM_{10} concentration model results for pseudo-2030 SGO E scenario AQMA No. 4 (High Street Botley)

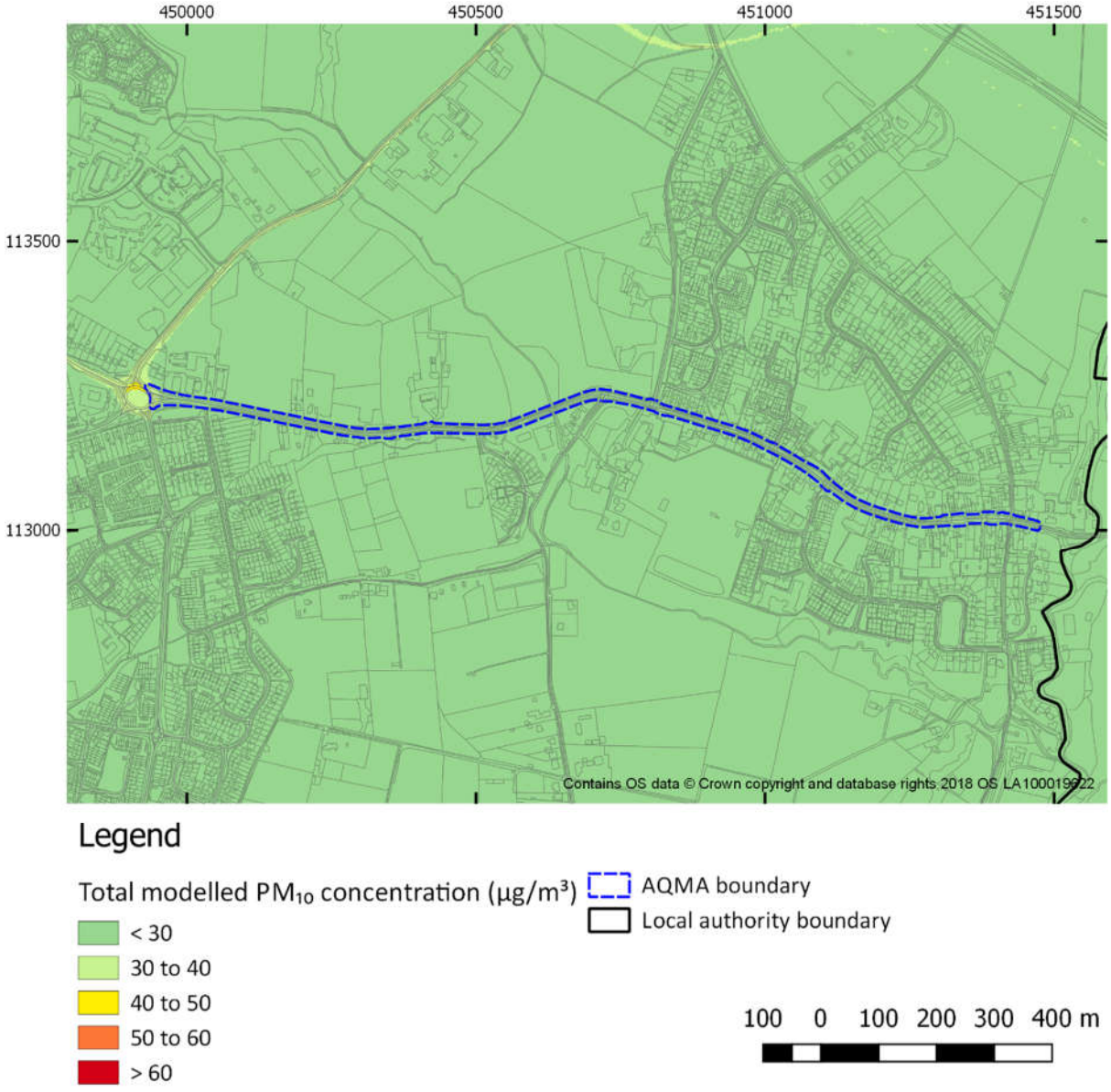


Figure 6-49 Short term PM_{10} concentration model results for 2036 SGO C scenario AQMA No. 4 (High Street Botley)

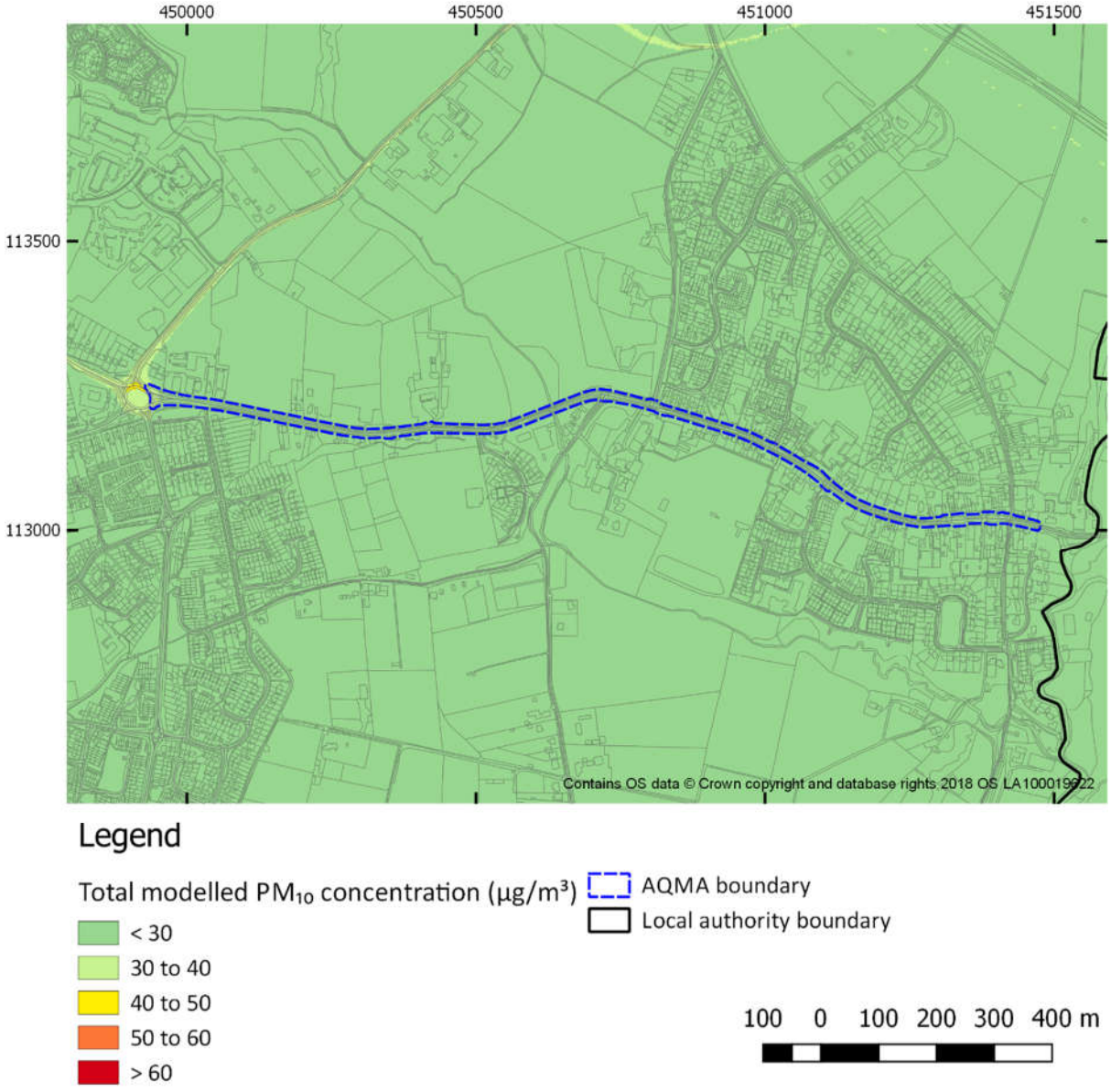


Figure 6-50 Short term PM_{10} concentration model results for 2036 SGO D1 scenario AQMA No. 4 (High Street Botley)

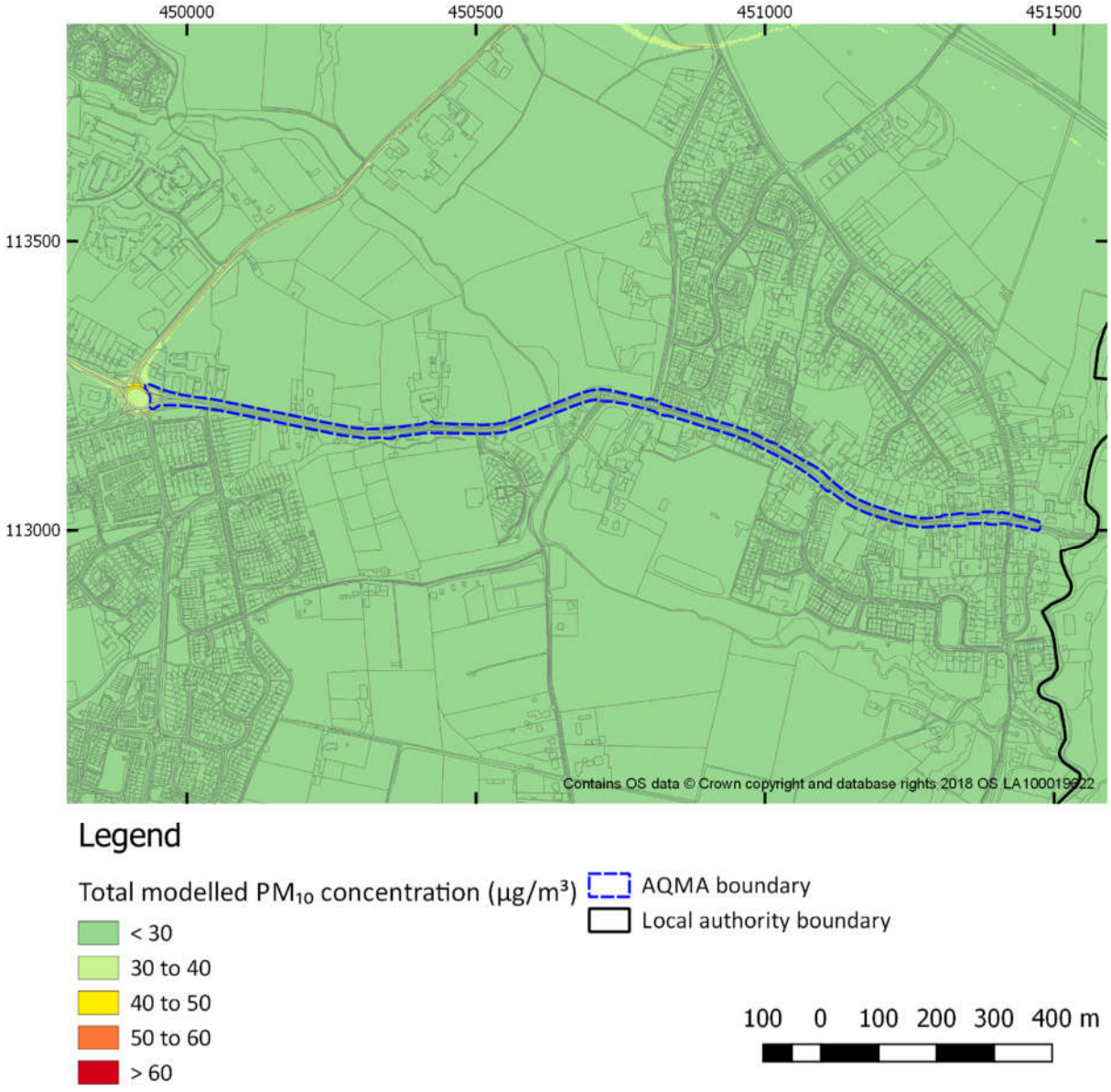


Figure 6-51 Short term PM_{10} concentration model results for 2036 SGO D2 scenario AQMA No. 4 (High Street Botley)

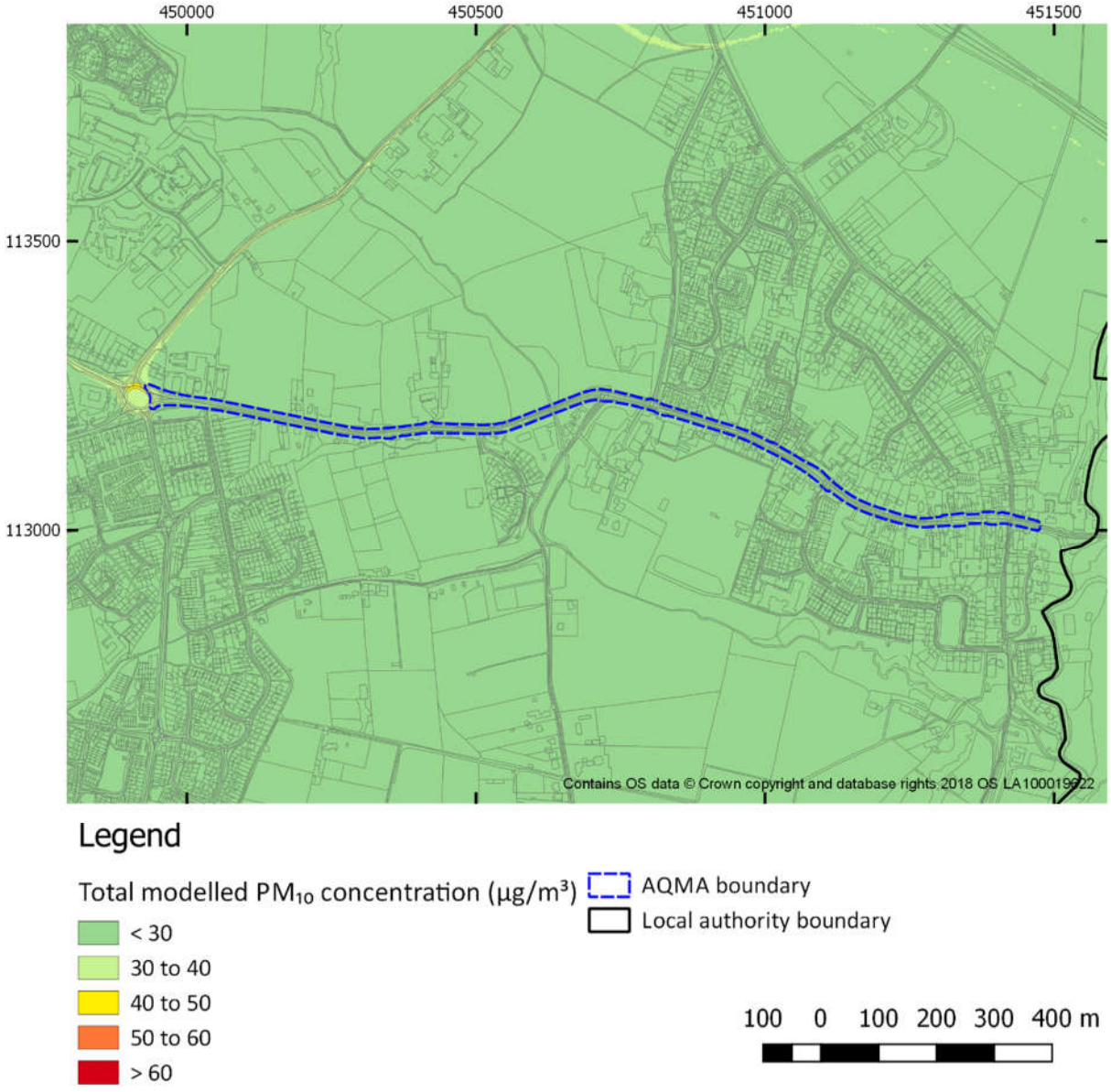


Figure 6-52 Short term PM_{10} concentration model results for 2036 SGO E scenario AQMA No. 4 (High Street Botley)

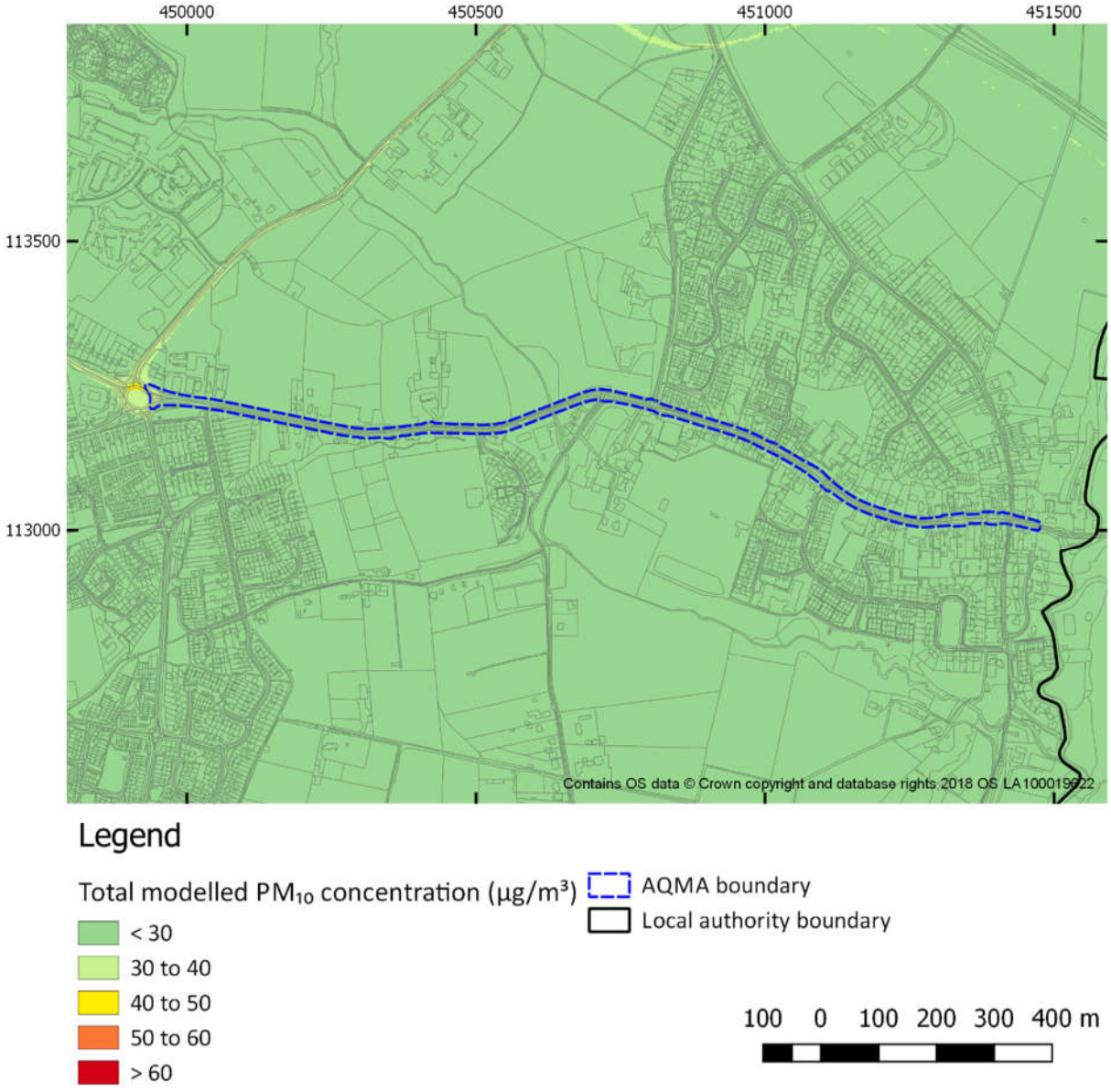
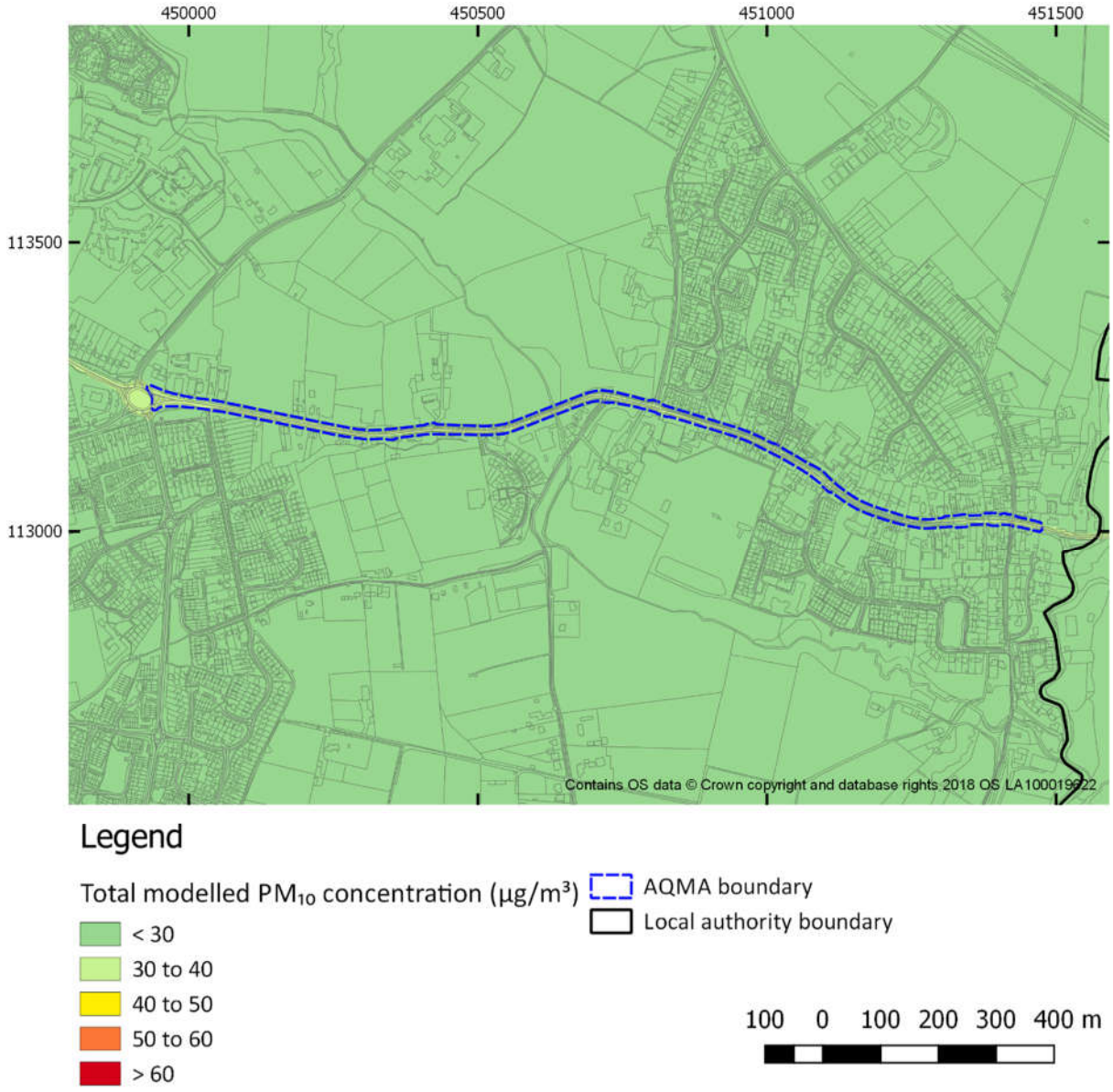


Figure 6-53 Short term PM_{10} concentration model results for 2036 Baseline AQMA No. 4 (High Street Botley)



The Gemini Building
Fermi Avenue
Harwell
Didcot
Oxfordshire
OX11 0QR
United Kingdom

t: +44 (0)1235 753000
e: enquiry@ricardo.com

ee.ricardo.com