

M3 Junction 9 Improvement

Scheme Number: TR010055

6.3 Environmental Statement Appendix 5.2 - Human Receptors Backgrounds and Operational Phase Results

APFP Regulation 5(2)(a)

Planning Act 2008

**Infrastructure Planning (Applications: Prescribed Forms and
Procedure) Regulations 2009**

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 (Applications: Prescribed Forms and
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M3 Junction 9 Improvement
 Development Consent Order 202[x]

**6.3 ENVIRONMENTAL STATEMENT - APPENDIX 5.2: HUMAN
 RECEPTORS BACKGROUNDS AND OPERATIONAL PHASE
 RESULTS**

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1 Environmental Statement Appendix 5.2: Human Receptors, Backgrounds and Operational Phase Results

1.1 Annual Average NO₂

1.1.1 **Table 1.1** presents the mapped and adjusted annual average NO₂ background concentrations (µg/m³) and **Table 1.2** presents the predicted opening year annual mean concentrations of NO₂ (µg/m³) and change at modelled discrete receptor locations.

Table 1.1: Mapped and Adjusted Annual Average NO₂ Background Concentrations (µg/m³)

| Receptor | DEFRA 2018 Mapped Background | 2015 adjusted and sector removed Background | 2015 Modelled Baseline Concentration | DEFRA 2027 Mapped Background | 2027 sector removed Background |
|----------|------------------------------|---|--------------------------------------|------------------------------|--------------------------------|
| R01 | 13.0 | 10.6 | 34.5 | 12.3 | 7.3 |
| R02 | 13.0 | 10.6 | 40.6 | 9.2 | 7.6 |
| R03 | 13.0 | 10.6 | 46.3 | 9.2 | 7.6 |
| R04 | 13.0 | 10.6 | 55.4 | 9.2 | 7.6 |
| R05 | 15.1 | 13.7 | 28.4 | 9.2 | 7.6 |
| R06 | 15.1 | 13.7 | 26.7 | 11.2 | 10.1 |
| R07 | 15.1 | 13.7 | 31.3 | 11.2 | 10.1 |
| R08 | 15.1 | 13.7 | 39.7 | 11.2 | 10.1 |
| R09 | 15.1 | 13.7 | 28.1 | 11.2 | 10.1 |
| R10 | 18.5 | 11.6 | 25.4 | 11.2 | 10.1 |
| R11 | 13.7 | 10.0 | 20.4 | 12.2 | 8.1 |
| R12 | 13.7 | 10.0 | 17.8 | 9.4 | 7.2 |
| R13 | 13.7 | 10.0 | 22.5 | 9.4 | 7.2 |
| R14 | 11.2 | 8.8 | 16.3 | 9.4 | 7.2 |
| R15 | 9.9 | 8.8 | 14.7 | 7.8 | 6.3 |
| R16 | 13.1 | 9.7 | 19.1 | 7.2 | 6.4 |
| R17 | 13.8 | 8.6 | 16.1 | 9.3 | 7.2 |
| R18 | 18.3 | 10.6 | 24.0 | 9.1 | 6.0 |
| R19 | 18.3 | 10.6 | 26.2 | 12.0 | 7.5 |
| R20 | 15.1 | 10.2 | 27.3 | 12.0 | 7.5 |
| R21 | 20.3 | 11.0 | 28.0 | 10.2 | 7.4 |
| R22 | 20.3 | 11.0 | 24.2 | 13.1 | 7.7 |
| R23 | 20.3 | 11.0 | 31.5 | 13.1 | 7.7 |
| R24 | 19.2 | 10.9 | 30.4 | 13.1 | 7.7 |

| Receptor | DEFRA 2018 Mapped Background | 2015 adjusted and sector removed Background | 2015 Modelled Baseline Concentration | DEFRA 2027 Mapped Background | 2027 sector removed Background |
|----------|------------------------------|---|--------------------------------------|------------------------------|--------------------------------|
| R25 | 20.2 | 11.9 | 25.7 | 12.5 | 7.7 |
| R26 | 20.2 | 11.9 | 29.7 | 13.3 | 8.4 |
| R27 | 17.6 | 13.0 | 21.4 | 13.3 | 8.4 |
| R28 | 18.5 | 11.6 | 30.5 | 12.3 | 9.5 |
| R29 | 9.0 | 8.4 | 16.0 | 12.2 | 8.1 |
| R30 | 9.0 | 8.4 | 20.8 | 6.7 | 6.2 |
| R31 | 9.0 | 8.4 | 10.6 | 6.7 | 6.2 |
| R32 | 9.0 | 8.4 | 16.2 | 6.7 | 6.2 |
| R33 | 11.6 | 8.5 | 22.2 | 6.8 | 6.2 |
| R34 | 12.7 | 12.0 | 36.7 | 7.8 | 6.0 |
| R35 | 12.7 | 12.0 | 38.3 | 9.5 | 8.9 |
| R36 | 11.3 | 10.4 | 26.5 | 9.5 | 8.9 |
| R37 | 9.5 | 8.7 | 17.3 | 8.3 | 7.6 |
| R38 | 9.9 | 8.7 | 16.3 | 7.0 | 6.3 |
| R39 | 15.1 | 13.7 | 37.3 | 7.2 | 6.3 |
| R40 | 15.1 | 13.7 | 43.7 | 11.2 | 10.1 |
| R41 | 15.1 | 13.7 | 33.7 | 11.2 | 10.1 |
| R42 | 9.4 | 8.3 | 10.2 | 11.2 | 10.1 |
| R43 | 13.6 | 10.0 | 14.0 | 6.8 | 6.0 |
| R44 | 13.6 | 10.0 | 13.8 | 9.4 | 7.1 |
| R45 | 13.6 | 10.0 | 13.6 | 9.4 | 7.1 |
| R46 | 13.7 | 10.0 | 21.1 | 9.4 | 7.1 |
| R47 | 18.5 | 11.6 | 21.8 | 9.4 | 7.2 |
| R48 | 18.5 | 11.6 | 24.4 | 12.2 | 8.1 |
| R49 | 15.1 | 13.7 | 30.8 | 12.2 | 8.1 |
| R50 | 15.1 | 13.7 | 41.1 | 11.2 | 10.1 |
| R51 | 15.1 | 13.7 | 43.7 | 11.2 | 10.1 |
| R52 | 15.1 | 13.7 | 43.5 | 11.2 | 10.1 |
| R53 | 14.5 | 13.9 | 40.9 | 11.2 | 10.1 |
| R54 | 20.3 | 11.0 | 41.9 | 10.9 | 10.2 |
| R55 | 19.3 | 12.0 | 17.5 | 13.1 | 7.7 |

Table 1.1: Predicted Opening Year Annual Mean Concentrations of NO₂ (µg/m³) and change at Modelled Discrete Receptor Locations

| Receptor | 2027 DM | 2027 DS | Change | Change (as % of NAQO) | 2027 DM GAP factored | 2027 DS GAP factored | Change | Change (as % of NAQO) |
|----------|---------|---------|--------|-----------------------|----------------------|----------------------|--------|-----------------------|
| R01 | 15.6 | 15.1 | -0.5 | -1.23% | 24.1 | 23.3 | -0.8 | -1.89% |
| R02 | 17.9 | 17.3 | -0.6 | -1.63% | 28.3 | 27.3 | -1.0 | -2.57% |
| R03 | 20.2 | 19.4 | -0.8 | -2.00% | 32.3 | 31.1 | -1.3 | -3.21% |
| R04 | 24.0 | 23.0 | -1.1 | -2.68% | 38.7 | 37.0 | -1.7 | -4.31% |
| R05 | 15.5 | 14.7 | -0.9 | -2.18% | 21.0 | 19.8 | -1.2 | -2.94% |
| R06 | 14.5 | 15.2 | 0.7 | 1.68% | 19.0 | 19.9 | 0.9 | 2.20% |
| R07 | 16.4 | 18.0 | 1.6 | 3.90% | 22.6 | 24.7 | 2.1 | 5.36% |
| R08 | 18.7 | 19.1 | 0.3 | 0.85% | 28.4 | 28.9 | 0.5 | 1.29% |
| R09 | 14.5 | 14.8 | 0.2 | 0.58% | 19.8 | 20.1 | 0.3 | 0.78% |
| R10 | 12.2 | 12.1 | -0.1 | -0.17% | 17.4 | 17.3 | -0.1 | -0.25% |
| R11 | 10.9 | 10.8 | -0.1 | -0.18% | 15.7 | 15.6 | -0.1 | -0.25% |
| R12 | 9.9 | 9.8 | -0.2 | -0.40% | 13.4 | 13.2 | -0.2 | -0.54% |
| R13 | 11.7 | 11.6 | -0.1 | -0.18% | 17.5 | 17.4 | -0.1 | -0.26% |
| R14 | 8.7 | 8.8 | 0.1 | 0.30% | 11.9 | 12.1 | 0.2 | 0.41% |
| R15 | 8.3 | 8.4 | 0.1 | 0.25% | 10.7 | 10.8 | 0.1 | 0.32% |
| R16 | 10.2 | 10.3 | 0.1 | 0.27% | 13.9 | 14.1 | 0.2 | 0.38% |
| R17 | 8.6 | 8.6 | 0.1 | 0.18% | 12.0 | 12.1 | 0.1 | 0.25% |
| R18 | 11.2 | 11.2 | 0.0 | 0.10% | 16.2 | 16.3 | 0.1 | 0.15% |
| R19 | 12.0 | 12.1 | 0.1 | 0.20% | 17.9 | 18.1 | 0.1 | 0.30% |
| R20 | 12.3 | 12.4 | 0.1 | 0.20% | 18.8 | 19.0 | 0.1 | 0.31% |
| R21 | 12.7 | 12.8 | 0.1 | 0.25% | 19.2 | 19.4 | 0.2 | 0.38% |
| R22 | 11.5 | 11.6 | 0.1 | 0.18% | 16.8 | 16.9 | 0.1 | 0.26% |
| R23 | 13.6 | 13.8 | 0.1 | 0.30% | 21.4 | 21.6 | 0.2 | 0.47% |
| R24 | 13.5 | 13.6 | 0.1 | 0.30% | 20.7 | 20.9 | 0.2 | 0.46% |
| R25 | 12.6 | 12.6 | 0.0 | 0.10% | 17.7 | 17.8 | 0.1 | 0.14% |
| R26 | 13.8 | 13.8 | 0.1 | 0.15% | 20.4 | 20.5 | 0.1 | 0.22% |
| R27 | 11.8 | 11.8 | 0.0 | 0.07% | 15.0 | 15.0 | 0.0 | 0.10% |
| R28 | 13.7 | 13.5 | -0.2 | -0.45% | 20.7 | 20.4 | -0.3 | -0.68% |
| R29 | 10.0 | 10.3 | 0.3 | 0.65% | 14.7 | 15.1 | 0.4 | 0.96% |
| R30 | 11.1 | 11.4 | 0.3 | 0.85% | 16.9 | 17.4 | 0.5 | 1.29% |
| R31 | 6.8 | 6.9 | 0.1 | 0.35% | 7.5 | 7.6 | 0.2 | 0.39% |
| R32 | 8.6 | 9.0 | 0.4 | 1.00% | 11.5 | 12.0 | 0.5 | 1.34% |
| R33 | 11.2 | 11.3 | 0.1 | 0.27% | 17.9 | 18.1 | 0.2 | 0.44% |

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6.3 Environmental Statement - Appendix 5.2: Human Receptors

Backgrounds and Operational Phase Results

| Receptor | 2027 DM | 2027 DS | Change | Change (as % of NAQO) | 2027 DM GAP factored | 2027 DS GAP factored | Change | Change (as % of NAQO) |
|----------|---------|---------|--------|-----------------------|----------------------|----------------------|--------|-----------------------|
| R34 | 19.8 | 17.1 | -2.6 | -6.60% | 29.5 | 25.5 | -3.9 | -9.83% |
| R35 | 19.4 | 18.4 | -1.0 | -2.50% | 28.9 | 27.4 | -1.5 | -3.73% |
| R36 | 12.0 | 13.1 | 1.1 | 2.63% | 17.3 | 18.8 | 1.5 | 3.78% |
| R37 | 9.5 | 9.1 | -0.4 | -0.95% | 12.6 | 12.1 | -0.5 | -1.25% |
| R38 | 9.1 | 8.8 | -0.3 | -0.78% | 11.8 | 11.4 | -0.4 | -1.00% |
| R39 | 18.2 | 17.6 | -0.6 | -1.55% | 26.4 | 25.5 | -0.9 | -2.25% |
| R40 | 20.6 | 19.8 | -0.8 | -1.88% | 30.8 | 29.7 | -1.1 | -2.81% |
| R41 | 17.4 | 19.2 | 1.8 | 4.50% | 24.3 | 26.9 | 2.5 | 6.31% |
| R42 | 6.7 | 6.7 | 0.0 | 0.02% | 7.4 | 7.4 | 0.0 | 0.03% |
| R43 | 8.5 | 8.4 | -0.1 | -0.35% | 10.1 | 9.9 | -0.2 | -0.42% |
| R44 | 8.4 | 8.1 | -0.3 | -0.70% | 9.8 | 9.5 | -0.3 | -0.82% |
| R45 | 8.3 | 8.1 | -0.2 | -0.60% | 9.7 | 9.4 | -0.3 | -0.69% |
| R46 | 11.1 | 11.1 | -0.1 | -0.23% | 16.2 | 16.1 | -0.1 | -0.33% |
| R47 | 11.0 | 11.0 | 0.0 | -0.02% | 14.9 | 14.9 | 0.0 | -0.03% |
| R48 | 11.7 | 11.7 | 0.0 | 0.00% | 16.5 | 16.5 | 0.0 | 0.00% |
| R49 | 16.2 | 17.7 | 1.5 | 3.78% | 22.1 | 24.2 | 2.1 | 5.15% |
| R50 | 19.7 | 20.9 | 1.3 | 3.18% | 29.4 | 31.3 | 1.9 | 4.75% |
| R51 | 20.1 | 19.9 | -0.2 | -0.58% | 30.9 | 30.6 | -0.4 | -0.88% |
| R52 | 20.1 | 19.7 | -0.4 | -0.92% | 30.7 | 30.1 | -0.6 | -1.41% |
| R53 | 20.5 | 19.5 | -1.1 | -2.63% | 30.9 | 29.3 | -1.6 | -3.95% |
| R54 | 17.0 | 17.2 | 0.2 | 0.50% | 27.9 | 28.2 | 0.3 | 0.82% |
| R55 | 10.1 | 10.3 | 0.1 | 0.30% | 12.3 | 12.5 | 0.1 | 0.37% |

1.2 Annual Average PM₁₀

1.2.1 **Table 1.3** presents the background concentrations, predicted opening year annual mean concentrations of PM₁₀ (µg/m³) and change at modelled discrete receptor locations.

Table 1.2: Background Concentrations, Predicted Opening Year Annual Mean Concentrations of PM₁₀ (µg/m³) and change at Modelled Discrete Receptor Locations

| Receptor | DEFRA 2018 Mapped Background | 2015 Adjusted Background | 2015 Concentration | DEFRA 2027 Mapped Background | 2027 Adjusted Background | 2027 DM | 2027 DS | Change | Change (as % of NAQO) |
|----------|------------------------------|--------------------------|--------------------|------------------------------|--------------------------|---------|---------|--------|-----------------------|
| R01 | 14.1 | 14.0 | 16.3 | 12.8 | 12.8 | 15.5 | 15.4 | -0.2 | -0.4% |
| R02 | 14.1 | 14.0 | 17.4 | 12.8 | 12.8 | 16.5 | 16.2 | -0.2 | -0.6% |
| R03 | 14.1 | 14.0 | 18.4 | 12.8 | 12.8 | 17.3 | 17.0 | -0.3 | -0.8% |
| R04 | 14.1 | 14.0 | 20.4 | 12.8 | 12.8 | 18.9 | 18.5 | -0.4 | -1.1% |
| R05 | 14.3 | 14.3 | 14.9 | 12.9 | 12.9 | 14.6 | 14.5 | -0.1 | -0.2% |
| R06 | 14.3 | 14.3 | 14.7 | 12.9 | 12.9 | 14.4 | 14.6 | 0.3 | 0.7% |
| R07 | 14.3 | 14.3 | 15.5 | 12.9 | 12.9 | 15.1 | 15.8 | 0.6 | 1.6% |
| R08 | 14.3 | 14.3 | 16.7 | 12.9 | 12.9 | 16.0 | 16.2 | 0.2 | 0.5% |
| R09 | 14.3 | 14.3 | 14.8 | 12.9 | 12.9 | 14.4 | 14.5 | 0.1 | 0.3% |
| R10 | 16.4 | 16.3 | 16.6 | 15.0 | 15.0 | 16.2 | 16.2 | 0.0 | 0.0% |
| R11 | 15.0 | 14.9 | 15.4 | 13.7 | 13.7 | 14.7 | 14.7 | 0.1 | 0.2% |
| R12 | 15.0 | 14.9 | 15.0 | 13.7 | 13.7 | 14.4 | 14.5 | 0.0 | 0.1% |
| R13 | 15.0 | 14.9 | 15.8 | 13.7 | 13.7 | 14.9 | 14.9 | 0.1 | 0.2% |
| R14 | 14.0 | 13.9 | 13.9 | 12.7 | 12.7 | 13.4 | 13.5 | 0.0 | 0.1% |
| R15 | 14.3 | 14.3 | 14.0 | 13.0 | 13.0 | 13.6 | 13.6 | 0.0 | 0.1% |
| R16 | 15.0 | 14.9 | 15.3 | 13.7 | 13.7 | 14.6 | 14.6 | 0.0 | 0.1% |
| R17 | 15.5 | 15.4 | 15.4 | 14.2 | 14.2 | 14.9 | 14.9 | 0.0 | 0.0% |
| R18 | 15.9 | 15.8 | 16.1 | 14.6 | 14.6 | 15.6 | 15.6 | 0.0 | 0.0% |
| R19 | 15.9 | 15.8 | 16.4 | 14.6 | 14.6 | 15.9 | 15.9 | 0.0 | 0.0% |

| Receptor | DEFRA 2018 Mapped Background | 2015 Adjusted Background | 2015 Concentration | DEFRA 2027 Mapped Background | 2027 Adjusted Background | 2027 DM | 2027 DS | Change | Change (as % of NAQO) |
|----------|------------------------------|--------------------------|--------------------|------------------------------|--------------------------|---------|---------|--------|-----------------------|
| R20 | 15.1 | 15.0 | 15.8 | 13.8 | 13.8 | 15.1 | 15.2 | 0.0 | 0.0% |
| R21 | 16.3 | 16.2 | 17.0 | 14.9 | 14.9 | 16.4 | 16.4 | 0.0 | 0.0% |
| R22 | 16.3 | 16.2 | 16.5 | 14.9 | 14.9 | 16.0 | 16.0 | 0.0 | 0.0% |
| R23 | 16.3 | 16.2 | 17.4 | 14.9 | 14.9 | 16.6 | 16.6 | 0.0 | 0.1% |
| R24 | 15.9 | 15.8 | 16.9 | 14.6 | 14.6 | 16.2 | 16.2 | 0.0 | 0.1% |
| R25 | 16.2 | 16.1 | 16.4 | 14.9 | 14.9 | 16.0 | 16.0 | 0.0 | 0.0% |
| R26 | 16.2 | 16.1 | 16.8 | 14.9 | 14.9 | 16.2 | 16.2 | 0.0 | 0.0% |
| R27 | 16.3 | 16.3 | 15.9 | 14.9 | 14.9 | 15.6 | 15.6 | 0.0 | 0.0% |
| R28 | 16.4 | 16.3 | 17.0 | 15.0 | 15.0 | 16.4 | 16.4 | 0.1 | 0.1% |
| R29 | 14.2 | 14.2 | 14.7 | 13.0 | 13.0 | 14.9 | 14.9 | 0.1 | 0.2% |
| R30 | 14.2 | 14.2 | 15.4 | 13.0 | 13.0 | 15.4 | 15.5 | 0.1 | 0.3% |
| R31 | 14.2 | 14.2 | 13.3 | 13.0 | 13.0 | 13.3 | 13.3 | 0.1 | 0.1% |
| R32 | 13.3 | 13.3 | 13.4 | 12.1 | 12.1 | 13.3 | 13.4 | 0.2 | 0.4% |
| R33 | 15.4 | 15.3 | 16.4 | 14.1 | 14.1 | 15.4 | 15.4 | 0.0 | 0.1% |
| R34 | 14.0 | 14.0 | 16.5 | 12.7 | 12.7 | 15.9 | 15.7 | -0.3 | -0.7% |
| R35 | 14.0 | 14.0 | 16.8 | 12.7 | 12.7 | 16.6 | 16.2 | -0.4 | -1.1% |
| R36 | 13.7 | 13.7 | 14.9 | 12.5 | 12.5 | 14.4 | 14.5 | 0.0 | 0.1% |
| R37 | 12.6 | 12.5 | 12.8 | 11.3 | 11.3 | 12.7 | 12.6 | -0.2 | -0.4% |
| R38 | 12.8 | 12.8 | 12.9 | 11.6 | 11.6 | 12.8 | 12.6 | -0.1 | -0.3% |
| R39 | 14.3 | 14.3 | 16.5 | 12.9 | 12.9 | 15.8 | 15.6 | -0.2 | -0.4% |
| R40 | 14.3 | 14.3 | 17.6 | 12.9 | 12.9 | 16.7 | 16.5 | -0.2 | -0.6% |
| R41 | 14.3 | 14.3 | 15.9 | 12.9 | 12.9 | 15.5 | 16.2 | 0.7 | 1.8% |
| R42 | 14.0 | 13.9 | 13.0 | 12.7 | 12.7 | 12.9 | 12.9 | 0.0 | 0.0% |
| R43 | 14.3 | 14.2 | 13.6 | 13.0 | 13.0 | 13.4 | 13.3 | 0.0 | -0.1% |
| R44 | 14.3 | 14.2 | 13.5 | 13.0 | 13.0 | 13.4 | 13.3 | -0.1 | -0.3% |

| Receptor | DEFRA 2018 Mapped Background | 2015 Adjusted Background | 2015 Concentration | DEFRA 2027 Mapped Background | 2027 Adjusted Background | 2027 DM | 2027 DS | Change | Change (as % of NAQO) |
|----------|------------------------------|--------------------------|--------------------|------------------------------|--------------------------|---------|---------|--------|-----------------------|
| R45 | 14.3 | 14.2 | 13.5 | 13.0 | 13.0 | 13.4 | 13.3 | -0.1 | -0.2% |
| R46 | 15.0 | 14.9 | 15.5 | 13.7 | 13.7 | 14.7 | 14.8 | 0.1 | 0.2% |
| R47 | 16.4 | 16.3 | 16.0 | 15.0 | 15.0 | 15.7 | 15.7 | 0.0 | 0.0% |
| R48 | 16.4 | 16.3 | 16.3 | 15.0 | 15.0 | 15.9 | 15.9 | 0.0 | 0.1% |
| R49 | 14.3 | 14.3 | 15.4 | 12.9 | 12.9 | 15.1 | 15.7 | 0.6 | 1.5% |
| R50 | 14.3 | 14.3 | 17.0 | 12.9 | 12.9 | 16.4 | 16.9 | 0.5 | 1.3% |
| R51 | 14.3 | 14.3 | 17.4 | 12.9 | 12.9 | 16.6 | 16.5 | -0.1 | -0.2% |
| R52 | 14.3 | 14.3 | 17.3 | 12.9 | 12.9 | 16.5 | 16.4 | -0.1 | -0.3% |
| R53 | 14.4 | 14.4 | 16.3 | 13.0 | 13.0 | 15.8 | 15.6 | -0.2 | -0.5% |
| R54 | 16.3 | 16.2 | 18.8 | 14.9 | 14.9 | 17.5 | 17.6 | 0.0 | 0.1% |
| R55 | 16.2 | 16.0 | 15.4 | 14.8 | 14.8 | 15.2 | 15.4 | 0.1 | 0.3% |

1.3 Annual Average PM_{2.5}

1.3.1 **Table 1.4** presents the background concentrations, predicted opening year annual mean concentrations of PM_{2.5} (calculated from the modelled PM₁₀ road contribution and PM_{2.5} backgrounds and change at modelled discrete receptor locations

Table 1.4: Background Concentrations and Predicted Opening Year Annual Mean Concentrations of PM_{2.5} (µg/m³) and change at Modelled Discrete Receptor Locations

| Receptor | DEFRA 2018 Mapped Background | 2015 Adjusted Background | 2015 Concentration | DEFRA 2027 Mapped Background | 2027 Adjusted Background | 2027 DM | 2027 DS | Change | Change (as % of NAQO) |
|----------|------------------------------|--------------------------|--------------------|------------------------------|--------------------------|---------|---------|--------|-----------------------|
| R01 | 9.5 | 9.5 | 13.0 | 8.5 | 8.5 | 11.3 | 11.1 | -0.2 | -0.4% |
| R02 | 9.5 | 9.5 | 14.1 | 8.5 | 8.5 | 12.2 | 12.0 | -0.2 | -0.6% |
| R03 | 9.5 | 9.5 | 15.2 | 8.5 | 8.5 | 13.1 | 12.8 | -0.3 | -0.7% |
| R04 | 9.5 | 9.5 | 17.1 | 8.5 | 8.5 | 14.7 | 14.2 | -0.4 | -1.0% |
| R05 | 9.9 | 9.9 | 11.9 | 8.9 | 8.9 | 10.5 | 10.4 | -0.1 | -0.1% |
| R06 | 9.9 | 9.9 | 11.6 | 8.9 | 8.9 | 10.3 | 10.6 | 0.3 | 0.7% |
| R07 | 9.9 | 9.9 | 12.4 | 8.9 | 8.9 | 11.0 | 11.7 | 0.6 | 1.6% |
| R08 | 9.9 | 9.9 | 13.6 | 8.9 | 8.9 | 11.9 | 12.1 | 0.2 | 0.6% |
| R09 | 9.9 | 9.9 | 11.7 | 8.9 | 8.9 | 10.3 | 10.4 | 0.1 | 0.3% |
| R10 | 10.8 | 10.7 | 12.4 | 9.8 | 9.7 | 10.9 | 10.9 | 0.0 | 0.1% |
| R11 | 9.9 | 9.8 | 11.5 | 8.9 | 8.8 | 9.7 | 9.9 | 0.2 | 0.4% |
| R12 | 9.9 | 9.8 | 11.1 | 8.9 | 8.8 | 9.5 | 9.6 | 0.1 | 0.2% |
| R13 | 9.9 | 9.8 | 11.9 | 8.9 | 8.8 | 9.9 | 10.1 | 0.2 | 0.5% |
| R14 | 9.2 | 9.1 | 10.4 | 8.2 | 8.2 | 8.9 | 8.9 | 0.1 | 0.2% |
| R15 | 9.2 | 9.2 | 10.2 | 8.2 | 8.2 | 8.8 | 8.8 | 0.0 | 0.1% |
| R16 | 9.5 | 9.4 | 11.0 | 8.4 | 8.4 | 9.3 | 9.3 | 0.0 | 0.1% |
| R17 | 9.7 | 9.6 | 10.9 | 8.7 | 8.7 | 9.4 | 9.4 | 0.0 | 0.0% |
| R18 | 10.4 | 10.3 | 11.7 | 9.3 | 9.3 | 10.2 | 10.3 | 0.1 | 0.2% |
| R19 | 10.4 | 10.3 | 12.0 | 9.3 | 9.3 | 10.5 | 10.6 | 0.1 | 0.2% |

| Receptor | DEFRA 2018 Mapped Background | 2015 Adjusted Background | 2015 Concentration | DEFRA 2027 Mapped Background | 2027 Adjusted Background | 2027 DM | 2027 DS | Change | Change (as % of NAQO) |
|----------|------------------------------|--------------------------|--------------------|------------------------------|--------------------------|---------|---------|--------|-----------------------|
| R20 | 9.9 | 9.8 | 11.8 | 8.9 | 8.8 | 10.1 | 10.2 | 0.1 | 0.2% |
| R21 | 10.7 | 10.5 | 12.5 | 9.6 | 9.6 | 10.9 | 11.0 | 0.1 | 0.3% |
| R22 | 10.7 | 10.5 | 12.0 | 9.6 | 9.6 | 10.5 | 10.6 | 0.1 | 0.2% |
| R23 | 10.7 | 10.5 | 12.9 | 9.6 | 9.6 | 11.1 | 11.2 | 0.1 | 0.3% |
| R24 | 10.6 | 10.5 | 12.7 | 9.5 | 9.5 | 11.0 | 11.1 | 0.1 | 0.3% |
| R25 | 10.9 | 10.8 | 12.3 | 9.9 | 9.8 | 10.9 | 10.9 | 0.1 | 0.1% |
| R26 | 10.9 | 10.8 | 12.8 | 9.9 | 9.8 | 11.2 | 11.2 | 0.1 | 0.2% |
| R27 | 11.3 | 11.2 | 12.1 | 10.2 | 10.2 | 10.8 | 10.8 | 0.0 | 0.1% |
| R28 | 10.8 | 10.7 | 12.7 | 9.8 | 9.7 | 11.0 | 11.1 | 0.1 | 0.3% |
| R29 | 9.0 | 8.9 | 10.2 | 8.0 | 8.0 | 9.2 | 9.9 | 0.7 | 1.7% |
| R30 | 9.0 | 8.9 | 11.1 | 8.0 | 8.0 | 10.0 | 10.5 | 0.5 | 1.2% |
| R31 | 9.0 | 8.9 | 9.3 | 8.0 | 8.0 | 8.3 | 8.3 | 0.0 | 0.1% |
| R32 | 8.7 | 8.7 | 10.0 | 7.7 | 7.7 | 8.9 | 9.0 | 0.1 | 0.4% |
| R33 | 9.6 | 9.6 | 11.9 | 8.6 | 8.6 | 9.9 | 9.9 | 0.0 | 0.1% |
| R34 | 9.7 | 9.7 | 13.5 | 8.7 | 8.7 | 12.0 | 11.7 | -0.3 | -0.7% |
| R35 | 9.7 | 9.7 | 13.9 | 8.7 | 8.7 | 12.6 | 12.2 | -0.4 | -1.0% |
| R36 | 9.3 | 9.3 | 11.6 | 8.3 | 8.3 | 10.2 | 10.3 | 0.0 | 0.1% |
| R37 | 8.5 | 8.5 | 10.0 | 7.6 | 7.5 | 8.9 | 8.8 | -0.2 | -0.4% |
| R38 | 8.6 | 8.6 | 9.9 | 7.6 | 7.6 | 8.8 | 8.7 | -0.1 | -0.3% |
| R39 | 9.9 | 9.9 | 13.4 | 8.9 | 8.9 | 11.7 | 11.5 | -0.2 | -0.4% |
| R40 | 9.9 | 9.9 | 14.6 | 8.9 | 8.9 | 12.6 | 12.4 | -0.2 | -0.5% |
| R41 | 9.9 | 9.9 | 12.8 | 8.9 | 8.9 | 11.4 | 12.1 | 0.7 | 1.9% |
| R42 | 8.9 | 8.9 | 9.2 | 7.9 | 7.9 | 8.0 | 8.0 | 0.0 | 0.0% |
| R43 | 9.5 | 9.5 | 10.1 | 8.5 | 8.5 | 8.9 | 8.9 | 0.0 | 0.0% |
| R44 | 9.5 | 9.5 | 10.1 | 8.5 | 8.5 | 8.9 | 8.8 | -0.1 | -0.2% |

| Receptor | DEFRA 2018 Mapped Background | 2015 Adjusted Background | 2015 Concentration | DEFRA 2027 Mapped Background | 2027 Adjusted Background | 2027 DM | 2027 DS | Change | Change (as % of NAQO) |
|----------|------------------------------|--------------------------|--------------------|------------------------------|--------------------------|---------|---------|--------|-----------------------|
| R45 | 9.5 | 9.5 | 10.0 | 8.5 | 8.5 | 8.9 | 8.8 | -0.1 | -0.2% |
| R46 | 9.9 | 9.8 | 11.6 | 8.9 | 8.8 | 9.8 | 9.9 | 0.2 | 0.4% |
| R47 | 10.8 | 10.7 | 11.7 | 9.8 | 9.7 | 10.4 | 10.4 | 0.1 | 0.1% |
| R48 | 10.8 | 10.7 | 12.0 | 9.8 | 9.7 | 10.5 | 10.6 | 0.1 | 0.2% |
| R49 | 9.9 | 9.9 | 12.3 | 8.9 | 8.9 | 11.0 | 11.6 | 0.6 | 1.6% |
| R50 | 9.9 | 9.9 | 14.0 | 8.9 | 8.9 | 12.2 | 12.8 | 0.6 | 1.5% |
| R51 | 9.9 | 9.9 | 14.4 | 8.9 | 8.9 | 12.3 | 12.4 | 0.1 | 0.2% |
| R52 | 9.9 | 9.9 | 14.3 | 8.9 | 8.9 | 12.3 | 12.3 | 0.0 | 0.0% |
| R53 | 10.0 | 9.9 | 13.3 | 8.9 | 8.9 | 11.6 | 11.4 | -0.2 | -0.5% |
| R54 | 10.7 | 10.5 | 14.3 | 9.6 | 9.6 | 12.0 | 12.2 | 0.2 | 0.5% |
| R55 | 10.5 | 10.4 | 10.9 | 9.4 | 9.4 | 9.8 | 9.9 | 0.2 | 0.4% |