

APPENDIX 10.5- MODELLED POLLUTANTS

Modelled Pollutant Concentrations

Development Impact

| 2025 NO2 | | | | | | | | | | |
|----------------|----------|----------|------|--------------|--------------|---------|----------|-----------------|-----------------|----------------------------|
| Receptor name | X(m) | Y(m) | Z(m) | Scenario 1 | Scenario 3 | Sc3-Sc1 | % Change | Scenario 1 AQAL | Scenario 3 AQAL | Sc3- Sc1 Impact Descriptor |
| North Bar | 445349.3 | 240758.1 | 2 | 28.78 | 29.08 | 0.30 | 1% | 72% | 73% | Negligible |
| Horsefair | 445353.7 | 240591.6 | 2.5 | 30.62 | 30.96 | 0.34 | 1% | 77% | 77% | Negligible |
| Hennef Way | 446534.5 | 241719.3 | 2 | 59.59 | 61.71 | 2.12 | 5% | 149% | 154% | Substantial |
| Stroud Close 1 | 446334 | 241676 | 2 | 18.85 | 19.17 | 0.32 | 1% | 47% | 48% | Negligible |
| 1 | 446686 | 241716 | 1.5 | 19.11 | 19.42 | 0.31 | 1% | 48% | 49% | Negligible |
| 2 | 446618 | 241713 | 1.5 | 17.72 | 17.99 | 0.27 | 1% | 44% | 45% | Negligible |
| 3 | 446542.2 | 241718.3 | 1.5 | 24.72 | 25.27 | 0.55 | 1% | 62% | 63% | Negligible |
| 4 | 446333.6 | 241683.8 | 1.5 | 24.1 | 24.62 | 0.52 | 1% | 60% | 62% | Negligible |
| 5 | 445371.8 | 240853.6 | 1.5 | 29.05 | 29.35 | 0.30 | 1% | 73% | 73% | Negligible |
| 6 | 445373.1 | 240827.2 | 1.5 | 28.37 | 28.67 | 0.30 | 1% | 71% | 72% | Negligible |
| 7 | 445371.5 | 240810.2 | 4 | 24.32 | 24.56 | 0.24 | 1% | 61% | 61% | Negligible |
| 8 | 445345 | 240765.6 | 1.5 | 23.22 | 23.45 | 0.23 | 1% | 58% | 59% | Negligible |
| 9 | 445350.8 | 240743.3 | 1.5 | 24.13 | 24.37 | 0.24 | 1% | 60% | 61% | Negligible |
| 8a | 445345 | 240765.6 | 4 | 18.96 | 19.12 | 0.16 | 0% | 47% | 48% | Negligible |
| 9a | 445350.8 | 240765.6 | 4 | 21.75 | 21.96 | 0.21 | 1% | 54% | 55% | Negligible |
| 5a | 445371.8 | 240853.6 | 4 | 21.66 | 21.85 | 0.19 | 0% | 54% | 55% | Negligible |
| 6a | 445373.1 | 240827.2 | 4 | 22.27 | 22.48 | 0.21 | 1% | 56% | 56% | Negligible |

*2022 Background Concentrations and Emissions

| 2025 PM10 | | | | | | | | | | |
|----------------|----------|----------|------|------------|------------|----------|----------|-----------------|-----------------|----------------------------|
| Receptor name | X(m) | Y(m) | Z(m) | Scenario 1 | Scenario 3 | Sc3- Sc1 | % Change | Scenario 1 AQAL | Scenario 3 AQAL | Sc3- Sc2 Impact Descriptor |
| North Bar | 445349.3 | 240758.1 | 2 | 18.77 | 18.81 | 0.05 | 0% | 47% | 47% | Negligible |
| Horsefair | 445353.7 | 240591.6 | 2.5 | 18.43 | 18.49 | 0.06 | 0% | 46% | 46% | Negligible |
| Hennef Way | 446534.5 | 241719.3 | 2 | 30.48 | 31.30 | 0.83 | 2% | 76% | 78% | Slight |
| Stroud Close 1 | 446334 | 241676 | 2 | 17.98 | 18.07 | 0.09 | 0% | 45% | 45% | Negligible |
| 1 | 446686 | 241716 | 1.5 | 17.43 | 17.49 | 0.06 | 0% | 44% | 44% | Negligible |
| 2 | 446618 | 241713 | 1.5 | 17.53 | 17.60 | 0.07 | 0% | 44% | 44% | Negligible |
| 3 | 446542.2 | 241718.3 | 1.5 | 19.59 | 19.75 | 0.15 | 0% | 49% | 49% | Negligible |
| 4 | 446333.6 | 241683.8 | 1.5 | 19.45 | 19.60 | 0.15 | 0% | 49% | 49% | Negligible |
| 5 | 445371.8 | 240853.6 | 1.5 | 18.90 | 18.97 | 0.07 | 0% | 47% | 47% | Negligible |
| 6 | 445373.1 | 240827.2 | 1.5 | 18.21 | 18.27 | 0.06 | 0% | 46% | 46% | Negligible |
| 7 | 445371.5 | 240810.2 | 4 | 17.01 | 17.05 | 0.04 | 0% | 43% | 43% | Negligible |
| 8 | 445345 | 240765.6 | 1.5 | 16.82 | 16.86 | 0.03 | 0% | 42% | 42% | Negligible |
| 9 | 445350.8 | 240743.3 | 1.5 | 17.09 | 17.13 | 0.04 | 0% | 43% | 43% | Negligible |
| 8a | 445345 | 240765.6 | 4 | 16.16 | 16.19 | 0.02 | 0% | 40% | 40% | Negligible |
| 9a | 445350.8 | 240765.6 | 4 | 16.59 | 16.63 | 0.03 | 0% | 41% | 42% | Negligible |
| 5a | 445371.8 | 240853.6 | 4 | 17.16 | 17.20 | 0.04 | 0% | 43% | 43% | Negligible |
| 6a | 445373.1 | 240827.2 | 4 | 16.98 | 17.01 | 0.04 | 0% | 42% | 43% | Negligible |

*2022 Background Concentrations and Emissions

| 2040 NO2 | | | | | | | | | | |
|----------------|----------|----------|------|--------------|--------------|---------|----------|-----------------|-----------------|----------------------------|
| Receptor name | X(m) | Y(m) | Z(m) | Scenario 1 | Scenario 3 | Sc3-Sc1 | % Change | Scenario 1 AQAL | Scenario 3 AQAL | Sc3- Sc1 Impact Descriptor |
| North Bar | 445349.3 | 240758.1 | 2 | 30.97 | 31.27 | 0.30 | 1% | 77% | 78% | Negligible |
| Horsefair | 445353.7 | 240591.6 | 2.5 | 33.15 | 33.48 | 0.33 | 1% | 83% | 84% | Negligible |
| Hennef Way | 446534.5 | 241719.3 | 2 | 65.32 | 66.92 | 1.60 | 4% | 163% | 167% | Substantial |
| Stroud Close 1 | 446334 | 241676 | 2 | 19.83 | 20.14 | 0.31 | 1% | 50% | 50% | Negligible |
| 1 | 446686 | 241716 | 1.5 | 20.14 | 20.42 | 0.28 | 1% | 50% | 51% | Negligible |
| 2 | 446618 | 241713 | 1.5 | 18.57 | 18.83 | 0.26 | 1% | 46% | 47% | Negligible |
| 3 | 446542.2 | 241718.3 | 1.5 | 26.41 | 26.93 | 0.52 | 1% | 66% | 67% | Negligible |
| 4 | 446333.6 | 241683.8 | 1.5 | 25.72 | 26.21 | 0.49 | 1% | 64% | 66% | Negligible |
| 5 | 445371.8 | 240853.6 | 1.5 | 31.4 | 31.69 | 0.29 | 1% | 79% | 79% | Negligible |
| 6 | 445373.1 | 240827.2 | 1.5 | 30.65 | 30.95 | 0.30 | 1% | 77% | 77% | Negligible |
| 7 | 445371.5 | 240810.2 | 4 | 26.08 | 26.32 | 0.24 | 1% | 65% | 66% | Negligible |
| 8 | 445345 | 240765.6 | 1.5 | 24.91 | 25.14 | 0.23 | 1% | 62% | 63% | Negligible |
| 9 | 445350.8 | 240743.3 | 1.5 | 25.93 | 26.17 | 0.24 | 1% | 65% | 65% | Negligible |
| 8a | 445345 | 240765.6 | 4 | 20.12 | 20.28 | 0.16 | 0% | 50% | 51% | Negligible |
| 9a | 445350.8 | 240765.6 | 4 | 23.27 | 23.47 | 0.20 | 0% | 58% | 59% | Negligible |
| 5a | 445371.8 | 240853.6 | 4 | 23.15 | 23.33 | 0.18 | 0% | 58% | 58% | Negligible |
| 6a | 445373.1 | 240827.2 | 4 | 23.84 | 24.04 | 0.20 | 0% | 60% | 60% | Negligible |

*2022 Background Concentrations and Emissions

| 2040 PM10 | | | | | | | | | | |
|----------------|----------|----------|------|------------|------------|---------|----------|-----------------|-----------------|----------------------------|
| Receptor name | X(m) | Y(m) | Z(m) | Scenario 1 | Scenario 3 | Sc3-Sc1 | % Change | Scenario 1 AQAL | Scenario 3 AQAL | Sc3- Sc1 Impact Descriptor |
| North Bar | 445349.3 | 240758.1 | 2 | 19.14 | 19.19 | 0.05 | 0% | 48% | 48% | Negligible |
| Horsefair | 445353.7 | 240591.6 | 2.5 | 18.92 | 18.98 | 0.06 | 0% | 47% | 47% | Negligible |
| Hennef Way | 446534.5 | 241719.3 | 2 | 32.75 | 33.39 | 0.64 | 2% | 82% | 83% | Slight |
| Stroud Close 1 | 446334 | 241676 | 2 | 18.25 | 18.33 | 0.08 | 0% | 46% | 46% | Negligible |
| 1 | 446686 | 241716 | 1.5 | 17.63 | 17.69 | 0.06 | 0% | 44% | 44% | Negligible |
| 2 | 446618 | 241713 | 1.5 | 17.74 | 17.81 | 0.06 | 0% | 44% | 45% | Negligible |
| 3 | 446542.2 | 241718.3 | 1.5 | 20.08 | 20.22 | 0.15 | 0% | 50% | 51% | Negligible |
| 4 | 446333.6 | 241683.8 | 1.5 | 19.92 | 20.06 | 0.14 | 0% | 50% | 50% | Negligible |
| 5 | 445371.8 | 240853.6 | 1.5 | 19.46 | 19.53 | 0.07 | 0% | 49% | 49% | Negligible |
| 6 | 445373.1 | 240827.2 | 1.5 | 18.68 | 18.73 | 0.06 | 0% | 47% | 47% | Negligible |
| 7 | 445371.5 | 240810.2 | 4 | 17.31 | 17.35 | 0.04 | 0% | 43% | 43% | Negligible |
| 8 | 445345 | 240765.6 | 1.5 | 17.10 | 17.14 | 0.03 | 0% | 43% | 43% | Negligible |
| 9 | 445350.8 | 240743.3 | 1.5 | 17.41 | 17.44 | 0.04 | 0% | 44% | 44% | Negligible |
| 8a | 445345 | 240765.6 | 4 | 16.35 | 16.38 | 0.02 | 0% | 41% | 41% | Negligible |
| 9a | 445350.8 | 240765.6 | 4 | 16.84 | 16.87 | 0.03 | 0% | 42% | 42% | Negligible |
| 5a | 445371.8 | 240853.6 | 4 | 17.48 | 17.52 | 0.04 | 0% | 44% | 44% | Negligible |
| 6a | 445373.1 | 240827.2 | 4 | 17.28 | 17.31 | 0.04 | 0% | 43% | 43% | Negligible |

*2022 Background Concentrations and Emissions

2025 NO2

| Receptor name | X(m) | Y(m) | Z(m) | Scenario 1 | Scenario 3 | Sc3-Sc1 | % Change | Scenario 1 AQAL | Scenario 3 AQAL | Sc3- Sc2 Impact Descriptor |
|----------------|----------|----------|------|--------------|--------------|---------|----------|-----------------|-----------------|----------------------------|
| North Bar | 445349.3 | 240758.1 | 2 | 23.09 | 23.31 | 0.22 | 1% | 58% | 58% | Negligible |
| Horsefair | 445353.7 | 240591.6 | 2.5 | 24.27 | 24.52 | 0.25 | 1% | 61% | 61% | Negligible |
| Hennef Way | 446534.5 | 241719.3 | 2 | 46.26 | 47.65 | 1.39 | 3% | 116% | 119% | Substantial |
| Stroud Close 1 | 446334 | 241676 | 2 | 15.64 | 15.88 | 0.24 | 1% | 39% | 40% | Negligible |
| 1 | 446686 | 241716 | 1.5 | 15.79 | 16.02 | 0.23 | 1% | 39% | 40% | Negligible |
| 2 | 446618 | 241713 | 1.5 | 14.83 | 15.03 | 0.20 | 0% | 37% | 38% | Negligible |
| 3 | 446542.2 | 241718.3 | 1.5 | 19.88 | 20.29 | 0.41 | 1% | 50% | 51% | Negligible |
| 4 | 446333.6 | 241683.8 | 1.5 | 19.43 | 19.82 | 0.39 | 1% | 49% | 50% | Negligible |
| 5 | 445371.8 | 240853.6 | 1.5 | 23.17 | 23.39 | 0.22 | 1% | 58% | 58% | Negligible |
| 6 | 445373.1 | 240827.2 | 1.5 | 22.65 | 22.87 | 0.22 | 1% | 57% | 57% | Negligible |
| 7 | 445371.5 | 240810.2 | 4 | 19.26 | 19.43 | 0.17 | 0% | 48% | 49% | Negligible |
| 8 | 445345 | 240765.6 | 1.5 | 18.8 | 18.97 | 0.17 | 0% | 47% | 47% | Negligible |
| 9 | 445350.8 | 240743.3 | 1.5 | 19.46 | 19.63 | 0.17 | 0% | 49% | 49% | Negligible |
| 8a | 445345 | 240765.6 | 4 | 15.66 | 15.77 | 0.11 | 0% | 39% | 39% | Negligible |
| 9a | 445350.8 | 240765.6 | 4 | 17.72 | 17.87 | 0.15 | 0% | 44% | 45% | Negligible |
| 5a | 445371.8 | 240853.6 | 4 | 17.67 | 17.8 | 0.13 | 0% | 44% | 45% | Negligible |
| 6a | 445373.1 | 240827.2 | 4 | 18.11 | 18.26 | 0.15 | 0% | 45% | 46% | Negligible |

*2025 Backgrounds Concentrations and Emissions

2025 PM10

| Receptor name | X(m) | Y(m) | Z(m) | Scenario 1 | Scenario 3 | Sc3-Sc1 | % Change | Scenario 1 AQAL | Scenario 3 AQAL | Sc3- Sc2 Impact Descriptor |
|----------------|----------|----------|------|------------|------------|---------|----------|-----------------|-----------------|----------------------------|
| North Bar | 445349.3 | 240758.1 | 2 | 18.17 | 18.21 | 0.04 | 0% | 45% | 46% | Negligible |
| Horsefair | 445353.7 | 240591.6 | 2.5 | 17.83 | 17.89 | 0.06 | 0% | 45% | 45% | Negligible |
| Hennef Way | 446534.5 | 241719.3 | 2 | 29.81 | 30.47 | 0.67 | 2% | 75% | 76% | Slight |
| Stroud Close 1 | 446334 | 241676 | 2 | 17.43 | 17.51 | 0.08 | 0% | 44% | 44% | Negligible |
| 1 | 446686 | 241716 | 1.5 | 16.88 | 16.94 | 0.06 | 0% | 42% | 42% | Negligible |
| 2 | 446618 | 241713 | 1.5 | 16.99 | 17.05 | 0.07 | 0% | 42% | 43% | Negligible |
| 3 | 446542.2 | 241718.3 | 1.5 | 19.01 | 19.16 | 0.15 | 0% | 48% | 48% | Negligible |
| 4 | 446333.6 | 241683.8 | 1.5 | 18.87 | 19.02 | 0.15 | 0% | 47% | 48% | Negligible |
| 5 | 445371.8 | 240853.6 | 1.5 | 18.31 | 18.38 | 0.07 | 0% | 46% | 46% | Negligible |
| 6 | 445373.1 | 240827.2 | 1.5 | 17.62 | 17.68 | 0.06 | 0% | 44% | 44% | Negligible |
| 7 | 445371.5 | 240810.2 | 4 | 16.44 | 16.48 | 0.04 | 0% | 41% | 41% | Negligible |
| 8 | 445345 | 240765.6 | 1.5 | 16.26 | 16.30 | 0.03 | 0% | 41% | 41% | Negligible |
| 9 | 445350.8 | 240743.3 | 1.5 | 16.52 | 16.56 | 0.04 | 0% | 41% | 41% | Negligible |
| 8a | 445345 | 240765.6 | 4 | 15.62 | 15.64 | 0.02 | 0% | 39% | 39% | Negligible |
| 9a | 445350.8 | 240765.6 | 4 | 16.04 | 16.07 | 0.03 | 0% | 40% | 40% | Negligible |
| 5a | 445371.8 | 240853.6 | 4 | 16.60 | 16.64 | 0.04 | 0% | 42% | 42% | Negligible |
| 6a | 445373.1 | 240827.2 | 4 | 16.42 | 16.46 | 0.04 | 0% | 41% | 41% | Negligible |

*2025 Backgrounds Concentrations and Emissions

2040 NO2

| Receptor name | X(m) | Y(m) | Z(m) | Scenario 1 | Scenario 3 | Sc3- Sc1 | % Change | Sceanrio 1AQAL | Scenario 3 AQAL | Sc3- Sc1 Impact Descriptor |
|----------------|----------|----------|------|--------------|--------------|----------|----------|----------------|-----------------|----------------------------|
| North Bar | 445349.3 | 240758.1 | 2 | 18.39 | 18.53 | 0.14 | 0% | 46% | 46% | Negligible |
| Horsefair | 445353.7 | 240591.6 | 2.5 | 18.97 | 19.13 | 0.16 | 0% | 47% | 48% | Negligible |
| Hennef Way | 446534.5 | 241719.3 | 2 | 34.59 | 35.43 | 0.84 | 2% | 86% | 89% | Slight |
| Stroud Close 1 | 446334 | 241676 | 2 | 13.08 | 13.22 | 0.14 | 0% | 33% | 33% | Negligible |
| 1 | 446686 | 241716 | 1.5 | 13.28 | 13.41 | 0.13 | 0% | 33% | 34% | Negligible |
| 2 | 446618 | 241713 | 1.5 | 12.55 | 12.67 | 0.12 | 0% | 31% | 32% | Negligible |
| 3 | 446542.2 | 241718.3 | 1.5 | 15.97 | 16.21 | 0.24 | 1% | 40% | 41% | Negligible |
| 4 | 446333.6 | 241683.8 | 1.5 | 15.66 | 15.89 | 0.23 | 1% | 39% | 40% | Negligible |
| 5 | 445371.8 | 240853.6 | 1.5 | 18.13 | 18.27 | 0.14 | 0% | 45% | 46% | Negligible |
| 6 | 445373.1 | 240827.2 | 1.5 | 17.87 | 18.01 | 0.14 | 0% | 45% | 45% | Negligible |
| 7 | 445371.5 | 240810.2 | 4 | 15.56 | 15.67 | 0.11 | 0% | 39% | 39% | Negligible |
| 8 | 445345 | 240765.6 | 1.5 | 15.25 | 15.35 | 0.10 | 0% | 38% | 38% | Negligible |
| 9 | 445350.8 | 240743.3 | 1.5 | 15.66 | 15.77 | 0.11 | 0% | 39% | 39% | Negligible |
| 8a | 445345 | 240765.6 | 4 | 13.04 | 13.12 | 0.08 | 0% | 33% | 33% | Negligible |
| 9a | 445350.8 | 240765.6 | 4 | 14.48 | 14.58 | 0.10 | 0% | 36% | 36% | Negligible |
| 5a | 445371.8 | 240853.6 | 4 | 14.34 | 14.43 | 0.09 | 0% | 36% | 36% | Negligible |
| 6a | 445373.1 | 240827.2 | 4 | 14.71 | 14.8 | 0.09 | 0% | 37% | 37% | Negligible |

*2030 Background Concentrations and Emissions

2040 PM10

| Receptor name | X(m) | Y(m) | Z(m) | Scenario 1 | Scenario 3 | Sc3-Sc1 | % Change | Scenario 1 AQAL | Scenario 3 AQAL | Sc3- Sc1 Impact Descriptor |
|----------------|----------|----------|------|------------|------------|---------|----------|-----------------|-----------------|----------------------------|
| North Bar | 445349.3 | 240758.1 | 2 | 18.38 | 18.42 | 0.04 | 0% | 46% | 46% | Negligible |
| Horsefair | 445353.7 | 240591.6 | 2.5 | 18.15 | 18.21 | 0.06 | 0% | 45% | 46% | Negligible |
| Hennef Way | 446534.5 | 241719.3 | 2 | 31.62 | 32.24 | 0.63 | 2% | 79% | 81% | Slight |
| Stroud Close 1 | 446334 | 241676 | 2 | 17.57 | 17.65 | 0.08 | 0% | 44% | 44% | Negligible |
| 1 | 446686 | 241716 | 1.5 | 16.94 | 17.00 | 0.06 | 0% | 42% | 42% | Negligible |
| 2 | 446618 | 241713 | 1.5 | 17.07 | 17.14 | 0.06 | 0% | 43% | 43% | Negligible |
| 3 | 446542.2 | 241718.3 | 1.5 | 19.34 | 19.48 | 0.14 | 0% | 48% | 49% | Negligible |
| 4 | 446333.6 | 241683.8 | 1.5 | 19.19 | 19.32 | 0.14 | 0% | 48% | 48% | Negligible |
| 5 | 445371.8 | 240853.6 | 1.5 | 18.72 | 18.78 | 0.07 | 0% | 47% | 47% | Negligible |
| 6 | 445373.1 | 240827.2 | 1.5 | 17.93 | 17.99 | 0.05 | 0% | 45% | 45% | Negligible |
| 7 | 445371.5 | 240810.2 | 4 | 16.61 | 16.65 | 0.04 | 0% | 42% | 42% | Negligible |
| 8 | 445345 | 240765.6 | 1.5 | 16.41 | 16.44 | 0.03 | 0% | 41% | 41% | Negligible |
| 9 | 445350.8 | 240743.3 | 1.5 | 16.70 | 16.74 | 0.04 | 0% | 42% | 42% | Negligible |
| 8a | 445345 | 240765.6 | 4 | 15.69 | 15.72 | 0.02 | 0% | 39% | 39% | Negligible |
| 9a | 445350.8 | 240765.6 | 4 | 16.16 | 16.19 | 0.03 | 0% | 40% | 40% | Negligible |
| 5a | 445371.8 | 240853.6 | 4 | 16.80 | 16.84 | 0.04 | 0% | 42% | 42% | Negligible |
| 6a | 445373.1 | 240827.2 | 4 | 16.59 | 16.62 | 0.03 | 0% | 41% | 42% | Negligible |

*2030 Background Concentrations and Emissions

Cumulative Effects

| 2025 NO2 | | | | | | | | | | |
|----------------|----------|----------|------|--------------|-------------|---------|----------|-----------------|-----------------|---------------------------|
| Receptor name | X(m) | Y(m) | Z(m) | Scenario 2 | Scenario 4 | Sc4-Sc2 | % Change | Scenario 2 AQAL | Scenario 4 AQAL | Sc4-Sc2 Impact Descriptor |
| North Bar | 445349.3 | 240758.1 | 2 | 28.86 | 29.29 | 0.43 | 1% | 72% | 73% | Negligible |
| Horsefair | 445353.7 | 240591.6 | 2.5 | 30.72 | 31.18 | 0.46 | 1% | 77% | 78% | Negligible |
| Hennef Way | 446534.5 | 241719.3 | 2 | 62.04 | 63.7 | 1.66 | 4% | 155% | 159% | Substantial |
| Stroud Close 1 | 446334 | 241676 | 2 | 19.22 | 19.53 | 0.31 | 1% | 48% | 49% | Negligible |
| 1 | 446686 | 241716 | 1.5 | 19.49 | 19.78 | 0.29 | 1% | 49% | 49% | Negligible |
| 2 | 446618 | 241713 | 1.5 | 18.05 | 18.31 | 0.26 | 1% | 45% | 46% | Negligible |
| 3 | 446542.2 | 241718.3 | 1.5 | 25.37 | 25.9 | 0.53 | 1% | 63% | 65% | Negligible |
| 4 | 446333.6 | 241683.8 | 1.5 | 24.72 | 25.23 | 0.51 | 1% | 62% | 63% | Negligible |
| 5 | 445371.8 | 240853.6 | 1.5 | 29.15 | 29.54 | 0.39 | 1% | 73% | 74% | Negligible |
| 6 | 445373.1 | 240827.2 | 1.5 | 28.46 | 28.87 | 0.41 | 1% | 71% | 72% | Negligible |
| 7 | 445371.5 | 240810.2 | 4 | 24.39 | 24.73 | 0.34 | 1% | 61% | 62% | Negligible |
| 8 | 445345 | 240765.6 | 1.5 | 23.28 | 23.62 | 0.34 | 1% | 58% | 59% | Negligible |
| 9 | 445350.8 | 240743.3 | 1.5 | 24.2 | 24.54 | 0.34 | 1% | 61% | 61% | Negligible |
| 8a | 445345 | 240765.6 | 4 | 19 | 19.23 | 0.23 | 1% | 48% | 48% | Negligible |
| 9a | 445350.8 | 240765.6 | 4 | 21.81 | 22.11 | 0.30 | 1% | 55% | 55% | Negligible |
| 5a | 445371.8 | 240853.6 | 4 | 21.72 | 21.97 | 0.25 | 1% | 54% | 55% | Negligible |
| 6a | 445373.1 | 240827.2 | 4 | 22.33 | 22.62 | 0.29 | 1% | 56% | 57% | Negligible |

*2022 Background Concentrations and Emissions

| 2025 PM10 | | | | | | | | | | |
|----------------|----------|----------|------|------------|------------|---------|----------|-----------------|-----------------|---------------------------|
| Receptor name | X(m) | Y(m) | Z(m) | Scenario 2 | Scenario 4 | Sc4-Sc2 | % Change | Scenario 2 AQAL | Scenario 4 AQAL | Sc4-Sc2 Impact Descriptor |
| North Bar | 445349.3 | 240758.1 | 2 | 18.78 | 18.84 | 0.06 | 0% | 47% | 47% | Negligible |
| Horsefair | 445353.7 | 240591.6 | 2.5 | 18.45 | 18.53 | 0.08 | 0% | 46% | 46% | Negligible |
| Hennef Way | 446534.5 | 241719.3 | 2 | 31.44 | 32.09 | 0.65 | 2% | 79% | 80% | Slight |
| Stroud Close 1 | 446334 | 241676 | 2 | 18.08 | 18.17 | 0.08 | 0% | 45% | 45% | Negligible |
| 1 | 446686 | 241716 | 1.5 | 17.50 | 17.56 | 0.06 | 0% | 44% | 44% | Negligible |
| 2 | 446618 | 241713 | 1.5 | 17.61 | 17.68 | 0.06 | 0% | 44% | 44% | Negligible |
| 3 | 446542.2 | 241718.3 | 1.5 | 19.78 | 19.93 | 0.15 | 0% | 49% | 50% | Negligible |
| 4 | 446333.6 | 241683.8 | 1.5 | 19.63 | 19.77 | 0.14 | 0% | 49% | 49% | Negligible |
| 5 | 445371.8 | 240853.6 | 1.5 | 18.93 | 19.01 | 0.09 | 0% | 47% | 48% | Negligible |
| 6 | 445373.1 | 240827.2 | 1.5 | 18.23 | 18.30 | 0.07 | 0% | 46% | 46% | Negligible |
| 7 | 445371.5 | 240810.2 | 4 | 17.02 | 17.07 | 0.05 | 0% | 43% | 43% | Negligible |
| 8 | 445345 | 240765.6 | 1.5 | 16.84 | 16.88 | 0.04 | 0% | 42% | 42% | Negligible |
| 9 | 445350.8 | 240743.3 | 1.5 | 17.10 | 17.15 | 0.05 | 0% | 43% | 43% | Negligible |
| 8a | 445345 | 240765.6 | 4 | 16.17 | 16.20 | 0.03 | 0% | 40% | 41% | Negligible |
| 9a | 445350.8 | 240765.6 | 4 | 16.61 | 16.64 | 0.04 | 0% | 42% | 42% | Negligible |
| 5a | 445371.8 | 240853.6 | 4 | 17.17 | 17.22 | 0.05 | 0% | 43% | 43% | Negligible |
| 6a | 445373.1 | 240827.2 | 4 | 16.99 | 17.04 | 0.05 | 0% | 42% | 43% | Negligible |

*2022 Background Concentrations and Emissions

| 2040 NO2 | | | | | | | | | | |
|----------------|----------|----------|------|--------------|-------------|---------|----------|-----------------|-----------------|---------------------------|
| Receptor name | X(m) | Y(m) | Z(m) | Scenario 2 | Scenario 4 | Sc4-Sc2 | % Change | Scenario 2 AQAL | Scenario 4 AQAL | Sc4-Sc2 Impact Descriptor |
| North Bar | 445349.3 | 240758.1 | 2 | 31.06 | 31.36 | 0.30 | 1% | 78% | 78% | Negligible |
| Horsefair | 445353.7 | 240591.6 | 2.5 | 33.26 | 33.59 | 0.33 | 1% | 83% | 84% | Negligible |
| Hennef Way | 446534.5 | 241719.3 | 2 | 67.25 | 68.9 | 1.65 | 4% | 168% | 172% | Substantial |
| Stroud Close 1 | 446334 | 241676 | 2 | 20.2 | 20.51 | 0.31 | 1% | 51% | 51% | Negligible |
| 1 | 446686 | 241716 | 1.5 | 20.5 | 20.8 | 0.30 | 1% | 51% | 52% | Negligible |
| 2 | 446618 | 241713 | 1.5 | 18.88 | 19.15 | 0.27 | 1% | 47% | 48% | Negligible |
| 3 | 446542.2 | 241718.3 | 1.5 | 27.04 | 27.57 | 0.53 | 1% | 68% | 69% | Negligible |
| 4 | 446333.6 | 241683.8 | 1.5 | 26.32 | 26.83 | 0.51 | 1% | 66% | 67% | Negligible |
| 5 | 445371.8 | 240853.6 | 1.5 | 31.51 | 31.8 | 0.29 | 1% | 79% | 80% | Negligible |
| 6 | 445373.1 | 240827.2 | 1.5 | 30.75 | 31.05 | 0.30 | 1% | 77% | 78% | Negligible |
| 7 | 445371.5 | 240810.2 | 4 | 26.16 | 26.4 | 0.24 | 1% | 65% | 66% | Negligible |
| 8 | 445345 | 240765.6 | 1.5 | 24.99 | 25.22 | 0.23 | 1% | 62% | 63% | Negligible |
| 9 | 445350.8 | 240743.3 | 1.5 | 26.01 | 26.25 | 0.24 | 1% | 65% | 66% | Negligible |
| 8a | 445345 | 240765.6 | 4 | 20.18 | 20.34 | 0.16 | 0% | 50% | 51% | Negligible |
| 9a | 445350.8 | 240765.6 | 4 | 23.33 | 23.54 | 0.21 | 1% | 58% | 59% | Negligible |
| 5a | 445371.8 | 240853.6 | 4 | 23.22 | 23.4 | 0.18 | 0% | 58% | 59% | Negligible |
| 6a | 445373.1 | 240827.2 | 4 | 23.91 | 24.11 | 0.20 | 0% | 60% | 60% | Negligible |

*2022 Background Concentrations and Emissions

2040 PM10

| Receptor name | X(m) | Y(m) | Z(m) | Scenario 2 | Scenario 4 | Sc4-Sc2 | % Change | Scenario 2 AQAL | Scenario 4 AQAL | Sc4-Sc2 Impact Descriptor |
|----------------|----------|----------|------|------------|------------|---------|----------|-----------------|-----------------|---------------------------|
| North Bar | 445349.3 | 240758.1 | 2 | 19.16 | 19.21 | 0.05 | 0% | 48% | 48% | Negligible |
| Horsefair | 445353.7 | 240591.6 | 2.5 | 18.95 | 19.01 | 0.06 | 0% | 47% | 48% | Negligible |
| Hennef Way | 446534.5 | 241719.3 | 2 | 33.53 | 34.20 | 0.67 | 2% | 84% | 86% | Slight |
| Stroud Close 1 | 446334 | 241676 | 2 | 18.35 | 18.44 | 0.09 | 0% | 46% | 46% | Negligible |
| 1 | 446686 | 241716 | 1.5 | 17.70 | 17.76 | 0.06 | 0% | 44% | 44% | Negligible |
| 2 | 446618 | 241713 | 1.5 | 17.82 | 17.89 | 0.07 | 0% | 45% | 45% | Negligible |
| 3 | 446542.2 | 241718.3 | 1.5 | 20.26 | 20.41 | 0.15 | 0% | 51% | 51% | Negligible |
| 4 | 446333.6 | 241683.8 | 1.5 | 20.09 | 20.24 | 0.15 | 0% | 50% | 51% | Negligible |
| 5 | 445371.8 | 240853.6 | 1.5 | 19.49 | 19.56 | 0.07 | 0% | 49% | 49% | Negligible |
| 6 | 445373.1 | 240827.2 | 1.5 | 18.70 | 18.76 | 0.06 | 0% | 47% | 47% | Negligible |
| 7 | 445371.5 | 240810.2 | 4 | 17.33 | 17.36 | 0.04 | 0% | 43% | 43% | Negligible |
| 8 | 445345 | 240765.6 | 1.5 | 17.12 | 17.15 | 0.03 | 0% | 43% | 43% | Negligible |
| 9 | 445350.8 | 240743.3 | 1.5 | 17.42 | 17.46 | 0.04 | 0% | 44% | 44% | Negligible |
| 8a | 445345 | 240765.6 | 4 | 16.36 | 16.38 | 0.02 | 0% | 41% | 41% | Negligible |
| 9a | 445350.8 | 240765.6 | 4 | 16.85 | 16.89 | 0.03 | 0% | 42% | 42% | Negligible |
| 5a | 445371.8 | 240853.6 | 4 | 17.49 | 17.53 | 0.04 | 0% | 44% | 44% | Negligible |
| 6a | 445373.1 | 240827.2 | 4 | 17.29 | 17.33 | 0.04 | 0% | 43% | 43% | Negligible |

*2022 Background Concentrations and Emissions

2025 NO2

| Receptor name | X(m) | Y(m) | Z(m) | Scenario 1 | Scenario 3 | Sc3-Sc1 | % Change | Scenario 1 AQAL | Scenario 3 AQAL | Sc3- Sc2 Impact Descriptor |
|----------------|----------|----------|------|--------------|-------------|---------|----------|-----------------|-----------------|----------------------------|
| North Bar | 445349.3 | 240758.1 | 2 | 23.15 | 23.46 | 0.31 | 1% | 58% | 59% | Negligible |
| Horsefair | 445353.7 | 240591.6 | 2.5 | 24.34 | 24.68 | 0.34 | 1% | 61% | 62% | Negligible |
| Hennef Way | 446534.5 | 241719.3 | 2 | 47.88 | 49.2 | 1.32 | 3% | 120% | 123% | Substantial |
| Stroud Close 1 | 446334 | 241676 | 2 | 15.92 | 16.15 | 0.23 | 1% | 40% | 40% | Negligible |
| 1 | 446686 | 241716 | 1.5 | 16.07 | 16.28 | 0.21 | 1% | 40% | 41% | Negligible |
| 2 | 446618 | 241713 | 1.5 | 15.07 | 15.26 | 0.19 | 0% | 38% | 38% | Negligible |
| 3 | 446542.2 | 241718.3 | 1.5 | 20.36 | 20.76 | 0.40 | 1% | 51% | 52% | Negligible |
| 4 | 446333.6 | 241683.8 | 1.5 | 19.89 | 20.27 | 0.38 | 1% | 50% | 51% | Negligible |
| 5 | 445371.8 | 240853.6 | 1.5 | 23.25 | 23.52 | 0.27 | 1% | 58% | 59% | Negligible |
| 6 | 445373.1 | 240827.2 | 1.5 | 22.71 | 23.01 | 0.30 | 1% | 57% | 58% | Negligible |
| 7 | 445371.5 | 240810.2 | 4 | 19.31 | 19.55 | 0.24 | 1% | 48% | 49% | Negligible |
| 8 | 445345 | 240765.6 | 1.5 | 18.85 | 19.08 | 0.23 | 1% | 47% | 48% | Negligible |
| 9 | 445350.8 | 240743.3 | 1.5 | 19.51 | 19.75 | 0.24 | 1% | 49% | 49% | Negligible |
| 8a | 445345 | 240765.6 | 4 | 15.69 | 15.85 | 0.16 | 0% | 39% | 40% | Negligible |
| 9a | 445350.8 | 240765.6 | 4 | 17.76 | 17.97 | 0.21 | 1% | 44% | 45% | Negligible |
| 5a | 445371.8 | 240853.6 | 4 | 17.71 | 17.89 | 0.18 | 0% | 44% | 45% | Negligible |
| 6a | 445373.1 | 240827.2 | 4 | 18.15 | 18.35 | 0.20 | 1% | 45% | 46% | Negligible |

*2025 Backgrounds Concentrations and Emissions

2025 PM10

| Receptor name | X(m) | Y(m) | Z(m) | Scenario 2 | Scenario 4 | Sc4-Sc2 | % Change | Scenario 2 AQAL | Scenario 4 AQAL | Sc4-Sc2 Impact Descriptor |
|----------------|----------|----------|------|------------|------------|---------|----------|-----------------|-----------------|---------------------------|
| North Bar | 445349.3 | 240758.1 | 2 | 18.19 | 18.24 | 0.06 | 0% | 45% | 46% | Negligible |
| Horsefair | 445353.7 | 240591.6 | 2.5 | 17.85 | 17.92 | 0.07 | 0% | 45% | 45% | Negligible |
| Hennef Way | 446534.5 | 241719.3 | 2 | 30.60 | 31.24 | 0.64 | 2% | 77% | 78% | Slight |
| Stroud Close 1 | 446334 | 241676 | 2 | 17.53 | 17.61 | 0.08 | 0% | 44% | 44% | Negligible |
| 1 | 446686 | 241716 | 1.5 | 16.95 | 17.01 | 0.06 | 0% | 42% | 43% | Negligible |
| 2 | 446618 | 241713 | 1.5 | 17.07 | 17.13 | 0.06 | 0% | 43% | 43% | Negligible |
| 3 | 446542.2 | 241718.3 | 1.5 | 19.19 | 19.34 | 0.15 | 0% | 48% | 48% | Negligible |
| 4 | 446333.6 | 241683.8 | 1.5 | 19.05 | 19.19 | 0.14 | 0% | 48% | 48% | Negligible |
| 5 | 445371.8 | 240853.6 | 1.5 | 18.34 | 18.42 | 0.08 | 0% | 46% | 46% | Negligible |
| 6 | 445373.1 | 240827.2 | 1.5 | 17.64 | 17.71 | 0.07 | 0% | 44% | 44% | Negligible |
| 7 | 445371.5 | 240810.2 | 4 | 16.46 | 16.50 | 0.05 | 0% | 41% | 41% | Negligible |
| 8 | 445345 | 240765.6 | 1.5 | 16.27 | 16.32 | 0.04 | 0% | 41% | 41% | Negligible |
| 9 | 445350.8 | 240743.3 | 1.5 | 16.54 | 16.58 | 0.05 | 0% | 41% | 41% | Negligible |
| 8a | 445345 | 240765.6 | 4 | 15.63 | 15.66 | 0.03 | 0% | 39% | 39% | Negligible |
| 9a | 445350.8 | 240765.6 | 4 | 16.05 | 16.09 | 0.04 | 0% | 40% | 40% | Negligible |
| 5a | 445371.8 | 240853.6 | 4 | 16.62 | 16.66 | 0.05 | 0% | 42% | 42% | Negligible |
| 6a | 445373.1 | 240827.2 | 4 | 16.43 | 16.48 | 0.04 | 0% | 41% | 41% | Negligible |

*2025 Backgrounds Concentrations and Emissions

2040 NO2

| Receptor name | X(m) | Y(m) | Z(m) | Scenario 2 | Scenario 4 | Sc4-Sc2 | % Change | Scenario 2 AQAL | Scenario 4 AQAL | Sc3- Sc1 Impact Descriptor |
|----------------|----------|----------|------|-------------|--------------|---------|----------|-----------------|-----------------|----------------------------|
| North Bar | 445349.3 | 240758.1 | 2 | 18.43 | 18.57 | 0.14 | 0% | 46% | 46% | Negligible |
| Horsefair | 445353.7 | 240591.6 | 2.5 | 19.02 | 19.18 | 0.16 | 0% | 48% | 48% | Negligible |
| Hennef Way | 446534.5 | 241719.3 | 2 | 35.6 | 36.46 | 0.86 | 2% | 89% | 91% | Slight |
| Stroud Close 1 | 446334 | 241676 | 2 | 13.24 | 13.38 | 0.14 | 0% | 33% | 33% | Negligible |
| 1 | 446686 | 241716 | 1.5 | 13.44 | 13.57 | 0.13 | 0% | 34% | 34% | Negligible |
| 2 | 446618 | 241713 | 1.5 | 12.69 | 12.81 | 0.12 | 0% | 32% | 32% | Negligible |
| 3 | 446542.2 | 241718.3 | 1.5 | 16.26 | 16.5 | 0.24 | 1% | 41% | 41% | Negligible |
| 4 | 446333.6 | 241683.8 | 1.5 | 15.93 | 16.16 | 0.23 | 1% | 40% | 40% | Negligible |
| 5 | 445371.8 | 240853.6 | 1.5 | 18.18 | 18.32 | 0.14 | 0% | 45% | 46% | Negligible |
| 6 | 445373.1 | 240827.2 | 1.5 | 17.92 | 18.06 | 0.14 | 0% | 45% | 45% | Negligible |
| 7 | 445371.5 | 240810.2 | 4 | 15.59 | 15.7 | 0.11 | 0% | 39% | 39% | Negligible |
| 8 | 445345 | 240765.6 | 1.5 | 15.28 | 15.39 | 0.11 | 0% | 38% | 38% | Negligible |
| 9 | 445350.8 | 240743.3 | 1.5 | 15.7 | 15.81 | 0.11 | 0% | 39% | 40% | Negligible |
| 8a | 445345 | 240765.6 | 4 | 13.07 | 13.14 | 0.07 | 0% | 33% | 33% | Negligible |
| 9a | 445350.8 | 240765.6 | 4 | 14.51 | 14.61 | 0.10 | 0% | 36% | 37% | Negligible |
| 5a | 445371.8 | 240853.6 | 4 | 14.37 | 14.46 | 0.09 | 0% | 36% | 36% | Negligible |
| 6a | 445373.1 | 240827.2 | 4 | 14.74 | 14.83 | 0.09 | 0% | 37% | 37% | Negligible |

*2030 Background Concentrations and Emissions

2040 PM10

| Receptor name | X(m) | Y(m) | Z(m) | Scenario 2 | Scenario 4 | Sc4-Sc2 | % Change | Scenario 2 AQAL | Scenario 4 AQAL | Sc3- Sc1 Impact Descriptor |
|----------------|----------|----------|------|------------|------------|---------|----------|-----------------|-----------------|----------------------------|
| North Bar | 445349.3 | 240758.1 | 2 | 18.39 | 18.44 | 0.04 | 0% | 46% | 46% | Negligible |
| Horsefair | 445353.7 | 240591.6 | 2.5 | 18.18 | 18.23 | 0.06 | 0% | 45% | 46% | Negligible |
| Hennef Way | 446534.5 | 241719.3 | 2 | 32.38 | 33.03 | 0.65 | 2% | 81% | 83% | Slight |
| Stroud Close 1 | 446334 | 241676 | 2 | 17.67 | 17.75 | 0.08 | 0% | 44% | 44% | Negligible |
| 1 | 446686 | 241716 | 1.5 | 17.01 | 17.07 | 0.06 | 0% | 43% | 43% | Negligible |
| 2 | 446618 | 241713 | 1.5 | 17.15 | 17.21 | 0.07 | 0% | 43% | 43% | Negligible |
| 3 | 446542.2 | 241718.3 | 1.5 | 19.51 | 19.66 | 0.15 | 0% | 49% | 49% | Negligible |
| 4 | 446333.6 | 241683.8 | 1.5 | 19.35 | 19.50 | 0.14 | 0% | 48% | 49% | Negligible |
| 5 | 445371.8 | 240853.6 | 1.5 | 18.74 | 18.81 | 0.07 | 0% | 47% | 47% | Negligible |
| 6 | 445373.1 | 240827.2 | 1.5 | 17.96 | 18.01 | 0.05 | 0% | 45% | 45% | Negligible |
| 7 | 445371.5 | 240810.2 | 4 | 16.62 | 16.66 | 0.04 | 0% | 42% | 42% | Negligible |
| 8 | 445345 | 240765.6 | 1.5 | 16.42 | 16.45 | 0.03 | 0% | 41% | 41% | Negligible |
| 9 | 445350.8 | 240743.3 | 1.5 | 16.71 | 16.75 | 0.04 | 0% | 42% | 42% | Negligible |
| 8a | 445345 | 240765.6 | 4 | 15.70 | 15.72 | 0.02 | 0% | 39% | 39% | Negligible |
| 9a | 445350.8 | 240765.6 | 4 | 16.17 | 16.20 | 0.03 | 0% | 40% | 40% | Negligible |
| 5a | 445371.8 | 240853.6 | 4 | 16.81 | 16.85 | 0.04 | 0% | 42% | 42% | Negligible |
| 6a | 445373.1 | 240827.2 | 4 | 16.60 | 16.64 | 0.03 | 0% | 42% | 42% | Negligible |

*2030 Background Concentrations and Emissions