



# ***Dundee City Council***

*S-Paramics Air Quality Modelling Study – Stannergate*

*April 2016*





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## Executive Summary

Bureau Veritas have been commissioned by Dundee City Council to undertake air quality dispersion modelling studies to predict annual mean concentrations of NO<sub>2</sub> and PM<sub>10</sub> for three areas of Dundee (Forfar, Lochee and Stannergate) identified by the Council. This report and associated results file focus on the Stannergate area of Dundee. Separate reports have been produced for the Lochee and Forfar areas.

The Council commissioned SIAS to develop a S-Paramics traffic micro-simulation model for the study areas to simulate real-time behaviour of vehicles on the roads in the study areas. The output from the S-Paramics model was then processed using the Analysis of Instantaneous Road Emissions (AIRE) model to produce hourly emissions of NO<sub>x</sub> and PM<sub>10</sub>. The emissions from AIRE have then been inputted into an ADMS-Roads dispersion model to predict the pollutant concentrations at sensitive receptors.

In line with those detailed in SIAS report “Stannergate Road S-Paramics Model”, the following scenarios have been assessed:

- 2012 Base (BC);
- Scenario 1 (SC1) – Assessment of impacts of the Wind Turbine Manufacturing Plant and the Eastern Port Expansion;
- Scenario 2 (SC2) – Assessing impact on air quality should all heavy goods vehicles (HGVs) using the bridge crossing the railway line on Broughty Ferry Road (Stannergate Bridge) have a Euro Class V engine type;
- Scenario 3 (SC3) – Assessment of impacts of the Wind Turbine Manufacturing Plant and the Eastern Port Expansion, but with redesigned Stannergate Roundabout;
- Scenario 4 (SC4) – Assessment of impacts of the Wind Turbine Manufacturing Plant and the Eastern Port Expansion, but with closure of Craigie Place in both directions;
- Scenario 5 (SC5) – Assessment of impacts of the Wind Turbine Manufacturing Plant and the Eastern Port Expansion, but with the layout of Stannergate Roundabout modelled as a 5-arm priority junction; and
- Scenario 6 (SC6) – Assessment of impacts assuming all heavy goods vehicles (HGVs) using the bridge crossing the railway line on Broughty Ferry Road (Stannergate Bridge) have a Euro Class VI engine type.

The traffic data was provided by SIAS in the form of hourly exhaust emissions of NO<sub>x</sub> and PM<sub>10</sub> for each of the modelled links split between different vehicle types. PM<sub>10</sub> contributions from brake, tyre wear and road abrasion were calculated by entering the number of vehicles on each road link (as output from S-Paramics) for each hour into the Emissions Factor Toolkit (EFT) v6.0.2.

Annual mean concentrations of NO<sub>2</sub> and PM<sub>10</sub> were predicted at 1,781 specific receptors across the modelled area representing relevant public exposure, located at the façade of properties. Of these 1,781 receptors, 1,614 were at ground floor level (1.5m height), 82 were at 1<sup>st</sup> floor level (4.5m height), 50 were at 2<sup>nd</sup> floor level (7.5m height) and 22 were at 3<sup>rd</sup> floor level (10.5m). 13 receptors were modelled at 0m height to be representative of a number of receptors below ground level.

Of the 1,614 receptors at ground floor level (1.5m), a maximum of 10 were predicted to exceed the 40µg/m<sup>3</sup> AQO for NO<sub>2</sub> in any of the seven scenarios. 7 receptors were predicted to exceed the 18µg/m<sup>3</sup> annual mean AQO for PM<sub>10</sub> at assumed below ground level (0m) in all seven modelled

scenarios. There were no exceedences predicted at 1<sup>st</sup> (4.5m), 2<sup>nd</sup> (7.5m) or 3<sup>rd</sup> (10.5m) floor levels in any of the seven scenarios.

The NO<sub>2</sub> hourly mean AQO was expected to be met at all modelled receptors in all seven scenarios.

According to EPUK guidance, in relation to the annual mean AQO for NO<sub>2</sub>, implementation of SC1 would result in a negligible impact at 1,780 receptors. A slight adverse impact was predicted at 1 receptor as a result of SC1 in relation to the annual mean AQO for NO<sub>2</sub>.

According to EPUK guidance, in relation to the annual mean AQO for NO<sub>2</sub>, implementation of SC2 would result in a negligible impact at 1,778 receptors and a slight beneficial impact at 2 receptors. A slight adverse impact was predicted at 1 receptor as a result of SC2 in relation to the annual mean AQO for NO<sub>2</sub>.

According to EPUK guidance, in relation to the annual mean AQO for NO<sub>2</sub>, implementation of SC3 would result in a negligible impact at 1,779 receptors, a slight beneficial impact at 1 receptor and a moderate beneficial impact at 1 receptor.

According to EPUK guidance, in relation to the annual mean AQO for NO<sub>2</sub>, implementation of SC4 would result in a negligible impact at 1,773 receptors and a slight beneficial impact at 2 receptors. A slight adverse impact was predicted at 6 receptors as a result of SC4 in relation to the annual mean AQO for NO<sub>2</sub>.

According to EPUK guidance, in relation to the annual mean AQO for NO<sub>2</sub>, implementation of SC5 would result in a negligible impact at 1,751. A slight adverse impact was predicted at 28 receptors, a moderate adverse impact at 1 receptor and a substantial adverse impact at 1 receptor as a result of SC5 in relation to the annual mean AQO for NO<sub>2</sub>.

According to EPUK guidance, in relation to the annual mean AQO for NO<sub>2</sub>, implementation of SC6 would result in a negligible impact at 1,777 and a slight beneficial impact at 3 receptors. A slight adverse impact was predicted at 1 receptor as a result of SC6 in relation to the annual mean AQO for NO<sub>2</sub>.

Of the 1,614 receptors at ground floor level (1.5m), a maximum of 13 were predicted to exceed the 18µg/m<sup>3</sup> annual mean AQO for PM<sub>10</sub> in any of the seven scenarios. 1 receptor was predicted to exceed the 18µg/m<sup>3</sup> annual mean AQO for PM<sub>10</sub> at 1<sup>st</sup> floor level (4.5m) and 1 at assumed below ground level (0m) in all seven modelled scenarios. There were no exceedences predicted at 2<sup>nd</sup> (7.5m) or 3<sup>rd</sup> (10.5m) floor levels in any of the seven scenarios.

The PM<sub>10</sub> 24-hour mean AQO was expected to be met at all modelled receptors in all seven scenarios.

According to EPUK guidance, in relation to the annual mean AQO for PM<sub>10</sub>, implementation of SC1 would result in a negligible impact at 1,780 receptors. A slight adverse impact was predicted at 1 receptor as a result of SC1 in relation to the annual mean AQO for PM<sub>10</sub>.

According to EPUK guidance, in relation to the annual mean AQO for PM<sub>10</sub>, implementation of SC2 would result in a negligible impact at 1,780 receptors. A slight adverse impact was predicted at 1 receptor as a result of SC2 in relation to the annual mean AQO for PM<sub>10</sub>.

According to EPUK guidance, in relation to the annual mean AQO for PM<sub>10</sub>, implementation of SC3 would result in a negligible impact at 1,779 receptors and a moderate beneficial impact at 1 receptor. A slight adverse impact was predicted at 1 receptor as a result of SC3 in relation to the annual mean AQO for PM<sub>10</sub>.

According to EPUK guidance, in relation to the annual mean AQO for PM<sub>10</sub>, implementation of SC4 would result in a negligible impact at 1,771 receptors. A slight adverse impact was predicted

at 9 receptors and a moderate adverse impact at 1 receptor as a result of SC4 in relation to the annual mean AQO for PM<sub>10</sub>.

According to EPUK guidance, in relation to the annual mean AQO for PM<sub>10</sub>, implementation of SC5 would result in a negligible impact at 1,739 receptors, a slight beneficial impact at 2 receptors and a moderate beneficial impact at 1 receptor. A slight adverse impact was predicted at 37 receptors and a moderate adverse impact at 2 receptors as a result of SC5 in relation to the annual mean AQO for PM<sub>10</sub>.

According to EPUK guidance, in relation to the annual mean AQO for PM<sub>10</sub>, implementation of SC6 would result in a negligible impact at all 1,781 receptors.

A source apportionment study for the BC scenario found that Cars were found to account for the highest proportion of road NO<sub>x</sub>, road NO<sub>2</sub> and road PM<sub>10</sub> concentrations when results were averaged across all modelled receptors, and when averaged across receptors with NO<sub>2</sub> concentration greater than 40µg/m<sup>3</sup>. Cars were also found to cause the greatest proportion of road NO<sub>x</sub>, NO<sub>2</sub> and PM<sub>10</sub> at the receptor with the maximum road pollutant concentration.

The number of people predicted to be exposed to potential exceedences of the annual mean NO<sub>2</sub> and PM<sub>10</sub> in the area covered by the Stannergate model for the BC scenario, is estimated to be 67 and 175 respectively.

Full results for all modelled receptors can be found in the MS Excel file, which accompanies this report (Stannergate Results\_submitted\_V3.xlsx).



## 1 Introduction

### 1.1 Scope of Study

The Review and Assessment of air quality undertaken by Dundee City Council (the Council) as part of the Local Air Quality Management (LAQM) regime has identified widespread exceedences of the Air Quality Strategy (AQS) Air Quality Objectives (AQOs) for nitrogen dioxide (NO<sub>2</sub>) and particulate matter (PM<sub>10</sub>). In July 2006 the Council declared the entire of Dundee city centre as an Air Quality Management Area (AQMA) in relation to the annual mean AQO for NO<sub>2</sub>. This AQMA declaration was subsequently modified in October 2010 to include PM<sub>10</sub> and the hourly mean for NO<sub>2</sub> in March 2013.

The Council identified three areas of the city (Forfar Road, Lochee Road and Stannergate), in which elevated concentrations of NO<sub>2</sub> and PM<sub>10</sub> had been recorded. In order to better understand the extents of the areas of exceedences, the Council wished for a detailed air quality dispersion modelling study to be undertaken.

It is hoped that in addition to providing baseline concentrations, the modelling would be able to predict impacts from major projects being undertaken in Dundee, including:

- Impacts of the Port of Dundee expansion, which will impact traffic on the local road network; and
- Impacts from schemes being considered by the Council's Transport department, considering various route and traffic management options.

The Council intends this study to inform the air quality impacts of various traffic management options in order to assess the implications for compliance with the AQOs and the requirements for mitigation.

The Council commissioned SIAS to develop a S-Paramics traffic micro-simulation model for the study areas to simulate real-time behaviour of vehicles on the roads in the study areas. The output from the S-Paramics model was then processed using the Analysis of Instantaneous Road Emissions (AIRE) model to produce hourly emissions of NO<sub>x</sub> and PM<sub>10</sub>. The emissions from AIRE have then been used in ADMS-Roads to predict the pollutant concentrations at sensitive receptors.

Bureau Veritas has therefore been commissioned by Dundee City Council to undertake air quality dispersion modelling studies to predict annual mean concentrations of NO<sub>2</sub> and PM<sub>10</sub> for the three areas of Dundee identified by the Council, under baseline conditions, and under a variety of development and intervention scenarios.

This report and the associated results file focus on the Stannergate area of Dundee. Separate reports have been produced for the Lochee and Forfar areas. The area considered in this report is illustrated in Figure 1.

Figure 1 – Modelled Area



## 2 Air Quality – Legislative Context

### 2.1 Air Quality Strategy

The importance of existing and future pollutant concentrations can be assessed in relation to the national air quality standards and objectives established by Government. The Air Quality Strategy<sup>1</sup> (AQS) provides the over-arching strategic framework for air quality management in the UK and contains national air quality standards and objectives established by the UK Government and Devolved Administrations to protect human health. The air quality objectives incorporated in the AQS and the UK Legislation are derived from Limit Values prescribed in the EU Directives transposed into national legislation by Member States.

The CAFE (Clean Air for Europe) programme was initiated in the late 1990s to draw together previous directives into a single EU Directive on air quality. The CAFE Directive<sup>2</sup> has been adopted and replaces all previous air quality Directives, except the 4<sup>th</sup> Daughter Directive<sup>3</sup>. The Directive introduces new obligatory standards for PM<sub>2.5</sub> for Government but places no statutory duty on local government although Scottish Government have brought in a new PM<sub>2.5</sub> standard for Scottish local authorities through the Air Quality (Scotland) Amendment Regulations 2016 which introduces (from 1 April 2016) a PM<sub>2.5</sub> annual mean standard of 10µg/m<sup>3</sup> for Scottish local authorities to work towards achieving.

The Air Quality Standards (Scotland) Regulations<sup>4</sup> 2010 came into force on 11 June 2010 in order to align and bring together in one statutory instrument the Government's obligations to fulfil the requirements of the new CAFE Directive.

The objectives for ten pollutants – benzene (C<sub>6</sub>H<sub>6</sub>), 1,3-butadiene (C<sub>4</sub>H<sub>6</sub>), carbon monoxide (CO), lead (Pb), nitrogen dioxide (NO<sub>2</sub>), sulphur dioxide (SO<sub>2</sub>), particulate matter - PM<sub>10</sub> and PM<sub>2.5</sub>, ozone (O<sub>3</sub>) and Polycyclic Aromatic Hydrocarbons (PAHs), have been prescribed within the AQS<sup>5</sup>.

The EU Limit Values are considered to apply everywhere with the exception of the carriageway and central reservation of roads and any location where the public do not have access (e.g. industrial sites).

Guidance from the UK Government and Devolved Administrations makes clear that exceedences of the health based objectives should be assessed at outdoor locations where members of the general public are regularly present over the averaging time of the objective. Table 1 taken from LAQM TG(09)<sup>5</sup> provides an indication of those locations that may or may not be relevant for each averaging period.

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<sup>1</sup> The Air Quality Strategy for England, Scotland, Wales and Northern Ireland (2007), Published by Defra in partnership with the Scottish Executive, Welsh Assembly Government and Department of the Environment Northern Ireland

<sup>2</sup> Directive 2008/50/EC of the European Parliament and of the Council of 21 May 2008 on ambient air quality and cleaner air for Europe.

<sup>3</sup> Directive 2004/107/EC of the European Parliament and of the Council of 15 December 2004 relating to arsenic, cadmium, mercury, nickel and polycyclic hydrocarbons in ambient air.

<sup>4</sup> The Air Quality Standards Regulations (England) 2010, Statutory Instrument No 1001, The Stationary Office Limited.

<sup>5</sup> LAQM Technical Guidance LAQM.TG(09) - February 2009. Published by Defra in partnership with the Scottish Government, Welsh Assembly Government and Department of the Environment Northern Ireland.

**Table 1 – Examples of where the Air Quality Objectives should apply**

Averaging Period	Objectives should apply at:	Objectives should generally not apply at:
Annual mean	All locations where members of the public might be regularly exposed Building facades of residential properties, schools, hospitals, care homes etc.	Building facades of offices or other places of work where members of the public do not have regular access. Hotels, unless people live there as their permanent residence. Gardens of residential properties. Kerbside sites (as opposed to locations at the building façade), or any other location where public exposure is expected to be short term
24-hour mean and 8-hour mean	All locations where the annual mean objectives would apply, together with hotels Gardens or residential properties <sup>1</sup>	Kerbside sites (as opposed to locations at the building façade), or any other location where public exposure is expected to be short term.
1-hour mean	All locations where the annual mean and 24 and 8-hour mean objectives would apply. Kerbside sites (e.g. pavements of busy shopping streets). Those parts of car parks, bus stations and railway stations etc. which are not fully enclosed, where the public might reasonably be expected to spend one hour or more. Any outdoor locations at which the public may be expected to spend one hour or longer.	Kerbside sites where the public would not be expected to have regular access.
15-minute mean	All locations where members of the public might reasonably be expected to spend a period of 15 minutes or longer.	

Note <sup>1</sup> For gardens and playgrounds, such locations should represent parts of the garden where relevant public exposure is likely, for example where there is seating or play areas. It is unlikely that relevant public exposure would occur at the extremities of the garden boundary, or in front gardens, although local judgement should always be applied.

This assessment focuses on NO<sub>2</sub> and PM<sub>10</sub> as these are the pollutants of most concern within the Council's administrative area, given monitored exceedences. Moreover, as a result of traffic pollution the UK has failed to meet the EU Limit Values for this pollutant by the 2010 target date. As a result, the Government has had to submit time extension applications for compliance with the EU Limit Values. Continued failure to achieve these limits may lead to EU fines. The AQOs for NO<sub>2</sub> and PM<sub>10</sub> are presented in Table 2. Further details regarding the effects of NO<sub>2</sub> and PM<sub>10</sub> can be found in Appendix 1.

**Table 2 – Relevant AQOs for the Assessed Pollutants in Scotland**

Pollutant	AQO	Concentration Measured as:	Date for Achievement
<b>Nitrogen dioxide (NO<sub>2</sub>)</b>	200µg/m <sup>3</sup> not to be exceeded more than 18 times per year	1-hour mean	31 December 2005
	40µg/m <sup>3</sup>	Annual mean	31 December 2005
<b>Particulate Matter (PM<sub>10</sub>) (gravimetric)</b>	50µg/m <sup>3</sup> not to be exceeded more than 7 times per year	24-hour mean	31 December 2005
	18µg/m <sup>3</sup>	Annual mean	31 December 2005

## 2.2 Local Air Quality Management (LAQM)

Part IV of the Environment Act 1995 places a statutory duty on local authorities to periodically Review and Assess the current and future air quality within their area, and determine whether they are likely to meet the AQOs set down by Government for a number of pollutants – a process known as Local Air Quality Management (LAQM). The AQOs that apply to LAQM are defined for seven pollutants: benzene, 1,3-butadiene, carbon monoxide, lead, nitrogen dioxide, sulphur dioxide and particulate matter.

Where the results of the Review and Assessment process highlight that problems in the attainment of health-based objectives for air quality will arise, the authority is required to declare an Air Quality Management Area (AQMA) – a geographic area defined by high concentrations of pollution and exceedences of health-based standards.

Where an authority has declared an AQMA, and development is proposed to take place either within or near the declared area, further deterioration to air quality resulting from a proposed development can be a potential barrier to gaining consent for the development proposal. Similarly, where a development would lead to an increase of the population within an AQMA, the protection of residents against the adverse long-term impacts of exposure to existing poor air quality can provide the barrier to consent. As such, following an increased number of declarations across the UK, it has become standard practice for planning authorities to require an air quality assessment to be carried out for a proposed development (even where the size and nature of the development indicates that a formal Environmental Impact Assessment (EIA) is not required).

One of the objectives of the LAQM regime is for local authorities to enhance integration of air quality into the planning process. Current LAQM Policy Guidance<sup>6</sup> recognises that the land use planning system is integral to improving air quality. Generally, the decisions made on land-use allocation can play a major role in improving the health of the population, particularly at sensitive locations – such as schools, hospitals and dense residential areas.

<sup>6</sup> Local Air Quality Management Policy Guidance – Scotland PG(S) (16) - March 2016. Published by the Scottish Government,

### 3 Review and Assessment of Air Quality Undertaken by the Council

#### 3.1 First and Second Rounds of Review and Assessment

The First and Second Rounds of air quality Review and Assessment for the Council concluded that exceedences of the annual mean objective for NO<sub>2</sub> were likely as a result of traffic sources in Dundee City Centre, especially in the following areas:

- Seagate;
- Nethergate / Marketgait Junction;
- Dock Street;
- Commercial Street;
- Victoria Road / Hilltown / Meadowside Junction;
- Lochee Road / Rankine Street Junction;
- Lochee Road / Dudhope Junction; and
- Logie Street / Loons Road Junction.

Following the detailed modelling of NO<sub>2</sub> and PM<sub>10</sub> concentrations in Dundee in 2005, the Council declared the whole of the City Centre as an AQMA for NO<sub>2</sub> in July 2006. The results of the 2005 Detailed Assessment were inconclusive for PM<sub>10</sub> as there was insufficient confidence in verification of the modelled predictions for 2010. It was concluded that additional monitoring and modelling would be required to determine whether an AQMA for PM<sub>10</sub> was required. The Scottish Environment Protection Agency (SEPA) and the Scottish Government accepted the conclusions of the Detailed Assessment and funded the expansion of the PM<sub>10</sub> monitoring network. This included OSIRIS particulate monitoring in potential areas of exceedence, a new background site and a local gravimetric factor inter-comparison study.

#### 3.2 Third Round of Review and Assessment

The Third Round of Review and Assessment started with the Updating and Screening Assessment (USA), completed in 2006. The USA showed that the monitored PM<sub>10</sub> concentrations in Union Street exceeded the annual mean objective. However, this result was adversely influenced by major construction projects in the vicinity and may not have been truly representative of ambient concentrations present at this location.

The 2007 Annual Progress Report analysis of the 2006 monitoring data for NO<sub>2</sub> confirmed the need for continuance of the AQMA and development of an Action Plan. Two new areas of potential exceedence of the NO<sub>2</sub> annual mean were identified at the Kingsway/Forfar Road and Arbroath Road/Albert Street Junctions, which were considered in the 2009 Further Assessment.

The Council's 2006 monitoring results indicated exceedences of the PM<sub>10</sub> annual mean objective at the following locations:

- Victoria Road / Hilltown Junction;
- Seagate;
- Logie Street; and

- Lochee Road.

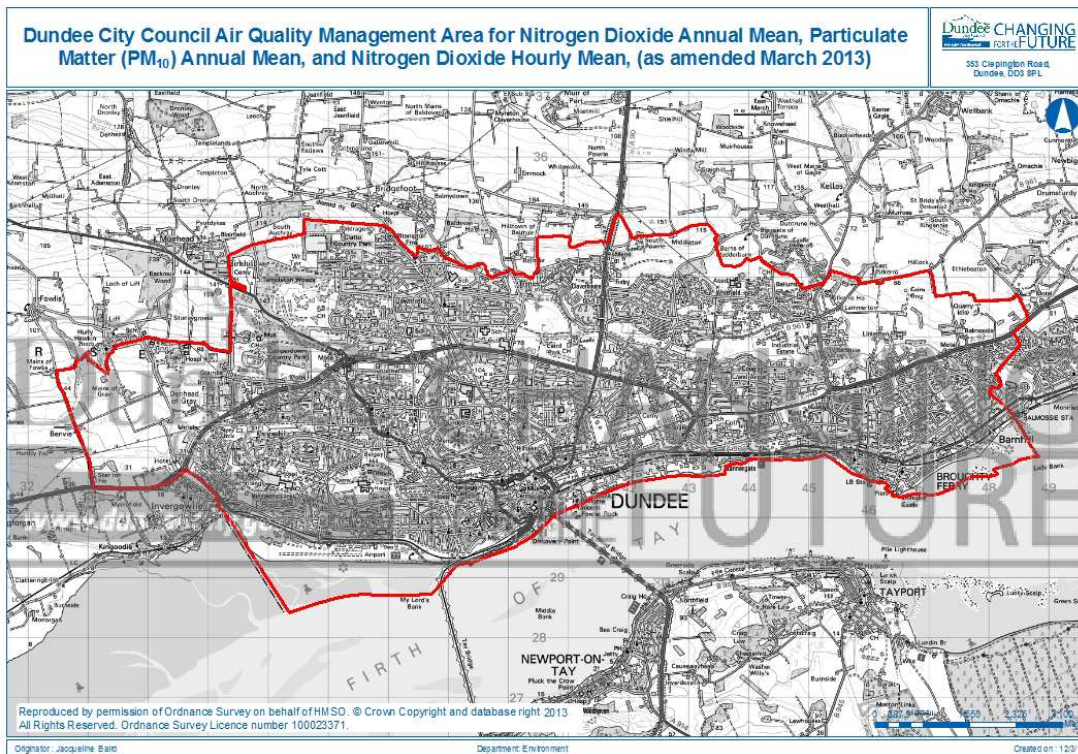
The 2006 PM<sub>10</sub> monitoring results indicated that a Detailed Assessment of PM<sub>10</sub> should be carried out. This Detailed Assessment, completed in 2009, modelled the areas identified as at risk, and confirmed the exceedences of the PM<sub>10</sub> annual mean objective. Consequently, it was recommended that the Council declare an AQMA for PM<sub>10</sub>.

The Further Assessment for the Dundee City AQMA for NO<sub>2</sub> was completed in November 2009<sup>7</sup>. The Further Assessment confirmed the need to maintain the AQMA for NO<sub>2</sub>. It also confirmed significant exceedences of the PM<sub>10</sub> annual mean objective. Based on the risk of exceedence the assessment confirmed that the Council should declare an AQMA for PM<sub>10</sub>.

### 3.3 Fourth Round of Review and Assessment

The Fourth Round of Review and Assessment started with the USA 2009, which confirmed the risk of exceedence of the PM<sub>10</sub> annual mean objective at a number of busy roadside sites. Accordingly, the existing AQMA, declared for NO<sub>2</sub> only, was varied on 25 October 2010 to include the PM<sub>10</sub> annual mean objective. The AQMA is shown in Figure 2.

Figure 2 – Dundee City AQMA for NO<sub>2</sub> and PM<sub>10</sub>



The Progress Reports 2010 and 2011 reviewed the 2009 and 2010 monitoring data and made the following conclusions:

- The PM<sub>10</sub> annual mean objective was still being exceeded;

<sup>7</sup>Dundee City Council – LAQM Detailed and Further Assessment 2009 - BV/AQ/AGGX1347518 – November 2009

- The NO<sub>2</sub> annual mean objective was still exceeded in the AQMA. The monitoring data also identified a new area with potential exceedences in Strathmore Avenue;
- At some diffusion tubes, the NO<sub>2</sub> annual mean concentration was close to 60µg/m<sup>3</sup>, which highlighted potential exceedence of the NO<sub>2</sub> 1-hour mean objective. However, these tubes were not representative of public exposure. The Council decided to monitor at locations of relevant exposure to verify this; and
- At the Lochee Road automatic monitoring site, the number of NO<sub>2</sub> 1-hour means above 200µg/m<sup>3</sup> was 23 and 67 in 2009 and 2010 respectively, whilst the objective only allows 18 exceedences. All these exceedences occurred during peak-hours on weekdays in winter. It was concluded that these were likely due to particularly cold weather, congestion and poor dispersion.

### 3.4 Fifth Round of Review and Assessment

The Fifth Round of Review and Assessment started with the USA 2012, which recommended the following actions:

- Take forward the amendment of the current AQMA order to include the NO<sub>2</sub> 1-hour mean objective;
- Review the need to amend the AQMA order to include the PM<sub>10</sub> 24-hour mean objective as more data becomes available;
- Review the results of additional monitoring installed at Kingsway–Myrekirk and Stannergate roundabouts as information becomes available;
- Review the NO<sub>2</sub> diffusion tube monitoring network in light of trends in monitoring results and new exposure; and
- Further investigate sources of biomass/solid fuel combustion in Dundee to enable appropriate screening, and report findings in subsequent LAQM reports as information becomes available.

### 3.5 Sixth Round of Review and Assessment

The Sixth Round of Review and Assessment started with the USA 2015. The 2015 USA concluded that no assessments of monitoring data or emission sources justify the need to proceed to a Detailed Assessment for any pollutant. Proposed actions arising from the 2015 USA are as follows:

- Review results of new diffusion tube sites installed on Coupar Angus Rd / Stirling St. , West Marketgait /Old Mill, High Street - Lochee (22-24), Broughty Ferry Rd (129);
- Compare diurnal profiles of pollutant concentrations and traffic (where available), in particular for Lochee Road;
- Undertake further analysis of pollutant concentrations in Meadowside following the one year trialling of an Action Plan measure that extends the distance between the facades of ground floor flats and vehicle exhausts by reallocating road space to cycles;
- Review the remaining Dundee City Council traffic radar count data for the presence of relevant exposure to identify where new classified traffic counts or NO<sub>2</sub> diffusion tube monitoring may be needed;



- Review and assess updated traffic data from Department of Transport for 2014 when this becomes available in June 2015;
- Review the results of the Council's on-going air dispersion modelling projects for Kingsway/Forfar Road, Dundee Eastern Arterial Routes (including Stannergate Roundabout), North West arterial route (Lochee Road) and bus emissions in the city centre;
- Review the results of third party air quality monitoring and modelling study of the Kingsway/Myrekirk Road roundabout and associated road network;
- Carry out classified traffic counts on Coupar Angus Road, Lochee District Centre and South Union Street once new traffic flows and patterns become established;
- Investigate sources of biomass/solid fuel combustion in the local authority area to enable appropriate screening and report findings in subsequent LAQM reports as information becomes available; and
- Take forward the planned actions highlighted in the Action Plan Progress Report.

### 3.6 Council Monitoring Data

The Council operates 13 automatic air quality monitoring stations throughout Dundee which monitor NO<sub>2</sub> and/or PM<sub>10</sub>. Table 3 shows the details of the six automatic monitoring locations which monitor NO<sub>2</sub>, along with the recorded annual mean NO<sub>2</sub> concentrations for years 2012 to 2014.

**Table 3 – LAQM Automatic NO<sub>2</sub> Monitoring Undertaken in the Council area – Annual Mean**

Site	Site Name	Site Type	OS Grid Ref	Annual Mean NO <sub>2</sub> Concentration (µg/m <sup>3</sup> )		
				2012	2013	2014
CM12	Mains Loan	Urban Background	340972, 731893	9.8	11.5	12.4
CM5	Seagate Romon	Roadside	340487, 731446	<b>47.6</b>	<b>55.0</b>	<b>54.5</b>
CM2	Union Street Rollalong	Roadside	340235, 730091	31.7	30.5	28.4
CM6	Whitehall Street Romon	Roadside	340278, 730156	<b>44.4</b>	<b>41.2</b>	<b>42.5</b>
CM14	Meadowside Romom	Roadside	340243, 730653	<b>53.9</b>	<b>49.1</b>	39.6
CM4	Lochee Road	Roadside	338861, 730773	<b>52.9</b>	<b>51.6</b>	<b>45.8</b>

In **Bold**, exceedence of the annual mean NO<sub>2</sub> AQS objective of 40µg/m<sup>3</sup>

Annual mean NO<sub>2</sub> concentrations have been observed to be above the 40µg/m<sup>3</sup> AQOs at the roadside sites CM4, CM5, CM6 and CM14 for almost all years from 2012 to 2014. The annual mean NO<sub>2</sub> concentration at the urban background site CM12 has been observed to be well below the AQO for all years from 2012 to 2014, with a maximum annual mean concentration of 12.4µg/m<sup>3</sup> occurring in 2014.

Table 4 shows the details of the twelve locations which monitor PM<sub>10</sub>, along with the recorded annual mean PM<sub>10</sub> concentrations for years 2012 to 2014.

**Table 4 – LAQM Automatic PM<sub>10</sub> Monitoring Undertaken in the Council area – Annual Mean**

Site	Site Name	Site Type*	OS Grid Ref	Annual Mean PM <sub>10</sub> Concentration (µg/m <sup>3</sup> )		
				2012	2013	2014
CM3	Broughty Ferry Road Rollalong (TEOM)	UI	341970, 730977	14.2	15.9	14.7
CM13	Broughty Ferry Road (Partisol)	UI	341971, 730978	14.3	15.1	14.5
CM4	Lochee Road Romon (BAM)	RS	338861, 730773	16.5	17.9	<b>18.6</b>
CM9	Logie Street (Osiris)	KS	338176, 731298	<b>18.0</b>	16.5	16.1
CM12	Mains Loan (TEOM)	UB	340972, 731893	11.4	11.9	12.9
CM5	Seagate Romon (BAM)	RS	340487, 730446	14.1	16.0	17.7
CM2	Union Street Rollalong (BAM)	RS	340235, 730091	15.5	15.1	16.5
CM14	Meadowside Romon (BAM)	RS	340243, 730653	<b>18.6</b>	<b>18.6</b>	16.6
CM15	Albert Street (Osiris)	KS	341090, 731105	16.8	<b>18.3</b>	<b>21.4</b>
CM16	Broughty Ferry Road (Osiris)	UI	341970, 730977	13.4	15.0	14.6
CM17	Myrekirk (Osiris)	RS	335438, 731740	16.1	15.5	<b>18.3</b>
CM18	Stannergate (Osiris)	RS	343322, 731073	<b>19.9</b>	<b>24.5</b>	<b>26.7</b>

In **Bold**, exceedence of the annual mean PM<sub>10</sub> AQO of 18µg/m<sup>3</sup>  
\* UI = Urban Industrial, RS = Roadside, KS = Kerbside, UB = Urban Background

Annual mean PM<sub>10</sub> concentrations have been observed to be above the 18µg/m<sup>3</sup> AQO for at least one year between 2012 and 2014 at the roadside sites CM4, CM14, CM17 and CM18 and the kerbside sites CM9 and CM15. The annual mean PM<sub>10</sub> concentration at the urban background site CM12 has been observed to be below the AQO for all years from 2012 to 2014, with a maximum annual mean concentration of 12.9µg/m<sup>3</sup> occurring in 2014.

In addition to the automatic monitoring stations, the Council operates an extensive network of passive monitoring for NO<sub>2</sub> within the city. Recent monitoring results for the sites in the vicinity of the modelled area are shown in Table 5.

**Table 5 – LAQM Diffusion Tube Monitoring undertaken for NO<sub>2</sub> in modelled area**

Site	Site Name	Site Type**	OS Grid Ref	Height (m)	Annual Mean NO <sub>2</sub> Concentration (µg/m <sup>3</sup> )*		
					2012 (Bias 0.88)	2013 (Bias 0.87)	2014 (Bias 0.82)
7	BALGAVIES PLACE	UB	343082, 731465	2.4	18.0	17.0	15.5
11	BROUGHTY FERRY ROAD (141)	RS	343322, 731073	2.7	<b>44.2</b>	39.9	36.5
12	CLAYPOTTS JUNCTION	RS	345315, 732103	2.5	26.5	-	-
26	KINGSWAY E. ROUNDABOUT	RS	343107, 731740	2.7	<b>40.3</b>	39.5	38.8
139	Broughty Ferry Rd 141 (Downpipe)	RS	343317, 731072	2.4	37.4	32.4	31.1
140	Broughty Ferry Rd Post Box (opp. 141) LP66	RS	343297, 731096	2.6	35.4	31.8	30.6
142	Broughty Ferry Rd 141 (streetsign)	RS	343302, 731075	2.3	32.2	30.4	29.5
145	Broughty Ferry Rd - Greendykes	RS	342662, 731112	2.4	36.2	36.4	34.3
155	Carolina Court	UB	342353, 731058	2.4	22.5	21.6	19.4
164	Lower Broughty Ferry Road	UB	343545, 730942	2.6	16.7	15.6	14.9
166	Broughty Ferry Road Lampost 59 (2)	RS	343129, 731081	2.7	26.0	25.6	24.0

In **bold**, exceedence of the annual mean NO<sub>2</sub> AQO of 40µg/m<sup>3</sup>  
\* Bias Adjustment Factors listed with relevant year  
\*\* RS = Roadside, UB = Urban Background

Annual mean NO<sub>2</sub> concentrations have been observed to be above the 40µg/m<sup>3</sup> AQO in 2012 at the roadside sites 11 (BROUGHTY FERRY ROAD 141) and 26 (KINGSWAY ROUNDABOUT). The annual mean NO<sub>2</sub> concentration at the urban background sites 7 (BALGAVIES PLACE) 155 (Carolina Court) and 166 (Lower Broughty Ferry Road) have been observed to be below the AQO for all years from 2012 to 2014, with a maximum annual mean concentration of 22.5µg/m<sup>3</sup> occurring in 2012 at site 155 (Carolina Court).

In addition to monitoring undertaken by Dundee City Council this study has utilised NO<sub>2</sub> diffusion tube monitoring data undertaken by a developer in the Stannergate area in 2012. Table 6 provides details of the developer monitoring considered in this study. Annual mean NO<sub>2</sub> concentrations have been observed to be below the 40µg/m<sup>3</sup> AQO at all of the developer monitoring sites except the roadside site F1 (230 Broughty Ferry Rd).

**Table 6 – Developer Diffusion Tube Monitoring undertaken for NO<sub>2</sub> in modelled area**

Site	Site Name	Site Type**	OS Grid Ref	Height (m)	2012 Annual Mean NO <sub>2</sub> Concentration (µg/m <sup>3</sup> )* (Bias 0.88)
<b>F1</b>	230 Broughty Ferry Rd	RS	342585, 731114	2.6	<b>42.1</b>
<b>F3</b>	Greendykes Rd outside No.58	RS	342829, 731229	2.4	27.3
<b>F6</b>	55 Craigie Ave	KS	343118, 731245	2.5	21.7
<b>F7</b>	Craigie Ave -Strips of Craigie Junction	KS	343293, 731149	2.4	25.6
<b>F8</b>	141 Broughty Ferry Road	KS	343340, 731065	2.3	23.3
<b>F9</b>	2 Craigie Place	KS	343378, 731136	2.3	20.2
<b>F10</b>	3 Dundee Road West	RS	343361, 731093	2.4	31.8
<b>F11</b>	6 Dundee Road West	RS	343437, 731083	2.4	34.7
<b>F12</b>	Broughty Ferry Rd - Carolina Court Junction	RS	342347, 731089	2.7	44.6
<b>F14</b>	Dundee Rd West - Christian Rd	RS	343879, 731075	2.4	22.8
<b>F16</b>	140 Craigie Drive	RS	343705, 731243	2.4	20.2
<b>F17</b>	Broughty Ferry Rd 141 (1)	RS	343319, 731072	1.3	37.5

In **bold**, exceedence of the annual mean NO<sub>2</sub> AQO of 40µg/m<sup>3</sup>  
 \* Bias Adjustment Factors listed with relevant year  
 \*\* RS = Roadside, KS = Kerbside

Figure 3 and Figure 4 shows the monitoring locations in the vicinity of the modelled road network. The monitoring locations are labelled to match the Site references given in Table 4, Table 5 and Table 6.

Figure 3 – Local Monitoring Locations

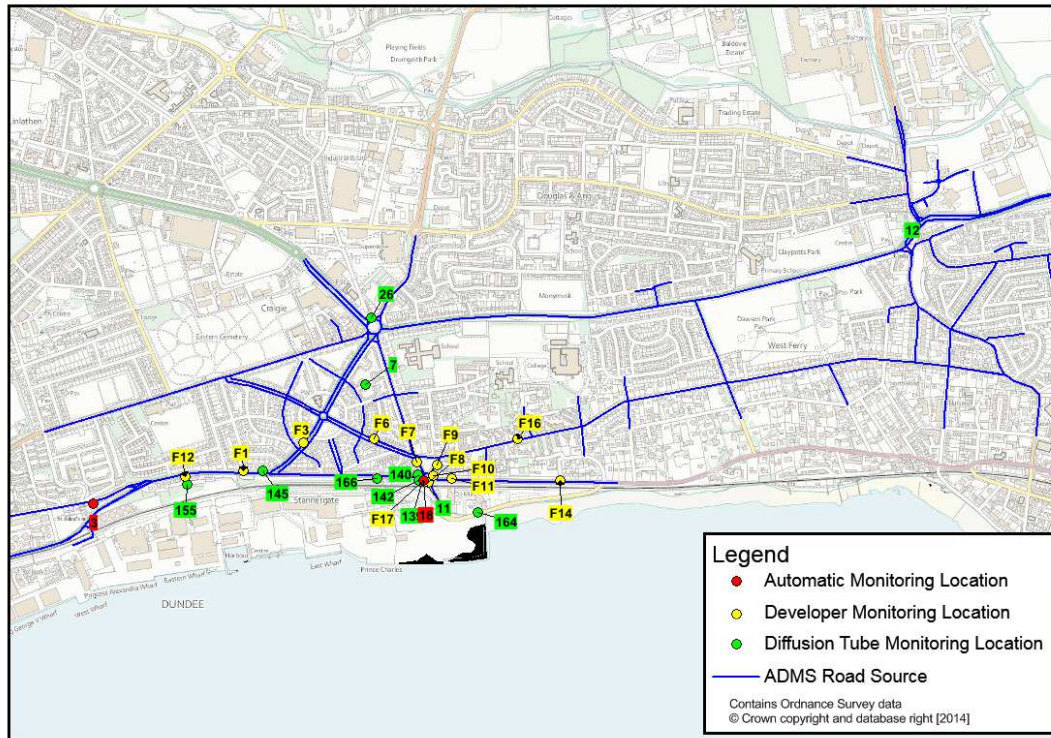
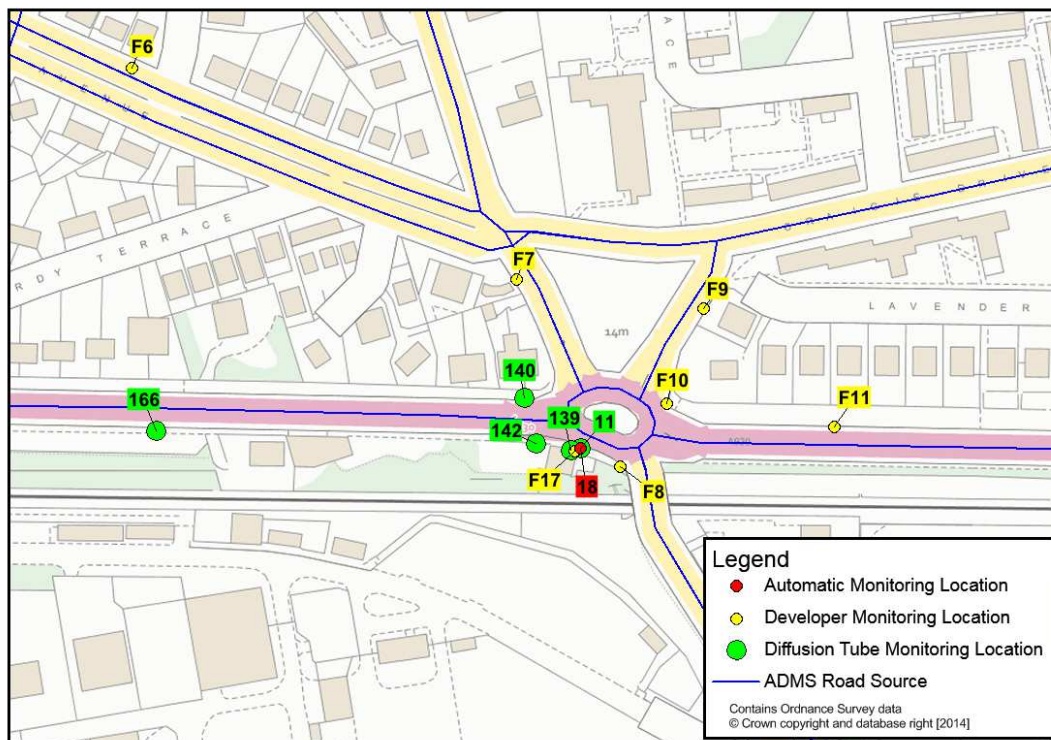


Figure 4 – Local Monitoring Locations – Close up of Stannergate Roundabout



### 3.7 Background Mapped Concentration Estimates

The Scottish Government hosts the Air Quality in Scotland website<sup>8</sup> which includes a nationwide model of existing and future background air quality concentrations at a 1km grid square resolution. The data sets include annual mean concentration estimates for NO<sub>x</sub>, NO<sub>2</sub>, PM<sub>10</sub> and PM<sub>2.5</sub>, using a base year of 2011. The model used is semi-empirical in nature; it uses the national atmospheric emissions inventory (NAEI) emissions to model-predict the concentrations of pollutants at the centroid of each 1km grid square, but then calibrates these concentrations in relation to actual monitoring data.

Annual mean background concentrations have been obtained from the Air Quality in Scotland website background maps<sup>9</sup> for consideration in the assessment, based on the 1km grid squares which cover the modelled area and the affected road network. The Air Quality in Scotland mapped background concentrations for 2012 are presented in Table 7.

**Table 7 – Background Pollutant Concentrations (Air Quality in Scotland Background Maps)**

Grid Square (E,N)	2012 Annual Mean Concentration (µg/m <sup>3</sup> )		
	NO <sub>x</sub>	NO <sub>2</sub>	PM <sub>10</sub>
341500, 732500	25.6	17.3	13.2
342500, 732500	28.3	18.7	13.1
343500, 732500	21.6	14.8	12.1
344500, 732500	21.1	14.4	11.8
345500, 732500	25.9	17.3	13.1
346500, 732500	21.2	14.5	14.0
347500, 732500	19.8	13.7	13.0
341500, 731500	25.7	17.3	12.7
342500, 731500	25.0	16.9	12.7
343500, 731500	22.7	15.5	12.3
344500, 731500	21.2	14.6	12.1
345500, 731500	19.7	13.6	11.7
346500, 731500	20.8	14.3	11.9
347500, 731500	16.3	11.4	11.1
341500, 730500	23.5	15.9	12.1
342500, 730500	23.4	15.8	11.9
343500, 730500	18.5	12.8	11.6
344500, 730500	15.9	11.2	11.3
345500, 730500	15.3	10.8	11.2
346500, 730500	13.1	9.3	10.8
347500, 730500	13.3	9.5	10.7
<b>AQS objective</b>	-	<b>40.0</b>	<b>18.0</b>

These mapped background concentrations are all well below the respective annual mean AQOs.

### 3.8 Background Concentrations used in the Assessment

It is generally preferable to use background data from appropriate local monitoring where available and provided there is good data capture. Mapped concentrations are estimates of background pollution and include inherent errors associated with large scale modelling. LAQM

<sup>8</sup> Air Quality in Scotland - <http://www.scottishairquality.co.uk/>

<sup>9</sup> <http://www.scottishairquality.co.uk/data/mapping?view=data>

TG(09)<sup>5</sup> states that if mapped background concentrations are to be used, these should be “compared against local monitoring data to confirm there is good agreement”.

Annual mean background concentrations for the pollutants of relevance to this assessment have therefore been derived using local monitoring data. The background NO<sub>2</sub> concentration applied to modelled receptors has been taken from the urban background diffusion tube sites 7 (BALGAVIES PLACE) and 155 (Carolina Court). Both the background sites are located within the vicinity of the modelled road network, but sufficient distance from the modelled roads to be considered a background site.

The background PM<sub>10</sub> concentration applied to modelled receptors has been taken from the 2012 concentrations observed at the urban background TEOM site CM12 (Mains Loan). CM12 is located within 1.0km of the modelled road network and so represents suitable background concentrations.

These concentrations are summarised in Table 8. These background concentrations were applied to all receptor locations considered.

**Table 8 – Background Concentrations Used in Assessment**

	Background Concentration (µg/m <sup>3</sup> )		
Pollutant	NO <sub>x</sub>	NO <sub>2</sub>	PM <sub>10</sub>
Concentration	30.4	20.3	11.4
AQO	-	40.0	18.0

Whilst urban background sites are useful in providing an indication of background values, they are not useful for the purpose of model verification. Model verification has therefore been undertaken using only the kerbside and roadside sites listed in Table 5.

## 4 Assessment Methodology

To assess the impact of road traffic emissions on air quality and to quantify the impacts of the various modelled scenarios, the atmospheric dispersion model ADMS Roads version 3.4 was utilised, focusing on emissions of NO<sub>x</sub> and PM<sub>10</sub>.

In order to provide consistency with the Council's own work on air quality, the guiding principles for air quality assessments as set out in the latest guidance and tools provided by Defra for air quality assessment (LAQM.TG(09)<sup>5</sup>) have been used.

The approach used in this assessment has been based on the following:

- Prediction of ambient NO<sub>2</sub> and PM<sub>10</sub> concentrations, to which existing receptors may be exposed and comparison with the relevant AQOs; and
- Determination of the geographical extent of any potential exceedences.

### 4.1 Traffic Inputs

The traffic data for this assessment has been provided by the Council's traffic consultant SIAS.

SIAS were commissioned to develop an S-Paramics model in 2013 for the Stannergate area of Dundee. The project include the use of Analysis of Instantaneous Emissions (AIRE) program to enable outputs to be used in an air quality dispersion modelling study to predict concentrations at local receptors. The AIRE outputs enabled Dundee City Council to consider various options for future year development and junction alterations. Further details of the work undertaken by SIAS can be found in Stannergate S-Paramics Model (SIAS Ref. TPDCSAA/77001 March 2015)<sup>10</sup>.

The traffic data was provided by SIAS in the form of hourly exhaust emissions of NO<sub>x</sub> and PM<sub>10</sub> for each of the modelled links split between different vehicle types. PM<sub>10</sub> contributions from brake, tyre wear and road abrasion were calculated by entering the number of vehicles on each road link (as output from S-Paramics) for each hour into the Emissions Factor Toolkit (EFT) v6.0.2<sup>11</sup>.

Tabulated Annual Average Daily Traffic (AADT) counts split between vehicles type and complete details of the road geometry assumed during the modelling are provided in the MS Excel file, which accompanies this report (Stannergate Results\_submitted\_V3.xlsx). An ESRI shape file (Road Sources.shp) showing the location of the modelled road sources also accompanies this submission.

### 4.2 Assessment Scenarios

In line with those detailed in Stannergate Road S-Paramics Model<sup>10</sup>, the following scenarios have been considered:

- 2012 Base (BC) – Base case traffic developed using a single modelled period covering a full 24-hours in early 2013;
- Scenario 1 (SC1) – Assessment of impacts of the Wind Turbine Manufacturing Plant and the Eastern Port Expansion. No road network changes were included just development trips as described in Stannergate Road S-Paramics Model<sup>10</sup>.

<sup>10</sup> Stannergate S-Paramics Model (SIAS Ref. TPDCSAA/77001 March 2015)

<sup>11</sup> Emission Factor Toolkit, Version 6.0.2, November 2014 – Available at <http://laqm.defra.gov.uk/review-and-assessment/tools/emissions.html#eft>

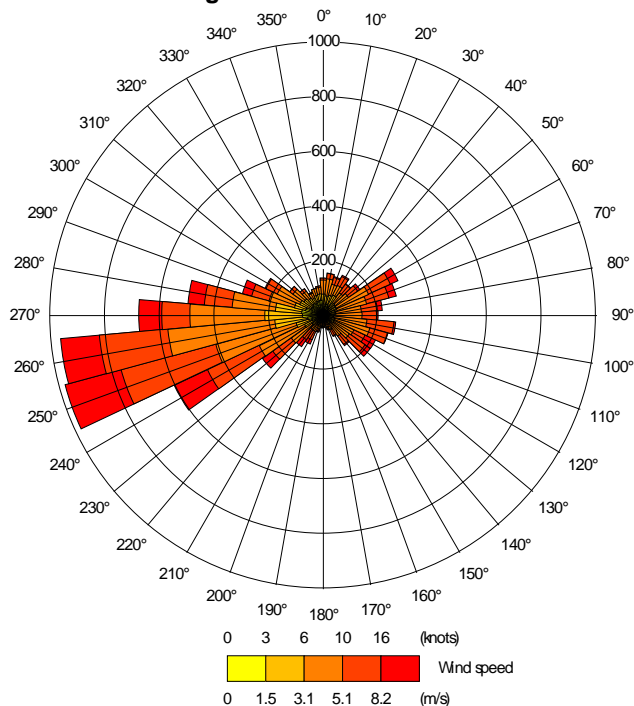
- Scenario 2 (SC2) – Assessing impact on air quality should all heavy goods vehicles (HGVs) using the bridge crossing the railway line on Broughty Ferry Road (Stannergate Bridge) have a Euro Class V engine type. The development traffic modelled in SC1 was included in SC2.
- Scenario 3 (SC3) – Assessment of impacts of the Wind Turbine Manufacturing Plant and the Eastern Port Expansion, but with redesigned layout of A930 Broughty Ferry Road/A930 Dundee Road West Roundabout junction (Stannergate Roundabout) as shown in Figure 2.2 of Stannergate Road S-Paramics Model<sup>10</sup>. The development traffic modelled in SC1 was included in SC3.
- Scenario 4 (SC4) – Assessment of impacts of the Wind Turbine Manufacturing Plant and the Eastern Port Expansion, but with closure of Craigie Place in both directions to all traffic as shown in Figure 2.3 of Stannergate Road S-Paramics Model<sup>10</sup>. The development traffic modelled in SC1 was included in SC4.
- Scenario 5 (SC5) – Assessment of impacts of the Wind Turbine Manufacturing Plant and the Eastern Port Expansion, but with the layout of Stannergate Roundabout modelled as a 5-arm priority junction, presumed to operate under signal control as shown in Figure 2.4 of Stannergate Road S-Paramics Model<sup>10</sup>. The development traffic modelled in SC1 was included in SC5.
- Scenario 6 (SC6) – Assessment of impacts assuming all heavy goods vehicles (HGVs) using the bridge crossing the railway line on Broughty Ferry Road (Stannergate Bridge) have a Euro Class VI engine type. The development traffic modelled in SC1 was included in SC6. Traffic inputs for SC6 were not provided by SIAS due to the inherent limitation of AIRE not including emissions for Euro VI vehicles. Euro VI HGV exhaust emissions for SC6 were calculated using the EFT.

### 4.3 Meteorological Data

2012 meteorological data from Leuchars weather station, located approximately 13km to the south, has been used in this assessment. A wind rose for this site for the year 2012 is shown in Figure 5.



Figure 5 – Leuchars 2012 Meteorological Data



Most dispersion models do not use meteorological data if they relate to calm winds conditions, as dispersion of air pollutants is more difficult to calculate in these circumstances. ADMS-Roads treats calm wind conditions by setting the minimum wind speed to 0.75m/s. It is recommended in LAQM.TG(09)<sup>5</sup> that the meteorological data file be tested within a dispersion model and the relevant output log file checked, to confirm the number of missing hours and calm hours that cannot be used by the dispersion model. This is important when considering predictions of high percentiles and the number of exceedences. LAQM.TG(09)<sup>5</sup> recommends that meteorological data should only be used if the percentage of usable hours is greater than 75%, and preferably 90%. 2012 meteorological data from Leuchars includes 8,783 lines of usable hourly data out of the total 8,784 for the year, i.e. 99.9% usable data. This is therefore suitable for the dispersion modelling exercise.

#### 4.4 Sensitive Receptors

A total of 1781 receptor locations are considered in the assessment of emissions from road traffic and their location is illustrated in Figure 6.

Figure 6 – Receptor Locations considered in the Assessment



Ground level receptors have been assumed to be a height of 1.5m, representative of the average inhalation height of an individual. In areas of elevated concentrations or areas of interest to the Council, receptors have additionally been considered at heights representative of 1st floor level (4.5m) and 2nd floor level (7.5m) and (10.5m) 3rd floor level.

There are a number of residential receptors on the south side of Broughty Ferry Road which are below the height of the modelled roads; as it is not possible in ADMS to accurately model receptors below the road height, receptors in these locations have been assumed to be a height of 0m. Table 9 shows the number of receptors at each of the different heights, a complete list of receptor locations and associated heights can be found in Appendix 3.

Table 9 – Number of Modelled Receptors

Scenario	Number of Receptors	Below Ground (0m)	Ground (1.5m)	1 <sup>st</sup> Floor (4.5m)	2 <sup>nd</sup> Floor (7.5m)	3 <sup>rd</sup> Floor (10.5m)
All Scenarios	All Receptors	13	1,614	82	50	22

## 4.5 Model Outputs

The monitored background NO<sub>2</sub> concentration has been used in conjunction with the contribution from road traffic calculated in the ADMS-Roads model to calculate predicted total annual mean concentrations of NO<sub>x</sub> and NO<sub>2</sub>.

For the prediction of annual mean NO<sub>2</sub> concentrations for the modelled scenarios, the output of the ADMS-Roads model for NO<sub>x</sub> has been converted to NO<sub>2</sub> following the methodology in LAQM.TG(09)<sup>5</sup> and using the NO<sub>x</sub> to NO<sub>2</sub> conversion tool developed on behalf of Defra. This tool also utilises the total background NO<sub>x</sub> and NO<sub>2</sub> concentrations. This assessment has utilised version 4.1 (June 2014) of the NO<sub>x</sub> to NO<sub>2</sub> conversion tool. The road contribution is then added to the appropriate NO<sub>2</sub> background concentration value to obtain an overall total NO<sub>2</sub> concentration.

Verification of the ADMS assessment has been undertaken using those local authority monitoring locations that are located adjacent to the affected road network.

All NO<sub>2</sub> results presented in the assessment are those calculated following the process of model verification, using a factor of 0.986 for those receptors in model verification zone A, 2.188 for those receptors in model verification zone B and 3.048 for those receptors in model verification zone C.

All PM<sub>10</sub> results presented in the assessment are those calculated following the process of model verification, using a factor of 10.789 applied to the PM<sub>10</sub> exhaust emissions.

Full details of the model verification can be found in Appendix 3.

## 4.6 Significance Criteria

Although no formal procedure exists for classifying the magnitude and significance of air quality effects from the modelled scenarios, guidance issued by Environmental Protection UK (EPUK)<sup>12</sup> has been used to address the issue.

The EPUK guidance has been superseded by the Land-Use Planning & Development Control: Planning for Air Quality (May 2015)<sup>13</sup> produced jointly by EPUK and the Institute of Air Quality Management (IAQM). The 2015 EPUK/IAQM guidance is not, however, as prescriptive for assessing beneficial impacts and so cannot be applied as readily for assessing the impacts associated with the intervention scenarios, hence the previous EPUK<sup>12</sup> guidance has been applied in this assessment.

In the EPUK guidance, the magnitude of impact due to an increase/decrease in annual mean NO<sub>2</sub>, PM<sub>10</sub> and other pollutants is described using the criteria in Table 10. These criteria are based on the change in concentration brought about by the interventions as a percentage of the assessment level, or the equivalent mass basis.

**Table 10 – Definition of Impact Magnitude for Changes in Pollutant Concentrations**

Magnitude of Change	Annual Mean NO <sub>2</sub> and PM <sub>10</sub> Concentrations	Change in Number of Days with PM <sub>10</sub> Concentration greater than 50 µg/m <sup>3</sup>	Other Pollutants <sup>1</sup>
Large	Increase/decrease > 4 µg/m <sup>3</sup>	Increase/decrease > 4 days	Increase/decrease > 10%
Medium	Increase/decrease 2 - 4 µg/m <sup>3</sup>	Increase/decrease 2-4 days	Increase/decrease 5-10%
Small	Increase/decrease 0.4 - 2 µg/m <sup>3</sup>	Increase/decrease 1-2 days	Increase/decrease 1-5%
Imperceptible	Increase/decrease < 0.4 µg/m <sup>3</sup>	Increase/decrease <1 days	Increase/decrease <1%

<sup>1</sup> For other pollutants, increase/decrease is a % relative to the relevant annual mean AQOs.

When describing the impact at a specific receptor (either adverse or beneficial), the actual concentration at that receptor should be taken into account, in combination with the magnitude of change, using the approach detailed in Table 11. The shaded cells in Table 11 show those changes which may be considered as significant, whereas the changes in the non-shaded cells can be considered as not significant.

<sup>12</sup> Environmental Protection UK (EPUK) (2010). Development Control: Planning for Air Quality (2010 Update).

<sup>13</sup> Environmental Protection UK (EPUK) and Institute of Air Quality Management (IAQM) Land-Use Planning & Development Control: Planning For Air Quality (May 2015).

Table 11 – Air Quality Impact Descriptors

Annual Mean NO <sub>2</sub> and PM <sub>10</sub>	Change in Number of Days with PM <sub>10</sub> Concentration greater than 50 µg/m <sup>3</sup>	Other Pollutants	Change in Concentration <sup>1</sup>		
			Small	Medium	Large
<b>Increase with Scheme</b>					
Above Objective/Limit Value <i>With Scheme</i> (>40 µg/m <sup>3</sup> for NO <sub>2</sub> ) (>18 µg/m <sup>3</sup> for PM <sub>10</sub> )	Above objective <i>With Scheme</i> (>7 days)	>100% objective/limit value <i>With Scheme</i>	Slight Adverse	Moderate Adverse	Substantial Adverse
Just Below Objective/Limit Value <i>With Scheme</i> (36-40 µg/m <sup>3</sup> for NO <sub>2</sub> ) (16.2-18 µg/m <sup>3</sup> for PM <sub>10</sub> )	Just below objective <i>With Scheme</i> (6-7 days)	90-100% objective/limit value <i>With Scheme</i>	Slight Adverse	Moderate Adverse	Moderate Adverse
Below Objective/Limit Value <i>With Scheme</i> (30-36 µg/m <sup>3</sup> for NO <sub>2</sub> ) (13.5-16.2 µg/m <sup>3</sup> for PM <sub>10</sub> )	Below objective <i>With Scheme</i> (5-6 days)	75-90% objective/limit value <i>With Scheme</i>	Negligible	Slight Adverse	Slight Adverse
Well Below Objective/Limit Value <i>With Scheme</i> (<30 µg/m <sup>3</sup> for NO <sub>2</sub> ) (<13.5 µg/m <sup>3</sup> for PM <sub>10</sub> )	Well below objective <i>With Scheme</i> <5 days)	<75% objective/limit value <i>With Scheme</i>	Negligible	Negligible	Slight Adverse
<b>Decrease with Scheme</b>					
Above Objective/Limit Value <i>Without Scheme</i> (>40 µg/m <sup>3</sup> for NO <sub>2</sub> ) (>18 µg/m <sup>3</sup> for PM <sub>10</sub> )	Above objective <i>Without Scheme</i> (>7 days)	>100% objective/limit value <i>Without Scheme</i>	Slight Beneficial	Moderate Beneficial	Substantial Beneficial
Just Below Objective/Limit Value <i>Without Scheme</i> (36-40 µg/m <sup>3</sup> for NO <sub>2</sub> ) (16.2-18 µg/m <sup>3</sup> for PM <sub>10</sub> )	Just below objective <i>Without Scheme</i> (6-7 days)	90-100% objective/limit value <i>Without Scheme</i>	Slight Beneficial	Moderate Beneficial	Moderate Beneficial
Below Objective/Limit Value <i>Without Scheme</i> (30-36 µg/m <sup>3</sup> for NO <sub>2</sub> ) (13.5-16.2 µg/m <sup>3</sup> for PM <sub>10</sub> )	Below objective <i>Without Scheme</i> (5-6 days)	75-90% objective/limit value <i>Without Scheme</i>	Negligible	Slight Beneficial	Slight Beneficial
Well Below Objective/Limit Value <i>Without Scheme</i> (<30 µg/m <sup>3</sup> for NO <sub>2</sub> ) (<13.5 µg/m <sup>3</sup> for PM <sub>10</sub> )	Well below objective <i>Without Scheme</i> <5 days)	<75% objective/limit value <i>Without Scheme</i>	Negligible	Negligible	Slight Beneficial

<sup>1</sup> An imperceptible change would be described as 'negligible'.

For short-term pollutant emissions, the magnitude of change is determined based upon the number of predicted exceedences of the short-term AQO limit. This makes the EPUK guidance less pragmatic to apply, since it requires data on the existing number of exceedences which is generally not known for most pollutants. The guidance has therefore been applied to annual mean NO<sub>2</sub> concentrations only.

The significance of the impact of the intervention scenarios will be determined by applying the magnitude of change to the relevant impact descriptor for the receptors of concern.

#### 4.7 Comparison with AQOs

Annual mean NO<sub>2</sub> and PM<sub>10</sub> concentrations have been predicted based on dispersion modelling, and compared to their respective long-term AQOs. However, short-term concentrations (1-hour mean for NO<sub>2</sub> and 24-hour mean for PM<sub>10</sub>) have also been considered in the assessment, as follows:

- For NO<sub>2</sub>, the 1-hour mean AQO is 200µg/m<sup>3</sup> with 18 allowed exceedences per year. Analysis of UK continuous NO<sub>2</sub> monitoring data has shown that it is unlikely that the 1-

hour mean objective would be exceeded where the annual mean objective is below  $60\mu\text{g}/\text{m}^3$ <sup>14</sup>. Therefore, potential exceedences of the 1-hour mean objective have been identified based on this criterion.

- For  $\text{PM}_{10}$ , the 24-hour mean AQO is  $50\mu\text{g}/\text{m}^3$ , not to be exceeded more than 7 times per year (Scotland only). The number of 24-hour mean exceeding  $50\mu\text{g}/\text{m}^3$  can be estimated using the relationship detailed in LAQM.TG(09)<sup>5</sup>. This relationship indicates that where the annual mean is above  $22.5\mu\text{g}/\text{m}^3$ , more than 7 24-hour mean exceedences of  $50\mu\text{g}/\text{m}^3$  may be expected in a calendar year (i.e. the likelihood of an exceedence of the 24-hour mean objective for  $\text{PM}_{10}$  would be high).

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<sup>14</sup>AEAT (May 2008) - Analysis of the relationship between annual mean nitrogen dioxide concentration and exceedences of the 1-hour mean AQS Objective. A report produced for Defra, the Scottish Government, the Welsh Assembly Government and the Department of the Environment in Northern Ireland.

## 5 Assessment Results

### 5.1 Nitrogen Dioxide (NO<sub>2</sub>)

Annual mean NO<sub>2</sub> concentrations were predicted at 1,781 specific receptors across the modelled area representing relevant public exposure, located at the façade of properties. Concentrations have been predicted for the seven scenarios as detailed in section 4.2. Table 12 shows the number of receptors predicted to exceed the 40µg/m<sup>3</sup> AQO for NO<sub>2</sub> at each of the assumed floor levels. Of the 1,614 receptors at ground floor level (1.5m), a maximum of 10 are predicted to exceed in any of the seven scenarios. At below ground level (0m), a maximum of 7 receptors are predicted to exceed the 40µg/m<sup>3</sup> AQO in any of the seven scenarios. There were no exceedences predicted at 1<sup>st</sup> (4.5m), 2<sup>nd</sup> (7.5m) or 3<sup>rd</sup> (10.5m) floor levels in any of the seven scenarios.

**Table 12 – Predicted Number of Exceedences of NO<sub>2</sub> 40µg/m<sup>3</sup> AQO at Different Floor Levels**

Scenario	Number of Receptors	Below Ground (0m)	Ground (1.5m)	1 <sup>st</sup> Floor (4.5m)	2 <sup>nd</sup> Floor (7.5m)	3 <sup>rd</sup> Floor (10.5m)
BC	Number of Exceeding Receptors	7	8	0	0	0
SC1		7	9	0	0	0
SC2		7	8	0	0	0
SC3		7	8	0	0	0
SC4		7	9	0	0	0
SC5		7	10	0	0	0
SC6		7	8	0	0	0
<b>All Scenarios</b>	<b>All Receptors</b>	<b>13</b>	<b>1,614</b>	<b>82</b>	<b>50</b>	<b>22</b>

At ground floor level (1.5m) the exceedences of the annual mean NO<sub>2</sub> AQO were predicted on Broughty Ferry Road between East Dock Street and Greendykes Road, and at the Stannergate Roundabout (the roundabout between A930 Broughty Ferry Road and A930 Dundee Road West). Thematic maps showing annual mean NO<sub>2</sub> concentrations at ground floor level for the BC (Figure A9), SC1 (Figure A10), SC2 (Figure A11), SC3 (Figure A12), SC4 (Figure A13), SC5 (Figure A14) and SC6 (Figure A15) scenarios are shown in Appendix 4.

Thematic maps highlighting where exceedences of the annual mean NO<sub>2</sub> AQO have been removed, caused or remain relative to the BC scenario, are provided for ground level receptors in Appendix 4 for the following scenarios, SC1 (Figure A16), SC2 (Figure A17), SC3 (Figure A18), SC4 (Figure A19), SC5 (Figure A20) and SC6 (Figure A21).

A thematic map showing annual mean NO<sub>2</sub> concentrations at first floor and second floor level for the BC scenario are provided in Appendix 4 in Figures A22 and A23 respectively.

At receptors representative of below ground floor level (0m) the exceedences of the annual mean NO<sub>2</sub> AQO were predicted on Broughty Ferry Road, to the west of Carolina Court. Thematic maps showing annual mean NO<sub>2</sub> concentrations at below ground floor level for the BC scenario are shown in Figure A24 of Appendix 4.

A Thematic maps highlighting where exceedences of the annual mean NO<sub>2</sub> AQO have been removed, caused or remain relative to the BC scenario are provided for below ground floor level receptors in Appendix 4 Figure A25 for SC1-SC6.

Table 13 provides a summary of the predicted NO<sub>2</sub> concentrations for the seven scenarios in comparison to the annual mean NO<sub>2</sub> AQO and the predicted impact according to the EPUK guidance.

Table 13 – NO<sub>2</sub> Results Summary

Descriptor		BC	SC1	SC2	SC3	SC4	SC5	SC6
Summary Statistics (µg/m <sup>3</sup> )	Min	20.7	20.7	20.7	20.7	20.7	20.7	20.7
	Max	47.3	47.6	47.4	47.5	47.7	48.2	47.3
	Average	23.8	24.0	24.0	24.0	24.0	24.1	23.9
Number of Receptors with NO <sub>2</sub> concentration relative to 100%, 90% and 75% of the 40µg/m <sup>3</sup> AQO	<30µg/m <sup>3</sup>	1,669	1,668	1,669	1,668	1,667	1,662	1,670
	30-36µg/m <sup>3</sup>	83	82	82	84	83	83	82
	36-40µg/m <sup>3</sup>	14	15	15	14	15	19	14
	>=40µg/m <sup>3</sup>	15	16	15	15	16	17	15
Percentage of Receptors with NO <sub>2</sub> concentration relative to 100%, 90% and 75% of the 40µg/m <sup>3</sup> AQO	<30µg/m <sup>3</sup>	93.7%	93.7%	93.7%	93.7%	93.6%	93.3%	93.8%
	30-36µg/m <sup>3</sup>	4.7%	4.6%	4.6%	4.7%	4.7%	4.7%	4.6%
	36-40µg/m <sup>3</sup>	0.8%	0.8%	0.8%	0.8%	0.8%	1.1%	0.8%
	>=40µg/m <sup>3</sup>	0.8%	0.9%	0.8%	0.8%	0.9%	1.0%	0.8%
EPUK Impact Descriptor	Substantial Beneficial		0	0	0	0	0	0
	Moderate Beneficial		0	0	1	0	0	0
	Slight Beneficial		0	2	1	2	0	3
	Negligible	N/A	1,780	1,778	1,779	1,773	1,751	1,777
	Slight Adverse		1	1	0	6	28	1
	Moderate Adverse		0	0	0	0	1	0
	Substantial Adverse		0	0	0	0	1	0

Annual mean NO<sub>2</sub> concentrations were predicted at 1,781 specific receptors across the modelled area representing relevant public exposure, located at the façade of properties. Concentrations have been predicted for seven scenarios as detailed in section 4.2. The results have been summarised in Table 13.

SC1 is predicted to result in an increase in the number of exceedences of the NO<sub>2</sub> annual mean objective with 15 predicted exceedences in BC increasing to 16 predicted exceedences in SC1. According to EPUK guidance, implementation of SC1 would result in a negligible impact at 1,780 receptors in relation to the annual mean AQO for NO<sub>2</sub>. Slight adverse impacts were predicted at 1 receptor as a result of SC1 in relation to the annual mean AQO for NO<sub>2</sub>.

SC2 is predicted to not change the number of exceedences of the NO<sub>2</sub> annual mean objective with 15 predicted exceedences in both BC and SC2. According to EPUK guidance, implementation of SC2 would result in a negligible impact at 1,778 receptors and a slight beneficial impact at 2 receptors in relation to the annual mean AQO for NO<sub>2</sub>. A slight adverse impact was predicted at 1 receptor as a result of SC2 in relation to the annual mean AQO for NO<sub>2</sub>.

SC3 is predicted to not change number of exceedences of the NO<sub>2</sub> annual mean objective with 15 predicted exceedences in both BC and SC3. According to EPUK guidance, implementation of SC3 would result in a negligible impact at 1,779 receptors and a slight beneficial impact at 1 receptor, and a moderate beneficial impact at 1 receptor, in relation to the annual mean AQO for NO<sub>2</sub>. Adverse impacts were not predicted at any receptors as a result of SC3 in relation to the annual mean AQO for NO<sub>2</sub>.

SC4 is predicted to result in an increase in the number of exceedences of the NO<sub>2</sub> annual mean objective with 15 predicted exceedences in BC increasing to 16 predicted exceedences in SC4. According to EPUK guidance, implementation of SC4 would result in a negligible impact at 1,773

receptors and a slight beneficial impact at 2 receptors in relation to the annual mean AQO for NO<sub>2</sub>. A slight adverse impact was predicted at 6 receptors as a result of SC4 in relation to the annual mean AQO for NO<sub>2</sub>.

SC5 is predicted to result in an increase in the number of exceedences of the NO<sub>2</sub> annual mean objective with 15 predicted exceedences in BC increasing to 17 predicted exceedences in SC5. According to EPUK guidance, implementation of SC5 would result in a negligible impact at 1,751 receptors in relation to the annual mean AQO for NO<sub>2</sub>. A slight adverse impact was predicted at 28 receptors, a moderate adverse impact at 1 receptor and a substantial adverse impact at 1 receptor, as a result of SC5 in relation to the annual mean AQO for NO<sub>2</sub>.

SC6 is predicted to not change the number of exceedences of the NO<sub>2</sub> annual mean objective with 15 predicted exceedences in both BC and SC6. According to EPUK guidance, implementation of SC6 would result in a negligible impact at 1,777 receptors and a slight beneficial impact at 3 receptors, in relation to the annual mean AQO for NO<sub>2</sub>. A slight adverse impact was predicted at 1 receptor as a result of SC6 in relation to the annual mean AQO for NO<sub>2</sub>.

Analysis of UK continuous NO<sub>2</sub> monitoring data has shown that it is unlikely that the hourly mean NO<sub>2</sub> AQO, of 18 hourly means over 200µg/m<sup>3</sup>, would be exceeded where the annual mean objective is below 60µg/m<sup>3</sup><sup>15</sup>. Across the whole modelled area, the maximum predicted annual mean for NO<sub>2</sub> at a receptor for any of the seven scenarios is 48.2µg/m<sup>3</sup>. Therefore, the NO<sub>2</sub> hourly mean AQO is expected to be met at all modelled receptors.

Full results for all modelled receptors can be found in the MS Excel file, which accompanies this report (Stannergate Results\_submitted\_V3.xlsx).

## 5.2 Particulate Matter (PM<sub>10</sub>)

Annual mean PM<sub>10</sub> concentrations were predicted at 1,781 specific receptors across the modelled area representing relevant public exposure, located at the façade of properties. Concentrations have been predicted for the seven scenarios as detailed in section 4.2. Table 14 shows the number of receptors predicted to exceed the 18µg/m<sup>3</sup> AQO at each of the assumed floor levels. Of the 1,614 receptors at ground floor level (1.5m), a maximum of 13 are predicted to exceed in any of the seven scenarios. At below ground level (0m) and 1<sup>st</sup> floor level a maximum of 1 receptor was predicted to exceed the 18µg/m<sup>3</sup> AQO in any of the seven scenarios. There were no exceedences predicted at 2<sup>nd</sup> (7.5m) and 3<sup>rd</sup> (10.5m) floor levels in any of the seven scenarios.

**Table 14 – Predicted Number of Exceedences of PM<sub>10</sub> 18µg/m<sup>3</sup> AQO at Different Floor Levels**

Scenario	Number of Receptors	Below Ground (0m)	Ground (1.5m)	1 <sup>st</sup> Floor (4.5m)	2 <sup>nd</sup> Floor (7.5m)	3 <sup>rd</sup> Floor (10.5m)
BC	Number of Exceeding Receptors	1	11	1	0	0
SC1		1	11	1	0	0
SC2		1	11	1	0	0
SC3		1	10	1	0	0
SC4		1	11	1	0	0
SC5		1	13	1	0	0
SC6		1	10	1	0	0
<b>All Scenarios</b>	<b>All Receptors</b>	<b>13</b>	<b>1,614</b>	<b>82</b>	<b>50</b>	<b>22</b>

At ground floor level (1.5m) the exceedences of the annual mean PM<sub>10</sub> AQO were predicted at the following locations:

<sup>15</sup> Analysis of the relationship between annual mean nitrogen dioxide concentration and exceedences of the 1-hour mean AQS Objective – AEA - 2008



- Broughty Ferry Road between East Dock Street and Greendykes Road;
- At the Stannergate Roundabout (the roundabout between A930 Broughty Ferry Road and A930 Dundee Road West);
- The roundabout between A972 Kingsway East, Greendykes Road and A92 Arbroath Road; and
- A92 Arbroath Road, near to the junction with Baldovie Road.

Thematic maps showing annual mean  $PM_{10}$  concentrations at ground floor level for the BC (Figure A26), SC1 (Figure A27), SC2 (Figure A28), SC3 (Figure A29), SC4 (Figure A30), SC5 (Figure A31) and SC6 (Figure A32) scenarios are shown in Appendix 4.

Thematic maps highlighting where exceedences of the annual mean  $PM_{10}$  AQO have been removed, caused or remain relative to the BC scenario are provided for ground level receptors in Appendix 4 for the following scenarios, SC1 (Figure A33), SC2 (Figure A34), SC3 (Figure A35), SC4 (Figure A36), SC5 (Figure A37) and SC6 (Figure A38).

At first floor level (4.5m) the exceedences of the annual mean  $PM_{10}$  AQO were predicted at the roundabout between A972 Kingsway East, Greendykes Road and A92 Arbroath Road only. A thematic map showing annual mean  $PM_{10}$  concentrations at first floor and second floor level for the BC scenario are provided in Appendix 4 in Figures A39 and A40 respectively.

At receptors representative of below ground floor level (0m) the exceedences of the annual mean  $PM_{10}$  AQO were predicted on Broughty Ferry Road, to the west of Carolina Court. Thematic maps showing annual mean  $PM_{10}$  concentrations at below ground floor level for the BC scenario are shown in Figure A41 of Appendix 4.

A thematic map highlighting where exceedences of the annual mean  $PM_{10}$  AQO have been removed, caused or remain relative to the BC scenario are provided for below ground floor level receptors in Appendix 4 Figure A42 for SC1-SC6.

Table 15 provides a summary of the predicted  $PM_{10}$  concentrations for the seven scenarios in comparison to the annual mean  $PM_{10}$  AQO and the predicted impact according to the EPUK guidance.

Table 15 – PM<sub>10</sub> Results Summary

Descriptor		BC	SC1	SC2	SC3	SC4	SC5	SC6
Summary Statistics (µg/m <sup>3</sup> )	Min	11.7	11.7	11.7	11.7	11.7	11.7	11.7
	Max	20.2	20.4	20.3	20.3	20.4	20.5	20.2
	Average	13.5	13.6	13.6	13.6	13.6	13.6	13.5
Number of Receptors with PM <sub>10</sub> concentration relative to 100%, 90% and 75% of the 18µg/m <sup>3</sup> AQO	<13.5µg/m <sup>3</sup>	729	744	738	737	750	758	719
	13.5-16.2µg/m <sup>3</sup>	976	954	964	962	947	936	988
	16.2-18µg/m <sup>3</sup>	63	70	66	70	71	72	62
	>=18µg/m <sup>3</sup>	13	13	13	12	13	15	12
Percentage of Receptors with PM <sub>10</sub> concentration relative to 100%, 90% and 75% of the 18µg/m <sup>3</sup> AQO	<13.5µg/m <sup>3</sup>	40.9%	41.8%	41.4%	41.4%	42.1%	42.6%	40.4%
	13.5-16.2µg/m <sup>3</sup>	54.8%	53.6%	54.1%	54.0%	53.2%	52.6%	55.5%
	16.2-18µg/m <sup>3</sup>	3.5%	3.9%	3.7%	3.9%	4.0%	4.0%	3.5%
	>=18µg/m <sup>3</sup>	0.7%	0.7%	0.7%	0.7%	0.7%	0.8%	0.7%
EPUK Impact Descriptor	Substantial Beneficial	N/A	0	0	0	0	0	0
	Moderate Beneficial		0	0	1	0	1	0
	Slight Beneficial		0	0	0	0	2	0
	Negligible		1,780	1,780	1,779	1,771	1,739	1,781
	Slight Adverse		1	1	1	9	37	0
	Moderate Adverse		0	0	0	1	2	0
	Substantial Adverse		0	0	0	0	0	0

Annual mean PM<sub>10</sub> concentrations were predicted at 1,781 specific receptors across the modelled area representing relevant public exposure, located at the façade of properties. Concentrations have been predicted for seven scenarios as detailed in section 4.2. The results have been summarised in Table 15.

SC1 is predicted to not change the number of exceedences of the PM<sub>10</sub> annual mean objective with 13 predicted exceedences in both BC and SC1. According to EPUK guidance, implementation of SC1 would result in a negligible impact at 1,780 receptors in relation to the annual mean AQO for PM<sub>10</sub>. Slight adverse impacts were predicted at 1 receptor as a result of SC1 in relation to the annual mean AQO for PM<sub>10</sub>.

SC2 is predicted to not change the number of exceedences of the PM<sub>10</sub> annual mean objective with 13 predicted exceedences in both BC and SC2. According to EPUK guidance, implementation of SC2 would result in a negligible impact at 1,780 receptors in relation to the annual mean AQO for PM<sub>10</sub>. A slight adverse impact was predicted at 1 receptor as a result of SC2 in relation to the annual mean AQO for PM<sub>10</sub>.

SC3 is predicted to result in a decrease in the number of exceedences of the PM<sub>10</sub> annual mean objective with 13 predicted exceedences in BC decreasing to 12 predicted exceedences in SC3. According to EPUK guidance, implementation of SC3 would result in a negligible impact at 1,779 receptors and a moderate beneficial impact at 1 receptor, in relation to the annual mean AQO for PM<sub>10</sub>. A slight adverse impact was predicted at 1 receptor as a result of SC3 in relation to the annual mean AQO for PM<sub>10</sub>.

SC4 is predicted to not change the number of exceedences of the PM<sub>10</sub> annual mean objective with 13 predicted exceedences in both BC and SC4. According to EPUK guidance, implementation of SC4 would result in a negligible impact at 1,771 receptors in relation to the

annual mean AQO for PM<sub>10</sub>. A slight adverse impact was predicted at 9 receptors, and a moderate adverse impact predicted at 1 receptor, as a result of SC4 in relation to the annual mean AQO for PM<sub>10</sub>.

SC5 is predicted to result in an increase in the number of exceedences of the PM<sub>10</sub> annual mean objective with 13 predicted exceedences in BC increasing to 15 predicted exceedences in SC5. According to EPUK guidance, implementation of SC5 would result in a negligible impact at 1,739 receptors, a slight beneficial impact at 2 receptors, and a moderate beneficial impact at 1 receptor, in relation to the annual mean AQO for PM<sub>10</sub>. A slight adverse impact was predicted at 37 receptors, and a moderate adverse impact predicted at 2 receptors, as a result of SC5 in relation to the annual mean AQO for PM<sub>10</sub>.

SC6 is predicted to result in a decrease in the number of exceedences of the PM<sub>10</sub> annual mean objective with 13 predicted exceedences in BC decreasing to 12 predicted exceedences in SC6. According to EPUK guidance, implementation of SC6 would result in a negligible impact at all 1,781 receptors, in relation to the annual mean AQO for PM<sub>10</sub>.

Analysis of UK continuous PM<sub>10</sub> monitoring data has shown that it is unlikely that the 24-hour mean PM<sub>10</sub> AQO of seven 24-hour means over 50µg/m<sup>3</sup>, would be exceeded where the annual mean objective is below 22.5µg/m<sup>3</sup>. Across the whole modelled area, the maximum predicted annual mean PM<sub>10</sub> concentration at a receptor in any of the seven scenarios is 20.5µg/m<sup>3</sup>. Therefore, the 24-hour mean AQO is expected to be met at all modelled receptors.

Full results for all modelled receptors can be found in the MS Excel file, which accompanies this report (Stannergate Results\_submitted\_V3.xlsx).

### 5.3 Source Apportionment

A source apportionment study was carried out for the BC scenario of the Stannergate modelled area. The source apportionment was carried out for the following vehicle classes:

- Cars;
- Light-Goods Vehicles (LGVs);
- Heavy-Goods Vehicles (HGVs); and
- Buses.

#### NO<sub>x</sub>

Table 16 and Figure 7 present source apportionment results for BC NO<sub>x</sub> concentrations for three different selections of the modelled receptors:

- **Average across all modelled receptors.** This provides useful information when considering possible AQAP measure to test and adopt. It will however understate road NO<sub>x</sub> concentrations in problem areas;
- **Average across all receptors with NO<sub>2</sub> Concentration greater than 40µg/m<sup>3</sup>.** This provides an indication of source apportionment in areas known to be a problem (i.e. only where the AQS objective is exceeded). As such, this information should be considered with more scrutiny when testing and adopting AQAP measures; and
- **At the Receptor with maximum road NO<sub>x</sub> Concentration.** This is likely to be in the area of most concern and so a good place to test and adopt AQAP measures. Any gains predicted by AQAP measures are however likely to be greatest at this location and so would not represent gains across the whole modelled area.

When considering the average NO<sub>x</sub> concentration across all modelled receptors, road traffic accounts for 7.6µg/m<sup>3</sup> (17.9%) of total NO<sub>x</sub> (37.9µg/m<sup>3</sup>). Of this total average NO<sub>x</sub>, Cars account for the most (6.9%) of any of the vehicle types on average, followed by HGVs (4.4%). LGVs and Buses account on average for 4.1% and 2.5% respectively of the overall predicted average NO<sub>x</sub> concentration.

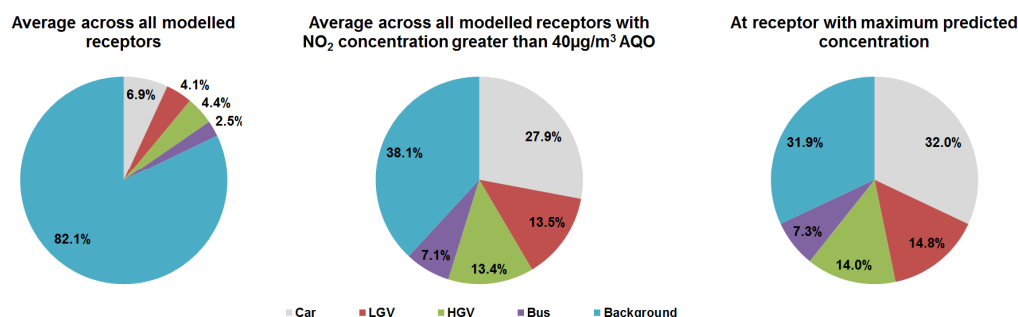
**Table 16 – NO<sub>x</sub> Source Apportionment for BC**

Results	All Vehicles	Car	LGV	HGV	Bus	Background
<b>Average across all modelled receptors</b>						
NO <sub>x</sub> Concentration (µg/m <sup>3</sup> )	7.6	3.0	1.7	1.9	1.0	30.3
Percentage	17.9%	6.9%	4.1%	4.4%	2.5%	82.1%
Percentage Road Contribution	100%	38.7%	23.1%	24.6%	13.7%	-
<b>Average across all receptors with NO<sub>2</sub> Concentration greater than 40µg/m<sup>3</sup></b>						
NO <sub>x</sub> Concentration (µg/m <sup>3</sup> )	49.8	22.5	10.9	10.7	5.7	30.3
Percentage	61.9%	27.9%	13.5%	13.4%	7.1%	38.1%
Percentage Road Contribution	100%	45.1%	21.9%	21.6%	11.4%	-
<b>At Receptor with maximum road NO<sub>x</sub> Concentration (Receptor 1488_0 – Broughty Ferry Road)</b>						
NO <sub>x</sub> Concentration (µg/m <sup>3</sup> )	64.7	30.4	14.0	13.3	6.9	30.3
Percentage	68.1%	32.0%	14.8%	14.0%	7.3%	31.9%
Percentage Road Contribution	100%	47.0%	21.7%	20.6%	10.7%	-

When considering the average NO<sub>x</sub> concentration at receptors with an NO<sub>2</sub> concentration greater than 40µg/m<sup>3</sup>, road traffic contribution is much higher, accounting for 49.8µg/m<sup>3</sup> (61.9%) of total NO<sub>x</sub> (80.1µg/m<sup>3</sup>). Of this 80.1µg/m<sup>3</sup>, Cars account for the most (27.9%) of any of the vehicle types, followed by LGVs (13.5%), then HGVs and Buses (13.4% and 7.1% respectively).

At the receptor with the maximum road NO<sub>x</sub> concentration (95.0µg/m<sup>3</sup>, predicted at receptor 1488\_0 on Broughty Ferry Road to the immediate west of Carolina Court), road traffic accounts for 68.1% of the overall NO<sub>x</sub>. Of this 95.0µg/m<sup>3</sup>, Cars account for the most (32.0%) of any of the vehicle types, followed by LGVs (14.8%), then HGVs and Buses (14.0% and 7.3% respectively).

**Figure 7 – Pie Charts showing NO<sub>x</sub> Source Apportionment for BC**



## NO<sub>2</sub>

Table 17 and Figure 8 present source apportionment results for BC NO<sub>2</sub> concentrations for three different selections of the modelled receptors, using the same approach as was undertaken for NO<sub>x</sub>, as follows:

- Average across all modelled receptors.
- Average across all receptors with NO<sub>2</sub> Concentration greater than 40µg/m<sup>3</sup>.
- At the Receptor with maximum road NO<sub>2</sub> Concentration.

When considering the average NO<sub>2</sub> concentration across all modelled receptors, road traffic accounts for 3.6µg/m<sup>3</sup> (14.0%) of total NO<sub>2</sub> (23.9µg/m<sup>3</sup>). Of this total average NO<sub>2</sub>, Cars account for the most (5.4%) of any of the vehicle types on average, followed by HGVs (3.4%). LGVs and Buses account on average for 3.2% and 1.9% respectively of the overall predicted average NO<sub>2</sub> concentration.

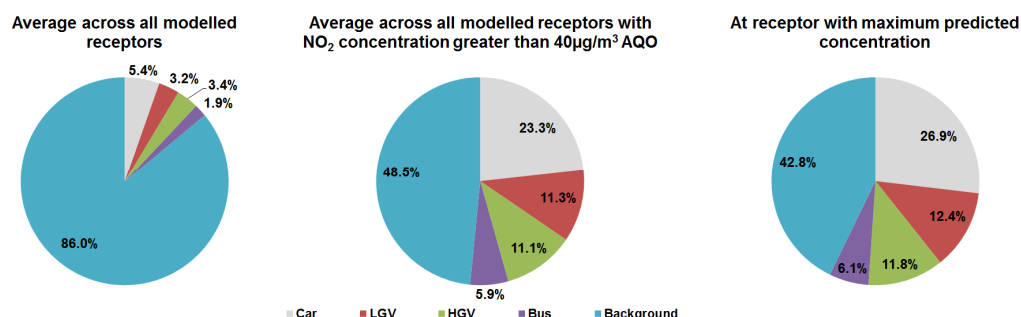
When considering the average NO<sub>2</sub> concentration at receptors with an NO<sub>2</sub> concentration greater than 40µg/m<sup>3</sup>, road traffic contribution is much higher, accounting for 21.7µg/m<sup>3</sup> (51.5%) of total NO<sub>2</sub> (42.0µg/m<sup>3</sup>). Of this 42.0µg/m<sup>3</sup>, Cars account for the most (23.3%) of any of the vehicle types, followed by LGVs (11.3%), then HGVs and Buses (11.1% and 5.9% respectively).

At the receptor with the maximum road NO<sub>2</sub> concentration (27.1µg/m<sup>3</sup>, predicted at receptor 1488\_0 on Broughty Ferry Rd to the immediate west of Carolina Court), road traffic accounts for 57.2% of the overall NO<sub>2</sub>. Of this 27.1µg/m<sup>3</sup>, Cars account for the most (26.9%) of any of the vehicle types, followed by LGVs (12.4%), then HGVs and Buses (11.8% and 6.1% respectively).

**Table 17 – NO<sub>2</sub> Source Apportionment for BC**

Results	All Vehicles	Car	LGV	HGV	Bus	Background
<b>Average across all modelled receptors</b>						
NO <sub>2</sub> Concentration (µg/m <sup>3</sup> )	3.6	1.4	0.8	0.9	0.5	20.3
Percentage	14.0%	5.4%	3.2%	3.4%	1.9%	86.0%
Percentage Road Contribution	100%	38.7%	23.0%	24.6%	13.7%	-
<b>Average across all receptors with NO<sub>2</sub> Concentration greater than 40µg/m<sup>3</sup></b>						
NO <sub>2</sub> Concentration (µg/m <sup>3</sup> )	21.7	9.8	4.7	4.7	2.5	20.3
Percentage	51.5%	23.3%	11.3%	11.1%	5.9%	48.5%
Percentage Road Contribution	100%	45.1%	21.9%	21.6%	11.4%	-
<b>At Receptor with maximum road NO<sub>2</sub> Concentration (Receptor 1488_0 – Broughty Ferry Road)</b>						
NO <sub>2</sub> Concentration (µg/m <sup>3</sup> )	27.1	12.7	5.9	5.6	2.9	20.3
Percentage	57.2%	26.9%	12.4%	11.8%	6.1%	42.8%
Percentage Road Contribution	100%	47.0%	21.7%	20.6%	10.7%	-

**Figure 8 – Pie Charts showing NO<sub>2</sub> Source Apportionment for BC**



## PM<sub>10</sub>

Table 18 and Figure 9 present source apportionment results for BC PM<sub>10</sub> concentrations for three different selections of the modelled receptors, using the same approach as was undertaken for NO<sub>x</sub> and NO<sub>2</sub>, as follows:

- Average across all modelled receptors.
- Average across all receptors with PM<sub>10</sub> Concentration greater than 18µg/m<sup>3</sup>.
- At the Receptor with maximum road PM<sub>10</sub> Concentration.

When considering the average PM<sub>10</sub> concentration across all modelled receptors, road traffic accounts for 2.1µg/m<sup>3</sup> (15.9%) of total PM<sub>10</sub> (13.5µg/m<sup>3</sup>). Of this total average PM<sub>10</sub>, Cars account for the most (9.2%) of any of the vehicle types on average, followed by LGVs (3.3%) and HGVs (2.0%). Buses account on average for 1.4% of the overall predicted average PM<sub>10</sub> concentration.

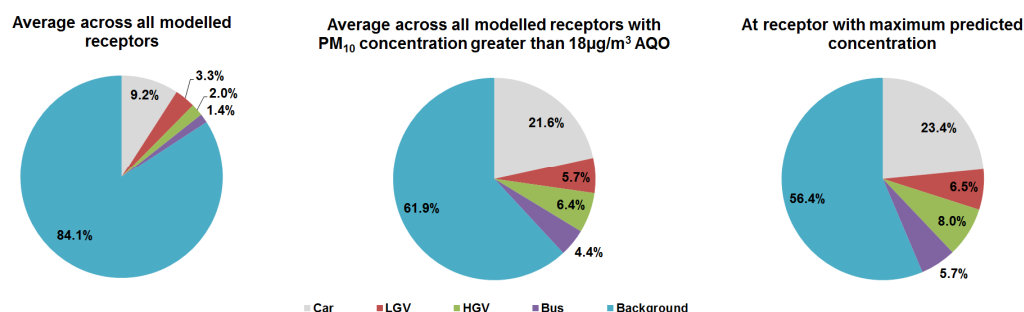
When considering the average PM<sub>10</sub> concentration at receptors with a PM<sub>10</sub> concentration greater than 18µg/m<sup>3</sup>, road traffic contribution is much higher, accounting for 7.0µg/m<sup>3</sup> (38.1%) of total PM<sub>10</sub> (18.4µg/m<sup>3</sup>). Of this 18.4µg/m<sup>3</sup>, Cars account for the most (21.6%) of any of the vehicle types, followed by HGVs (6.4%), then LGVs and Buses (5.7% and 4.4% respectively).

**Table 18 – PM<sub>10</sub> Source Apportionment for BC**

Results	All Vehicles	Car	LGV	HGV	Bus	Background
<b>Average across all modelled receptors</b>						
PM <sub>10</sub> Concentration (µg/m <sup>3</sup> )	2.1	1.2	0.4	0.3	0.2	11.4
Percentage	15.9%	9.2%	3.3%	2.0%	1.4%	84.1%
Percentage Road Contribution	100%	57.8%	20.8%	12.3%	9.1%	-
<b>Average across all receptors with PM<sub>10</sub> Concentration greater than 18µg/m<sup>3</sup></b>						
PM <sub>10</sub> Concentration (µg/m <sup>3</sup> )	7.0	4.0	1.0	1.2	0.8	11.4
Percentage	38.1%	21.6%	5.7%	6.4%	4.4%	61.9%
Percentage Road Contribution	100%	56.7%	14.9%	16.9%	11.6%	-
<b>At Receptor with maximum road PM<sub>10</sub> Concentration (Receptor 988 – Abroath Road)</b>						
PM <sub>10</sub> Concentration (µg/m <sup>3</sup> )	8.8	4.7	1.3	1.6	1.2	11.4
Percentage	43.6%	23.4%	6.5%	8.0%	5.7%	56.4%
Percentage Road Contribution	100%	53.7%	14.9%	18.3%	13.1%	-

At the receptor with the maximum road PM<sub>10</sub> concentration (20.2µg/m<sup>3</sup>, predicted at receptor 988 on Abroath Road near the roundabout with Kingsway), road traffic accounts for 43.6% of the overall PM<sub>10</sub>. Of this 20.2µg/m<sup>3</sup>, Cars account for the most (23.4%) of any of the vehicle types, followed by HGVs (8.0%), then LGVs and Buses (6.5% and 5.7% respectively).

Figure 9 – Pie Charts showing PM<sub>10</sub> Source Apportionment for BC



## 5.4 Population Exposure

The predicted pollutant concentrations at receptors were used to determine the population exposure to potential exceedence of the annual mean NO<sub>2</sub> and PM<sub>10</sub> AQS objectives, as presented in Table 19. The Office for National Statistics<sup>16</sup> provides an average number of 2.3 people per UK household based on the 2011 census.

Based on the number of properties located in areas where annual mean NO<sub>2</sub> concentrations are predicted to be 36µg/m<sup>3</sup> and above, and the average number of people per UK household, the number of people exposed to potential exceedences of the annual mean NO<sub>2</sub> in the area covered by the Stannergate model is approximately 67.

Based on the number of properties located in areas where annual mean PM<sub>10</sub> concentrations are predicted to be 16.2µg/m<sup>3</sup> and above, and the average number of people per UK household, the number of people exposed to potential exceedences of the annual mean PM<sub>10</sub> in the area covered by the Stannergate model is approximately 175.

Table 19 – Estimated Population exposure to NO<sub>2</sub> and PM<sub>10</sub> Exceedences

Pollutant	Number of receptors where pollutant concentration is predicted to be greater than 90% of annual mean AQS Objective	Estimated population exposed in the Modelled area
NO <sub>2</sub>	29	67
PM <sub>10</sub>	76	175

<sup>16</sup> <http://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/bulletins/populationandhouseholdestimatesfortheunitedkingdom/2011-03-21>

## 6 Conclusions

Bureau Veritas has been commissioned by Dundee City Council to undertake air quality dispersion modelling studies to predict annual mean concentrations of NO<sub>2</sub> and PM<sub>10</sub> for the three areas of Dundee (Forfar, Lochee and Stannergate) identified by the Council. This report and associated results files focus on the Stannergate area of Dundee. Separate reports have been produced for the Lochee and Forfar areas.

In line with those detailed in Stannergate Road S-Paramics Model<sup>10</sup>, the following scenarios have been assessed:

- 2012 Base (BC);
- Scenario 1 (SC1) – Assessment of impacts of the Wind Turbine Manufacturing Plant and the Eastern Port Expansion;
- Scenario 2 (SC2) – Assessing impact on air quality should all heavy goods vehicles (HGVs) using the bridge crossing the railway line on Broughty Ferry Road (Stannergate Bridge) have a Euro Class V engine type;
- Scenario 3 (SC3) – Assessment of impacts of the Wind Turbine Manufacturing Plant and the Eastern Port Expansion, but with redesigned Stannergate Roundabout;
- Scenario 4 (SC4) – Assessment of impacts of the Wind Turbine Manufacturing Plant and the Eastern Port Expansion, but with closure of Craigie Place in both directions;
- Scenario 5 (SC5) – Assessment of impacts of the Wind Turbine Manufacturing Plant and the Eastern Port Expansion, but with the layout of Stannergate Roundabout modelled as a 5-arm priority junction; and
- Scenario 6 (SC6) – Assessment of impacts assuming all heavy goods vehicles (HGVs) using the bridge crossing the railway line on Broughty Ferry Road (Stannergate Bridge) have a Euro Class VI engine type.

Annual mean concentrations of NO<sub>2</sub> and PM<sub>10</sub> were predicted at 1,781 specific receptors across the modelled area representing relevant public exposure, located at the façade of properties. Of these 1,781 receptors, 1,614 were at ground floor level (1.5m height), 82 were at 1<sup>st</sup> floor level (4.5m height), 50 were at 2<sup>nd</sup> floor level (7.5m height) and 22 were at 3<sup>rd</sup> floor level (10.5m). 13 receptors were modelled at 0m height to be representative of a number of receptors below ground level.

### 6.1 Nitrogen Dioxide (NO<sub>2</sub>)

Of the 1,614 receptors at ground floor level (1.5m), a maximum of 10 were predicted to exceed the 40µg/m<sup>3</sup> AQO for NO<sub>2</sub> in any of the seven scenarios. 7 receptors were predicted to exceed the 40µg/m<sup>3</sup> annual mean AQO for NO<sub>2</sub> at assumed below ground level (0m) in all seven modelled scenarios. There were no exceedences predicted at 1<sup>st</sup> (4.5m), 2<sup>nd</sup> (7.5m) or 3<sup>rd</sup> (10.5m) floor levels in any of the seven scenarios.

The NO<sub>2</sub> hourly mean AQO was expected to be met at all modelled receptors in all of the seven scenarios.

According to EPUK guidance, in relation to the annual mean AQO for NO<sub>2</sub>, implementation of SC1 would result in a negligible impact at 1,780 receptors. A slight adverse impact was predicted at 1 receptor as a result of SC1 in relation to the annual mean AQO for NO<sub>2</sub>.



According to EPUK guidance, in relation to the annual mean AQO for NO<sub>2</sub>, implementation of SC2 would result in a negligible impact at 1,778 receptors and a slight beneficial impact at 2 receptors. A slight adverse impact was predicted at 1 receptor as a result of SC2 in relation to the annual mean AQO for NO<sub>2</sub>.

According to EPUK guidance, in relation to the annual mean AQO for NO<sub>2</sub>, implementation of SC3 would result in a negligible impact at 1,779 receptors, a slight beneficial impact at 1 receptor and a moderate beneficial impact at 1 receptor.

According to EPUK guidance, in relation to the annual mean AQO for NO<sub>2</sub>, implementation of SC4 would result in a negligible impact at 1,773 receptors and a slight beneficial impact at 2 receptors. A slight adverse impact was predicted at 6 receptors as a result of SC4 in relation to the annual mean AQO for NO<sub>2</sub>.

According to EPUK guidance, in relation to the annual mean AQO for NO<sub>2</sub>, implementation of SC5 would result in a negligible impact at 1,751. A slight adverse impact was predicted at 28 receptors, a moderate adverse impact at 1 receptor and a substantial adverse impact at 1 receptor as a result of SC5 in relation to the annual mean AQO for NO<sub>2</sub>.

According to EPUK guidance, in relation to the annual mean AQO for NO<sub>2</sub>, implementation of SC6 would result in a negligible impact at 1,777 and a slight beneficial impact at 3 receptors. A slight adverse impact was predicted at 1 receptor as a result of SC6 in relation to the annual mean AQO for NO<sub>2</sub>.

## 6.2 Particulate Matter (PM<sub>10</sub>)

Of the 1,614 receptors at ground floor level (1.5m), a maximum of 13 were predicted to exceed the 18µg/m<sup>3</sup> annual mean AQO for PM<sub>10</sub> in any of the seven scenarios. 1 receptor was predicted to exceed the 18µg/m<sup>3</sup> annual mean AQO for PM<sub>10</sub> at 1<sup>st</sup> floor level (4.5m) and 1 at assumed below ground level (0m) in all seven modelled scenarios. There were no exceedences predicted at 2<sup>nd</sup> (7.5m) or 3<sup>rd</sup> (10.5m) floor levels in any of the seven scenarios.

The PM<sub>10</sub> 24-hour mean AQO was expected to be met at all modelled receptors in all of the seven scenarios.

According to EPUK guidance, in relation to the annual mean AQO for PM<sub>10</sub>, implementation of SC1 would result in a negligible impact at 1,780 receptors. A slight adverse impact was predicted at 1 receptor as a result of SC1 in relation to the annual mean AQO for PM<sub>10</sub>.

According to EPUK guidance, in relation to the annual mean AQO for PM<sub>10</sub>, implementation of SC2 would result in a negligible impact at 1,780 receptors. A slight adverse impact was predicted at 1 receptor as a result of SC2 in relation to the annual mean AQO for PM<sub>10</sub>.

According to EPUK guidance, in relation to the annual mean AQO for PM<sub>10</sub>, implementation of SC3 would result in a negligible impact at 1,779 receptors and a moderate beneficial impact at 1 receptor. A slight adverse impact was predicted at 1 receptor as a result of SC3 in relation to the annual mean AQO for PM<sub>10</sub>.

According to EPUK guidance, in relation to the annual mean AQO for PM<sub>10</sub>, implementation of SC4 would result in a negligible impact at 1,771 receptors. A slight adverse impact was predicted at 9 receptors and a moderate adverse impact at 1 receptor as a result of SC4 in relation to the annual mean AQO for PM<sub>10</sub>.

According to EPUK guidance, in relation to the annual mean AQO for PM<sub>10</sub>, implementation of SC5 would result in a negligible impact at 1,739 receptors, a slight beneficial impact at 2 receptors and a moderate beneficial impact at 1 receptor. A slight adverse impact was predicted at 37 receptors and a moderate adverse impact at 2 receptors as a result of SC5 in relation to the annual mean AQO for PM<sub>10</sub>.

According to EPUK guidance, in relation to the annual mean AQO for PM<sub>10</sub>, implementation of SC6 would result in a negligible impact at all 1,781 receptors.

Full results for all modelled receptors can be found in the MS Excel file, which accompanies this report (Stannergate Results\_submitted\_V3.xlsx).

### 6.3 Source Apportionment

A source apportionment study was carried out for the BC scenario of the Stannergate modelled area for NO<sub>x</sub>, NO<sub>2</sub> and PM<sub>10</sub>.

Of the four modelled vehicle types (Cars, LGVs, HGVs and Buses), Cars were found to account for the largest proportion of road NO<sub>x</sub> when averaged across all modelled receptors (38.7% road NO<sub>x</sub>), and when averaged across receptors with NO<sub>2</sub> concentration greater than 40µg/m<sup>3</sup> (45.1% road NO<sub>x</sub>). At the receptor with the maximum road NO<sub>x</sub> concentration, the vehicle type with the highest proportion of road NO<sub>x</sub> is Car, with 47.0% of the road NO<sub>x</sub> contribution. Background NO<sub>x</sub> accounted for 82.1% of the total NO<sub>x</sub> concentration when averaged across all receptors.

Of the four modelled vehicle types (Cars, LGVs, HGVs and Buses), Cars were found to account for the largest proportion of road NO<sub>2</sub> when averaged across all modelled receptors (38.7% road NO<sub>2</sub>), and when averaged across receptors with NO<sub>2</sub> concentration greater than 40µg/m<sup>3</sup> (45.1% road NO<sub>2</sub>). At the receptor with the maximum road NO<sub>2</sub> concentration, the vehicle type with the highest proportion of road NO<sub>2</sub> is Car, with 47.0% of the road NO<sub>2</sub> contribution. Background NO<sub>2</sub> accounted for 86.0% of the total NO<sub>2</sub> concentration when averaged across all receptors.

Of the four modelled vehicle types (Cars, LGVs, HGVs and Buses), Cars were found to account for the largest proportion of road PM<sub>10</sub> when averaged across all modelled receptors (57.8% road PM<sub>10</sub>), and when averaged across receptors with PM<sub>10</sub> concentration greater than 18µg/m<sup>3</sup> (56.7% road PM<sub>10</sub>). At the receptor with the maximum road PM<sub>10</sub> concentration, the vehicle type with the highest proportion of road PM<sub>10</sub> is Car, with 53.7% of the road PM<sub>10</sub> contribution. Background PM<sub>10</sub> accounted for 84.1% of the total PM<sub>10</sub> concentration when averaged across all receptors.

### 6.4 Population Exposure

The number of people predicted to be exposed to potential exceedences of the annual mean NO<sub>2</sub> in the area covered by the Stannergate model is estimated to be 67.

The number of people predicted to be exposed to potential exceedences of the annual mean PM<sub>10</sub> in the area covered by the Stannergate model is estimated to be 175.

## Appendices

## Appendix 1 – Background to Air Quality

Emissions from road traffic contribute significantly to ambient pollutant concentrations in urban areas. The main constituents of vehicle exhaust emissions, produced by fuel combustion are carbon dioxide (CO<sub>2</sub>) and water vapour (H<sub>2</sub>O). However, combustion engines are not 100% efficient and partial combustion of fuel results in emissions of a number of other pollutants, including carbon monoxide (CO), particulate matter (PM), Volatile Organic Compounds (VOCs) and hydrocarbons (HC). For HC, the pollutants of most concern are 1,3 - butadiene (C<sub>4</sub>H<sub>6</sub>) and benzene (C<sub>6</sub>H<sub>6</sub>). In addition, some of the nitrogen (N) in the air is oxidised under the high temperature and pressure during combustion; resulting in emissions of oxides of nitrogen (NO<sub>x</sub>). NO<sub>x</sub> emissions from vehicles predominately consist of nitrogen oxide (NO), but also contain nitrogen dioxide (NO<sub>2</sub>). Once emitted, NO can be oxidised in the atmosphere to produce further NO<sub>2</sub>.

The quantities of each pollutant emitted depend upon a number of parameters; including the type and quantity of fuel used, the engine size, the vehicle speed, and the type of emissions abatement equipment fitted. Once emitted, these pollutants disperse in the air. Where there is no additional source of emission, pollutant concentrations generally decrease with distance from roads, until concentrations reach those of the background.

This air quality assessment focuses on NO<sub>2</sub> and PM<sub>10</sub> (PM of aerodynamic diameter less than 10µm) as these pollutants are least likely to meet their respective Air Quality Strategy (AQS) objectives near roads. This has been confirmed over recent years by the outcome of the Local Air Quality Management (LAQM) regime. Recent statistics<sup>17</sup> regarding Air Quality Management Areas (AQMA) show that, 601 AQMA have been declared in the UK, of which 562 include NO<sub>2</sub> and 99 include PM<sub>10</sub> (a number of AQMA have been declared for both pollutants). The majority (92%) of existing AQMA have been declared in relation to road traffic emissions.

In line with these results, the reports produced by the Council under the LAQM regime have confirmed that road traffic within their administrative area is the main issue in relation to air quality.

An overview of these two pollutants, describing briefly the sources and processes influencing the ambient concentrations, is presented below.

### Particulate Matter (PM<sub>10</sub>)

Particulate matter is a mixture of solid and liquid particles suspended in the air. There are a number of ways in which airborne PM may be categorised. The most widely used categorisation is based on the size of particles such as PM<sub>2.5</sub>, particles of aerodynamic diameter less than 2.5µm (micrometre = 10<sup>-6</sup> metre), and PM<sub>10</sub>, particles of aerodynamic diameter less than 10µm. Generically, particulate residing in low altitude air is referred to as Total Suspended Particulate (TSP) and comprises coarse and fine material including dust.

Particulate matter comprises a wide range of materials arising from a variety of sources. Examples of anthropogenic sources are carbon (C) particles from incomplete combustion, bonfire ash, recondensed metallic vapours and secondary particles (or aerosols) formed by chemical reactions in the atmosphere. As well as being emitted directly from combustion sources, man-made particles can arise from mining, quarrying, demolition and construction operations, from brake and tyre wear in motor vehicles and from road dust resuspension from moving traffic or strong winds. Natural sources of PM include wind-blown sand and dust, forest fires, sea salt and biological particles such as pollen and fungal spores.

The health impacts from PM depend upon size and chemical composition of the particles. For the purposes of AQOs, PM<sub>10</sub> or PM<sub>2.5</sub> is solely defined on size rather than chemical composition. This enables a uniform method of measurement and comparison. The short and long-term exposure to PM has been associated with increased risk of lung and heart diseases<sup>(see 2)</sup>. PM may also carry

<sup>17</sup> Statistics from the UK AQMA website available at <http://aqma.defra.gov.uk> – Figures as of January 2013

surface-absorbed carcinogenic compounds. Smaller PM have a greater likelihood of penetrating the respiratory tract and reaching the lung to blood interface and causing the above adverse health effects.

In the UK, emissions of PM<sub>10</sub> have declined significantly since 1980, and were estimated to be 114kt (kilotonne) in 2010<sup>18</sup>. Residential / public electricity and heat production and road transport are the largest sources of PM<sub>10</sub> emissions. The road transport sector contributed 22% (25kt) of PM<sub>10</sub> emissions in 2010. The main source within road transport is brake and tyre wear.

It is important to note that these estimates only refer to primary emissions, that is, the emissions directly resulting from sources and processes and do not include secondary particles. These secondary particles, which result from the interaction of various gaseous components in the air such as ammonia (NH<sub>3</sub>), sulphur dioxide (SO<sub>2</sub>) and NO<sub>x</sub>, can come from further a field and impact on the air quality in the UK and vice versa.

Similarly to PM<sub>10</sub>, emissions of PM<sub>2.5</sub> have declined since 1970, and were estimated to be 67kt in 2010, which makes over 58% of PM<sub>10</sub> emissions. In 2010, the road transport sector emitted 28% (18kt) of the total PM<sub>2.5</sub> emissions in the UK.

### Nitrogen Oxides (NO<sub>x</sub>)

NO and NO<sub>2</sub>, collectively known as NO<sub>x</sub>, are produced during the high temperature combustion processes involving the oxidation of N. Initially, NO<sub>x</sub> are mainly emitted as NO, which then undergoes further oxidation in the atmosphere, particularly with ozone (O<sub>3</sub>), to produce secondary NO<sub>2</sub>. Production of secondary NO<sub>2</sub> could also be favoured due to a class of compounds, VOCs, typically present in urban environments, and under certain meteorological conditions, such as hot sunny days and stagnant anti-cyclonic winter conditions.

Of NO<sub>x</sub>, it is NO<sub>2</sub> that is associated with health impacts. Exposure to NO<sub>2</sub> can bring about reversible effects on lung function and airway responsiveness. It may also increase reactivity to natural allergens, and exposure to NO<sub>2</sub> puts children at increased risk of respiratory infection and may lead to poorer lung function in later life.

In the UK, emissions of NO<sub>x</sub> have decreased by 62% between 1990 and 2010. For 2010, NO<sub>x</sub> (as NO<sub>2</sub>) emissions were estimated to be 1,106kt. The transport sector remained the largest source of NO<sub>x</sub> emissions with road transport contribution 34% to NO<sub>x</sub> emissions in 2010.

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<sup>18</sup> National Atmospheric Emissions Inventory (NAEI) Summary Emission Estimate Datasets 2010. March 2012

## Appendix 2 – Full list of Modelled Results

### NO<sub>2</sub>

Receptor name	X(m)	Y(m)	Z(m)	Annual Mean NO <sub>2</sub> Concentration (µg/m <sup>3</sup> )						
				BC	SC1	SC2	SC3	SC4	SC5	SC6
F1	342584.6	731114.4	2.58	45.0	44.6	44.5	44.5	44.4	45.3	44.4
F3	342828.8	731229	2.44	26.4	26.4	26.4	26.4	26.5	26.7	26.4
F6	343117.9	731245.4	2.5	23.4	23.5	23.5	23.5	23.6	23.6	23.4
F7	343292.7	731149.4	2.4	25.8	26.2	26.1	25.9	28.5	27.2	25.9
F8	343339.9	731064.7	2.3	36.6	38.7	38.1	31.1	38.5	41.2	37.3
F9	343377.9	731136.3	2.33	25.7	26.2	26.1	26.3	24.4	25.6	25.9
F10	343361.1	731093.3	2.4	38.4	40.0	39.5	38.0	38.1	44.7	38.8
F11	343437.4	731082.8	2.36	33.5	34.0	33.9	32.2	33.6	32.8	33.7
F12	342347.1	731089	2.67	41.0	41.2	41.1	41.1	41.3	41.5	41.0
F14	343879.4	731075.1	2.41	23.6	23.7	23.7	23.7	23.7	23.7	23.7
F16	343705.1	731243.2	2.42	24.3	24.4	24.4	24.6	25.0	24.9	24.4
F17	343319.2	731071.6	1.3	37.9	39.6	39.1	33.2	39.6	44.5	38.4
NO2DF7	343082.3	731465.3	2.44	22.5	22.6	22.5	22.6	22.6	22.6	22.5
NO2DF11	343321.9	731073.3	2.69	38.7	40.4	39.9	33.1	40.5	45.1	39.2
NO2DF12	345315.3	732103.3	2.47	28.6	28.7	28.6	28.6	28.7	28.9	28.6
NO2DF26	343107.4	731739.7	2.66	40.6	40.9	40.8	41.0	41.1	41.2	40.7
NO2DF139	343317.5	731072	2.44	35.7	37.1	36.7	32.4	37.2	41.6	36.1
NO2DF140	343296.5	731095.9	2.59	35.3	36.2	36.0	38.3	37.0	38.9	35.6
NO2DF142	343301.7	731075.2	2.32	34.5	35.5	35.1	33.7	35.7	39.1	34.7
NO2DF145	342662.3	731111.8	2.44	35.3	35.0	35.0	35.0	34.9	35.5	35.0
NO2DF155	342353.3	731058.1	2.4	29.1	29.1	29.1	29.1	29.2	29.3	29.1
NO2DF166	343129	731081.1	2.69	24.8	25.0	24.9	24.6	25.0	23.1	24.9
PM10TEOM3	341970	730978	2.93	24.0	24.0	24.0	24.1	24.1	24.0	24.0
PM10Pa13	341971	730978	2.84	24.1	24.0	24.0	24.1	24.1	24.0	24.0
PM10Os16	341970	730977	3	23.8	23.8	23.8	23.9	23.9	23.8	23.8
PM10Os18	343322	731073	3.11	28.2	29.0	28.8	26.0	29.1	31.5	28.5
1	347063.2	732645.8	1.5	23.1	23.2	23.1	23.2	23.2	23.2	23.1
2	347504.7	732757	1.5	20.7	20.7	20.7	20.7	20.7	20.7	20.7
3	347266.6	732757	1.5	21.2	21.2	21.2	21.2	21.2	21.2	21.2
4	347179.7	732587.3	1.5	21.1	21.1	21.1	21.1	21.2	21.2	21.1
5	347292.1	732569.9	1.5	20.8	20.8	20.8	20.8	20.8	20.8	20.8
6	347224.7	732642.5	1.5	21.8	21.8	21.8	21.8	21.8	21.8	21.8
7	347274.8	732660.9	1.5	21.7	21.7	21.7	21.7	21.7	21.7	21.7
8	347145.9	732572	1.5	21.1	21.1	21.1	21.1	21.1	21.1	21.1
9	347110.2	732573	1.5	21.2	21.2	21.2	21.2	21.2	21.2	21.2
10	347066.2	732568.9	1.5	21.2	21.3	21.3	21.3	21.3	21.3	21.2
11	347014.1	732556.7	1.5	21.2	21.2	21.2	21.2	21.3	21.3	21.2
12	346981.4	732551.6	1.5	21.2	21.3	21.3	21.3	21.3	21.3	21.3
13	346919.1	732544.4	1.5	21.3	21.4	21.3	21.3	21.4	21.4	21.3
14	347228.8	732705.1	1.5	22.7	22.8	22.8	22.8	22.8	22.8	22.7
15	347010.5	732301.1	1.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
16	346886.3	732533.1	1.5	21.4	21.4	21.4	21.4	21.4	21.4	21.4
17	346841.4	732523.9	1.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5
18	346805.6	732513.8	1.5	21.6	21.6	21.6	21.6	21.6	21.6	21.6
19	346777	732503.5	1.5	21.7	21.7	21.7	21.7	21.8	21.8	21.7
20	346732	732479	1.5	21.9	21.9	21.9	21.9	21.9	21.9	21.9
21	346714.6	732472.3	1.5	22.0	22.0	22.0	22.0	22.1	22.1	22.0
22	346737.1	732570.2	1.5	23.1	23.2	23.1	23.2	23.2	23.2	23.1
23	346896.6	732631.5	1.5	23.0	23.0	23.0	23.0	23.0	23.1	23.0
24	346713.6	732252.4	1.5	23.1	23.1	23.1	23.1	23.1	23.1	23.1
25	346739.2	732258.8	1.5	23.0	23.0	23.0	23.0	23.0	23.0	23.0
26	346792.8	732284.3	1.5	21.9	21.9	21.9	21.9	21.9	21.9	21.9
27	346821.4	732290.9	1.5	21.9	21.9	21.9	21.9	21.9	22.0	21.9
28	346871	732305.3	1.5	22.0	22.0	22.0	22.0	22.0	22.0	22.0
29	346896.6	732312.9	1.5	21.9	21.9	21.9	21.9	21.9	21.9	21.9
30	346942.6	732323.1	1.5	21.9	21.9	21.9	21.9	21.9	21.9	21.9

Receptor name	X(m)	Y(m)	Z(m)	Annual Mean NO <sub>2</sub> Concentration (µg/m <sup>3</sup> )						
				BC	SC1	SC2	SC3	SC4	SC5	SC6
31	347002.3	732333.3	1.5	21.9	22.0	22.0	21.9	22.0	22.0	22.0
32	346995.2	732368.1	1.5	21.1	21.1	21.1	21.1	21.1	21.1	21.1
33	347022.8	732380.4	1.5	21.0	21.0	21.0	21.0	21.0	21.0	21.0
34	347038.1	732341.5	1.5	21.4	21.4	21.4	21.4	21.4	21.4	21.4
35	347032.5	732308.3	1.5	22.2	22.2	22.2	22.2	22.2	22.2	22.2
36	346980.9	732292.4	1.5	22.6	22.6	22.6	22.6	22.6	22.6	22.6
37	346925.2	732275.6	1.5	22.4	22.4	22.4	22.4	22.4	22.4	22.4
38	346907.8	732271.5	1.5	22.4	22.4	22.4	22.4	22.4	22.4	22.4
39	346881.8	732262.3	1.5	22.2	22.2	22.2	22.1	22.1	22.2	22.2
40	346846	732254.6	1.5	22.0	22.0	22.0	22.0	22.0	22.0	22.0
41	346810.2	732245.9	1.5	22.0	22.0	22.0	22.0	21.9	22.0	22.0
42	346771.9	732235.3	1.5	21.9	21.9	21.9	21.9	21.9	21.9	21.9
43	346727.4	732225	1.5	21.9	21.9	21.9	21.9	21.9	21.9	21.9
44	346649.2	732441.7	1.5	22.4	22.5	22.4	22.5	22.5	22.5	22.4
45	346596.1	732480.8	1.5	25.2	25.2	25.2	25.3	25.3	25.3	25.2
46	346582.8	732472.6	1.5	25.5	25.6	25.5	25.6	25.7	25.7	25.5
47	346554.7	732460.9	1.5	25.0	25.1	25.1	25.2	25.2	25.2	25.1
48	346600.2	732417.9	1.5	22.6	22.6	22.6	22.7	22.7	22.7	22.6
49	346565.9	732400	1.5	22.6	22.7	22.7	22.7	22.7	22.7	22.6
50	346532.2	732388.8	1.5	22.9	22.9	22.9	22.9	22.9	22.9	22.9
51	346498.5	732373.4	1.5	23.0	23.0	23.0	23.0	23.1	23.1	23.0
52	346459.6	732360.2	1.5	23.4	23.5	23.5	23.5	23.5	23.5	23.4
53	346403.9	732401.1	1.5	26.2	26.3	26.3	26.3	26.3	26.4	26.2
54	346475.5	732425.6	1.5	26.0	26.1	26.1	26.2	26.2	26.2	26.0
55	346632.9	732509.9	1.5	23.6	23.6	23.6	23.7	23.7	23.7	23.6
56	346464.2	732331.1	1.5	22.6	22.6	22.6	22.6	22.7	22.7	22.6
57	346471.4	732296.3	1.5	22.1	22.1	22.1	22.1	22.1	22.1	22.1
58	346492.8	732258.5	1.5	21.8	21.8	21.8	21.8	21.8	21.8	21.8
59	346511.3	732215.6	1.5	22.3	22.3	22.3	22.3	22.3	22.4	22.3
60	346549.1	732224.8	1.5	22.2	22.2	22.2	22.2	22.2	22.2	22.2
61	346582.8	732236	1.5	22.0	22.0	22.0	22.0	22.0	22.0	22.0
62	346620.6	732238	1.5	22.3	22.3	22.3	22.3	22.3	22.3	22.3
63	346658.4	732251.3	1.5	22.0	22.0	22.0	22.0	22.0	22.0	22.0
64	346651.3	732208.1	1.5	22.1	22.1	22.1	22.1	22.1	22.1	22.1
65	346622.1	732201.5	1.5	22.1	22.1	22.1	22.1	22.1	22.1	22.1
66	346583.3	732192.3	1.5	22.2	22.2	22.2	22.2	22.2	22.2	22.2
67	346546.5	732183.6	1.5	22.3	22.3	22.3	22.3	22.3	22.3	22.3
68	346509.7	732174.4	1.5	22.4	22.4	22.4	22.4	22.4	22.4	22.4
69	346484.7	732169.8	1.5	22.6	22.6	22.6	22.6	22.6	22.6	22.6
70	346450.4	732156	1.5	22.8	22.8	22.8	22.8	22.8	22.9	22.8
71	346397.8	732137.6	1.5	23.7	23.7	23.7	23.7	23.7	23.8	23.7
72	346429	732142.2	1.5	22.7	22.7	22.7	22.7	22.7	22.8	22.7
73	346466.3	732134.6	1.5	21.8	21.8	21.8	21.8	21.8	21.8	21.8
74	346490.3	732142.2	1.5	21.7	21.7	21.7	21.7	21.7	21.7	21.7
75	346373.8	732114.1	1.5	23.0	23.0	23.0	23.0	23.0	23.1	23.0
76	346358.4	732105.9	1.5	23.2	23.1	23.1	23.2	23.2	23.2	23.1
77	346342.6	732088.1	1.5	22.7	22.7	22.7	22.7	22.7	22.7	22.7
78	346323.2	732087.6	1.5	24.3	24.3	24.3	24.3	24.3	24.4	24.3
79	346373.8	732155	1.5	23.1	23.1	23.1	23.1	23.1	23.1	23.1
80	346354.9	732141.7	1.5	22.7	22.7	22.7	22.7	22.7	22.8	22.7
81	346340	732131.5	1.5	22.5	22.5	22.5	22.5	22.5	22.6	22.5
82	346321.7	732118.2	1.5	22.4	22.4	22.4	22.4	22.4	22.5	22.4
83	346303.3	732101.3	1.5	22.6	22.6	22.6	22.6	22.6	22.6	22.5
84	346277.7	732087	1.5	22.4	22.4	22.4	22.4	22.4	22.5	22.4
85	346240.4	732077.8	1.5	22.3	22.3	22.3	22.3	22.3	22.3	22.3
86	346211.8	732070.7	1.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
87	346203.1	732041	1.5	24.7	24.7	24.7	24.7	24.7	24.8	24.7
88	346236.3	732043.6	1.5	22.8	22.8	22.8	22.8	22.8	22.8	22.8
89	346268	732058.4	1.5	23.1	23.1	23.1	23.1	23.1	23.2	23.1
90	346288.9	732059.9	1.5	22.6	22.6	22.6	22.6	22.6	22.7	22.6
91	346380.9	732159.6	1.5	23.5	23.5	23.5	23.5	23.5	23.6	23.4

Receptor name	X(m)	Y(m)	Z(m)	Annual Mean NO <sub>2</sub> Concentration (µg/m <sup>3</sup> )						
				BC	SC1	SC2	SC3	SC4	SC5	SC6
92	346302.8	732063.5	1.5	22.5	22.5	22.5	22.5	22.5	22.6	22.5
93	346208.7	731885.7	1.5	22.1	22.1	22.0	22.1	22.0	22.1	22.0
94	346214.8	731872.4	1.5	22.0	22.0	22.0	22.0	22.0	22.0	22.0
95	346314.5	731770.2	1.5	20.8	20.8	20.8	20.8	20.8	20.9	20.8
96	346285.3	731858.6	1.5	21.1	21.1	21.1	21.1	21.1	21.1	21.1
97	346182.6	731868.8	1.5	22.1	22.1	22.1	22.1	22.1	22.2	22.1
98	346178.6	731958.8	1.5	22.4	22.4	22.4	22.4	22.4	22.4	22.4
99	346131.5	732051.8	1.5	22.4	22.4	22.4	22.4	22.4	22.5	22.4
100	346178.6	732066.6	1.5	22.4	22.3	22.3	22.4	22.3	22.4	22.3
101	346148.4	732057.9	1.5	22.4	22.4	22.4	22.4	22.4	22.4	22.4
102	346145.8	732025.2	1.5	25.2	25.1	25.1	25.1	25.1	25.2	25.1
103	346160.2	732029.3	1.5	24.8	24.8	24.8	24.8	24.7	24.8	24.8
104	346116.2	732047.2	1.5	22.4	22.4	22.4	22.4	22.4	22.5	22.4
105	346126.4	732021.6	1.5	24.4	24.4	24.4	24.4	24.3	24.4	24.4
106	346100.4	732012.4	1.5	22.6	22.6	22.6	22.6	22.6	22.6	22.6
107	346101.4	732043.6	1.5	22.4	22.4	22.4	22.4	22.4	22.4	22.4
108	346083	732040.5	1.5	22.3	22.3	22.3	22.3	22.3	22.4	22.3
109	346082	732010.9	1.5	22.5	22.5	22.5	22.5	22.5	22.6	22.5
110	346136.7	731988.4	1.5	22.7	22.7	22.7	22.7	22.7	22.7	22.7
111	346155	732002.7	1.5	23.3	23.3	23.3	23.3	23.3	23.4	23.3
112	346145.3	731966.4	1.5	22.5	22.5	22.5	22.5	22.5	22.6	22.5
113	346172.4	731970	1.5	22.6	22.5	22.5	22.5	22.5	22.6	22.5
114	346153	731946.5	1.5	22.4	22.4	22.4	22.4	22.4	22.5	22.4
115	346159.7	731929.6	1.5	22.4	22.3	22.3	22.3	22.3	22.4	22.3
116	346182.1	731933.2	1.5	22.8	22.8	22.8	22.8	22.7	22.8	22.7
117	346165.8	731911.8	1.5	22.2	22.2	22.2	22.2	22.2	22.3	22.2
118	346192.3	731909.7	1.5	22.6	22.6	22.6	22.6	22.6	22.7	22.6
119	346171.9	731894.4	1.5	22.1	22.1	22.1	22.1	22.1	22.2	22.1
120	346191.8	731843.3	1.5	21.9	21.9	21.9	21.9	21.9	22.0	21.9
121	346197.5	731829.9	1.5	21.9	21.9	21.9	21.9	21.9	22.0	21.9
122	346207.2	731820.8	1.5	22.5	22.5	22.5	22.5	22.5	22.6	22.5
123	346209.2	731789.1	1.5	21.7	21.7	21.7	21.7	21.7	21.7	21.7
124	346181.1	731785	1.5	21.1	21.1	21.1	21.1	21.1	21.1	21.1
125	346213.8	731759.4	1.5	21.1	21.1	21.1	21.1	21.1	21.1	21.1
126	346101.4	731981.8	1.5	21.7	21.7	21.7	21.7	21.7	21.7	21.7
127	346113.7	731968.4	1.5	21.6	21.6	21.6	21.6	21.6	21.6	21.6
128	346167.3	731836.6	1.5	21.2	21.2	21.2	21.2	21.2	21.3	21.2
129	346149.4	731867.3	1.5	21.2	21.2	21.2	21.2	21.3	21.3	21.2
130	346354.9	732387.3	1.5	27.6	27.7	27.7	27.7	27.8	27.8	27.7
131	346325.2	732396.4	1.5	24.4	24.4	24.4	24.4	24.5	24.5	24.4
132	346302.8	732432.3	1.5	22.0	22.1	22.1	22.1	22.1	22.1	22.1
133	346323.7	732276.1	1.5	23.4	23.5	23.5	23.5	23.5	23.5	23.4
134	346332.9	732252.1	1.5	22.8	22.8	22.8	22.8	22.8	22.8	22.8
135	346343.6	732227.1	1.5	22.5	22.5	22.5	22.5	22.5	22.5	22.4
136	346355.4	732199.9	1.5	22.4	22.4	22.4	22.4	22.4	22.4	22.4
137	346285.9	732266.9	1.5	23.0	23.0	23.0	23.0	23.1	23.1	23.0
138	346250.6	732251.6	1.5	22.5	22.6	22.6	22.6	22.6	22.6	22.5
139	346236.3	732245.7	1.5	22.4	22.4	22.4	22.4	22.4	22.5	22.4
140	346206.2	732237.5	1.5	22.2	22.2	22.2	22.2	22.3	22.3	22.2
141	346190.3	732234.9	1.5	22.2	22.2	22.2	22.2	22.2	22.2	22.2
142	346150.4	732222.2	1.5	21.9	22.0	21.9	21.9	22.0	22.0	21.9
143	346132.6	732219.6	1.5	21.9	21.9	21.9	21.9	21.9	21.9	21.9
144	346106.5	732214.5	1.5	21.8	21.9	21.8	21.8	21.9	21.9	21.8
145	346046.2	732204.3	1.5	21.8	21.8	21.8	21.8	21.8	21.8	21.8
146	346031.4	732203.8	1.5	21.8	21.8	21.8	21.8	21.8	21.8	21.8
147	346013	732201.3	1.5	21.8	21.8	21.8	21.8	21.9	21.9	21.8
148	345994.1	732198.7	1.5	21.8	21.8	21.8	21.8	21.9	21.9	21.8
149	346023.7	732324.9	1.5	21.8	21.8	21.8	21.8	21.8	21.8	21.8
150	346241.4	732345.4	1.5	25.3	25.4	25.4	25.4	25.4	25.5	25.4
151	346113.7	732309.6	1.5	23.4	23.4	23.4	23.4	23.5	23.5	23.4
152	345983.3	732279.4	1.5	23.3	23.3	23.3	23.3	23.4	23.4	23.3



Receptor name	X(m)	Y(m)	Z(m)	Annual Mean NO <sub>2</sub> Concentration (µg/m <sup>3</sup> )						
				BC	SC1	SC2	SC3	SC4	SC5	SC6
153	345950.1	732181.8	1.5	21.7	21.8	21.8	21.8	21.8	21.8	21.8
154	345916.4	732177.2	1.5	21.8	21.8	21.8	21.8	21.9	21.9	21.8
155	345887.8	732173.1	1.5	21.9	21.9	21.9	21.9	21.9	21.9	21.9
156	345852.5	732168.5	1.5	22.0	22.0	22.0	22.0	22.0	22.0	22.0
157	345825.4	732169.6	1.5	22.1	22.2	22.2	22.2	22.2	22.2	22.2
158	345793.8	732164.9	1.5	22.3	22.3	22.3	22.3	22.4	22.4	22.3
159	345914.3	732268.7	1.5	23.5	23.6	23.5	23.5	23.6	23.6	23.5
160	345790.7	732235.5	1.5	23.9	23.9	23.9	23.9	24.0	24.0	23.9
161	345933.3	732020.1	1.5	22.3	22.3	22.3	22.3	22.3	22.3	22.3
162	346067.7	732039	1.5	22.2	22.3	22.3	22.2	22.2	22.3	22.2
163	346063.6	732007.8	1.5	22.4	22.4	22.4	22.4	22.4	22.5	22.4
164	346046.7	732005.3	1.5	22.4	22.4	22.4	22.4	22.4	22.4	22.4
165	346053.9	732035.9	1.5	22.3	22.3	22.3	22.3	22.3	22.3	22.3
166	346039.5	732033.9	1.5	22.3	22.3	22.3	22.3	22.3	22.3	22.3
167	346030.3	732003.2	1.5	22.4	22.4	22.4	22.4	22.4	22.4	22.4
168	346022.2	732030.8	1.5	22.3	22.3	22.3	22.3	22.3	22.4	22.3
169	346005.8	732030.3	1.5	22.2	22.2	22.2	22.2	22.2	22.2	22.2
170	346016.6	732001.7	1.5	22.4	22.4	22.4	22.4	22.4	22.4	22.4
171	345991	732028.3	1.5	22.2	22.2	22.2	22.2	22.2	22.3	22.2
172	346001.8	732000.1	1.5	22.4	22.4	22.4	22.4	22.4	22.5	22.4
173	345989.5	731998.6	1.5	22.5	22.5	22.5	22.4	22.5	22.5	22.5
174	345979.8	732025.2	1.5	22.3	22.3	22.3	22.3	22.3	22.4	22.3
175	345962.4	732024.2	1.5	22.2	22.3	22.3	22.2	22.3	22.3	22.2
176	345967.5	731993	1.5	22.3	22.3	22.3	22.3	22.3	22.3	22.3
177	345944.5	732021.1	1.5	22.3	22.3	22.3	22.3	22.3	22.3	22.3
178	345916.4	732017.5	1.5	22.3	22.3	22.3	22.3	22.3	22.4	22.3
179	345927.1	731985.8	1.5	22.3	22.3	22.3	22.3	22.3	22.3	22.3
180	345934.3	731966.9	1.5	21.7	21.7	21.7	21.7	21.7	21.7	21.7
181	345966.5	731957.2	1.5	21.4	21.5	21.4	21.4	21.5	21.5	21.4
182	345799.6	731302.6	1.5	21.8	21.8	21.8	21.8	21.8	21.8	21.8
183	345765.9	731687.8	1.5	21.2	21.2	21.2	21.2	21.2	21.2	21.2
184	345782.8	731664.8	1.5	21.2	21.2	21.2	21.2	21.2	21.2	21.2
185	345756.2	731661.3	1.5	21.3	21.3	21.3	21.3	21.3	21.3	21.3
186	345758.8	731464	1.5	24.5	24.6	24.5	24.5	24.5	24.5	24.5
187	345779.7	731474.2	1.5	24.8	24.9	24.8	24.8	24.8	24.8	24.8
188	345764.3	731488	1.5	23.8	23.9	23.8	23.8	23.8	23.8	23.8
189	345787.9	731436.9	1.5	22.7	22.8	22.7	22.7	22.7	22.7	22.7
190	345812.9	731469.8	1.5	23.2	23.2	23.2	23.2	23.2	23.2	23.2
191	345825.7	731460.1	1.5	23.7	23.8	23.8	23.8	23.8	23.8	23.8
192	345840.5	731450.8	1.5	23.7	23.8	23.7	23.7	23.7	23.7	23.7
193	345880.9	731362.4	1.5	22.6	22.7	22.6	22.6	22.6	22.6	22.6
194	345858.9	731330.8	1.5	23.3	23.4	23.4	23.4	23.4	23.4	23.4
195	345875.3	731290.9	1.5	21.7	21.7	21.7	21.7	21.7	21.7	21.7
196	345866.6	731264.8	1.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5
197	345952.4	731346.1	1.5	21.1	21.2	21.2	21.2	21.2	21.2	21.1
198	345925.3	731398.7	1.5	21.5	21.6	21.6	21.5	21.6	21.6	21.5
199	345821.6	731284.3	1.5	24.3	24.4	24.4	24.3	24.3	24.3	24.4
200	345822.6	731335.9	1.5	24.2	24.4	24.3	24.3	24.3	24.3	24.3
201	345823.6	731382.4	1.5	24.1	24.2	24.2	24.2	24.2	24.2	24.2
202	345823.1	731414.1	1.5	23.9	24.0	24.0	24.0	24.0	24.0	24.0
203	345767.2	732032.9	1.5	22.0	22.0	22.0	22.0	22.1	22.0	22.0
204	345894.9	731984.3	1.5	22.8	22.8	22.8	22.8	22.8	22.9	22.8
205	345888.3	731973.6	1.5	22.9	22.9	22.8	22.8	22.9	22.9	22.8
206	345890.3	731954.7	1.5	22.6	22.6	22.6	22.6	22.6	22.6	22.6
207	345892.4	731945.4	1.5	22.3	22.3	22.3	22.3	22.4	22.4	22.3
208	345893.4	731930.1	1.5	21.8	21.8	21.8	21.8	21.8	21.8	21.8
209	345896.5	731916.8	1.5	21.5	21.5	21.5	21.5	21.5	21.6	21.5
210	345897	731903.1	1.5	21.4	21.4	21.4	21.4	21.4	21.4	21.4
211	345877.6	731897.4	1.5	21.3	21.3	21.3	21.3	21.3	21.3	21.3
212	345874	731922.9	1.5	21.6	21.6	21.6	21.6	21.6	21.6	21.6
213	345870.4	731944.9	1.5	22.1	22.1	22.1	22.1	22.1	22.1	22.1

Receptor name	X(m)	Y(m)	Z(m)	Annual Mean NO <sub>2</sub> Concentration (µg/m <sup>3</sup> )						
				BC	SC1	SC2	SC3	SC4	SC5	SC6
214	345865.3	731979.7	1.5	22.8	22.8	22.8	22.8	22.8	22.8	22.8
215	345853	731941.9	1.5	21.6	21.6	21.6	21.6	21.6	21.7	21.6
216	345856.6	731921.4	1.5	21.4	21.4	21.4	21.4	21.4	21.4	21.4
217	345849.4	731977.1	1.5	22.3	22.3	22.3	22.3	22.4	22.4	22.3
218	345834.1	731974.6	1.5	22.2	22.2	22.2	22.2	22.2	22.2	22.2
219	345817.3	731973.1	1.5	22.2	22.2	22.2	22.2	22.3	22.3	22.2
220	345793.8	731969.5	1.5	22.3	22.3	22.3	22.3	22.3	22.3	22.3
221	345766.1	731971.5	1.5	22.9	22.9	22.9	22.9	22.9	22.9	22.9
222	345767.2	731996.1	1.5	22.6	22.6	22.6	22.6	22.6	22.6	22.6
223	345799.9	731997.1	1.5	22.6	22.6	22.6	22.6	22.6	22.6	22.6
224	345829	732004.8	1.5	22.3	22.3	22.3	22.3	22.3	22.3	22.3
225	345854.6	732009.3	1.5	22.2	22.2	22.2	22.2	22.3	22.3	22.2
226	345873.5	732011.4	1.5	22.3	22.3	22.3	22.3	22.3	22.3	22.3
227	345887.3	732013.4	1.5	22.3	22.3	22.3	22.3	22.4	22.4	22.3
228	345902.6	732015.5	1.5	22.3	22.4	22.4	22.3	22.4	22.4	22.3
229	345797.8	732065.6	1.5	21.7	21.7	21.7	21.7	21.7	21.7	21.7
230	345764.1	732065.6	1.5	21.8	21.8	21.8	21.8	21.9	21.9	21.8
231	345682.3	731953.6	1.5	23.1	23.1	23.1	23.1	23.2	23.1	23.1
232	345749.8	731965.9	1.5	22.8	22.8	22.8	22.8	22.8	22.8	22.8
233	345751.8	731993.5	1.5	22.9	22.9	22.9	22.9	22.9	22.9	22.9
234	345743.7	732029.8	1.5	22.3	22.3	22.3	22.3	22.3	22.3	22.3
235	345735	732060.9	1.5	21.9	22.0	22.0	22.0	22.0	22.0	21.9
236	345713	732058.4	1.5	21.9	22.0	22.0	22.0	22.0	22.0	21.9
237	345685.4	732053.3	1.5	21.9	22.0	22.0	22.0	22.0	22.0	22.0
238	345659.8	732043.6	1.5	21.9	22.0	22.0	22.0	22.0	22.0	22.0
239	345636.3	732018.6	1.5	21.9	22.0	22.0	22.0	22.0	22.0	22.0
240	345632.8	732028.3	1.5	21.9	22.0	22.0	22.0	22.0	22.0	22.0
241	345632.3	732037.9	1.5	22.0	22.0	22.0	22.0	22.0	22.0	22.0
242	345710.9	731988.4	1.5	23.3	23.4	23.4	23.3	23.4	23.4	23.4
243	345692.6	731986.3	1.5	23.1	23.2	23.1	23.1	23.2	23.2	23.1
244	345671.1	731983.8	1.5	22.8	22.8	22.8	22.8	22.9	22.8	22.8
245	345657.8	731981.8	1.5	22.6	22.6	22.6	22.6	22.7	22.6	22.6
246	345647.6	731981.3	1.5	22.4	22.5	22.4	22.4	22.5	22.5	22.4
247	345637.4	731980.2	1.5	22.3	22.4	22.4	22.4	22.4	22.4	22.4
248	345628.2	731980.2	1.5	22.3	22.3	22.3	22.3	22.4	22.3	22.3
249	345618.5	731976.1	1.5	22.3	22.4	22.3	22.3	22.4	22.4	22.3
250	345609.3	731975.1	1.5	22.3	22.3	22.3	22.3	22.4	22.4	22.3
251	345708.9	731958.8	1.5	23.2	23.3	23.3	23.2	23.3	23.3	23.3
252	345731.4	731962.3	1.5	23.1	23.1	23.1	23.1	23.1	23.1	23.1
253	345663.4	731936.3	1.5	22.6	22.6	22.6	22.6	22.6	22.6	22.6
254	345636.3	731943.4	1.5	22.5	22.5	22.5	22.5	22.6	22.5	22.5
255	345614.9	731948	1.5	22.4	22.4	22.4	22.4	22.5	22.5	22.4
256	345597.5	731944.4	1.5	22.3	22.3	22.3	22.3	22.4	22.4	22.3
257	345589.3	731943.9	1.5	22.3	22.3	22.3	22.3	22.4	22.4	22.3
258	345596.5	731974.1	1.5	22.3	22.3	22.3	22.3	22.4	22.4	22.3
259	345665.5	732082.7	1.5	22.1	22.1	22.1	22.1	22.2	22.2	22.1
260	345678.8	732084.2	1.5	22.0	22.0	22.0	22.0	22.1	22.1	22.0
261	345630.7	732060.2	1.5	22.1	22.1	22.1	22.1	22.1	22.1	22.1
262	345753.9	732156.8	1.5	22.5	22.6	22.6	22.6	22.7	22.7	22.6
263	345728.3	732154.8	1.5	22.8	22.9	22.9	22.9	23.0	23.0	22.9
264	345710.9	732146.1	1.5	22.8	22.8	22.8	22.9	23.0	23.0	22.8
265	345655.8	732193.6	1.5	24.0	24.0	24.0	24.0	24.2	24.2	24.0
266	345685.4	732133.8	1.5	22.8	22.8	22.8	22.8	22.9	22.9	22.8
267	345664.4	732131.3	1.5	23.0	23.0	23.0	23.0	23.1	23.1	23.0
268	345643.5	732125.1	1.5	23.0	23.1	23.1	23.1	23.2	23.1	23.0
269	345626.1	732122.6	1.5	23.1	23.2	23.1	23.2	23.3	23.3	23.1
270	345602.6	732116.9	1.5	23.2	23.2	23.2	23.2	23.4	23.3	23.2
271	345717.3	731681.2	1.5	21.3	21.3	21.3	21.3	21.3	21.3	21.3
272	345551.3	731649.8	1.5	22.0	22.0	22.0	22.0	22.0	22.0	22.0
273	345570.2	731646.2	1.5	21.9	22.0	21.9	21.9	21.9	22.0	21.9
274	345601.3	731625.8	1.5	21.7	21.8	21.8	21.7	21.8	21.8	21.7

Receptor name	X(m)	Y(m)	Z(m)	Annual Mean NO <sub>2</sub> Concentration (µg/m <sup>3</sup> )						
				BC	SC1	SC2	SC3	SC4	SC5	SC6
275	345635.1	731624.8	1.5	22.1	22.2	22.2	22.1	22.1	22.1	22.2
276	345649.9	731601.8	1.5	21.9	22.0	22.0	21.9	22.0	22.0	22.0
277	345564.5	731673.5	1.5	22.2	22.3	22.3	22.2	22.2	22.3	22.2
278	345581.4	731666.4	1.5	22.3	22.3	22.3	22.3	22.3	22.3	22.3
279	345616.2	731661.3	1.5	21.9	21.9	21.9	21.9	21.9	21.9	21.9
280	345632.5	731671	1.5	21.6	21.6	21.6	21.6	21.6	21.6	21.6
281	345666.3	731675.1	1.5	21.4	21.5	21.5	21.4	21.5	21.5	21.4
282	345697.9	731678.6	1.5	21.3	21.4	21.4	21.4	21.4	21.4	21.4
283	345749.5	731685.8	1.5	21.2	21.2	21.2	21.2	21.2	21.2	21.2
284	345738.8	731658.2	1.5	21.4	21.4	21.4	21.4	21.4	21.4	21.4
285	345729.6	731654.1	1.5	21.3	21.4	21.4	21.4	21.4	21.4	21.4
286	345706.6	731650	1.5	21.4	21.4	21.4	21.4	21.4	21.4	21.4
287	345675.4	731647.4	1.5	21.6	21.6	21.6	21.6	21.6	21.6	21.6
288	345681.6	731610.2	1.5	21.7	21.8	21.7	21.7	21.7	21.7	21.7
289	345693.3	731584.6	1.5	21.8	21.8	21.8	21.8	21.8	21.8	21.8
290	345701.5	731567.3	1.5	21.9	21.9	21.9	21.9	21.9	21.9	21.9
291	345710.7	731551.4	1.5	22.0	22.1	22.1	22.1	22.1	22.1	22.1
292	345714.8	731537.6	1.5	22.4	22.5	22.5	22.4	22.4	22.4	22.4
293	345724.5	731507.9	1.5	24.8	25.0	24.9	24.9	24.9	24.8	24.9
294	345682.6	731491.6	1.5	23.6	23.8	23.7	23.7	23.7	23.7	23.7
295	345700	731480.9	1.5	23.4	23.6	23.5	23.5	23.5	23.5	23.5
296	345718.9	731473.7	1.5	23.7	23.8	23.8	23.8	23.8	23.8	23.8
297	345664.7	731633.4	1.5	21.7	21.8	21.8	21.8	21.8	21.8	21.8
298	345654.7	731921.9	1.5	22.3	22.3	22.3	22.3	22.4	22.4	22.3
299	345648.6	731915.3	1.5	22.4	22.3	22.3	22.3	22.4	22.4	22.3
300	345643.5	731908.1	1.5	22.3	22.3	22.3	22.3	22.3	22.3	22.3
301	345639.9	731901.5	1.5	22.2	22.2	22.2	22.2	22.2	22.3	22.2
302	345628.7	731885.7	1.5	22.2	22.1	22.1	22.2	22.2	22.2	22.1
303	345625.1	731880.6	1.5	22.2	22.1	22.1	22.1	22.2	22.2	22.1
304	345616.4	731866.3	1.5	22.1	22.0	22.0	22.1	22.1	22.1	22.0
305	345607.2	731852.4	1.5	22.0	22.0	22.0	22.0	22.0	22.1	22.0
306	345624.6	731921.4	1.5	22.3	22.2	22.2	22.3	22.3	22.3	22.2
307	345613.3	731906.6	1.5	22.1	22.1	22.1	22.1	22.1	22.1	22.1
308	345609.3	731900.5	1.5	22.1	22.1	22.1	22.1	22.1	22.1	22.1
309	345597.5	731884.1	1.5	22.0	22.0	22.0	22.0	22.0	22.0	22.0
310	345594.4	731878	1.5	22.0	22.0	22.0	22.0	22.0	22.1	22.0
311	345584.2	731864.7	1.5	21.9	21.9	21.9	21.9	22.0	22.0	21.9
312	345575	731851.9	1.5	21.9	21.9	21.9	21.9	21.9	21.9	21.9
313	345599.5	731842.3	1.5	22.0	22.0	22.0	22.0	22.0	22.1	22.0
314	345590.3	731829.9	1.5	22.1	22.0	22.0	22.0	22.1	22.1	22.0
315	345566.8	731842.3	1.5	21.8	21.8	21.8	21.8	21.8	21.9	21.8
316	345559.7	731830.5	1.5	21.8	21.8	21.8	21.8	21.9	21.9	21.8
317	345584.7	731821.8	1.5	22.0	22.0	22.0	22.0	22.0	22.1	22.0
318	345577.1	731811.1	1.5	22.1	22.0	22.0	22.0	22.1	22.1	22.0
319	345553	731822.1	1.5	21.8	21.8	21.8	21.8	21.8	21.9	21.8
320	345545.4	731811.3	1.5	21.8	21.8	21.8	21.8	21.8	21.8	21.8
321	345568.9	731802.1	1.5	22.1	22.1	22.1	22.1	22.1	22.2	22.1
322	345559.7	731788.3	1.5	22.1	22.1	22.1	22.1	22.1	22.2	22.1
323	345551	731774.5	1.5	22.1	22.1	22.1	22.1	22.1	22.1	22.1
324	345544.3	731764.8	1.5	22.1	22.1	22.1	22.1	22.1	22.2	22.1
325	345535.7	731752.6	1.5	22.2	22.1	22.1	22.2	22.2	22.2	22.1
326	345523.9	731732.6	1.5	22.2	22.2	22.1	22.2	22.2	22.2	22.1
327	345538.7	731802.1	1.5	21.8	21.8	21.8	21.8	21.8	21.8	21.8
328	345532.1	731791.4	1.5	21.8	21.8	21.8	21.8	21.8	21.9	21.8
329	345526.5	731779.6	1.5	21.9	21.9	21.9	21.9	21.9	22.0	21.9
330	345516.8	731768.9	1.5	21.9	21.9	21.9	21.9	21.9	21.9	21.8
331	345558.2	731940.4	1.5	22.3	22.4	22.4	22.4	22.5	22.4	22.4
332	345573	731941.9	1.5	22.3	22.3	22.3	22.3	22.4	22.4	22.3
333	345580.6	731972.1	1.5	22.3	22.3	22.3	22.3	22.4	22.4	22.3
334	345571.4	731970.5	1.5	22.3	22.4	22.4	22.3	22.5	22.4	22.4
335	345562.8	731969.5	1.5	22.4	22.4	22.4	22.4	22.5	22.4	22.4

Receptor name	X(m)	Y(m)	Z(m)	Annual Mean NO <sub>2</sub> Concentration (µg/m <sup>3</sup> )						
				BC	SC1	SC2	SC3	SC4	SC5	SC6
336	345552.5	731968.4	1.5	22.4	22.4	22.4	22.4	22.5	22.5	22.4
337	345543.8	731967.4	1.5	22.4	22.4	22.4	22.4	22.5	22.5	22.4
338	345535.2	731966.4	1.5	22.4	22.5	22.5	22.5	22.6	22.5	22.5
339	345529.5	731936	1.5	22.4	22.4	22.4	22.4	22.5	22.4	22.4
340	345501.4	731964.1	1.5	22.7	22.8	22.7	22.7	22.9	22.8	22.7
341	345486.1	731964.1	1.5	22.9	23.0	22.9	22.9	23.1	23.0	22.9
342	345505.5	731933.4	1.5	22.5	22.5	22.5	22.5	22.6	22.6	22.5
343	345482.5	731930.4	1.5	22.4	22.5	22.5	22.4	22.6	22.5	22.5
344	345475.9	731929.9	1.5	22.4	22.4	22.4	22.4	22.5	22.5	22.4
345	345472.8	731966.1	1.5	23.1	23.1	23.1	23.1	23.2	23.1	23.1
346	345472.8	732075	1.5	23.7	23.8	23.7	23.7	23.8	23.9	23.7
347	345487.6	732083.7	1.5	23.6	23.7	23.7	23.7	23.8	23.8	23.6
348	345502.4	732089.3	1.5	23.5	23.6	23.5	23.6	23.7	23.7	23.5
349	345521.9	732106.2	1.5	23.7	23.8	23.8	23.8	24.0	23.9	23.8
350	345544.8	732111.8	1.5	23.7	23.7	23.7	23.7	23.9	23.9	23.7
351	345552	732117.4	1.5	23.9	23.9	23.9	23.9	24.1	24.1	23.9
352	345663.7	731531.7	1.5	23.3	23.4	23.3	23.3	23.3	23.3	23.3
353	345353.5	731599.4	1.5	22.4	22.5	22.4	22.4	22.5	22.5	22.4
354	345353.5	731626.5	1.5	21.9	21.9	21.9	21.9	21.9	21.9	21.9
355	345368.8	731541.7	1.5	25.3	25.4	25.4	25.5	25.4	25.5	25.4
356	345383.6	731543.2	1.5	26.6	26.8	26.8	26.9	26.8	26.9	26.7
357	345413.8	731535	1.5	24.5	24.7	24.7	24.7	24.7	24.8	24.6
358	345437.3	731530.4	1.5	24.1	24.2	24.2	24.2	24.2	24.3	24.1
359	345451.6	731531.4	1.5	24.6	24.8	24.7	24.8	24.8	24.8	24.7
360	345449.6	731496.7	1.5	22.0	22.0	22.0	22.0	22.0	22.1	22.0
361	345438.8	731581	1.5	22.8	22.8	22.8	22.8	22.8	22.9	22.8
362	345469	731632.1	1.5	23.7	23.7	23.7	23.7	23.7	23.8	23.7
363	345490.9	731561.4	1.5	23.8	23.9	23.8	23.9	23.8	23.9	23.8
364	345476.6	731591.5	1.5	24.8	24.9	24.8	24.8	24.8	25.0	24.8
365	345490.4	731626.3	1.5	22.8	22.9	22.9	22.9	22.9	23.0	22.9
366	345625.9	731537.3	1.5	22.9	23.0	23.0	23.0	23.0	23.0	23.0
367	345586	731542.9	1.5	23.0	23.1	23.1	23.1	23.1	23.0	23.0
368	345551.3	731549.1	1.5	23.0	23.1	23.1	23.1	23.1	23.1	23.1
369	345522.6	731552.1	1.5	23.3	23.4	23.4	23.4	23.4	23.4	23.4
370	345627.9	731582.6	1.5	21.8	21.8	21.8	21.8	21.8	21.8	21.8
371	345512.4	731522.3	1.5	23.6	23.7	23.7	23.7	23.7	23.7	23.7
372	345541.5	731522.3	1.5	24.5	24.7	24.6	24.6	24.6	24.6	24.6
373	345580.9	731506.9	1.5	22.9	23.0	23.0	23.0	23.0	22.9	22.9
374	345606.4	731501.3	1.5	22.8	22.8	22.8	22.8	22.8	22.8	22.8
375	345623.3	731502.3	1.5	23.1	23.2	23.2	23.2	23.2	23.2	23.2
376	345650.4	731497.2	1.5	23.2	23.3	23.2	23.2	23.2	23.2	23.2
377	345480.7	731448.8	1.5	21.4	21.5	21.4	21.5	21.5	21.5	21.4
378	345466.9	731413	1.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5
379	345443.4	731396.7	1.5	21.2	21.2	21.2	21.2	21.2	21.2	21.2
380	345440.3	731358.3	1.5	21.1	21.1	21.1	21.1	21.1	21.1	21.1
381	345435.8	731323.6	1.5	21.0	21.0	21.0	21.0	21.0	21.0	21.0
382	345439.8	731300.6	1.5	21.0	21.0	21.0	21.0	21.0	21.0	21.0
383	345435.8	731270.9	1.5	20.8	20.8	20.8	20.8	20.8	20.8	20.8
384	345461.8	731268.9	1.5	20.8	20.8	20.8	20.8	20.8	20.8	20.8
385	345471.5	731294.4	1.5	20.9	20.9	20.9	20.9	20.9	20.9	20.9
386	345474.6	731366.5	1.5	21.1	21.1	21.1	21.1	21.1	21.1	21.1
387	345357.1	731670.4	1.5	21.5	21.6	21.5	21.5	21.6	21.6	21.5
388	345378.5	731781.5	1.5	22.3	22.3	22.3	22.3	22.3	22.4	22.3
389	345508.1	731756.1	1.5	21.9	21.9	21.9	21.9	21.9	22.0	21.9
390	345500.4	731743.9	1.5	22.0	22.0	22.0	22.0	22.0	22.1	22.0
391	345475.1	731708.4	1.5	22.9	22.9	22.8	22.8	22.9	23.0	22.8
392	345461.8	731717.1	1.5	22.6	22.6	22.6	22.5	22.6	22.7	22.6
393	345451.1	731725.3	1.5	22.4	22.4	22.4	22.4	22.5	22.5	22.4
394	345439.8	731731.4	1.5	22.5	22.5	22.5	22.5	22.6	22.6	22.5
395	345430.6	731738.6	1.5	22.5	22.5	22.5	22.5	22.5	22.6	22.5
396	345466.4	731685.4	1.5	22.9	23.0	23.0	22.9	23.0	23.1	23.0

Receptor name	X(m)	Y(m)	Z(m)	Annual Mean NO <sub>2</sub> Concentration (µg/m <sup>3</sup> )						
				BC	SC1	SC2	SC3	SC4	SC5	SC6
397	345450.6	731685.4	1.5	22.1	22.1	22.1	22.1	22.1	22.2	22.1
398	345462.8	731664.4	1.5	22.5	22.5	22.5	22.5	22.5	22.6	22.5
399	345441.9	731693.6	1.5	22.0	22.0	22.0	22.0	22.0	22.1	22.0
400	345432.7	731700.8	1.5	22.0	22.0	22.0	22.0	22.0	22.0	22.0
401	345412.8	731724.3	1.5	22.2	22.3	22.3	22.2	22.3	22.3	22.3
402	345380.6	731746.3	1.5	22.2	22.2	22.2	22.2	22.2	22.3	22.2
403	345362.7	731746.8	1.5	22.0	22.0	22.0	22.0	22.0	22.1	22.0
404	345419.4	731768.2	1.5	21.8	21.8	21.8	21.8	21.9	21.9	21.8
405	345413.8	731786.1	1.5	21.7	21.7	21.7	21.7	21.7	21.8	21.7
406	345411.2	731797.8	1.5	21.6	21.6	21.6	21.6	21.7	21.7	21.6
407	345385.2	731794.8	1.5	21.9	21.9	21.9	21.9	21.9	21.9	21.9
408	345393.8	731807.1	1.5	21.7	21.7	21.7	21.7	21.7	21.8	21.7
409	345391.8	731818.3	1.5	21.7	21.7	21.7	21.7	21.7	21.7	21.7
410	345390.3	731827.5	1.5	21.7	21.7	21.7	21.7	21.7	21.7	21.7
411	345382.6	731840.3	1.5	21.7	21.7	21.7	21.7	21.8	21.8	21.7
412	345375.4	731859.7	1.5	21.8	21.8	21.8	21.8	21.9	21.9	21.8
413	345371.9	731872.9	1.5	21.9	21.9	21.9	21.9	21.9	22.0	21.9
414	345370.8	731881.1	1.5	21.9	21.9	21.9	21.9	22.0	22.0	21.9
415	345372.9	731892.9	1.5	22.0	22.0	22.0	22.0	22.1	22.1	22.0
416	345359.1	731692.9	1.5	21.5	21.6	21.6	21.6	21.6	21.6	21.6
417	345359.6	731713.4	1.5	21.6	21.6	21.6	21.6	21.7	21.7	21.6
418	345361.2	731722.6	1.5	21.7	21.7	21.7	21.7	21.7	21.7	21.7
419	345498.1	731656.9	1.5	22.6	22.6	22.6	22.6	22.6	22.7	22.6
420	345486.3	731677.9	1.5	24.0	24.0	24.0	24.0	24.0	24.2	24.0
421	345512.9	731656.4	1.5	22.2	22.2	22.2	22.2	22.2	22.3	22.2
422	345530.8	731653.3	1.5	22.0	22.1	22.1	22.0	22.0	22.1	22.0
423	345500.7	731699.6	1.5	22.8	22.8	22.8	22.8	22.8	22.9	22.8
424	345447.8	732107.7	1.5	25.7	25.8	25.8	25.8	26.0	26.0	25.8
425	345432.9	732099	1.5	25.7	25.8	25.8	25.8	25.9	26.0	25.8
426	345423.8	732094.9	1.5	25.9	26.0	26.0	26.0	26.1	26.2	26.0
427	345414	732088.3	1.5	26.1	26.2	26.2	26.1	26.2	26.3	26.2
428	345401.3	732085.3	1.5	26.7	26.8	26.8	26.8	26.9	26.9	26.8
429	345356.5	732082.8	1.5	32.2	32.3	32.2	32.1	32.3	32.5	32.2
430	345378.5	732086.9	1.5	28.8	28.9	28.9	28.8	29.0	29.1	28.9
431	345401.8	732092.5	1.5	27.0	27.2	27.1	27.1	27.2	27.3	27.1
432	345419.4	732101.4	1.5	26.6	26.7	26.7	26.6	26.8	26.8	26.6
433	345445.2	732116	1.5	26.7	26.8	26.8	26.8	27.0	27.0	26.8
434	345303.7	732091.3	1.5	28.2	28.3	28.3	28.2	28.3	28.5	28.2
435	345292.2	732087.4	1.5	26.7	26.8	26.8	26.7	26.9	26.9	26.8
436	345280.4	732087.9	1.5	25.4	25.4	25.4	25.4	25.5	25.6	25.4
437	345297.8	732120.4	1.5	25.3	25.3	25.3	25.3	25.4	25.4	25.3
438	345285	732186.6	1.5	24.4	24.4	24.4	24.3	24.4	24.4	24.4
439	345286	732198.1	1.5	24.7	24.7	24.7	24.7	24.8	24.8	24.7
440	345283.7	732202.4	1.5	24.6	24.6	24.6	24.6	24.7	24.7	24.6
441	345284.5	732209.3	1.5	24.9	24.9	24.9	24.9	25.0	25.0	24.9
442	345282.2	732214.1	1.5	24.7	24.8	24.8	24.7	24.8	24.8	24.8
443	345281.7	732220.5	1.5	24.9	24.9	24.9	24.9	25.0	25.0	24.9
444	345270.4	732225.1	1.5	24.2	24.3	24.3	24.2	24.3	24.3	24.2
445	345260	732223.8	1.5	23.7	23.7	23.7	23.7	23.8	23.8	23.7
446	345333.5	731768.7	1.5	22.0	22.0	22.0	22.0	22.1	22.1	22.0
447	345331.5	731782	1.5	22.3	22.3	22.3	22.3	22.3	22.4	22.3
448	345315.7	731783.5	1.5	22.0	22.0	22.0	22.0	22.1	22.1	22.0
449	345311.6	731809.1	1.5	22.0	22.1	22.0	22.0	22.1	22.2	22.0
450	345308	731823.4	1.5	22.1	22.1	22.1	22.1	22.2	22.2	22.1
451	345300.3	731843.8	1.5	22.0	22.1	22.1	22.1	22.2	22.2	22.1
452	345296.3	731862.3	1.5	22.1	22.2	22.2	22.2	22.2	22.3	22.1
453	345262.5	731899.5	1.5	22.1	22.1	22.1	22.1	22.2	22.2	22.1
454	345290.6	731802.9	1.5	21.8	21.8	21.8	21.8	21.8	21.8	21.8
455	345276.3	731801.4	1.5	21.7	21.7	21.7	21.7	21.7	21.7	21.7
456	345258.9	731798.4	1.5	21.6	21.6	21.6	21.6	21.7	21.7	21.6
457	345288.6	731772.3	1.5	21.6	21.6	21.6	21.6	21.7	21.7	21.6

Receptor name	X(m)	Y(m)	Z(m)	Annual Mean NO <sub>2</sub> Concentration (µg/m <sup>3</sup> )						
				BC	SC1	SC2	SC3	SC4	SC5	SC6
458	345273.3	731765.1	1.5	21.5	21.5	21.5	21.5	21.6	21.6	21.5
459	345253.3	731766.1	1.5	21.5	21.5	21.5	21.5	21.6	21.6	21.5
460	345242.1	731759.5	1.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5
461	345225.7	731793.3	1.5	21.4	21.5	21.5	21.5	21.5	21.5	21.4
462	345212.4	731791.7	1.5	21.4	21.4	21.4	21.4	21.4	21.4	21.4
463	345211.4	731754.9	1.5	21.4	21.4	21.4	21.4	21.4	21.4	21.4
464	345240	731730.4	1.5	21.4	21.4	21.4	21.4	21.4	21.4	21.4
465	345203.2	731720.7	1.5	21.3	21.3	21.3	21.3	21.3	21.3	21.3
466	345355.5	731647.9	1.5	21.6	21.6	21.6	21.6	21.7	21.7	21.6
467	345322.8	731686.3	1.5	21.4	21.5	21.5	21.5	21.5	21.5	21.4
468	345321.8	731666.9	1.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5
469	345319.8	731651.6	1.5	21.5	21.6	21.5	21.6	21.6	21.6	21.5
470	345361.9	732072.4	1.5	29.9	30.0	29.9	29.9	30.0	30.2	29.9
471	345433.4	731988.1	1.5	23.9	24.0	24.0	23.9	24.1	24.1	24.0
472	345459.5	731934.5	1.5	22.6	22.6	22.6	22.6	22.7	22.7	22.6
473	345445.2	731939.1	1.5	22.7	22.7	22.7	22.7	22.8	22.8	22.7
474	345436.5	731945.2	1.5	22.8	22.9	22.9	22.8	23.0	22.9	22.8
475	345422.7	731953.9	1.5	23.0	23.1	23.1	23.0	23.1	23.1	23.0
476	345457	731970.8	1.5	23.3	23.4	23.4	23.3	23.5	23.4	23.4
477	345445.7	731978.4	1.5	23.5	23.6	23.5	23.5	23.7	23.6	23.5
478	345414.5	731962.1	1.5	23.2	23.3	23.3	23.2	23.4	23.4	23.3
479	345425.8	732000.4	1.5	24.2	24.3	24.3	24.2	24.4	24.4	24.3
480	345403.3	731975.9	1.5	23.7	23.8	23.8	23.7	23.8	23.9	23.7
481	345398.7	731981	1.5	23.9	24.0	23.9	23.9	24.0	24.1	23.9
482	345419.2	732010.1	1.5	24.7	24.8	24.8	24.7	24.9	24.9	24.8
483	345394.1	731994.8	1.5	24.5	24.6	24.5	24.5	24.6	24.7	24.5
484	345386.4	732009.6	1.5	25.3	25.3	25.3	25.3	25.4	25.4	25.3
485	345415.1	732021.9	1.5	25.3	25.4	25.4	25.3	25.5	25.5	25.4
486	345383.4	732021.4	1.5	26.0	26.1	26.1	26.0	26.2	26.2	26.0
487	345412	732038.2	1.5	25.8	25.9	25.9	25.8	26.0	26.0	25.9
488	345419.7	732053.6	1.5	25.2	25.3	25.3	25.3	25.4	25.4	25.3
489	345376.2	732041.3	1.5	28.0	28.0	28.0	28.0	28.1	28.2	28.0
490	345435.5	732060.7	1.5	24.5	24.5	24.5	24.5	24.6	24.6	24.5
491	345449.3	732065.3	1.5	24.1	24.2	24.1	24.1	24.2	24.3	24.1
492	345461.1	732069.9	1.5	23.9	23.9	23.9	23.9	24.0	24.0	23.9
493	345388	732079.6	1.5	27.5	27.5	27.5	27.5	27.6	27.7	27.5
494	345377.3	732077.1	1.5	28.3	28.4	28.4	28.3	28.5	28.6	28.4
495	345374.4	731917.9	1.5	22.3	22.3	22.3	22.3	22.4	22.4	22.3
496	345370.8	731936.8	1.5	22.7	22.8	22.7	22.7	22.8	22.9	22.7
497	345266.1	731984.4	1.5	26.4	26.4	26.4	26.4	26.5	26.6	26.4
498	345264.6	731967.5	1.5	24.4	24.4	24.4	24.4	24.5	24.6	24.4
499	345261.5	731956.3	1.5	23.6	23.7	23.7	23.7	23.7	23.8	23.7
500	345256.4	731945	1.5	23.1	23.1	23.1	23.1	23.2	23.2	23.1
501	345256.4	731933.3	1.5	22.7	22.8	22.8	22.7	22.8	22.9	22.7
502	345285	731948.1	1.5	23.5	23.5	23.5	23.5	23.6	23.7	23.5
503	345222.1	731971.1	1.5	24.9	24.9	24.9	24.9	25.0	25.1	24.9
504	345194	731966.5	1.5	24.6	24.7	24.6	24.6	24.8	24.8	24.6
505	345158.8	731953.2	1.5	23.4	23.4	23.4	23.4	23.6	23.6	23.4
506	345147	731950.1	1.5	23.2	23.2	23.2	23.2	23.4	23.4	23.2
507	345133.2	731936.3	1.5	22.6	22.7	22.6	22.6	22.8	22.8	22.6
508	345140.9	731917.9	1.5	22.1	22.1	22.1	22.1	22.2	22.3	22.1
509	345177.7	731941.9	1.5	22.8	22.8	22.8	22.8	22.9	23.0	22.8
510	345202.7	731950.1	1.5	23.2	23.2	23.2	23.2	23.3	23.3	23.2
511	345229.3	731956.8	1.5	23.6	23.6	23.6	23.6	23.7	23.7	23.6
512	345093.4	731946.6	1.5	23.7	23.7	23.7	23.7	24.0	24.0	23.7
513	345180.3	732005.6	1.5	25.8	25.9	25.8	25.8	26.0	26.1	25.8
514	345250.8	732025.4	1.5	29.7	29.8	29.7	29.7	29.9	29.9	29.7
515	345222.7	732330.3	1.5	22.4	22.4	22.4	22.4	22.5	22.5	22.4
516	345233.9	732219.5	1.5	23.0	23.1	23.1	23.1	23.1	23.1	23.1
517	345252	732222.3	1.5	23.4	23.5	23.4	23.4	23.5	23.5	23.4
518	345243.6	732220.8	1.5	23.2	23.2	23.2	23.2	23.3	23.3	23.2

Receptor name	X(m)	Y(m)	Z(m)	Annual Mean NO <sub>2</sub> Concentration (µg/m <sup>3</sup> )						
				BC	SC1	SC2	SC3	SC4	SC5	SC6
519	345226	732217.9	1.5	22.9	22.9	22.9	22.9	23.0	23.0	22.9
520	345218.8	732217.2	1.5	22.8	22.8	22.8	22.8	22.9	22.9	22.8
521	345211.4	732215.4	1.5	22.6	22.7	22.7	22.7	22.7	22.7	22.7
522	345198.9	732214.1	1.5	22.5	22.5	22.5	22.5	22.5	22.6	22.5
523	345186.6	732211.6	1.5	22.3	22.3	22.3	22.3	22.3	22.3	22.3
524	345187.4	732238.9	1.5	22.2	22.2	22.2	22.2	22.3	22.3	22.2
525	345201.9	732241.3	1.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
526	345205.3	732246.3	1.5	22.3	22.3	22.3	22.3	22.3	22.4	22.3
527	345224.7	732256.6	1.5	22.3	22.4	22.4	22.3	22.4	22.4	22.3
528	345229.8	732253	1.5	22.5	22.6	22.6	22.5	22.6	22.6	22.5
529	345235.7	732251.2	1.5	22.7	22.8	22.8	22.7	22.8	22.8	22.8
530	345240.5	732248.6	1.5	23.0	23.0	23.0	23.0	23.1	23.1	23.0
531	345251.5	732249.4	1.5	23.3	23.3	23.3	23.3	23.4	23.4	23.3
532	345264	732251.2	1.5	23.8	23.8	23.8	23.8	23.9	23.9	23.8
533	345277.6	732259.9	1.5	24.4	24.4	24.4	24.4	24.5	24.5	24.4
534	345276.6	732268.6	1.5	24.1	24.2	24.2	24.1	24.2	24.2	24.1
535	345275.8	732274.3	1.5	23.9	24.0	24.0	23.9	24.0	24.0	24.0
536	345274.5	732286.3	1.5	23.6	23.7	23.7	23.6	23.7	23.7	23.7
537	345273.8	732294.5	1.5	23.5	23.5	23.5	23.4	23.5	23.5	23.5
538	345259.4	732301.9	1.5	22.7	22.8	22.8	22.7	22.8	22.8	22.7
539	345259.2	732308.6	1.5	22.7	22.8	22.8	22.7	22.8	22.8	22.8
540	345258.9	732323.1	1.5	23.0	23.1	23.1	23.0	23.1	23.1	23.1
541	345259.2	732332.6	1.5	23.7	23.8	23.7	23.7	23.8	23.8	23.7
542	345260.2	732362.8	1.5	23.5	23.6	23.6	23.5	23.6	23.6	23.6
543	345264.6	732380.9	1.5	22.6	22.6	22.6	22.6	22.7	22.7	22.6
544	345263.5	732390.1	1.5	22.3	22.4	22.4	22.3	22.4	22.4	22.4
545	345224.7	732381.4	1.5	22.3	22.4	22.4	22.3	22.4	22.4	22.4
546	345210.4	732385.2	1.5	22.2	22.2	22.2	22.2	22.2	22.2	22.2
547	345220.1	732382.4	1.5	22.3	22.3	22.3	22.3	22.3	22.4	22.3
548	345196.1	732388.3	1.5	22.1	22.1	22.1	22.0	22.1	22.1	22.1
549	345184.8	732391.4	1.5	21.9	21.9	21.9	21.9	21.9	22.0	21.9
550	345195.6	732336.4	1.5	22.1	22.2	22.2	22.1	22.2	22.2	22.2
551	345202.7	732332.8	1.5	22.1	22.2	22.2	22.1	22.2	22.2	22.2
552	345182.5	732321.3	1.5	21.7	21.7	21.7	21.7	21.7	21.7	21.7
553	345181.3	732392.6	1.5	21.9	21.9	21.9	21.9	21.9	21.9	21.9
554	345262.3	732401.7	1.5	22.1	22.1	22.1	22.1	22.1	22.1	22.1
555	345261.8	732408.6	1.5	21.9	22.0	22.0	21.9	22.0	22.0	22.0
556	345260.5	732423.7	1.5	21.7	21.7	21.7	21.7	21.7	21.7	21.7
557	345259.4	732431.8	1.5	21.6	21.6	21.6	21.6	21.7	21.6	21.6
558	345257.7	732445.9	1.5	21.5	21.5	21.5	21.5	21.6	21.6	21.5
559	345283	731544.4	1.5	23.8	23.9	23.9	23.9	23.9	24.0	23.8
560	345027.9	731576.6	1.5	23.1	23.2	23.2	23.2	23.2	23.3	23.2
561	345044.8	731578.6	1.5	23.3	23.4	23.3	23.3	23.3	23.4	23.3
562	345056.1	731581.1	1.5	23.2	23.3	23.2	23.2	23.2	23.3	23.2
563	345075.5	731584.2	1.5	23.1	23.2	23.2	23.2	23.2	23.2	23.1
564	345101	731585.3	1.5	23.2	23.3	23.2	23.3	23.2	23.3	23.2
565	345036.1	731530.6	1.5	22.7	22.8	22.7	22.7	22.7	22.8	22.7
566	345066.3	731541.3	1.5	23.0	23.1	23.1	23.1	23.1	23.1	23.0
567	345105.1	731538.2	1.5	22.3	22.4	22.4	22.4	22.4	22.4	22.3
568	345119.9	731544.9	1.5	22.6	22.6	22.6	22.6	22.6	22.7	22.6
569	345135.3	731565.3	1.5	26.4	26.6	26.5	26.6	26.6	26.7	26.5
570	345153.2	731556.6	1.5	24.0	24.1	24.1	24.1	24.1	24.2	24.0
571	345134.3	731588.8	1.5	23.0	23.1	23.0	23.0	23.0	23.1	23.0
572	345148.6	731587.3	1.5	23.2	23.3	23.2	23.3	23.3	23.3	23.2
573	345168	731585.8	1.5	23.4	23.5	23.4	23.5	23.5	23.5	23.4
574	345178.2	731586.8	1.5	23.2	23.3	23.3	23.3	23.3	23.3	23.2
575	345188.4	731585.3	1.5	23.3	23.4	23.4	23.4	23.4	23.5	23.3
576	345201.2	731584.2	1.5	23.4	23.4	23.4	23.4	23.4	23.5	23.4
577	345181.8	731544.4	1.5	22.8	22.9	22.8	22.9	22.9	22.9	22.8
578	345218.6	731551.5	1.5	24.2	24.3	24.2	24.3	24.3	24.3	24.2
579	345243.6	731547.9	1.5	23.8	23.9	23.9	24.0	23.9	24.0	23.9

Receptor name	X(m)	Y(m)	Z(m)	Annual Mean NO <sub>2</sub> Concentration (µg/m <sup>3</sup> )						
				BC	SC1	SC2	SC3	SC4	SC5	SC6
580	345266.6	731550.5	1.5	24.9	25.1	25.0	25.1	25.0	25.1	24.9
581	345303.4	731550	1.5	26.0	26.2	26.1	26.2	26.2	26.2	26.0
582	345225.7	731581.1	1.5	23.5	23.6	23.6	23.6	23.6	23.7	23.5
583	345240.5	731579.6	1.5	23.6	23.7	23.7	23.7	23.7	23.7	23.6
584	345257.9	731579.1	1.5	23.5	23.6	23.6	23.6	23.6	23.6	23.5
585	345271.7	731577.6	1.5	23.6	23.7	23.6	23.7	23.7	23.7	23.6
586	345311.6	731574.5	1.5	23.7	23.9	23.8	23.9	23.9	23.9	23.8
587	345341.7	731543.2	1.5	24.9	25.1	25.0	25.1	25.1	25.1	25.0
588	345316.7	731595.8	1.5	22.4	22.5	22.5	22.5	22.5	22.5	22.5
589	345317.2	731608.6	1.5	22.1	22.1	22.1	22.1	22.2	22.2	22.1
590	345318.2	731626.5	1.5	21.8	21.8	21.8	21.8	21.8	21.8	21.8
591	345126.3	732230.5	1.5	21.7	21.7	21.7	21.7	21.7	21.7	21.7
592	345157.8	732207	1.5	22.0	22.0	22.0	22.0	22.0	22.0	22.0
593	345145.5	732204.9	1.5	21.9	21.9	21.9	21.9	21.9	21.9	21.9
594	345133	732203.7	1.5	21.8	21.8	21.8	21.8	21.9	21.9	21.8
595	345123.3	732200.9	1.5	21.7	21.7	21.7	21.7	21.8	21.8	21.7
596	345114.3	732192.2	1.5	21.6	21.6	21.6	21.6	21.6	21.6	21.6
597	345092.1	732190.4	1.5	21.4	21.5	21.5	21.5	21.5	21.5	21.5
598	345077.8	732193.4	1.5	21.4	21.4	21.4	21.4	21.5	21.5	21.4
599	345068.3	732193.4	1.5	21.3	21.4	21.4	21.4	21.4	21.4	21.3
600	345060.1	732228.2	1.5	21.2	21.2	21.2	21.2	21.2	21.2	21.2
601	345066.3	732224.6	1.5	21.3	21.3	21.3	21.3	21.3	21.3	21.3
602	345072.9	732221.6	1.5	21.3	21.4	21.3	21.4	21.4	21.4	21.3
603	345086.7	732223.3	1.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5
604	345092.3	732232.6	1.5	21.4	21.4	21.4	21.4	21.4	21.4	21.4
605	345110.2	732239.2	1.5	21.4	21.4	21.4	21.4	21.4	21.4	21.4
606	345115.8	732234.6	1.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5
607	345121.7	732233.3	1.5	21.6	21.6	21.6	21.6	21.6	21.6	21.6
608	345141.7	732233.1	1.5	21.7	21.8	21.7	21.8	21.8	21.8	21.7
609	345145.7	732239.9	1.5	21.6	21.7	21.6	21.6	21.7	21.7	21.6
610	345157	732256.1	1.5	21.6	21.6	21.6	21.6	21.6	21.6	21.6
611	345168	732250.2	1.5	21.7	21.7	21.7	21.7	21.7	21.8	21.7
612	345080.6	732359	1.5	21.3	21.3	21.3	21.3	21.3	21.3	21.3
613	345171.8	732209.3	1.5	22.1	22.1	22.1	22.1	22.1	22.1	22.1
614	345175.4	732245.6	1.5	21.8	21.9	21.9	21.9	21.9	21.9	21.9
615	345142.2	732348.4	1.5	21.6	21.7	21.7	21.6	21.7	21.7	21.6
616	345126.3	732351.5	1.5	21.5	21.5	21.5	21.5	21.6	21.6	21.5
617	345148.8	732333.9	1.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5
618	345064.7	732358.5	1.5	21.1	21.2	21.2	21.2	21.2	21.2	21.1
619	345095.4	732352.4	1.5	21.3	21.3	21.3	21.3	21.3	21.3	21.3
620	345044	732383.3	1.5	21.2	21.2	21.2	21.2	21.2	21.2	21.2
621	345031.4	732387.3	1.5	21.0	21.0	21.0	21.0	21.0	21.1	21.0
622	345017.3	732390.4	1.5	20.9	20.9	20.9	20.9	20.9	21.0	20.9
623	345014.7	731930.2	1.5	24.0	24.0	24.0	24.0	24.4	24.4	24.0
624	344907.8	731903.1	1.5	23.7	23.8	23.8	23.8	24.2	24.2	23.7
625	344833.3	731880.1	1.5	23.2	23.2	23.2	23.2	23.5	23.5	23.1
626	344750.4	731528	1.5	22.5	22.6	22.6	22.6	22.6	22.6	22.5
627	344771.4	731531.1	1.5	22.6	22.6	22.6	22.6	22.6	22.7	22.6
628	344783.2	731533.1	1.5	22.6	22.6	22.6	22.6	22.6	22.7	22.6
629	344803.1	731534.1	1.5	22.8	22.8	22.8	22.8	22.8	22.9	22.8
630	344824	731537.8	1.5	22.8	22.8	22.8	22.8	22.8	22.9	22.8
631	344848.1	731543.3	1.5	22.7	22.7	22.7	22.7	22.7	22.8	22.7
632	344867	731546.4	1.5	22.7	22.8	22.7	22.7	22.7	22.8	22.7
633	344894.1	731551.5	1.5	22.7	22.8	22.7	22.7	22.7	22.8	22.7
634	344902.2	731552	1.5	22.8	22.9	22.8	22.8	22.8	22.9	22.8
635	344915.5	731557.6	1.5	22.6	22.6	22.6	22.6	22.6	22.6	22.6
636	344928.3	731560.2	1.5	22.6	22.6	22.6	22.6	22.6	22.7	22.6
637	344954.3	731563.8	1.5	22.7	22.8	22.8	22.8	22.8	22.8	22.7
638	344772.9	731493.8	1.5	23.0	23.0	23.0	23.0	23.0	23.1	23.0
639	344751	731490.2	1.5	23.0	23.1	23.1	23.1	23.1	23.1	23.0
640	344919.1	731530.6	1.5	25.0	25.1	25.1	25.1	25.1	25.2	25.0



Receptor name	X(m)	Y(m)	Z(m)	Annual Mean NO <sub>2</sub> Concentration (µg/m <sup>3</sup> )						
				BC	SC1	SC2	SC3	SC4	SC5	SC6
641	344955.9	731534.6	1.5	24.4	24.4	24.4	24.4	24.4	24.5	24.4
642	344832.7	731513.2	1.5	24.4	24.4	24.4	24.4	24.4	24.5	24.4
643	344786.7	731506	1.5	24.8	24.9	24.8	24.9	24.8	24.9	24.8
644	344999.8	731542.3	1.5	25.4	25.5	25.5	25.5	25.4	25.5	25.4
645	345015.2	731573	1.5	23.3	23.4	23.3	23.3	23.3	23.4	23.3
646	345008	731505	1.5	22.7	22.7	22.7	22.7	22.7	22.7	22.7
647	344991.7	731490.2	1.5	22.0	22.1	22.0	22.0	22.0	22.1	22.0
648	345018.2	731474.9	1.5	22.7	22.8	22.7	22.7	22.7	22.8	22.7
649	345044.8	731434.5	1.5	21.5	21.6	21.5	21.5	21.6	21.6	21.5
650	344998.3	731454.9	1.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5
651	345068.3	731378.3	1.5	21.0	21.0	21.0	21.0	21.0	21.0	21.0
652	345046.3	731374.2	1.5	21.0	21.0	21.0	21.0	21.0	21.0	21.0
653	344870.2	731926.5	1.5	23.3	23.4	23.4	23.4	23.7	23.7	23.3
654	344983.7	731955.3	1.5	23.3	23.4	23.3	23.4	23.7	23.7	23.3
655	345050.2	731971.5	1.5	23.5	23.5	23.5	23.5	23.8	23.8	23.5
656	344679.4	731477.9	1.5	23.4	23.4	23.4	23.4	23.4	23.5	23.4
657	344550.1	731561.3	1.5	22.1	22.1	22.1	22.1	22.1	22.1	22.1
658	344572.6	731518.3	1.5	22.5	22.6	22.6	22.6	22.6	22.6	22.6
659	344576.7	731499.4	1.5	23.5	23.6	23.6	23.6	23.6	23.7	23.6
660	344618.6	731512.7	1.5	22.7	22.7	22.7	22.7	22.8	22.8	22.7
661	344620.1	731541.8	1.5	21.8	21.8	21.8	21.8	21.8	21.9	21.8
662	344657.4	731515.3	1.5	22.7	22.7	22.7	22.7	22.7	22.8	22.7
663	344680.9	731516.8	1.5	22.7	22.7	22.7	22.7	22.7	22.8	22.7
664	344703.9	731520.3	1.5	22.6	22.6	22.6	22.6	22.6	22.7	22.6
665	344728.5	731522.4	1.5	22.7	22.8	22.7	22.7	22.8	22.8	22.7
666	344737.7	731488.1	1.5	23.1	23.1	23.1	23.1	23.1	23.2	23.1
667	344722.3	731484.6	1.5	23.1	23.1	23.1	23.1	23.1	23.1	23.1
668	344701.4	731481.5	1.5	23.2	23.2	23.2	23.2	23.2	23.3	23.2
669	344661	731473.8	1.5	23.5	23.6	23.6	23.6	23.6	23.6	23.5
670	344601.2	731344.9	1.5	21.3	21.4	21.4	21.3	21.4	21.4	21.3
671	344616	731368.9	1.5	21.6	21.6	21.6	21.6	21.7	21.7	21.6
672	344627.8	731349.9	1.5	21.4	21.4	21.4	21.4	21.4	21.4	21.4
673	344578	731376	1.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5
674	344607.6	731440.4	1.5	22.4	22.4	22.4	22.4	22.5	22.5	22.4
675	344610.2	731456.8	1.5	23.2	23.3	23.2	23.3	23.3	23.3	23.2
676	344544.8	731451.1	1.5	23.6	23.7	23.6	23.7	23.8	23.8	23.6
677	344537.6	731460.6	1.5	25.9	26.0	26.0	26.1	26.3	26.2	25.9
678	344643.7	731474.4	1.5	24.6	24.7	24.6	24.6	24.6	24.7	24.6
679	344530.7	731494.3	1.5	23.0	23.1	23.1	23.1	23.1	23.1	23.0
680	344528.2	731512.3	1.5	22.4	22.5	22.5	22.5	22.5	22.6	22.5
681	344514.9	731539.3	1.5	21.9	22.0	22.0	22.0	22.0	22.0	22.0
682	344512.8	731555.7	1.5	21.9	22.0	22.0	21.9	22.0	22.0	21.9
683	344500.6	731489.3	1.5	22.7	22.7	22.7	22.8	22.9	22.8	22.7
684	344680.4	731843.3	1.5	23.2	23.2	23.2	23.4	23.6	23.7	23.2
685	344731.5	731855.6	1.5	23.2	23.2	23.2	23.3	23.6	23.6	23.2
686	344595.1	731824.9	1.5	23.6	23.6	23.6	23.8	24.1	24.1	23.6
687	344507.7	731803.4	1.5	23.8	23.8	23.8	24.0	24.2	24.2	23.8
688	344463.8	731795.8	1.5	24.4	24.4	24.4	24.6	24.9	24.9	24.4
689	344491.9	731719.1	1.5	22.0	22.1	22.0	22.1	22.3	22.3	22.0
690	344529.2	731648.1	1.5	21.5	21.5	21.5	21.5	21.6	21.6	21.5
691	344480.7	731640.9	1.5	21.6	21.6	21.6	21.6	21.7	21.7	21.6
692	344485.5	731623.1	1.5	21.5	21.5	21.5	21.6	21.6	21.6	21.5
693	344493.2	731605.7	1.5	21.5	21.6	21.6	21.6	21.6	21.6	21.6
694	344450.7	731835.1	1.5	23.7	23.8	23.8	23.9	24.1	24.1	23.8
695	344483.5	731843.6	1.5	23.2	23.2	23.2	23.3	23.5	23.5	23.2
696	344511.1	731847.3	1.5	23.1	23.2	23.2	23.3	23.5	23.5	23.1
697	344536.2	731851.3	1.5	23.1	23.1	23.1	23.2	23.4	23.4	23.1
698	344564.2	731857.2	1.5	23.1	23.1	23.1	23.1	23.4	23.4	23.1
699	344583.2	731875	1.5	22.2	22.3	22.3	22.3	22.5	22.5	22.2
700	344582.8	731892.9	1.5	21.8	21.8	21.8	21.8	21.9	21.9	21.8
701	344587.7	731909.9	1.5	21.5	21.6	21.5	21.6	21.7	21.7	21.5

Receptor name	X(m)	Y(m)	Z(m)	Annual Mean NO <sub>2</sub> Concentration (µg/m <sup>3</sup> )						
				BC	SC1	SC2	SC3	SC4	SC5	SC6
702	344685.8	731966.2	1.5	21.2	21.2	21.2	21.2	21.3	21.3	21.2
703	344746.6	731995	1.5	21.1	21.2	21.1	21.2	21.2	21.2	21.1
704	344723.8	731995.8	1.5	21.1	21.1	21.1	21.1	21.2	21.2	21.1
705	344679.7	731881.1	1.5	23.2	23.3	23.2	23.4	23.6	23.7	23.2
706	344305.9	731892.1	1.5	22.2	22.2	22.2	22.2	22.3	22.3	22.2
707	344423.5	731829.8	1.5	24.2	24.2	24.2	24.3	24.5	24.5	24.2
708	344438.5	731833.1	1.5	23.9	23.9	23.9	24.1	24.3	24.3	23.9
709	344404	731825.8	1.5	24.5	24.5	24.5	24.7	24.9	24.9	24.5
710	344385	731823.8	1.5	24.4	24.5	24.5	24.6	24.8	24.8	24.4
711	344368.8	731816.1	1.5	25.4	25.5	25.5	25.7	25.9	25.9	25.5
712	344329.8	731809.6	1.5	25.6	25.7	25.7	25.9	26.1	26.1	25.6
713	344290.9	731807.1	1.5	26.1	26.2	26.2	26.4	26.6	26.6	26.1
714	344284.4	731820.9	1.5	25.1	25.1	25.1	25.4	25.5	25.5	25.1
715	344282.4	731833.9	1.5	24.5	24.5	24.5	24.7	24.8	24.9	24.4
716	344280.4	731845.6	1.5	24.3	24.3	24.3	24.5	24.5	24.6	24.3
717	344279.2	731857.8	1.5	24.3	24.3	24.3	24.5	24.5	24.6	24.3
718	344303.5	731867.9	1.5	23.1	23.2	23.1	23.3	23.3	23.3	23.1
719	344323.8	731872.8	1.5	22.5	22.5	22.5	22.6	22.6	22.6	22.5
720	344236.6	731845.6	1.5	23.0	23.0	23.0	23.1	23.2	23.1	23.0
721	344389.8	731770.6	1.5	23.3	23.4	23.4	23.5	23.7	23.7	23.4
722	344362.3	731772.3	1.5	23.8	23.9	23.9	24.0	24.2	24.2	23.9
723	344344	731771.1	1.5	24.0	24.1	24.1	24.2	24.4	24.4	24.0
724	344328.3	731763.4	1.5	23.6	23.6	23.6	23.7	23.9	23.9	23.6
725	344316.5	731761.8	1.5	23.6	23.7	23.7	23.8	23.9	23.9	23.7
726	344301.5	731764.1	1.5	24.2	24.3	24.2	24.4	24.5	24.5	24.2
727	344279.2	731755.3	1.5	23.7	23.8	23.8	23.9	24.1	24.1	23.8
728	344257.3	731750.4	1.5	23.7	23.7	23.7	23.8	24.0	24.0	23.7
729	344245.5	731748.4	1.5	23.7	23.7	23.7	23.8	24.0	24.0	23.7
730	344217.6	731842.2	1.5	22.6	22.7	22.6	22.7	22.8	22.8	22.6
731	344201	731838.9	1.5	22.5	22.5	22.5	22.5	22.6	22.6	22.5
732	344181.1	731837.3	1.5	22.2	22.3	22.3	22.3	22.4	22.4	22.2
733	344166.9	731856.4	1.5	21.8	21.8	21.8	21.9	21.9	21.9	21.8
734	344185.6	731859.6	1.5	21.9	21.9	21.9	22.0	22.0	22.0	21.9
735	344221.6	731865.3	1.5	22.3	22.3	22.3	22.3	22.4	22.4	22.3
736	344266.6	731877.4	1.5	22.8	22.8	22.8	22.9	22.9	22.9	22.8
737	344292.6	731889.2	1.5	22.3	22.3	22.3	22.4	22.4	22.4	22.3
738	344314.5	731893.3	1.5	22.1	22.1	22.1	22.1	22.2	22.2	22.1
739	344328.3	731894.1	1.5	22.0	22.0	22.0	22.0	22.1	22.1	22.0
740	344351.8	731900.1	1.5	21.7	21.7	21.7	21.7	21.8	21.8	21.7
741	344349.7	731873.4	1.5	22.1	22.1	22.1	22.1	22.2	22.2	22.1
742	344327.8	731859.2	1.5	22.5	22.5	22.5	22.6	22.6	22.6	22.5
743	344266.6	731892.9	1.5	21.8	21.9	21.8	21.9	21.9	21.9	21.8
744	344213.1	731885.6	1.5	21.6	21.7	21.7	21.7	21.7	21.7	21.7
745	344187.6	731881.1	1.5	21.6	21.6	21.6	21.6	21.7	21.7	21.6
746	344344.2	731466.5	1.5	22.3	22.3	22.3	22.3	22.4	22.4	22.3
747	344488.8	731452.4	1.5	26.0	26.1	26.0	26.2	26.4	26.3	26.0
748	344470.4	731448.9	1.5	25.8	26.0	25.9	26.1	26.3	26.2	25.8
749	344408.6	731419.8	1.5	22.7	22.8	22.7	22.8	22.9	22.9	22.7
750	344385.6	731422.8	1.5	23.3	23.4	23.4	23.5	23.6	23.5	23.3
751	344452.5	731430.4	1.5	22.9	23.0	23.0	23.0	23.1	23.1	22.9
752	344478.1	731490.5	1.5	22.4	22.4	22.4	22.4	22.5	22.5	22.4
753	344450.5	731485.9	1.5	22.3	22.3	22.3	22.4	22.5	22.4	22.3
754	344430	731481.8	1.5	22.3	22.3	22.3	22.4	22.5	22.4	22.3
755	344405	731478.3	1.5	22.2	22.3	22.3	22.3	22.4	22.4	22.2
756	344381	731479.3	1.5	22.1	22.1	22.1	22.1	22.2	22.2	22.1
757	344371.3	731422.6	1.5	23.6	23.7	23.7	23.8	23.9	23.9	23.6
758	344358	731419.5	1.5	23.6	23.6	23.6	23.7	23.8	23.8	23.5
759	344329.8	731462.9	1.5	22.3	22.4	22.3	22.4	22.5	22.5	22.3
760	344318.6	731461.4	1.5	22.3	22.3	22.3	22.4	22.5	22.4	22.3
761	344313.5	731412.8	1.5	23.8	23.9	23.8	23.9	24.1	24.0	23.8
762	344295.6	731456.3	1.5	22.3	22.4	22.4	22.4	22.5	22.5	22.3

Receptor name	X(m)	Y(m)	Z(m)	Annual Mean NO <sub>2</sub> Concentration (µg/m <sup>3</sup> )						
				BC	SC1	SC2	SC3	SC4	SC5	SC6
763	344296.6	731417.9	1.5	26.2	26.3	26.2	26.4	26.7	26.5	26.2
764	344242	731391.9	1.5	23.0	23.0	23.0	23.1	23.2	23.1	23.0
765	344254.2	731452.2	1.5	22.2	22.3	22.2	22.3	22.4	22.4	22.2
766	344271.6	731402.6	1.5	23.4	23.5	23.5	23.6	23.7	23.7	23.4
767	344223.6	731445	1.5	22.3	22.3	22.3	22.4	22.5	22.5	22.3
768	344217.4	731393.4	1.5	23.6	23.7	23.6	23.7	23.9	23.8	23.6
769	344198	731387.3	1.5	23.4	23.4	23.4	23.5	23.6	23.6	23.4
770	344198	731440.4	1.5	22.4	22.4	22.4	22.4	22.5	22.5	22.4
771	344173	731433.3	1.5	22.7	22.7	22.7	22.8	22.9	22.9	22.7
772	344177.6	731385.8	1.5	23.8	23.8	23.8	23.9	24.1	24.1	23.8
773	344175.5	731354.6	1.5	22.3	22.4	22.4	22.4	22.5	22.5	22.3
774	344178.1	731331.6	1.5	21.9	22.0	22.0	22.0	22.1	22.1	21.9
775	344180.1	731309.6	1.5	21.7	21.7	21.7	21.7	21.8	21.8	21.7
776	344155.6	731272.8	1.5	21.4	21.4	21.4	21.4	21.5	21.5	21.4
777	344145.4	731284.1	1.5	21.5	21.5	21.5	21.5	21.6	21.6	21.5
778	344132.6	731308.6	1.5	21.7	21.8	21.8	21.8	21.9	21.9	21.7
779	344144.9	731317.8	1.5	21.8	21.9	21.9	21.9	22.0	22.0	21.8
780	344148.4	731336.2	1.5	22.1	22.2	22.2	22.2	22.3	22.3	22.1
781	344141.8	731347.4	1.5	22.4	22.4	22.4	22.4	22.6	22.5	22.4
782	344146.4	731362.3	1.5	22.8	22.9	22.9	22.9	23.1	23.1	22.8
783	344139.8	731376.1	1.5	23.8	23.9	23.8	24.0	24.2	24.2	23.8
784	344213.8	731310.1	1.5	21.4	21.5	21.4	21.5	21.5	21.5	21.4
785	344180.6	731269.3	1.5	21.3	21.3	21.3	21.3	21.4	21.4	21.3
786	344135.7	731422	1.5	22.6	22.7	22.7	22.7	22.8	22.8	22.6
787	344163.8	731470.6	1.5	21.7	21.8	21.7	21.8	21.8	21.8	21.7
788	344132.1	731474.7	1.5	21.5	21.6	21.6	21.6	21.6	21.6	21.6
789	344131.6	731509.9	1.5	21.3	21.3	21.3	21.3	21.4	21.4	21.3
790	344162.8	731515.1	1.5	21.3	21.3	21.3	21.3	21.4	21.4	21.3
791	344178.6	731487.9	1.5	21.5	21.5	21.5	21.5	21.6	21.6	21.5
792	344113.7	731409.5	1.5	22.5	22.6	22.6	22.6	22.7	22.7	22.5
793	344114.7	731362	1.5	23.7	23.8	23.7	23.9	24.1	24.1	23.7
794	344215.6	731744.7	1.5	23.8	23.9	23.9	23.9	24.1	24.1	23.8
795	344419	731775.5	1.5	23.5	23.6	23.6	23.7	23.9	23.9	23.5
796	344421.1	731754	1.5	22.6	22.6	22.6	22.7	22.8	22.8	22.6
797	344443.8	731732.1	1.5	22.3	22.4	22.4	22.5	22.6	22.6	22.4
798	344452.3	731710.6	1.5	22.1	22.1	22.1	22.1	22.3	22.3	22.1
799	344458.3	731695.3	1.5	21.9	22.0	22.0	22.0	22.2	22.2	21.9
800	344463.6	731672.6	1.5	21.7	21.7	21.7	21.8	21.9	21.9	21.7
801	344246.8	731799.8	1.5	25.6	25.6	25.6	25.8	26.0	26.0	25.6
802	344236.2	731748.4	1.5	23.8	23.9	23.9	24.0	24.1	24.1	23.9
803	344224.9	731791.3	1.5	26.7	26.8	26.8	26.9	27.3	27.2	26.8
804	344206.2	731788.5	1.5	26.6	26.7	26.7	26.8	27.1	27.1	26.6
805	344189.2	731744.3	1.5	24.2	24.3	24.3	24.4	24.5	24.5	24.3
806	344176.7	731737.8	1.5	23.8	23.8	23.8	23.9	24.1	24.1	23.8
807	344149.5	731739.4	1.5	24.4	24.5	24.4	24.5	24.7	24.7	24.4
808	344134.5	731731.8	1.5	23.9	23.9	23.9	24.0	24.2	24.1	23.9
809	344123.1	731730.5	1.5	23.9	24.0	24.0	24.0	24.2	24.2	23.9
810	344106.9	731732.1	1.5	24.4	24.4	24.4	24.5	24.7	24.7	24.4
811	344085	731727.3	1.5	24.3	24.3	24.3	24.4	24.5	24.5	24.3
812	344083	731787.3	1.5	23.5	23.6	23.6	23.6	23.8	23.8	23.5
813	344117.1	731790.5	1.5	23.7	23.8	23.7	23.8	24.0	24.0	23.7
814	344143	731794.6	1.5	23.7	23.8	23.8	23.8	24.0	24.0	23.7
815	344178.3	731804.3	1.5	23.4	23.5	23.4	23.5	23.7	23.7	23.4
816	344065.2	731724	1.5	24.3	24.3	24.3	24.4	24.5	24.5	24.3
817	344034.8	731723.2	1.5	24.8	24.9	24.8	24.9	25.2	25.2	24.8
818	344018.2	731728.5	1.5	26.6	26.7	26.6	26.8	27.0	27.0	26.6
819	343998.3	731788.1	1.5	23.0	23.1	23.1	23.1	23.2	23.2	23.0
820	344015.7	731791.3	1.5	22.9	22.9	22.9	23.0	23.1	23.1	22.9
821	344051	731784.8	1.5	23.4	23.4	23.4	23.5	23.6	23.6	23.4
822	343906.3	731646.7	1.5	21.7	21.7	21.7	21.7	21.8	21.8	21.7
823	343842.2	731647.3	1.5	21.7	21.7	21.7	21.7	21.7	21.7	21.7

Receptor name	X(m)	Y(m)	Z(m)	Annual Mean NO <sub>2</sub> Concentration (µg/m <sup>3</sup> )						
				BC	SC1	SC2	SC3	SC4	SC5	SC6
824	344013.9	731680.3	1.5	22.2	22.2	22.2	22.3	22.3	22.3	22.2
825	343916.7	731725.5	1.5	25.8	25.9	25.9	25.9	26.2	26.2	25.8
826	343951.7	731256.2	1.5	22.5	22.6	22.6	22.6	22.7	22.7	22.5
827	344084.1	731339	1.5	23.4	23.4	23.4	23.5	23.7	23.7	23.4
828	344066.2	731331.8	1.5	23.9	23.9	23.9	24.0	24.3	24.3	23.8
829	344051.9	731323.6	1.5	24.0	24.1	24.1	24.2	24.4	24.4	24.0
830	344035	731311.4	1.5	23.9	23.9	23.9	24.0	24.3	24.3	23.8
831	344018.6	731299.6	1.5	23.7	23.8	23.7	23.9	24.1	24.1	23.7
832	344072.3	731397.8	1.5	22.1	22.1	22.1	22.1	22.2	22.2	22.1
833	344050.8	731392.1	1.5	21.9	22.0	22.0	22.0	22.1	22.1	22.0
834	343974.7	731389.1	1.5	22.1	22.1	22.1	22.2	22.4	22.3	22.1
835	343947.6	731352.3	1.5	22.7	22.8	22.7	22.8	23.0	22.9	22.7
836	343935.8	731392.6	1.5	21.7	21.7	21.7	21.7	21.9	21.8	21.7
837	343948.1	731331.3	1.5	23.0	23.1	23.1	23.1	23.3	23.2	23.0
838	343950.2	731322.1	1.5	23.4	23.4	23.4	23.4	23.7	23.6	23.4
839	343953.8	731307.8	1.5	24.6	24.7	24.7	24.8	25.2	25.1	24.6
840	343952.2	731279.7	1.5	24.6	24.7	24.6	24.8	25.1	25.1	24.6
841	343933.3	731303.2	1.5	23.9	24.0	24.0	24.0	24.3	24.3	23.9
842	343919.5	731307.8	1.5	23.1	23.1	23.1	23.1	23.4	23.3	23.1
843	343907.8	731313.4	1.5	22.6	22.7	22.6	22.7	22.9	22.8	22.6
844	343930.8	731275.1	1.5	24.4	24.5	24.5	24.6	24.9	24.8	24.4
845	343954.3	731240.4	1.5	22.1	22.1	22.1	22.1	22.2	22.2	22.1
846	343956.8	731217.4	1.5	21.8	21.8	21.8	21.8	21.9	21.8	21.8
847	343990	731254.7	1.5	22.2	22.3	22.2	22.3	22.4	22.4	22.2
848	343992.1	731217.4	1.5	21.7	21.7	21.7	21.7	21.8	21.8	21.7
849	343994.1	731186.7	1.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5
850	343984.4	731153	1.5	21.4	21.4	21.4	21.4	21.4	21.4	21.4
851	343973.7	731156.6	1.5	21.4	21.4	21.4	21.4	21.5	21.4	21.4
852	343960.4	731194.9	1.5	21.6	21.6	21.6	21.6	21.6	21.6	21.6
853	343911.3	731269	1.5	24.2	24.3	24.3	24.4	24.6	24.5	24.2
854	343898.5	731088.6	1.5	22.3	22.3	22.3	22.3	22.4	22.4	22.3
855	343909.8	731089.1	1.5	22.3	22.3	22.3	22.3	22.3	22.3	22.3
856	343918.5	731088.6	1.5	22.3	22.3	22.3	22.3	22.4	22.3	22.3
857	343937.4	731088.1	1.5	22.3	22.3	22.3	22.3	22.4	22.3	22.3
858	343960.9	731087.6	1.5	22.3	22.3	22.3	22.3	22.4	22.4	22.3
859	343981.8	731088.6	1.5	22.2	22.3	22.3	22.3	22.3	22.3	22.3
860	344011.5	731087.1	1.5	22.4	22.4	22.4	22.4	22.5	22.5	22.4
861	344080.5	731111.6	1.5	21.6	21.6	21.6	21.6	21.6	21.6	21.6
862	344111.7	731110.6	1.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5
863	344129.5	731110.6	1.5	21.4	21.4	21.4	21.4	21.5	21.5	21.4
864	344157.6	731109	1.5	21.3	21.3	21.3	21.3	21.3	21.3	21.3
865	344012	731147.3	1.5	21.3	21.4	21.4	21.4	21.4	21.4	21.4
866	343761.1	731285.3	1.5	24.2	24.2	24.2	24.3	24.4	24.3	24.2
867	343886.3	731261.8	1.5	24.4	24.4	24.4	24.4	24.7	24.7	24.3
868	343874	731260.8	1.5	24.8	24.9	24.8	25.0	25.3	25.3	24.8
869	343858.2	731256.2	1.5	24.6	24.7	24.6	24.8	25.1	25.1	24.6
870	343860.7	731286.4	1.5	24.5	24.6	24.5	24.6	24.9	24.9	24.5
871	343874	731288.9	1.5	24.5	24.6	24.5	24.6	24.9	24.9	24.5
872	343892.4	731293.5	1.5	24.2	24.2	24.2	24.3	24.5	24.5	24.2
873	343852.6	731284.8	1.5	24.5	24.6	24.5	24.6	24.9	24.9	24.5
874	343836.7	731290.9	1.5	23.2	23.3	23.2	23.3	23.5	23.5	23.2
875	343837.2	731253.1	1.5	25.0	25.1	25.1	25.2	25.5	25.5	25.0
876	343823.9	731249.1	1.5	24.8	24.8	24.8	24.9	25.2	25.2	24.7
877	343800.9	731244.9	1.5	24.9	25.0	25.0	25.1	25.4	25.4	24.9
878	343786.6	731240.9	1.5	24.5	24.6	24.6	24.7	25.0	25.0	24.5
879	343772.8	731235.8	1.5	23.8	23.9	23.9	24.0	24.2	24.2	23.8
880	343751.4	731232.2	1.5	23.4	23.5	23.5	23.6	23.8	23.8	23.4
881	343734	731229.1	1.5	23.2	23.4	23.3	23.4	23.7	23.6	23.3
882	343715.6	731224.5	1.5	23.1	23.2	23.1	23.2	23.5	23.5	23.1
883	343819.3	731277.6	1.5	24.5	24.6	24.5	24.7	24.9	24.9	24.5
884	343802	731273.1	1.5	24.7	24.8	24.7	24.9	25.1	25.1	24.7

Receptor name	X(m)	Y(m)	Z(m)	Annual Mean NO <sub>2</sub> Concentration (µg/m <sup>3</sup> )						
				BC	SC1	SC2	SC3	SC4	SC5	SC6
885	343786.6	731270	1.5	24.7	24.8	24.8	24.9	25.1	25.2	24.7
886	343767.2	731268.9	1.5	25.2	25.2	25.2	25.3	25.4	25.4	25.2
887	343749.8	731323.1	1.5	23.0	23.0	23.0	23.0	23.0	23.0	23.0
888	343740.6	731342.1	1.5	22.4	22.4	22.4	22.4	22.4	22.4	22.4
889	343717.1	731371.2	1.5	21.5	21.6	21.5	21.5	21.6	21.6	21.5
890	343728.4	731320.1	1.5	22.8	22.8	22.8	22.8	22.9	22.9	22.8
891	343735.5	731297.6	1.5	23.1	23.1	23.1	23.1	23.2	23.2	23.1
892	343740.6	731284.8	1.5	23.4	23.4	23.4	23.5	23.5	23.5	23.4
893	343745.8	731268.9	1.5	23.9	23.9	23.9	24.0	24.1	24.1	23.9
894	343725.8	731264.4	1.5	22.8	22.9	22.9	22.9	23.1	23.1	22.8
895	343674.1	731531.8	1.5	21.3	21.3	21.3	21.3	21.3	21.3	21.3
896	343777.9	731101.3	1.5	22.1	22.1	22.1	22.1	22.1	22.1	22.1
897	343710.5	731270.5	1.5	22.3	22.4	22.3	22.4	22.5	22.5	22.3
898	343699.3	731251.1	1.5	23.0	23.1	23.0	23.1	23.3	23.3	23.0
899	343685.9	731257.3	1.5	22.4	22.4	22.4	22.5	22.6	22.6	22.4
900	343674.2	731262.8	1.5	22.1	22.1	22.1	22.2	22.3	22.3	22.1
901	343697.7	731219.4	1.5	23.0	23.1	23.0	23.1	23.3	23.3	23.0
902	343646.6	731238.3	1.5	23.0	23.1	23.1	23.1	23.3	23.3	23.0
903	343630.8	731233.7	1.5	23.1	23.2	23.2	23.3	23.5	23.5	23.1
904	343620.5	731232.7	1.5	23.0	23.1	23.1	23.2	23.4	23.4	23.1
905	343591.4	731226.1	1.5	23.1	23.3	23.2	23.3	23.5	23.5	23.2
906	343575.1	731221.9	1.5	23.3	23.4	23.4	23.5	23.7	23.7	23.3
907	343587.3	731197.9	1.5	24.0	24.2	24.2	24.3	24.4	24.5	24.1
908	343606.8	731203.1	1.5	23.6	23.7	23.7	23.8	24.1	24.1	23.7
909	343637.4	731208.7	1.5	23.2	23.4	23.3	23.4	23.7	23.7	23.3
910	343675.2	731204.1	1.5	22.4	22.5	22.5	22.5	22.7	22.6	22.4
911	343620	731206.1	1.5	23.5	23.6	23.6	23.7	24.0	24.0	23.6
912	343593.4	731241.9	1.5	22.2	22.3	22.3	22.3	22.4	22.5	22.3
913	343646.1	731255.2	1.5	22.1	22.2	22.1	22.2	22.3	22.3	22.1
914	343566.4	731105.9	1.5	22.8	22.9	22.9	22.7	22.9	22.5	22.9
915	343601.6	731103.4	1.5	22.8	22.9	22.9	22.7	22.9	22.4	22.8
916	343645.6	731097.3	1.5	22.9	23.0	23.0	22.8	23.0	22.5	22.9
917	343761.1	731101.9	1.5	22.1	22.1	22.1	22.1	22.2	22.1	22.1
918	343789.7	731100.3	1.5	22.1	22.1	22.1	22.1	22.1	22.1	22.1
919	343511.3	731752.9	1.5	25.5	25.6	25.5	25.6	25.9	25.9	25.5
920	343348.5	731698.6	1.5	25.4	25.4	25.4	25.5	25.6	25.6	25.4
921	343365.5	731700.9	1.5	25.2	25.3	25.3	25.3	25.4	25.5	25.2
922	343385.4	731703.9	1.5	25.1	25.2	25.2	25.2	25.4	25.4	25.1
923	343349.1	731742	1.5	25.2	25.2	25.2	25.3	25.4	25.4	25.2
924	343364.1	731744.3	1.5	25.0	25.1	25.0	25.1	25.2	25.3	25.0
925	343375.1	731746.1	1.5	24.9	24.9	24.9	25.0	25.1	25.1	24.9
926	343386	731747.1	1.5	24.8	24.9	24.9	24.9	25.1	25.1	24.8
927	343402	731749.1	1.5	24.7	24.8	24.8	24.8	24.9	25.0	24.7
928	343406.3	731706.9	1.5	25.0	25.1	25.1	25.1	25.3	25.3	25.1
929	343416.6	731751.1	1.5	24.6	24.7	24.7	24.7	24.8	24.9	24.6
930	343419.8	731708.4	1.5	24.9	25.0	25.0	25.0	25.2	25.2	24.9
931	343436.5	731710.8	1.5	24.9	25.0	24.9	25.0	25.1	25.2	24.9
932	343433.4	731753.8	1.5	24.5	24.5	24.5	24.6	24.7	24.7	24.5
933	343455.9	731713.4	1.5	24.8	24.9	24.9	24.9	25.1	25.1	24.8
934	343451.5	731755.6	1.5	24.4	24.5	24.4	24.5	24.6	24.7	24.4
935	343469.5	731756.8	1.5	24.4	24.5	24.4	24.5	24.7	24.7	24.4
936	343490.6	731751.3	1.5	25.6	25.7	25.7	25.8	26.0	26.0	25.6
937	343532.1	731765.1	1.5	23.9	23.9	23.9	24.0	24.1	24.1	23.9
938	343536.8	731764.9	1.5	23.9	24.0	23.9	24.0	24.2	24.1	23.9
939	343548.6	731765.4	1.5	23.9	24.0	23.9	24.0	24.2	24.2	23.9
940	343554.2	731765.6	1.5	23.9	24.0	23.9	24.0	24.2	24.2	23.9
941	343566	731766.6	1.5	23.9	23.9	23.9	24.0	24.1	24.1	23.9
942	343576.7	731767.4	1.5	23.8	23.9	23.9	23.9	24.1	24.1	23.8
943	343594.2	731768.4	1.5	23.8	23.9	23.9	23.9	24.1	24.1	23.8
944	343610.6	731769.6	1.5	23.8	23.8	23.8	23.9	24.1	24.0	23.8
945	343622.5	731769.6	1.5	23.8	23.9	23.9	23.9	24.1	24.1	23.9

Receptor name	X(m)	Y(m)	Z(m)	Annual Mean NO <sub>2</sub> Concentration (µg/m <sup>3</sup> )						
				BC	SC1	SC2	SC3	SC4	SC5	SC6
946	343638.9	731770.8	1.5	23.8	23.9	23.8	23.9	24.1	24.1	23.8
947	343649.9	731770.6	1.5	23.9	23.9	23.9	24.0	24.2	24.1	23.9
948	343660.8	731771.1	1.5	23.9	23.9	23.9	24.0	24.2	24.1	23.9
949	343681.1	731771.9	1.5	23.8	23.9	23.9	23.9	24.1	24.1	23.8
950	343699.9	731772.3	1.5	23.8	23.8	23.8	23.9	24.1	24.1	23.8
951	343738	731761.9	1.5	25.4	25.5	25.5	25.6	25.9	25.8	25.4
952	343824	731760.7	1.5	26.2	26.3	26.2	26.3	26.7	26.6	26.2
953	343749.9	731726.8	1.5	24.2	24.2	24.2	24.3	24.4	24.4	24.2
954	343637.4	731729.8	1.5	24.9	25.0	25.0	25.1	25.3	25.3	24.9
955	343528	731724.3	1.5	25.5	25.5	25.5	25.6	25.9	25.8	25.5
956	343539.8	731236.8	1.5	22.2	22.3	22.2	22.3	22.3	22.4	22.2
957	343557.2	731218.4	1.5	23.5	23.6	23.5	23.6	23.8	23.9	23.5
958	343529.6	731208.1	1.5	24.8	24.9	24.9	25.0	25.2	25.3	24.8
959	343505	731206.1	1.5	24.2	24.3	24.2	24.4	24.3	24.5	24.2
960	343488.2	731202.6	1.5	24.1	24.3	24.2	24.4	24.2	24.5	24.2
961	343470.3	731199.5	1.5	24.0	24.2	24.1	24.3	23.8	24.4	24.0
962	343515.8	731180.6	1.5	24.2	24.4	24.3	24.4	24.4	24.6	24.2
963	343492.3	731177.5	1.5	24.6	24.8	24.7	24.9	24.5	25.1	24.6
964	343473.9	731171.9	1.5	24.4	24.5	24.4	24.6	24.1	24.8	24.4
965	343460.6	731166.3	1.5	24.0	24.2	24.2	24.3	23.8	24.4	24.1
966	343449.3	731166.3	1.5	24.4	24.6	24.5	24.7	24.1	24.9	24.4
967	343432.5	731165.3	1.5	24.9	25.2	25.1	25.4	24.6	25.5	25.0
968	343411.5	731159.6	1.5	25.0	25.3	25.2	25.4	24.8	25.5	25.1
969	343407.9	731186.2	1.5	24.2	24.4	24.3	24.5	24.2	24.6	24.3
970	343425.3	731189.3	1.5	24.2	24.4	24.4	24.5	24.0	24.7	24.3
971	343448.8	731193.9	1.5	24.2	24.4	24.4	24.5	23.9	24.6	24.3
972	343400.3	731185.7	1.5	24.0	24.2	24.2	24.3	24.3	24.4	24.1
973	343370.1	731182.6	1.5	23.8	24.0	23.9	24.0	25.1	24.3	23.9
974	343345.6	731184.6	1.5	23.8	23.9	23.8	23.9	25.3	24.3	23.8
975	343389	731137.6	1.5	24.6	25.0	24.9	25.0	24.3	24.9	24.7
976	343382.4	731104.9	1.5	30.7	31.6	31.4	30.7	30.9	34.1	31.1
977	343413.1	731107.5	1.5	28.1	28.6	28.5	27.9	28.4	29.9	28.3
978	343430.9	731107	1.5	27.5	27.9	27.8	27.3	27.7	28.7	27.6
979	343465.2	731105.9	1.5	26.8	27.1	27.0	26.6	27.0	27.0	26.9
980	343499.9	731107	1.5	23.1	23.1	23.1	22.9	23.1	22.9	23.1
981	343533.2	731105.9	1.5	23.0	23.1	23.0	22.8	23.0	22.7	23.0
982	343551.5	731105.4	1.5	22.9	23.0	23.0	22.8	23.0	22.6	22.9
983	343314.9	731073.8	1.5	37.9	39.4	39.0	34.0	39.6	44.2	38.4
984	343302.7	731108.5	1.5	32.4	33.5	33.2	33.8	35.7	35.7	32.7
985	343338.2	731198.9	1.5	23.0	23.1	23.1	23.1	23.8	23.3	23.0
986	343288.2	731984.2	1.5	28.0	28.1	28.1	28.0	28.1	28.1	28.0
987	343202.4	731719.5	1.5	31.2	31.5	31.4	31.4	31.5	31.6	31.3
988	343179.7	731715.4	1.5	34.7	35.0	35.0	35.0	35.1	35.2	34.9
989	343195.3	731717.9	1.5	32.2	32.4	32.4	32.4	32.5	32.6	32.3
990	343213.3	731721.1	1.5	30.2	30.4	30.3	30.4	30.5	30.6	30.3
991	343219.4	731725.6	1.5	29.0	29.1	29.1	29.1	29.3	29.3	29.1
992	343228.9	731726.8	1.5	28.4	28.5	28.5	28.5	28.6	28.7	28.4
993	343236	731725	1.5	28.3	28.5	28.4	28.5	28.6	28.6	28.4
994	343244.9	731726.8	1.5	27.7	27.8	27.7	27.8	27.9	28.0	27.7
995	343253.4	731727.8	1.5	27.3	27.4	27.3	27.4	27.5	27.5	27.3
996	343277.4	731732.1	1.5	26.3	26.4	26.3	26.4	26.5	26.5	26.3
997	343315.1	731736.9	1.5	25.6	25.7	25.6	25.7	25.8	25.8	25.6
998	343319.5	731737.6	1.5	25.5	25.6	25.6	25.6	25.7	25.8	25.5
999	343332.5	731739.4	1.5	25.4	25.4	25.4	25.4	25.6	25.6	25.4
1000	343177.3	731773.2	1.5	29.8	29.9	29.9	29.9	30.0	29.9	29.9
1001	343184.6	731781.9	1.5	28.4	28.5	28.5	28.5	28.6	28.5	28.5
1002	343192.8	731791.9	1.5	27.2	27.3	27.3	27.3	27.3	27.3	27.2
1003	343198.9	731797.4	1.5	26.5	26.6	26.6	26.6	26.7	26.6	26.6
1004	343204.1	731813.9	1.5	26.4	26.5	26.5	26.5	26.6	26.5	26.5
1005	343220	731842.7	1.5	26.9	26.9	26.9	26.9	26.9	26.8	26.9
1006	343246.3	731866.5	1.5	25.6	25.6	25.6	25.6	25.7	25.5	25.6

Receptor name	X(m)	Y(m)	Z(m)	Annual Mean NO <sub>2</sub> Concentration (µg/m <sup>3</sup> )						
				BC	SC1	SC2	SC3	SC4	SC5	SC6
1007	343263.1	731883.6	1.5	25.1	25.2	25.2	25.2	25.2	25.2	25.2
1008	343268	731893.1	1.5	25.3	25.4	25.4	25.3	25.4	25.3	25.4
1009	343271.1	731902.3	1.5	25.6	25.7	25.7	25.6	25.6	25.6	25.7
1010	343274.7	731909.9	1.5	25.6	25.7	25.7	25.6	25.7	25.7	25.7
1011	343276.6	731914.5	1.5	25.7	25.8	25.8	25.7	25.8	25.8	25.8
1012	343277.5	731921.5	1.5	26.3	26.5	26.4	26.3	26.4	26.4	26.4
1013	343279	731933.4	1.5	27.4	27.5	27.5	27.4	27.5	27.5	27.5
1014	343281.1	731944.1	1.5	27.7	27.8	27.8	27.7	27.8	27.8	27.8
1015	343284.2	731959.7	1.5	27.8	27.9	27.9	27.8	27.9	27.9	27.9
1016	343290.3	731997.9	1.5	28.2	28.3	28.3	28.2	28.3	28.3	28.2
1017	343291.8	732007.1	1.5	28.3	28.4	28.4	28.4	28.4	28.4	28.4
1018	343294	732019.6	1.5	28.1	28.2	28.2	28.2	28.2	28.2	28.2
1019	343295.5	732026.3	1.5	27.6	27.7	27.7	27.7	27.7	27.8	27.7
1020	343296.4	732034.9	1.5	27.1	27.2	27.2	27.1	27.1	27.2	27.1
1021	343297.3	732040.7	1.5	26.5	26.6	26.6	26.6	26.5	26.6	26.6
1022	343298.6	732047.4	1.5	25.9	26.0	26.0	26.0	25.9	26.1	26.0
1023	343301	732057.2	1.5	25.1	25.2	25.2	25.1	25.1	25.2	25.2
1024	343305.9	732062.7	1.5	24.1	24.1	24.1	24.1	24.1	24.2	24.1
1025	343317.2	732071.4	1.5	22.7	22.7	22.7	22.7	22.7	22.7	22.7
1026	343323.9	732073.9	1.5	22.3	22.3	22.3	22.3	22.3	22.3	22.3
1027	343332.5	732078.1	1.5	21.9	22.0	22.0	22.0	22.0	22.0	22.0
1028	343314.3	731452.7	1.5	21.6	21.6	21.6	21.6	21.7	21.6	21.6
1029	343300.5	731450.7	1.5	21.6	21.7	21.6	21.7	21.7	21.7	21.6
1030	343276.2	731447.4	1.5	21.7	21.8	21.7	21.8	21.8	21.8	21.7
1031	343262	731445.4	1.5	21.8	21.8	21.8	21.8	21.9	21.9	21.8
1032	343252.2	731443.8	1.5	21.9	21.9	21.9	21.9	22.0	21.9	21.9
1033	343224.7	731442.6	1.5	22.1	22.1	22.1	22.1	22.2	22.2	22.1
1034	343211.3	731467.3	1.5	22.1	22.1	22.1	22.1	22.2	22.1	22.1
1035	343209.3	731476.2	1.5	22.1	22.1	22.1	22.1	22.2	22.2	22.1
1036	343201.6	731498.5	1.5	22.2	22.3	22.2	22.3	22.3	22.3	22.2
1037	343197.5	731518.8	1.5	22.3	22.4	22.4	22.4	22.4	22.4	22.3
1038	343183.3	731557.7	1.5	22.9	22.9	22.9	22.9	23.0	22.9	22.9
1039	343187	731673.5	1.5	32.8	33.1	33.0	33.1	33.1	33.3	32.9
1040	343209.7	731676.8	1.5	31.2	31.4	31.4	31.4	31.5	31.7	31.3
1041	343228.9	731680	1.5	29.5	29.7	29.7	29.7	29.8	29.9	29.6
1042	343250.8	731683.3	1.5	27.8	27.9	27.9	27.9	28.0	28.1	27.8
1043	343271.7	731686.7	1.5	26.9	26.9	26.9	26.9	27.1	27.1	26.9
1044	343294	731690.1	1.5	26.2	26.3	26.2	26.3	26.4	26.5	26.2
1045	343306.9	731692.4	1.5	26.0	26.1	26.0	26.1	26.2	26.2	26.0
1046	343326.4	731695.8	1.5	25.7	25.8	25.8	25.8	26.0	26.0	25.7
1047	343271	731269.3	1.5	22.0	22.0	22.0	22.0	22.1	22.2	22.0
1048	343229.6	731275.9	1.5	21.9	22.0	22.0	22.0	22.1	22.1	21.9
1049	343227	731284.1	1.5	21.9	21.9	21.9	21.9	22.0	22.0	21.9
1050	343222.9	731295.8	1.5	21.9	21.9	21.9	21.9	22.0	22.0	21.9
1051	343214.8	731322.4	1.5	21.8	21.9	21.8	21.9	21.9	21.9	21.8
1052	343206.4	731341.3	1.5	21.8	21.9	21.8	21.8	21.9	21.9	21.8
1053	343204	731350.6	1.5	21.8	21.9	21.8	21.9	21.9	21.9	21.8
1054	343201.6	731357	1.5	21.8	21.9	21.9	21.9	21.9	21.9	21.8
1055	343198.3	731367.2	1.5	21.9	21.9	21.9	21.9	21.9	22.0	21.9
1056	343196.3	731381.8	1.5	21.9	22.0	22.0	22.0	22.0	22.0	21.9
1057	343187.4	731378.1	1.5	21.9	21.9	21.9	21.9	22.0	22.0	21.9
1058	343186.2	731411.8	1.5	22.8	22.8	22.8	22.8	22.8	22.8	22.8
1059	343178.5	731409.3	1.5	22.7	22.7	22.7	22.7	22.7	22.7	22.7
1060	343230.8	731415.8	1.5	22.1	22.1	22.1	22.2	22.2	22.3	22.1
1061	343235.2	731400.4	1.5	21.9	21.9	21.9	21.9	22.0	22.0	21.9
1062	343237.7	731388.6	1.5	21.8	21.9	21.9	21.9	21.9	22.0	21.8
1063	343242.1	731371.6	1.5	21.8	21.8	21.8	21.8	21.9	21.9	21.8
1064	343249.4	731346.1	1.5	21.8	21.8	21.8	21.8	21.9	21.9	21.8
1065	343257.5	731325.4	1.5	21.7	21.8	21.8	21.8	21.9	21.9	21.8
1066	343262.8	731306.8	1.5	21.8	21.8	21.8	21.8	21.9	21.9	21.8
1067	343265.6	731417	1.5	21.8	21.8	21.8	21.8	21.9	21.9	21.8

Receptor name	X(m)	Y(m)	Z(m)	Annual Mean NO <sub>2</sub> Concentration (µg/m <sup>3</sup> )						
				BC	SC1	SC2	SC3	SC4	SC5	SC6
1068	343296.8	731421.1	1.5	21.6	21.7	21.6	21.7	21.7	21.7	21.6
1069	343312.2	731422.7	1.5	21.6	21.6	21.6	21.6	21.6	21.6	21.6
1070	343180.1	731431.1	1.5	22.5	22.5	22.5	22.5	22.6	22.5	22.5
1071	343151.9	731241.1	1.5	22.8	22.9	22.9	22.9	23.0	23.0	22.8
1072	343259.8	731156.6	1.5	25.0	25.3	25.2	25.1	26.0	25.4	25.0
1073	343270.5	731152.9	1.5	25.2	25.4	25.4	25.3	26.4	25.7	25.2
1074	343287.8	731105.9	1.5	31.2	31.9	31.7	31.7	33.0	33.5	31.4
1075	343276.6	731104.9	1.5	30.9	31.5	31.3	30.9	32.2	32.8	31.1
1076	343264.3	731103.9	1.5	31.0	31.5	31.3	30.5	32.0	32.3	31.1
1077	343243.4	731105.9	1.5	24.8	25.0	24.9	24.5	25.2	24.4	24.8
1078	343201	731109.5	1.5	24.1	24.3	24.3	23.9	24.4	23.1	24.2
1079	343210.7	731078.4	1.5	26.0	26.2	26.2	25.8	26.2	23.7	26.1
1080	343189.2	731077.8	1.5	25.5	25.7	25.6	25.3	25.7	23.3	25.5
1081	343178.5	731074.8	1.5	24.5	24.7	24.6	24.4	24.7	22.9	24.6
1082	343158	731123.8	1.5	22.9	23.0	22.9	22.8	23.0	22.5	22.9
1083	343147.3	731200.8	1.5	23.4	23.6	23.5	23.5	23.7	23.6	23.4
1084	343184.6	731169.6	1.5	22.8	23.0	22.9	22.9	23.1	23.0	22.8
1085	343200.5	731161.4	1.5	23.0	23.1	23.1	23.0	23.2	23.1	23.0
1086	343208.6	731163.4	1.5	23.2	23.4	23.3	23.3	23.6	23.4	23.2
1087	343217.8	731166	1.5	23.7	23.9	23.8	23.8	24.2	23.9	23.7
1088	343244.4	731149.6	1.5	23.6	23.8	23.7	23.7	24.2	23.8	23.7
1089	343173.4	731233.9	1.5	22.8	22.9	22.8	22.9	23.0	23.0	22.8
1090	343198.4	731221.7	1.5	23.0	23.1	23.0	23.1	23.2	23.1	23.0
1091	343219.9	731215.6	1.5	23.1	23.2	23.1	23.1	23.4	23.3	23.1
1092	343234.2	731208.9	1.5	23.6	23.8	23.7	23.7	24.1	23.9	23.6
1093	343245.4	731204.8	1.5	23.9	24.0	24.0	24.0	24.4	24.2	23.9
1094	343285.8	731221.2	1.5	22.6	22.7	22.6	22.6	23.0	22.9	22.6
1095	343242.9	731244.7	1.5	22.2	22.3	22.3	22.3	22.4	22.4	22.2
1096	343233.7	731261.6	1.5	22.0	22.1	22.1	22.1	22.2	22.2	22.0
1097	343126.6	731596.1	1.5	24.6	24.7	24.7	24.7	24.8	24.7	24.6
1098	343171.8	731451.2	1.5	22.1	22.2	22.2	22.2	22.2	22.2	22.1
1099	343169.1	731460.1	1.5	22.1	22.2	22.2	22.2	22.2	22.2	22.1
1100	343167.1	731466.2	1.5	22.1	22.2	22.2	22.2	22.2	22.2	22.1
1101	343164.5	731476.1	1.5	22.2	22.2	22.2	22.2	22.3	22.2	22.2
1102	343161.4	731490.1	1.5	22.2	22.3	22.3	22.3	22.4	22.3	22.3
1103	343153.3	731515.4	1.5	22.4	22.5	22.5	22.5	22.6	22.5	22.5
1104	343144.2	731512.2	1.5	22.4	22.5	22.5	22.5	22.5	22.5	22.4
1105	343150.5	731493.8	1.5	22.3	22.3	22.3	22.3	22.4	22.3	22.3
1106	343145.8	731533.1	1.5	22.6	22.7	22.7	22.7	22.8	22.7	22.7
1107	343144.2	731539.8	1.5	22.7	22.8	22.8	22.8	22.9	22.8	22.8
1108	343141.6	731548.1	1.5	22.9	23.0	23.0	23.0	23.0	23.0	22.9
1109	343137.7	731559.8	1.5	23.1	23.2	23.2	23.2	23.3	23.2	23.1
1110	343133.7	731573.6	1.5	23.5	23.6	23.6	23.6	23.7	23.6	23.5
1111	343129.6	731585.8	1.5	24.0	24.1	24.1	24.1	24.2	24.2	24.1
1112	343123.5	731604.6	1.5	25.3	25.4	25.4	25.4	25.5	25.4	25.3
1113	343120.9	731613.7	1.5	26.2	26.4	26.3	26.4	26.5	26.5	26.3
1114	343111.2	731620.6	1.5	27.9	28.1	28.1	28.1	28.2	28.2	28.0
1115	343099.4	731601.1	1.5	25.6	25.8	25.7	25.8	25.9	25.8	25.6
1116	343093.3	731593.4	1.5	25.2	25.4	25.3	25.4	25.4	25.4	25.3
1117	343091.1	731589.6	1.5	25.0	25.2	25.1	25.2	25.3	25.2	25.1
1118	343085.6	731582.1	1.5	24.7	24.9	24.8	24.9	25.0	24.9	24.8
1119	343176.8	731580.5	1.5	23.4	23.4	23.4	23.4	23.5	23.5	23.4
1120	343168.9	731604	1.5	24.4	24.4	24.4	24.4	24.5	24.5	24.4
1121	343161.3	731629.3	1.5	26.5	26.7	26.6	26.7	26.8	26.8	26.6
1122	343152.3	731650.4	1.5	30.9	31.2	31.1	31.2	31.3	31.4	31.0
1123	343087.9	731571.8	1.5	24.1	24.3	24.2	24.3	24.4	24.3	24.2
1124	343064.6	731537.9	1.5	23.5	23.7	23.6	23.7	23.8	23.7	23.6
1125	343052.6	731532.4	1.5	23.8	23.9	23.9	23.9	24.0	23.9	23.8
1126	343048.1	731525.8	1.5	23.7	23.9	23.8	23.9	24.0	23.9	23.8
1127	343044.1	731519.5	1.5	23.7	23.8	23.8	23.8	23.9	23.9	23.7
1128	343039.4	731512.4	1.5	23.7	23.8	23.8	23.8	23.9	23.9	23.7



Receptor name	X(m)	Y(m)	Z(m)	Annual Mean NO <sub>2</sub> Concentration (µg/m <sup>3</sup> )						
				BC	SC1	SC2	SC3	SC4	SC5	SC6
1129	343049.3	731455.9	1.5	23.2	23.2	23.2	23.2	23.3	23.3	23.2
1130	343056.2	731460.4	1.5	22.9	23.0	23.0	23.0	23.1	23.1	23.0
1131	343019.6	731309.2	1.5	23.8	23.9	23.9	24.0	24.0	24.1	23.8
1132	343023.7	731252.9	1.5	23.5	23.6	23.6	23.6	23.7	23.7	23.5
1133	343087.5	731268.7	1.5	23.2	23.3	23.2	23.3	23.4	23.4	23.2
1134	343124.8	731254.4	1.5	22.8	22.9	22.9	22.9	23.0	23.0	22.8
1135	342965.9	731240.6	1.5	22.9	22.9	22.9	22.9	23.0	23.0	22.9
1136	342976.6	731252.4	1.5	23.0	23.1	23.1	23.1	23.1	23.1	23.0
1137	342988.9	731262.1	1.5	23.4	23.5	23.4	23.5	23.5	23.6	23.4
1138	343004.2	731264.1	1.5	23.9	24.0	24.0	24.0	24.1	24.2	23.9
1139	343083.2	731283.3	1.5	23.0	23.1	23.1	23.1	23.1	23.2	23.0
1140	343086.8	731302.3	1.5	22.7	22.8	22.7	22.7	22.8	22.9	22.7
1141	343089.3	731319.3	1.5	22.5	22.6	22.6	22.6	22.6	22.7	22.5
1142	343088.5	731335.1	1.5	22.5	22.5	22.5	22.5	22.5	22.6	22.5
1143	343086.4	731348.9	1.5	22.4	22.4	22.4	22.4	22.5	22.5	22.4
1144	343084.8	731365.1	1.5	22.3	22.3	22.3	22.3	22.4	22.4	22.3
1145	343061.7	731299.9	1.5	23.0	23.1	23.1	23.1	23.1	23.2	23.0
1146	343043.9	731291.8	1.5	23.7	23.8	23.8	23.8	23.9	24.0	23.7
1147	343037.4	731293.8	1.5	24.0	24.1	24.0	24.1	24.1	24.2	24.0
1148	343023.2	731303.9	1.5	24.0	24.1	24.1	24.1	24.2	24.3	24.0
1149	343060.9	731323	1.5	22.7	22.8	22.7	22.8	22.8	22.8	22.7
1150	343061.3	731339.2	1.5	22.6	22.6	22.6	22.6	22.7	22.7	22.6
1151	343062.9	731348.5	1.5	22.5	22.6	22.5	22.6	22.6	22.6	22.5
1152	343061.7	731358.6	1.5	22.5	22.5	22.5	22.5	22.6	22.6	22.5
1153	343085.2	731380.1	1.5	22.3	22.3	22.3	22.3	22.4	22.4	22.3
1154	343103.5	731385	1.5	22.2	22.2	22.2	22.2	22.3	22.3	22.2
1155	343122.9	731390.7	1.5	22.1	22.2	22.2	22.2	22.2	22.2	22.2
1156	343150.9	731399.6	1.5	22.2	22.3	22.2	22.3	22.3	22.3	22.2
1157	343159.8	731381.8	1.5	22.0	22.0	22.0	22.0	22.1	22.1	22.0
1158	343128.2	731372	1.5	22.0	22.1	22.1	22.1	22.1	22.1	22.0
1159	343069	731410.1	1.5	22.6	22.6	22.6	22.6	22.7	22.7	22.6
1160	343048.8	731404.9	1.5	22.7	22.7	22.7	22.7	22.8	22.8	22.7
1161	343044.3	731415.8	1.5	22.8	22.9	22.9	22.9	23.0	23.0	22.9
1162	343081.2	731400	1.5	22.3	22.4	22.4	22.4	22.4	22.4	22.4
1163	343097.8	731405.7	1.5	22.2	22.3	22.3	22.3	22.3	22.3	22.3
1164	343105.9	731260.6	1.5	23.0	23.1	23.1	23.1	23.2	23.2	23.0
1165	343110.8	731258.5	1.5	23.0	23.1	23.0	23.1	23.1	23.1	23.0
1166	343114.6	731410.3	1.5	22.2	22.3	22.3	22.3	22.3	22.3	22.2
1167	343157.8	731423.6	1.5	22.4	22.5	22.5	22.5	22.5	22.5	22.4
1168	343165.5	731426.1	1.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
1169	343170.8	731427.9	1.5	22.5	22.5	22.5	22.5	22.6	22.5	22.5
1170	343037.7	731425.9	1.5	23.1	23.1	23.1	23.1	23.2	23.2	23.1
1171	342982.4	731421.3	1.5	24.7	24.9	24.8	24.9	25.0	25.0	24.8
1172	342985.9	731415.7	1.5	24.3	24.4	24.4	24.4	24.5	24.5	24.3
1173	342960.5	731388.2	1.5	25.5	25.7	25.6	25.7	25.8	25.8	25.5
1174	342982.7	731324	1.5	24.7	24.9	24.8	24.9	25.0	25.0	24.8
1175	343128.9	731116.2	1.5	23.0	23.1	23.1	23.0	23.1	22.6	23.1
1176	343025.2	731113.1	1.5	22.9	22.9	22.9	22.9	22.9	22.9	22.9
1177	343037.9	731113.1	1.5	22.8	22.9	22.9	22.9	22.9	22.9	22.8
1178	343052.3	731112.6	1.5	22.8	22.9	22.9	22.9	22.9	22.9	22.9
1179	343064.5	731112.1	1.5	22.9	23.0	22.9	22.9	23.0	22.9	22.9
1180	343081.4	731114.1	1.5	22.8	22.9	22.8	22.8	22.9	22.7	22.8
1181	343099.8	731113.1	1.5	22.9	23.0	23.0	22.9	23.1	22.7	23.0
1182	342997.6	731138.6	1.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
1183	342987.9	731160.1	1.5	22.5	22.5	22.5	22.5	22.5	22.5	22.4
1184	342984.3	731171.9	1.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
1185	342982.8	731181.6	1.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
1186	342979.2	731191.3	1.5	22.5	22.6	22.5	22.5	22.6	22.6	22.5
1187	342975.1	731201	1.5	22.6	22.6	22.6	22.6	22.7	22.7	22.6
1188	342973.6	731209.7	1.5	22.6	22.7	22.6	22.6	22.7	22.7	22.6
1189	343030.8	731144	1.5	22.2	22.3	22.2	22.2	22.3	22.3	22.2

Receptor name	X(m)	Y(m)	Z(m)	Annual Mean NO <sub>2</sub> Concentration (µg/m <sup>3</sup> )						
				BC	SC1	SC2	SC3	SC4	SC5	SC6
1190	343036.9	731157.3	1.5	22.2	22.2	22.2	22.2	22.3	22.2	22.2
1191	343058.9	731168.6	1.5	22.2	22.2	22.2	22.2	22.3	22.2	22.2
1192	343073.7	731164.4	1.5	22.1	22.2	22.2	22.2	22.2	22.2	22.1
1193	343056.9	731183.4	1.5	22.2	22.3	22.3	22.3	22.3	22.3	22.2
1194	343049.7	731198.2	1.5	22.4	22.5	22.5	22.5	22.5	22.5	22.4
1195	343031.8	731173.7	1.5	22.2	22.2	22.2	22.2	22.3	22.3	22.2
1196	343026.7	731189.5	1.5	22.3	22.3	22.3	22.3	22.4	22.3	22.3
1197	343023.1	731198.7	1.5	22.3	22.4	22.4	22.4	22.4	22.4	22.3
1198	343027.7	731214.6	1.5	22.5	22.5	22.5	22.5	22.6	22.6	22.5
1199	343052.3	731208.9	1.5	22.5	22.6	22.6	22.6	22.7	22.6	22.6
1200	343062.5	731228.3	1.5	23.1	23.2	23.1	23.2	23.3	23.3	23.1
1201	343041	731237	1.5	23.1	23.1	23.1	23.1	23.2	23.2	23.1
1202	343090.1	731221.2	1.5	23.1	23.2	23.2	23.2	23.3	23.3	23.1
1203	343123.8	731207.9	1.5	23.1	23.3	23.2	23.2	23.4	23.3	23.1
1204	342995	731213.5	1.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
1205	342970	731214.1	1.5	22.7	22.7	22.7	22.7	22.8	22.8	22.7
1206	342966.4	731225.3	1.5	22.8	22.8	22.8	22.8	22.9	22.9	22.8
1207	342957.2	731113.7	1.5	23.0	23.0	23.0	23.0	23.1	23.1	23.0
1208	342949.9	731148	1.5	22.5	22.6	22.6	22.6	22.6	22.6	22.5
1209	343007.6	731456.8	1.5	24.2	24.4	24.3	24.4	24.4	24.4	24.3
1210	342995.6	731623.1	1.5	25.3	25.4	25.4	25.4	25.4	25.4	25.4
1211	343011.2	731628.3	1.5	26.1	26.2	26.2	26.2	26.2	26.2	26.2
1212	343020.3	731631.3	1.5	26.6	26.7	26.7	26.6	26.8	26.7	26.7
1213	343035.8	731635.3	1.5	27.3	27.5	27.5	27.4	27.5	27.5	27.4
1214	342986	731616.8	1.5	24.5	24.7	24.6	24.6	24.7	24.6	24.6
1215	342972.2	731612.8	1.5	24.2	24.3	24.3	24.2	24.3	24.2	24.2
1216	342961.2	731609.2	1.5	23.8	24.0	23.9	23.9	24.0	23.9	23.9
1217	342967	731649.6	1.5	25.0	25.2	25.1	25.1	25.2	25.1	25.1
1218	342959.5	731646.3	1.5	24.9	25.0	25.0	24.9	25.0	24.9	25.0
1219	342954.3	731644.6	1.5	24.7	24.8	24.8	24.7	24.8	24.7	24.8
1220	342959.2	731525.8	1.5	22.8	22.9	22.8	22.9	22.9	22.9	22.8
1221	342970	731519.6	1.5	23.1	23.2	23.2	23.2	23.3	23.2	23.2
1222	342953.7	731497	1.5	22.9	23.1	23.1	23.1	23.1	23.1	23.0
1223	342985.4	731521.1	1.5	24.0	24.2	24.1	24.2	24.3	24.2	24.1
1224	342994.1	731533.9	1.5	24.1	24.3	24.3	24.3	24.4	24.3	24.2
1225	343021.9	731484.1	1.5	24.0	24.2	24.1	24.2	24.2	24.2	24.1
1226	343029.9	731499.1	1.5	23.7	23.9	23.9	23.9	24.0	23.9	23.8
1227	342997.5	731544.4	1.5	23.9	24.1	24.0	24.1	24.2	24.1	24.0
1228	343003.8	731554.6	1.5	24.0	24.2	24.1	24.2	24.3	24.2	24.1
1229	343013.3	731569.4	1.5	24.2	24.4	24.3	24.4	24.4	24.3	24.2
1230	343019.7	731579.3	1.5	24.3	24.5	24.4	24.5	24.6	24.5	24.4
1231	343028.1	731586.2	1.5	24.8	25.0	25.0	25.0	25.2	25.0	24.9
1232	343033.8	731595.5	1.5	25.1	25.3	25.2	25.3	25.4	25.3	25.2
1233	343025.6	731472.8	1.5	24.1	24.2	24.2	24.2	24.3	24.2	24.1
1234	343018.1	731451.8	1.5	23.8	23.9	23.9	23.9	24.0	24.0	23.8
1235	343026.7	731441.6	1.5	23.4	23.5	23.5	23.5	23.6	23.6	23.5
1236	343036.8	731460.4	1.5	23.8	23.9	23.8	23.9	23.9	23.9	23.8
1237	342959.2	731474.6	1.5	24.1	24.4	24.3	24.4	24.4	24.4	24.2
1238	342954.1	731463.9	1.5	24.4	24.6	24.5	24.6	24.7	24.6	24.5
1239	342948.2	731453.2	1.5	24.5	24.7	24.6	24.7	24.8	24.7	24.5
1240	342942.5	731443.3	1.5	24.5	24.7	24.6	24.7	24.8	24.7	24.5
1241	342992.6	731449.6	1.5	25.1	25.3	25.3	25.3	25.4	25.4	25.2
1242	342990.3	731444.3	1.5	25.1	25.3	25.2	25.3	25.4	25.4	25.1
1243	342987	731438.1	1.5	25.1	25.3	25.2	25.3	25.4	25.4	25.2
1244	342984.8	731433.3	1.5	25.1	25.3	25.2	25.3	25.4	25.4	25.1
1245	342938.6	731748.3	1.5	22.9	22.9	22.9	23.0	23.0	23.0	22.9
1246	343103.9	731753.6	1.5	32.1	32.3	32.2	32.3	32.4	32.4	32.2
1247	343112.5	731756.7	1.5	31.4	31.6	31.6	31.6	31.7	31.8	31.5
1248	343096	731774.7	1.5	27.5	27.6	27.6	27.7	27.7	27.7	27.5
1249	343090.2	731789.1	1.5	26.1	26.2	26.1	26.2	26.2	26.2	26.1
1250	343086.2	731800.4	1.5	25.3	25.4	25.4	25.4	25.4	25.4	25.3

Receptor name	X(m)	Y(m)	Z(m)	Annual Mean NO <sub>2</sub> Concentration (µg/m <sup>3</sup> )						
				BC	SC1	SC2	SC3	SC4	SC5	SC6
1251	343039.1	731720.6	1.5	29.2	29.4	29.3	29.4	29.5	29.5	29.3
1252	343031.5	731726.8	1.5	28.4	28.5	28.4	28.5	28.6	28.6	28.4
1253	343026.3	731732.6	1.5	28.0	28.1	28.1	28.1	28.2	28.2	28.0
1254	343021.1	731738.6	1.5	27.7	27.8	27.7	27.8	27.9	27.9	27.7
1255	343011.9	731746.3	1.5	26.9	26.9	26.9	27.0	27.0	27.1	26.9
1256	342817	731935.3	1.5	22.2	22.2	22.2	22.3	22.3	22.3	22.2
1257	342810.9	731940.2	1.5	22.0	22.0	22.0	22.1	22.1	22.1	22.0
1258	342804.8	731945.7	1.5	21.8	21.8	21.8	21.9	21.9	21.9	21.8
1259	342799.3	731951.8	1.5	21.7	21.7	21.7	21.7	21.8	21.8	21.7
1260	342791.9	731958.2	1.5	21.5	21.5	21.5	21.6	21.6	21.6	21.5
1261	342951.8	731735.1	1.5	23.1	23.1	23.1	23.2	23.2	23.2	23.1
1262	342923.9	731730.3	1.5	22.6	22.6	22.6	22.6	22.6	22.6	22.6
1263	342936.2	731717.4	1.5	22.8	22.8	22.8	22.8	22.8	22.8	22.8
1264	342945.6	731707.3	1.5	23.0	23.0	23.0	23.0	23.1	23.0	23.0
1265	342960.9	731726.3	1.5	23.3	23.4	23.3	23.4	23.4	23.4	23.3
1266	342971.6	731715.3	1.5	23.6	23.7	23.7	23.7	23.7	23.7	23.6
1267	342978.8	731703.3	1.5	24.0	24.1	24.0	24.0	24.1	24.1	24.0
1268	342984.1	731689.7	1.5	24.3	24.4	24.4	24.3	24.4	24.4	24.3
1269	342958	731691.8	1.5	23.3	23.4	23.4	23.4	23.4	23.4	23.4
1270	342962.3	731676.1	1.5	23.6	23.7	23.7	23.7	23.7	23.7	23.7
1271	342996.2	731657.3	1.5	26.6	26.8	26.8	26.7	26.8	26.7	26.7
1272	342920.3	731739.2	1.5	22.5	22.6	22.5	22.6	22.6	22.6	22.5
1273	342910.7	731748.7	1.5	22.4	22.4	22.4	22.4	22.5	22.5	22.4
1274	342940.6	731640.9	1.5	24.2	24.3	24.3	24.2	24.4	24.3	24.3
1275	342948.2	731605.3	1.5	23.5	23.6	23.6	23.6	23.7	23.6	23.6
1276	342937.1	731602.3	1.5	23.3	23.4	23.4	23.4	23.5	23.4	23.4
1277	342923.3	731598.3	1.5	23.1	23.2	23.2	23.2	23.3	23.2	23.2
1278	342909.3	731597.3	1.5	23.2	23.3	23.3	23.2	23.3	23.2	23.2
1279	342895.2	731592.8	1.5	23.1	23.1	23.1	23.1	23.2	23.1	23.1
1280	342949.2	731642.6	1.5	24.6	24.7	24.7	24.6	24.7	24.6	24.6
1281	342944.1	731641.6	1.5	24.4	24.4	24.4	24.4	24.5	24.4	24.4
1282	342933.9	731639.8	1.5	23.9	24.0	24.0	24.0	24.1	24.0	24.0
1283	342905.4	731629.8	1.5	23.5	23.6	23.6	23.5	23.6	23.5	23.5
1284	342890.6	731625.2	1.5	23.3	23.4	23.4	23.4	23.5	23.4	23.4
1285	342871.5	731585.6	1.5	22.9	23.0	23.0	23.0	23.1	23.0	23.0
1286	342885.8	731590.1	1.5	23.0	23.1	23.1	23.1	23.1	23.1	23.1
1287	342894.4	731563.8	1.5	22.4	22.4	22.4	22.4	22.5	22.4	22.4
1288	342909.7	731555.3	1.5	22.3	22.4	22.4	22.4	22.4	22.4	22.4
1289	342900.5	731528.3	1.5	22.1	22.2	22.2	22.2	22.3	22.2	22.2
1290	342873	731534.4	1.5	22.0	22.1	22.1	22.1	22.1	22.1	22.1
1291	342916.7	731552.5	1.5	22.3	22.4	22.4	22.4	22.4	22.4	22.4
1292	342929.2	731546.1	1.5	22.4	22.4	22.4	22.4	22.5	22.4	22.4
1293	342913.9	731521	1.5	22.2	22.3	22.3	22.3	22.3	22.3	22.3
1294	342920.7	731513.4	1.5	22.3	22.3	22.3	22.3	22.4	22.3	22.3
1295	342938.5	731540.6	1.5	22.4	22.5	22.5	22.5	22.6	22.5	22.5
1296	342949.4	731534.3	1.5	22.5	22.6	22.6	22.6	22.7	22.6	22.6
1297	342942.2	731504.2	1.5	22.6	22.7	22.7	22.7	22.8	22.7	22.6
1298	342930.6	731507.6	1.5	22.4	22.5	22.4	22.5	22.5	22.5	22.4
1299	342931.5	731206	1.5	22.8	22.8	22.8	22.8	22.9	22.9	22.8
1300	342884.6	731232.6	1.5	24.3	24.3	24.3	24.3	24.4	24.4	24.3
1301	342815.2	731229.8	1.5	24.4	24.4	24.4	24.4	24.4	24.5	24.4
1302	342833.3	731246	1.5	24.7	24.7	24.7	24.7	24.7	24.8	24.7
1303	342835.4	731260.1	1.5	23.8	23.8	23.8	23.8	23.9	23.9	23.8
1304	342870.8	731228.3	1.5	25.2	25.2	25.2	25.2	25.3	25.4	25.2
1305	342863.5	731214.3	1.5	25.0	25.0	25.0	25.0	25.1	25.2	25.0
1306	342852.8	731202.3	1.5	25.4	25.4	25.4	25.4	25.5	25.6	25.4
1307	342855.6	731184.6	1.5	24.9	24.9	24.9	24.9	24.9	25.1	24.9
1308	342820.3	731165.3	1.5	26.7	26.7	26.7	26.7	26.8	27.0	26.7
1309	342835.8	731167.5	1.5	25.4	25.4	25.4	25.4	25.5	25.6	25.4
1310	342846.5	731162	1.5	24.6	24.6	24.6	24.6	24.6	24.8	24.6
1311	342855.4	731157.9	1.5	24.3	24.3	24.3	24.3	24.3	24.4	24.3

Receptor name	X(m)	Y(m)	Z(m)	Annual Mean NO <sub>2</sub> Concentration (µg/m <sup>3</sup> )						
				BC	SC1	SC2	SC3	SC4	SC5	SC6
1312	342864.2	731154.7	1.5	24.0	24.1	24.0	24.0	24.0	24.2	24.0
1313	342873.1	731150.2	1.5	23.8	23.8	23.8	23.8	23.8	23.9	23.8
1314	342874.8	731173.2	1.5	24.2	24.2	24.2	24.1	24.2	24.3	24.1
1315	342864.7	731180	1.5	24.4	24.4	24.4	24.4	24.4	24.5	24.4
1316	342887.2	731176.7	1.5	23.5	23.5	23.5	23.5	23.5	23.6	23.5
1317	342894.7	731165.1	1.5	23.4	23.4	23.4	23.4	23.4	23.5	23.4
1318	342897	731158.4	1.5	23.4	23.5	23.4	23.4	23.5	23.5	23.4
1319	342884.3	731115	1.5	23.4	23.4	23.4	23.4	23.4	23.5	23.4
1320	342873.4	731115.3	1.5	23.5	23.6	23.5	23.6	23.6	23.6	23.5
1321	342903.1	731139.6	1.5	23.1	23.1	23.1	23.1	23.1	23.2	23.1
1322	342899.3	731149.6	1.5	23.3	23.4	23.3	23.3	23.4	23.4	23.3
1323	342862.8	731114.3	1.5	23.7	23.8	23.7	23.8	23.8	23.8	23.7
1324	342849	731115.1	1.5	24.0	24.0	24.0	24.0	24.0	24.1	24.0
1325	342841.5	731115.5	1.5	24.2	24.2	24.2	24.2	24.2	24.3	24.1
1326	342830.3	731115.9	1.5	24.5	24.5	24.5	24.5	24.5	24.6	24.4
1327	342819.6	731115.9	1.5	24.9	24.9	24.9	25.0	24.9	25.0	24.8
1328	342809.7	731116.6	1.5	25.3	25.3	25.2	25.3	25.2	25.4	25.2
1329	342798.6	731116.7	1.5	25.7	25.7	25.7	25.8	25.7	25.8	25.6
1330	342788.5	731116.9	1.5	26.2	26.2	26.2	26.2	26.2	26.3	26.2
1331	342913	731114.4	1.5	23.1	23.2	23.2	23.2	23.2	23.2	23.1
1332	342924.2	731114	1.5	23.1	23.1	23.1	23.1	23.1	23.1	23.1
1333	342929.7	731114.3	1.5	23.1	23.1	23.1	23.1	23.1	23.1	23.1
1334	342939.5	731113.9	1.5	23.0	23.1	23.0	23.1	23.1	23.1	23.0
1335	342946.5	731114	1.5	23.0	23.0	23.0	23.0	23.1	23.1	23.0
1336	342945.3	731161.3	1.5	22.6	22.6	22.6	22.6	22.6	22.6	22.6
1337	342939.3	731170.8	1.5	22.6	22.6	22.6	22.6	22.7	22.7	22.6
1338	342935.8	731180.5	1.5	22.7	22.7	22.7	22.7	22.7	22.7	22.7
1339	342934.2	731188.5	1.5	22.7	22.7	22.7	22.7	22.8	22.8	22.7
1340	342931	731196.6	1.5	22.8	22.8	22.8	22.8	22.8	22.8	22.7
1341	342929.5	731215.3	1.5	22.9	22.9	22.9	22.9	22.9	23.0	22.9
1342	342916.7	731230.9	1.5	23.2	23.2	23.2	23.2	23.2	23.3	23.1
1343	342904	731231.9	1.5	23.5	23.5	23.5	23.5	23.5	23.6	23.4
1344	342805.8	731416.9	1.5	22.4	22.4	22.4	22.4	22.5	22.4	22.4
1345	342817.7	731412.3	1.5	22.4	22.5	22.5	22.5	22.6	22.5	22.4
1346	342826.2	731405.8	1.5	22.6	22.6	22.6	22.6	22.7	22.6	22.6
1347	342807	731362.1	1.5	22.8	22.8	22.8	22.8	22.9	22.8	22.8
1348	342837.2	731352	1.5	23.8	23.9	23.9	23.9	24.0	23.9	23.9
1349	342861.4	731293.9	1.5	24.3	24.3	24.3	24.3	24.4	24.4	24.3
1350	342898.7	731369.4	1.5	25.6	25.8	25.8	25.8	26.0	25.9	25.7
1351	342874.5	731402.1	1.5	22.9	23.0	23.0	23.0	23.1	23.0	23.0
1352	342783.3	731510.3	1.5	21.8	21.9	21.9	21.8	21.9	21.9	21.8
1353	342797.6	731564.3	1.5	22.7	22.8	22.8	22.8	22.8	22.8	22.8
1354	342782.5	731559.4	1.5	22.7	22.7	22.7	22.7	22.8	22.7	22.7
1355	342773.4	731556.8	1.5	22.7	22.7	22.7	22.7	22.8	22.7	22.7
1356	342758.2	731552	1.5	22.6	22.7	22.7	22.7	22.7	22.7	22.7
1357	342750.1	731550.1	1.5	22.7	22.7	22.7	22.7	22.8	22.7	22.7
1358	342738.8	731546.4	1.5	22.6	22.7	22.7	22.7	22.7	22.7	22.7
1359	342727.2	731539.8	1.5	22.5	22.5	22.5	22.5	22.6	22.5	22.5
1360	342713.3	731535.8	1.5	22.5	22.5	22.5	22.5	22.6	22.5	22.5
1361	342704.8	731532.9	1.5	22.5	22.5	22.5	22.5	22.6	22.5	22.5
1362	342698.6	731466.5	1.5	22.1	22.1	22.1	22.1	22.2	22.1	22.1
1363	342705.9	731460.1	1.5	22.1	22.2	22.2	22.1	22.2	22.1	22.1
1364	342719.2	731455.1	1.5	22.1	22.2	22.1	22.1	22.2	22.1	22.1
1365	342729.8	731451.2	1.5	22.1	22.2	22.1	22.1	22.2	22.1	22.1
1366	342743.5	731445.3	1.5	22.1	22.2	22.2	22.2	22.3	22.2	22.2
1367	342759.5	731451.1	1.5	22.0	22.0	22.0	22.0	22.1	22.0	22.0
1368	342766.3	731463.7	1.5	21.9	21.9	21.9	21.9	22.0	21.9	21.9
1369	342767.5	731474.3	1.5	21.8	21.9	21.8	21.8	21.9	21.8	21.8
1370	342772.8	731485.8	1.5	21.8	21.8	21.8	21.8	21.9	21.8	21.8
1371	342778.9	731499.4	1.5	21.8	21.8	21.8	21.8	21.9	21.8	21.8
1372	342789.7	731516.6	1.5	21.9	21.9	21.9	21.9	21.9	21.9	21.9

Receptor name	X(m)	Y(m)	Z(m)	Annual Mean NO <sub>2</sub> Concentration (µg/m <sup>3</sup> )						
				BC	SC1	SC2	SC3	SC4	SC5	SC6
1373	342795.5	731531.3	1.5	21.9	22.0	22.0	22.0	22.0	22.0	22.0
1374	342810.8	731501.3	1.5	21.9	21.9	21.9	21.9	21.9	21.9	21.9
1375	342804.8	731486.1	1.5	21.8	21.9	21.9	21.9	21.9	21.9	21.9
1376	342802.7	731473.7	1.5	21.8	21.9	21.9	21.9	21.9	21.9	21.9
1377	342797.3	731462.1	1.5	21.9	21.9	21.9	21.9	22.0	21.9	21.9
1378	342789.6	731451.4	1.5	22.0	22.0	22.0	22.0	22.0	22.0	22.0
1379	342785.8	731442.7	1.5	22.0	22.1	22.1	22.1	22.1	22.1	22.1
1380	342829.6	731520.7	1.5	21.9	21.9	21.9	21.9	22.0	21.9	21.9
1381	342757.2	731351.1	1.5	21.9	22.0	21.9	21.9	22.0	22.0	21.9
1382	342719.1	731408.9	1.5	22.2	22.2	22.2	22.2	22.3	22.2	22.2
1383	342728.2	731405.2	1.5	22.2	22.2	22.2	22.2	22.3	22.3	22.2
1384	342736.6	731399.3	1.5	22.2	22.2	22.2	22.2	22.3	22.2	22.2
1385	342739.2	731390.4	1.5	22.0	22.1	22.1	22.1	22.1	22.1	22.1
1386	342708.4	731412.8	1.5	22.2	22.2	22.2	22.2	22.3	22.2	22.2
1387	342736.2	731380	1.5	21.9	21.9	21.9	21.9	22.0	21.9	21.9
1388	342735.6	731371.4	1.5	21.8	21.8	21.8	21.8	21.9	21.9	21.8
1389	342760.3	731381.2	1.5	22.2	22.3	22.2	22.2	22.3	22.3	22.2
1390	342775.4	731386.9	1.5	22.8	22.8	22.8	22.8	22.9	22.8	22.8
1391	342795.7	731421.8	1.5	22.3	22.3	22.3	22.3	22.4	22.3	22.3
1392	342798.7	731373.7	1.5	22.9	22.9	22.9	22.9	23.0	23.0	22.9
1393	342758.1	731360.6	1.5	22.0	22.0	22.0	22.0	22.0	22.0	22.0
1394	342759.3	731342.3	1.5	21.9	21.9	21.9	21.9	22.0	22.0	21.9
1395	342759	731331.6	1.5	21.9	21.9	21.9	21.9	21.9	21.9	21.9
1396	342759.3	731321.2	1.5	21.9	21.9	21.9	21.9	21.9	21.9	21.9
1397	342762.4	731304.7	1.5	22.0	22.0	22.0	22.0	22.0	22.0	22.0
1398	342764.5	731295.2	1.5	22.1	22.1	22.1	22.1	22.1	22.1	22.1
1399	342768.8	731281.4	1.5	22.2	22.2	22.2	22.2	22.2	22.2	22.2
1400	342775.5	731270.1	1.5	22.4	22.4	22.4	22.4	22.4	22.4	22.4
1401	342747.7	731274.8	1.5	22.0	22.0	22.0	22.0	22.1	22.1	22.0
1402	342744.7	731284.8	1.5	21.9	22.0	22.0	21.9	22.0	22.0	21.9
1403	342741.3	731294	1.5	21.9	21.9	21.9	21.9	21.9	21.9	21.9
1404	342736.1	731300.1	1.5	21.8	21.8	21.8	21.8	21.8	21.8	21.8
1405	342733.3	731302.8	1.5	21.8	21.8	21.8	21.8	21.8	21.8	21.8
1406	342728.5	731308.3	1.5	21.7	21.7	21.7	21.7	21.8	21.8	21.7
1407	342734.6	731341.6	1.5	21.7	21.8	21.7	21.7	21.8	21.8	21.7
1408	342721.1	731331.6	1.5	21.6	21.7	21.7	21.7	21.7	21.7	21.7
1409	342735.5	731355.4	1.5	21.8	21.8	21.8	21.8	21.8	21.8	21.8
1410	342735.3	731363.9	1.5	21.8	21.8	21.8	21.8	21.9	21.8	21.8
1411	342720.3	731135.8	1.5	27.3	27.2	27.1	27.2	27.2	27.4	27.1
1412	342780.4	731260.7	1.5	22.7	22.7	22.7	22.7	22.7	22.8	22.7
1413	342784.7	731250.6	1.5	23.1	23.1	23.1	23.1	23.1	23.1	23.1
1414	342788.9	731242.9	1.5	23.3	23.3	23.3	23.3	23.3	23.4	23.3
1415	342801.8	731230.4	1.5	23.9	23.9	23.9	23.9	23.9	24.0	23.9
1416	342792.3	731200.8	1.5	25.0	25.0	25.0	25.0	25.1	25.2	25.0
1417	342751.1	731260.1	1.5	22.2	22.2	22.2	22.2	22.2	22.3	22.2
1418	342767.6	731218.2	1.5	23.0	23.1	23.0	23.0	23.1	23.1	23.0
1419	342741.3	731230.7	1.5	22.4	22.4	22.4	22.4	22.4	22.4	22.3
1420	342788.7	731194.3	1.5	25.3	25.3	25.3	25.3	25.3	25.4	25.3
1421	342783.6	731189.5	1.5	25.3	25.3	25.3	25.3	25.3	25.4	25.2
1422	342779.9	731186.3	1.5	25.3	25.3	25.2	25.3	25.3	25.4	25.2
1423	342775.8	731182.3	1.5	25.3	25.3	25.3	25.3	25.3	25.4	25.3
1424	342769.8	731176.9	1.5	25.4	25.3	25.3	25.3	25.4	25.5	25.3
1425	342755.6	731165.2	1.5	25.4	25.4	25.4	25.4	25.4	25.6	25.4
1426	342751.3	731162.3	1.5	25.4	25.4	25.4	25.4	25.4	25.5	25.4
1427	342809.3	731158.6	1.5	27.5	27.5	27.5	27.4	27.5	27.8	27.4
1428	342803	731152	1.5	27.5	27.5	27.4	27.4	27.5	27.8	27.4
1429	342765	731117.8	1.5	28.1	28.1	28.1	28.1	28.1	28.3	28.1
1430	342772.8	731126.7	1.5	28.2	28.1	28.1	28.1	28.1	28.4	28.1
1431	342714.6	731131.4	1.5	27.8	27.7	27.7	27.7	27.7	27.9	27.7
1432	342694	731127.4	1.5	27.7	27.6	27.5	27.6	27.5	27.8	27.5
1433	342690.5	731125.8	1.5	28.1	27.9	27.9	28.0	27.9	28.1	27.9

Receptor name	X(m)	Y(m)	Z(m)	Annual Mean NO <sub>2</sub> Concentration (µg/m <sup>3</sup> )						
				BC	SC1	SC2	SC3	SC4	SC5	SC6
1434	342669.3	731119.1	1.5	30.8	30.6	30.6	30.6	30.5	30.9	30.5
1435	342665.1	731119.5	1.5	30.7	30.5	30.5	30.5	30.4	30.8	30.4
1436	342648.4	731120.6	1.5	30.4	30.2	30.2	30.2	30.1	30.5	30.1
1437	342636	731120.8	1.5	30.2	30.0	30.0	30.0	29.9	30.3	29.9
1438	342619.7	731121.8	1.5	45.2	44.8	44.7	44.8	44.6	45.5	44.6
1439	342606.7	731122.1	1.5	42.9	42.5	42.5	42.5	42.4	43.1	42.4
1440	342590.7	731123.3	1.5	39.2	38.9	38.9	38.9	38.8	39.5	38.8
1441	342673.8	731471.2	1.5	22.2	22.2	22.2	22.2	22.3	22.2	22.2
1442	342689.7	731528.3	1.5	22.5	22.5	22.5	22.5	22.6	22.5	22.5
1443	342679.3	731525.1	1.5	22.5	22.6	22.6	22.5	22.6	22.5	22.5
1444	342668	731521.9	1.5	22.5	22.6	22.6	22.6	22.6	22.6	22.6
1445	342656	731521.8	1.5	22.7	22.8	22.8	22.8	22.8	22.8	22.8
1446	342641.8	731516.8	1.5	22.8	22.8	22.8	22.8	22.9	22.8	22.8
1447	342634.4	731514.9	1.5	22.8	22.9	22.9	22.8	22.9	22.9	22.9
1448	342619.9	731510.4	1.5	23.0	23.0	23.0	23.0	23.1	23.0	23.0
1449	342611.7	731507.9	1.5	23.0	23.1	23.1	23.0	23.1	23.1	23.1
1450	342595	731503.1	1.5	23.3	23.3	23.3	23.3	23.4	23.3	23.3
1451	342633.9	731483.4	1.5	22.5	22.6	22.6	22.5	22.6	22.5	22.5
1452	342650.3	731477.9	1.5	22.4	22.4	22.4	22.4	22.5	22.4	22.4
1453	342658.3	731475.9	1.5	22.3	22.3	22.3	22.3	22.4	22.3	22.3
1454	342683.6	731471.2	1.5	22.1	22.1	22.1	22.1	22.2	22.1	22.1
1455	342614.9	731432.7	1.5	22.0	22.0	22.0	22.0	22.1	22.0	22.0
1456	342631.6	731439.6	1.5	22.3	22.3	22.3	22.3	22.4	22.3	22.3
1457	342643.2	731436.4	1.5	22.3	22.3	22.3	22.2	22.4	22.3	22.3
1458	342652.4	731433.8	1.5	22.2	22.2	22.2	22.2	22.3	22.2	22.2
1459	342656.5	731421.9	1.5	21.9	21.9	21.9	21.9	22.0	21.9	21.9
1460	342661.5	731412.1	1.5	21.7	21.8	21.8	21.8	21.8	21.8	21.8
1461	342691	731403.4	1.5	21.8	21.8	21.8	21.8	21.9	21.8	21.8
1462	342336.4	731121.8	1.5	33.4	33.6	33.5	33.5	33.7	33.8	33.5
1463	342557.2	731145.1	1.5	29.6	29.6	29.5	29.6	29.6	29.8	29.5
1464	342545.8	731142.1	1.5	29.9	29.9	29.8	29.9	29.9	30.1	29.8
1465	342519.8	731132.3	1.5	31.6	31.6	31.5	31.6	31.6	31.8	31.5
1466	342490.4	731137.6	1.5	30.1	30.1	30.0	30.2	30.1	30.3	30.0
1467	342467	731132.8	1.5	31.2	31.2	31.1	31.3	31.3	31.4	31.1
1468	342459.9	731131.9	1.5	31.5	31.5	31.4	31.5	31.5	31.7	31.4
1469	342445.1	731131.2	1.5	31.7	31.7	31.7	31.8	31.8	31.9	31.6
1470	342425.1	731132.6	1.5	31.2	31.3	31.2	31.3	31.4	31.5	31.2
1471	342414.7	731128.9	1.5	32.4	32.5	32.5	32.5	32.6	32.7	32.4
1472	342390.7	731129.8	1.5	31.8	31.9	31.9	31.9	32.0	32.1	31.8
1473	342440.1	731088.9	1.5	36.9	36.9	36.8	37.0	37.0	37.1	36.7
1474	342394.4	731087.9	1.5	37.0	37.1	37.0	37.1	37.1	37.3	36.9
1475	342357.8	731084.8	1.5	37.5	37.6	37.5	37.6	37.7	37.9	37.5
1476	342364.8	731122.7	1.5	34.2	34.4	34.3	34.3	34.5	34.6	34.2
1477	342328	731119.6	1.5	33.9	34.2	34.1	34.1	34.3	34.5	34.0
1478	342307	731115.6	1.5	34.6	34.8	34.7	34.7	34.9	35.1	34.7
1479	342294.5	731113	1.5	35.0	35.3	35.2	35.2	35.4	35.6	35.1
1480	342313.3	731077.3	1.5	40.6	41.0	40.8	40.8	41.0	41.4	40.8
1481	342327.1	731072.2	1.5	34.8	35.0	35.0	34.9	35.1	35.3	34.9
1482	342354.6	731069	1.5	31.3	31.4	31.4	31.4	31.5	31.6	31.3
1483	342284.6	731066.2	1.5	39.8	40.0	39.9	39.9	40.1	40.5	39.8
1484	342277.9	731064.6	1.5	40.1	40.3	40.2	40.2	40.4	40.7	40.1
1485	342271.1	731063	1.5	40.3	40.5	40.4	40.5	40.6	41.0	40.3
1486	342264.9	731061.6	1.5	40.4	40.6	40.5	40.5	40.7	41.0	40.4
1487	342258.4	731060	1.5	40.3	40.5	40.4	40.4	40.6	41.0	40.3
1488	342239.6	731061.3	1.5	45.9	46.2	46.0	46.1	46.3	46.7	45.9
1489	342209.3	731047.3	1.5	33.7	33.8	33.7	33.7	33.9	34.1	33.7
1490	342482.9	731469.4	1.5	23.7	23.7	23.7	23.6	23.7	23.7	23.7
1491	342169.2	731410.6	1.5	23.7	23.7	23.7	23.6	23.7	23.7	23.7
1492	342180.3	731420.6	1.5	22.9	22.9	22.9	22.9	22.9	22.9	22.9
1493	342218.4	731426.8	1.5	23.5	23.5	23.5	23.4	23.5	23.5	23.5
1494	342229.4	731430.1	1.5	23.5	23.5	23.5	23.4	23.5	23.5	23.5

Receptor name	X(m)	Y(m)	Z(m)	Annual Mean NO <sub>2</sub> Concentration (µg/m <sup>3</sup> )						
				BC	SC1	SC2	SC3	SC4	SC5	SC6
1495	342143.5	731400.6	1.5	24.1	24.1	24.1	24.1	24.1	24.2	24.1
1496	342249.3	731436	1.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5
1497	342260.4	731439.7	1.5	23.5	23.5	23.4	23.4	23.5	23.5	23.4
1498	342372.1	731438.4	1.5	24.2	24.1	24.1	24.1	24.2	24.2	24.1
1499	342395.4	731451.3	1.5	25.4	25.4	25.4	25.4	25.5	25.4	25.4
1500	342432.5	731465	1.5	26.0	26.0	26.0	26.0	26.1	26.0	26.0
1501	342454.7	731471.6	1.5	25.9	25.9	25.9	25.9	26.0	25.9	25.9
1502	342429.5	731449.7	1.5	23.2	23.2	23.2	23.2	23.3	23.2	23.2
1503	342511.2	731460.6	1.5	22.7	22.7	22.7	22.7	22.8	22.7	22.7
1504	342488	731447.9	1.5	22.3	22.3	22.3	22.3	22.3	22.3	22.3
1505	342541.6	731462.9	1.5	23.1	23.1	23.1	23.1	23.2	23.1	23.1
1506	342546.4	731461.9	1.5	23.1	23.1	23.1	23.1	23.3	23.2	23.1
1507	342560.8	731458.8	1.5	23.1	23.1	23.1	23.1	23.3	23.2	23.1
1508	342565.4	731457.9	1.5	23.1	23.1	23.1	23.1	23.3	23.1	23.1
1509	342579.9	731444.1	1.5	22.3	22.3	22.3	22.3	22.4	22.3	22.3
1510	342582.5	731440.4	1.5	22.1	22.2	22.2	22.1	22.2	22.2	22.1
1511	342020.1	731048.7	1.5	21.9	21.9	21.9	21.9	21.9	21.9	21.9
1512	341935.6	730963.2	1.5	22.8	22.8	22.8	22.8	22.8	22.8	22.8
1513	341912.7	730956.9	1.5	22.4	22.4	22.4	22.4	22.4	22.4	22.4
1514	341861.7	730947.6	1.5	22.1	22.1	22.1	22.1	22.1	22.1	22.0
1515	341881.2	730949.1	1.5	22.1	22.1	22.1	22.1	22.1	22.1	22.1
1516	341948.7	730933.1	1.5	24.0	24.1	24.0	24.1	24.1	24.1	24.0
1517	341818.5	730976.8	1.5	22.0	22.0	22.0	22.0	22.0	22.0	22.0
1518	341874.3	730987.4	1.5	22.1	22.1	22.1	22.1	22.1	22.1	22.1
1519	341886	730989.9	1.5	22.1	22.1	22.1	22.1	22.2	22.1	22.1
1520	341904.5	730998.1	1.5	22.0	22.0	21.9	22.0	22.0	22.0	21.9
1521	341914.2	731031.2	1.5	21.4	21.4	21.4	21.4	21.4	21.4	21.3
1522	341959.8	731032.6	1.5	21.6	21.6	21.6	21.6	21.6	21.6	21.6
1523	341975.9	731037.5	1.5	21.7	21.7	21.7	21.7	21.7	21.7	21.6
1524	341985.6	731039.4	1.5	21.7	21.7	21.7	21.7	21.7	21.7	21.7
1525	341998.2	731043.3	1.5	21.8	21.8	21.8	21.8	21.8	21.8	21.8
1526	342008.9	731045.8	1.5	21.8	21.8	21.8	21.8	21.9	21.9	21.8
1527	342032.7	731053.1	1.5	22.0	22.0	22.0	22.0	22.0	22.0	22.0
1528	342045.8	731055.5	1.5	22.1	22.1	22.1	22.1	22.1	22.1	22.1
1529	342071.1	731053.6	1.5	22.9	22.9	22.9	22.9	22.9	22.9	22.8
1530	342092	731063.8	1.5	23.0	23.0	22.9	23.0	23.0	23.0	22.9
1531	341863.5	731281.4	1.5	24.1	24.1	24.1	24.1	24.1	24.1	24.1
1532	341750.1	731282.4	1.5	21.7	21.7	21.7	21.7	21.7	21.7	21.7
1533	341763.6	731246.8	1.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5
1534	341764.8	731258.3	1.5	22.2	22.2	22.2	22.2	22.3	22.3	22.2
1535	341789.7	731258.1	1.5	23.1	23.1	23.1	23.1	23.1	23.1	23.1
1536	341788.4	731294.1	1.5	23.6	23.6	23.6	23.6	23.6	23.6	23.6
1537	341807.8	731302.4	1.5	23.6	23.6	23.6	23.6	23.6	23.6	23.6
1538	341819	731305.6	1.5	23.7	23.7	23.7	23.7	23.7	23.7	23.7
1539	341811.8	731265.5	1.5	24.1	24.1	24.1	24.1	24.1	24.2	24.1
1540	341823.1	731269.4	1.5	24.4	24.4	24.4	24.4	24.4	24.4	24.4
1541	341839.8	731274.2	1.5	24.4	24.4	24.4	24.4	24.4	24.4	24.4
1542	341849.6	731314.7	1.5	23.6	23.6	23.6	23.6	23.6	23.6	23.6
1543	341863.3	731318.3	1.5	23.6	23.6	23.6	23.6	23.6	23.6	23.6
1544	341885.6	731285.2	1.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5
1545	341899.4	731289.9	1.5	23.5	23.5	23.5	23.5	23.5	23.6	23.5
1546	341920.3	731299.1	1.5	23.9	23.9	23.9	23.9	23.9	23.9	23.9
1547	341938.3	731304.4	1.5	23.9	23.9	23.9	23.8	23.9	23.9	23.9
1548	341953.2	731309.3	1.5	23.9	23.9	23.9	23.9	23.9	24.0	23.9
1549	341968	731313.4	1.5	23.9	23.9	23.9	23.8	23.9	23.9	23.9
1550	341990.4	731319.4	1.5	23.8	23.8	23.8	23.7	23.7	23.8	23.7
1551	342010.4	731329.1	1.5	24.4	24.4	24.4	24.3	24.4	24.4	24.4
1552	341999.1	731296.5	1.5	22.0	22.0	22.0	22.0	22.0	22.1	22.0
1553	342001.6	731280.4	1.5	21.6	21.6	21.6	21.6	21.6	21.7	21.6
1554	342003	731275.7	1.5	21.5	21.6	21.5	21.5	21.6	21.6	21.5
1555	341984.8	731271.1	1.5	21.5	21.6	21.5	21.5	21.6	21.6	21.5

Receptor name	X(m)	Y(m)	Z(m)	Annual Mean NO <sub>2</sub> Concentration (µg/m <sup>3</sup> )						
				BC	SC1	SC2	SC3	SC4	SC5	SC6
1556	341986.3	731266.6	1.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5
1557	342009.1	731256.6	1.5	21.3	21.3	21.3	21.3	21.3	21.3	21.3
1558	342010.6	731252.3	1.5	21.3	21.3	21.3	21.3	21.3	21.3	21.3
1559	342108.7	731347.3	1.5	23.0	23.0	23.0	22.9	23.0	23.0	23.0
1560	342104.7	731388.4	1.5	24.2	24.2	24.2	24.2	24.2	24.3	24.2
1561	342046	731369.1	1.5	24.5	24.5	24.5	24.4	24.5	24.5	24.5
1562	341907.8	731327.8	1.5	24.3	24.3	24.3	24.3	24.3	24.3	24.3
1563	341945.1	731339.9	1.5	24.1	24.1	24.1	24.1	24.1	24.1	24.1
1564	341551.8	730928.3	1.5	21.8	21.8	21.8	21.8	21.8	21.8	21.8
1565	341804.4	730973.8	1.5	22.0	22.0	22.0	22.1	22.1	22.0	22.0
1566	341795.7	730972.3	1.5	22.0	22.0	22.0	22.0	22.0	22.0	22.0
1567	341785.4	730970.6	1.5	22.0	22.0	22.0	22.0	22.0	22.0	22.0
1568	341773.8	730981.8	1.5	21.4	21.4	21.4	21.4	21.5	21.4	21.4
1569	341766	730980.3	1.5	21.4	21.4	21.4	21.4	21.4	21.4	21.4
1570	341757.3	730978.4	1.5	21.4	21.4	21.4	21.4	21.4	21.4	21.4
1571	341746.6	730976.2	1.5	21.4	21.4	21.4	21.4	21.4	21.4	21.4
1572	341780.1	730929.6	1.5	21.7	21.7	21.7	21.7	21.7	21.7	21.7
1573	341723.8	730975.6	1.5	21.3	21.3	21.3	21.3	21.3	21.3	21.3
1574	341711.1	730974.4	1.5	21.3	21.3	21.3	21.3	21.3	21.3	21.3
1575	341701.2	730973.9	1.5	21.2	21.2	21.2	21.2	21.3	21.2	21.2
1576	341693.6	730972	1.5	21.2	21.2	21.2	21.3	21.3	21.2	21.2
1577	341683.2	730971.5	1.5	21.2	21.2	21.2	21.2	21.2	21.2	21.2
1578	341674.7	730970.5	1.5	21.2	21.2	21.2	21.2	21.2	21.2	21.2
1579	341666.7	730947.4	1.5	22.0	22.0	22.0	22.0	22.0	22.0	22.0
1580	341648.9	730949.4	1.5	21.7	21.7	21.6	21.7	21.7	21.7	21.6
1581	341641.4	730944.5	1.5	21.9	21.9	21.9	21.9	21.9	21.9	21.9
1582	341627.8	730945	1.5	21.7	21.7	21.7	21.7	21.7	21.7	21.7
1583	341617.1	730938.9	1.5	22.0	22.0	22.0	22.0	22.0	22.0	22.0
1584	341604.5	730946.3	1.5	21.4	21.4	21.4	21.4	21.4	21.4	21.4
1585	341665	730962.8	1.5	21.3	21.3	21.3	21.3	21.3	21.3	21.3
1586	341522.1	730920.5	1.5	21.3	21.3	21.3	21.3	21.3	21.3	21.3
1587	341540.1	730922.4	1.5	22.0	22.0	22.0	22.0	22.0	22.0	22.0
1588	341562.5	730927.6	1.5	22.1	22.1	22.1	22.2	22.2	22.2	22.1
1589	341570.5	730932.1	1.5	21.8	21.8	21.8	21.9	21.9	21.9	21.8
1590	341586.3	730930.4	1.5	22.4	22.4	22.4	22.4	22.4	22.4	22.4
1591	341585.8	730944.8	1.5	21.3	21.3	21.3	21.3	21.3	21.3	21.3
1592	341582.9	730953.3	1.5	21.1	21.1	21.1	21.1	21.1	21.1	21.1
1593	341522.6	730934.6	1.5	21.0	21.0	21.0	21.0	21.0	21.0	21.0
1594	341525.8	730945	1.5	20.9	20.9	20.9	20.9	20.9	20.9	20.9
1595	341580.7	730963.5	1.5	20.9	20.9	20.9	20.9	20.9	20.9	20.9
1596	341525.5	730955	1.5	20.8	20.8	20.8	20.8	20.8	20.8	20.8
1597	341511.9	730913.9	1.5	21.1	21.1	21.1	21.1	21.1	21.1	21.1
1598	341494	730911.8	1.5	20.8	20.8	20.8	20.8	20.8	20.8	20.8
1599	341483.5	730909.6	1.5	20.8	20.8	20.8	20.8	20.8	20.8	20.8
1600	341512.9	730896.7	1.5	21.0	21.0	21.0	21.0	21.0	21.0	21.0
1601	341497.8	730896.2	1.5	20.9	20.9	20.9	20.9	20.9	20.9	20.9
1602	341486.4	730894.5	1.5	20.8	20.8	20.8	20.8	20.8	20.8	20.8
1603	341477.7	730928	1.5	20.7	20.7	20.7	20.7	20.7	20.7	20.7
1604	341464.8	730906.9	1.5	20.7	20.7	20.7	20.7	20.7	20.7	20.7
1466_4.5	342490.4	731137.6	4.5	29.1	29.1	29.1	29.2	29.2	29.3	29.1
1467_4.5	342467	731132.8	4.5	29.9	29.9	29.9	29.9	29.9	30.1	29.8
1468_4.5	342459.9	731131.9	4.5	30.0	30.1	30.0	30.1	30.1	30.3	30.0
1469_4.5	342445.1	731131.2	4.5	30.2	30.2	30.2	30.3	30.3	30.4	30.1
1470_4.5	342425.1	731132.6	4.5	29.9	29.9	29.9	29.9	29.9	30.0	29.8
1471_4.5	342414.7	731128.9	4.5	30.6	30.7	30.7	30.7	30.7	30.8	30.6
1472_4.5	342390.7	731129.8	4.5	30.2	30.4	30.3	30.3	30.4	30.5	30.2
1476_4.5	342364.8	731122.7	4.5	31.7	31.8	31.8	31.8	31.9	32.0	31.7
1462_4.5	342336.4	731121.8	4.5	31.3	31.5	31.4	31.4	31.5	31.6	31.3
1477_4.5	342328	731119.6	4.5	31.6	31.8	31.8	31.7	31.9	32.0	31.7
1478_4.5	342307	731115.6	4.5	32.1	32.3	32.2	32.2	32.4	32.5	32.2
1479_4.5	342294.5	731113	4.5	32.4	32.6	32.5	32.5	32.7	32.9	32.5



Receptor name	X(m)	Y(m)	Z(m)	Annual Mean NO <sub>2</sub> Concentration (µg/m <sup>3</sup> )						
				BC	SC1	SC2	SC3	SC4	SC5	SC6
1530_4.5	342092	731063.8	4.5	22.6	22.6	22.6	22.6	22.6	22.6	22.5
1529_4.5	342071.1	731053.6	4.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
1528_4.5	342045.8	731055.5	4.5	22.0	22.0	22.0	22.0	22.0	22.0	22.0
1527_4.5	342032.7	731053.1	4.5	21.9	21.9	21.8	21.9	21.9	21.9	21.8
1511_4.5	342020.1	731048.7	4.5	21.8	21.8	21.8	21.8	21.8	21.8	21.8
1526_4.5	342008.9	731045.8	4.5	21.7	21.7	21.7	21.7	21.8	21.8	21.7
1525_4.5	341998.2	731043.3	4.5	21.7	21.7	21.7	21.7	21.7	21.7	21.7
1524_4.5	341985.6	731039.4	4.5	21.6	21.6	21.6	21.6	21.6	21.6	21.6
1523_4.5	341975.9	731037.5	4.5	21.6	21.6	21.6	21.6	21.6	21.6	21.6
1522_4.5	341959.8	731032.6	4.5	21.5	21.5	21.5	21.5	21.6	21.6	21.5
1466_7.5	342490.4	731137.6	7.5	27.7	27.7	27.7	27.8	27.8	27.9	27.7
1467_7.5	342467	731132.8	7.5	28.1	28.1	28.1	28.1	28.1	28.2	28.0
1468_7.5	342459.9	731131.9	7.5	28.1	28.1	28.1	28.2	28.2	28.3	28.1
1469_7.5	342445.1	731131.2	7.5	28.1	28.2	28.1	28.2	28.2	28.3	28.1
1470_7.5	342425.1	731132.6	7.5	28.0	28.0	28.0	28.0	28.1	28.1	28.0
1471_7.5	342414.7	731128.9	7.5	28.3	28.4	28.3	28.4	28.4	28.5	28.3
1472_7.5	342390.7	731129.8	7.5	28.1	28.2	28.1	28.2	28.2	28.3	28.1
1476_7.5	342364.8	731122.7	7.5	28.8	28.9	28.8	28.8	28.9	29.0	28.8
1462_7.5	342336.4	731121.8	7.5	28.6	28.7	28.7	28.7	28.8	28.9	28.6
1477_7.5	342328	731119.6	7.5	28.8	28.9	28.8	28.8	28.9	29.1	28.8
1478_7.5	342307	731115.6	7.5	29.0	29.1	29.1	29.1	29.2	29.3	29.1
1479_7.5	342294.5	731113	7.5	29.1	29.3	29.2	29.2	29.3	29.5	29.2
1530_7.5	342092	731063.8	7.5	22.1	22.1	22.1	22.1	22.1	22.1	22.1
1529_7.5	342071.1	731053.6	7.5	22.0	22.0	22.0	22.0	22.1	22.1	22.0
1528_7.5	342045.8	731055.5	7.5	21.7	21.7	21.7	21.7	21.8	21.8	21.7
1527_7.5	342032.7	731053.1	7.5	21.7	21.7	21.7	21.7	21.7	21.7	21.6
1511_7.5	342020.1	731048.7	7.5	21.6	21.6	21.6	21.6	21.6	21.6	21.6
1526_7.5	342008.9	731045.8	7.5	21.6	21.6	21.6	21.6	21.6	21.6	21.6
1525_7.5	341998.2	731043.3	7.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5
1524_7.5	341985.6	731039.4	7.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5
1523_7.5	341975.9	731037.5	7.5	21.5	21.5	21.5	21.5	21.5	21.5	21.4
1522_7.5	341959.8	731032.6	7.5	21.4	21.4	21.4	21.4	21.4	21.4	21.4
1466_10.5	342490.4	731137.6	10.5	26.3	26.4	26.3	26.4	26.4	26.5	26.3
1467_10.5	342467	731132.8	10.5	26.4	26.4	26.4	26.4	26.5	26.6	26.4
1468_10.5	342459.9	731131.9	10.5	26.4	26.5	26.4	26.5	26.5	26.6	26.4
1469_10.5	342445.1	731131.2	10.5	26.4	26.4	26.4	26.4	26.5	26.6	26.4
1470_10.5	342425.1	731132.6	10.5	26.3	26.3	26.3	26.3	26.4	26.5	26.3
1471_10.5	342414.7	731128.9	10.5	26.4	26.5	26.4	26.5	26.5	26.6	26.4
1472_10.5	342390.7	731129.8	10.5	26.3	26.4	26.3	26.4	26.4	26.5	26.3
1476_10.5	342364.8	731122.7	10.5	26.6	26.6	26.6	26.6	26.7	26.8	26.6
1462_10.5	342336.4	731121.8	10.5	26.5	26.6	26.5	26.5	26.6	26.7	26.5
1477_10.5	342328	731119.6	10.5	26.5	26.6	26.6	26.6	26.7	26.7	26.5
1478_10.5	342307	731115.6	10.5	26.6	26.7	26.6	26.6	26.7	26.8	26.6
1479_10.5	342294.5	731113	10.5	26.6	26.6	26.6	26.6	26.7	26.8	26.6
1530_10.5	342092	731063.8	10.5	21.7	21.7	21.7	21.7	21.7	21.7	21.7
1529_10.5	342071.1	731053.6	10.5	21.6	21.7	21.6	21.6	21.7	21.7	21.6
1528_10.5	342045.8	731055.5	10.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5
1527_10.5	342032.7	731053.1	10.5	21.4	21.4	21.4	21.4	21.5	21.5	21.4
1511_10.5	342020.1	731048.7	10.5	21.4	21.4	21.4	21.4	21.4	21.4	21.4
1526_10.5	342008.9	731045.8	10.5	21.4	21.4	21.4	21.4	21.4	21.4	21.4
1525_10.5	341998.2	731043.3	10.5	21.4	21.4	21.4	21.4	21.4	21.4	21.3
1524_10.5	341985.6	731039.4	10.5	21.3	21.3	21.3	21.3	21.3	21.3	21.3
1523_10.5	341975.9	731037.5	10.5	21.3	21.3	21.3	21.3	21.3	21.3	21.3
1522_10.5	341959.8	731032.6	10.5	21.3	21.3	21.3	21.3	21.3	21.3	21.3
1473_0	342440.1	731088.9	0	37.5	37.5	37.5	37.7	37.6	37.8	37.4
1474_0	342394.4	731087.9	0	37.6	37.7	37.6	37.7	37.8	37.9	37.5
1475_0	342357.8	731084.8	0	38.1	38.3	38.1	38.2	38.3	38.5	38.1
1482_0	342354.6	731069	0	31.5	31.6	31.5	31.5	31.6	31.8	31.5
1481_0	342327.1	731072.2	0	35.2	35.4	35.3	35.3	35.5	35.7	35.2
1480_0	342313.3	731077.3	0	41.4	41.8	41.7	41.6	41.9	42.2	41.6
1483_0	342284.6	731066.2	0	40.5	40.7	40.6	40.6	40.8	41.1	40.5

Receptor name	X(m)	Y(m)	Z(m)	Annual Mean NO <sub>2</sub> Concentration (µg/m <sup>3</sup> )						
				BC	SC1	SC2	SC3	SC4	SC5	SC6
1484_0	342277.9	731064.6	0	40.8	41.0	40.9	41.0	41.1	41.5	40.8
1485_0	342271.1	731063	0	41.0	41.3	41.2	41.2	41.4	41.8	41.1
1486_0	342264.9	731061.6	0	41.1	41.4	41.3	41.3	41.5	41.8	41.1
1487_0	342258.4	731060	0	41.0	41.3	41.1	41.2	41.4	41.7	41.0
1488_0	342239.6	731061.3	0	47.3	47.6	47.4	47.5	47.7	48.2	47.3
1489_0	342209.3	731047.3	0	34.0	34.2	34.1	34.1	34.2	34.5	34.0
1473_4.5	342440.1	731088.9	4.5	33.1	33.1	33.0	33.1	33.1	33.2	32.9
1474_4.5	342394.4	731087.9	4.5	33.2	33.3	33.2	33.3	33.4	33.5	33.2
1475_4.5	342357.8	731084.8	4.5	33.8	33.9	33.8	33.9	33.9	34.1	33.8
1482_4.5	342354.6	731069	4.5	30.0	30.2	30.1	30.1	30.2	30.4	30.0
1481_4.5	342327.1	731072.2	4.5	32.5	32.7	32.6	32.6	32.7	32.9	32.5
1480_4.5	342313.3	731077.3	4.5	35.7	36.0	35.9	35.9	36.1	36.3	35.8
1483_4.5	342284.6	731066.2	4.5	35.5	35.6	35.5	35.5	35.7	36.0	35.5
1484_4.5	342277.9	731064.6	4.5	35.5	35.7	35.7	35.7	35.8	36.1	35.6
1485_4.5	342271.1	731063	4.5	35.6	35.8	35.7	35.7	35.9	36.2	35.7
1486_4.5	342264.9	731061.6	4.5	35.6	35.8	35.7	35.7	35.9	36.2	35.7
1487_4.5	342258.4	731060	4.5	35.5	35.7	35.6	35.6	35.7	36.0	35.5
1488_4.5	342239.6	731061.3	4.5	37.8	38.0	37.9	37.9	38.1	38.3	37.8
1489_4.5	342209.3	731047.3	4.5	31.4	31.5	31.4	31.4	31.5	31.7	31.3
1473_7.5	342440.1	731088.9	7.5	29.1	29.1	29.1	29.1	29.1	29.2	29.0
1474_7.5	342394.4	731087.9	7.5	29.3	29.4	29.3	29.4	29.4	29.5	29.3
1475_7.5	342357.8	731084.8	7.5	29.7	29.9	29.8	29.8	29.9	30.0	29.7
1482_7.5	342354.6	731069	7.5	28.2	28.3	28.2	28.3	28.3	28.5	28.2
1481_7.5	342327.1	731072.2	7.5	29.5	29.5	29.5	29.5	29.6	29.7	29.5
1480_7.5	342313.3	731077.3	7.5	30.6	30.8	30.7	30.7	30.8	31.0	30.7
1483_7.5	342284.6	731066.2	7.5	30.4	30.6	30.5	30.5	30.6	30.8	30.4
1484_7.5	342277.9	731064.6	7.5	30.4	30.5	30.4	30.5	30.6	30.7	30.4
1485_7.5	342271.1	731063	7.5	30.4	30.5	30.4	30.4	30.5	30.7	30.4
1486_7.5	342264.9	731061.6	7.5	30.3	30.4	30.3	30.4	30.4	30.6	30.3
1487_7.5	342258.4	731060	7.5	30.1	30.3	30.2	30.2	30.3	30.4	30.1
1488_7.5	342239.6	731061.3	7.5	30.3	30.4	30.3	30.3	30.4	30.6	30.3
1489_7.5	342209.3	731047.3	7.5	28.4	28.5	28.5	28.5	28.6	28.6	28.4
1605_1.5	342265	731104	1.5	37.7	38.0	37.9	37.9	38.1	38.4	37.8
1606_1.5	342245	731099	1.5	37.9	38.2	38.1	38.1	38.3	38.6	38.0
1607_1.5	342227	731096	1.5	35.9	36.1	36.0	36.0	36.2	36.4	36.0
1608_1.5	342210	731091	1.5	34.7	34.9	34.8	34.7	34.9	35.2	34.7
1609_1.5	342187	731086	1.5	31.9	32.1	32.0	31.9	32.1	32.3	31.9
1610_1.5	342153	731078	1.5	23.4	23.5	23.5	23.5	23.5	23.5	23.4
1611_1.5	342123	731071	1.5	23.3	23.3	23.3	23.3	23.3	23.3	23.3
1612_1.5	342111	731069	1.5	23.1	23.1	23.1	23.1	23.2	23.2	23.1
1605_4.5	342265	731104	4.5	33.9	34.1	34.0	33.9	34.2	34.4	33.9
1606_4.5	342245	731099	4.5	33.9	34.0	33.9	33.9	34.1	34.3	33.9
1607_4.5	342227	731096	4.5	32.5	32.7	32.6	32.5	32.7	32.9	32.5
1608_4.5	342210	731091	4.5	31.7	31.8	31.8	31.7	31.9	32.1	31.7
1609_4.5	342187	731086	4.5	30.0	30.2	30.1	30.0	30.2	30.4	30.0
1610_4.5	342153	731078	4.5	23.0	23.1	23.1	23.1	23.1	23.1	23.0
1611_4.5	342123	731071	4.5	22.8	22.9	22.8	22.9	22.9	22.9	22.8
1612_4.5	342111	731069	4.5	22.7	22.7	22.7	22.7	22.7	22.7	22.7
1605_7.5	342265	731104	7.5	29.4	29.5	29.5	29.5	29.6	29.8	29.5
1606_7.5	342245	731099	7.5	29.2	29.4	29.3	29.3	29.4	29.5	29.2
1607_7.5	342227	731096	7.5	28.6	28.7	28.6	28.6	28.7	28.8	28.6
1608_7.5	342210	731091	7.5	28.3	28.4	28.3	28.3	28.4	28.6	28.3
1609_7.5	342187	731086	7.5	27.7	27.8	27.7	27.7	27.8	27.9	27.7
1610_7.5	342153	731078	7.5	22.5	22.5	22.5	22.5	22.5	22.5	22.4
1611_7.5	342123	731071	7.5	22.2	22.3	22.2	22.3	22.3	22.3	22.2
1612_7.5	342111	731069	7.5	22.1	22.1	22.1	22.1	22.2	22.2	22.1
434_4.5	345303.7	732091.3	4.5	26.6	26.7	26.6	26.6	26.7	26.8	26.6
818_4.5	344018.2	731728.5	4.5	25.0	25.1	25.0	25.1	25.3	25.3	25.0
983_4.5	343314.9	731073.8	4.5	31.8	32.7	32.4	30.5	32.9	36.2	32.0
987_4.5	343202.4	731719.5	4.5	29.7	29.8	29.8	29.8	29.9	30.0	29.7
988_4.5	343179.7	731715.4	4.5	32.3	32.5	32.5	32.5	32.6	32.7	32.4

Receptor name	X(m)	Y(m)	Z(m)	Annual Mean NO <sub>2</sub> Concentration (µg/m <sup>3</sup> )						
				BC	SC1	SC2	SC3	SC4	SC5	SC6
989_4.5	343195.3	731717.9	4.5	30.4	30.6	30.5	30.6	30.7	30.7	30.5
990_4.5	343213.3	731721.1	4.5	28.8	29.0	29.0	29.0	29.1	29.1	28.9
991_4.5	343219.4	731725.6	4.5	28.0	28.1	28.1	28.1	28.2	28.3	28.1
992_4.5	343228.9	731726.8	4.5	27.5	27.6	27.6	27.6	27.7	27.8	27.5
993_4.5	343236	731725	4.5	27.4	27.5	27.5	27.5	27.6	27.7	27.5
994_4.5	343244.9	731726.8	4.5	26.9	27.0	26.9	27.0	27.1	27.1	26.9
995_4.5	343253.4	731727.8	4.5	26.5	26.6	26.6	26.6	26.7	26.8	26.5
1039_4.5	343187	731673.5	4.5	30.5	30.7	30.6	30.7	30.7	30.8	30.5
1040_4.5	343209.7	731676.8	4.5	29.2	29.4	29.4	29.4	29.5	29.6	29.3
1041_4.5	343228.9	731680	4.5	28.1	28.3	28.2	28.3	28.4	28.4	28.2
1042_4.5	343250.8	731683.3	4.5	26.8	26.9	26.9	26.9	27.0	27.1	26.9
1043_4.5	343271.7	731686.7	4.5	26.0	26.1	26.1	26.2	26.2	26.3	26.1
1114_4.5	343111.2	731620.6	4.5	26.7	26.8	26.8	26.8	26.9	26.9	26.7
1122_4.5	343152.3	731650.4	4.5	29.2	29.4	29.4	29.4	29.5	29.5	29.3
1246_4.5	343103.9	731753.6	4.5	29.8	29.9	29.9	30.0	30.0	30.1	29.9
1247_4.5	343112.5	731756.7	4.5	29.4	29.5	29.5	29.6	29.6	29.7	29.5
1251_4.5	343039.1	731720.6	4.5	27.7	27.8	27.7	27.8	27.9	27.9	27.7
1252_4.5	343031.5	731726.8	4.5	27.0	27.1	27.1	27.2	27.2	27.3	27.1
1411_4.5	342720.3	731135.8	4.5	25.8	25.7	25.7	25.8	25.7	25.9	25.7
1429_4.5	342765	731117.8	4.5	26.4	26.4	26.3	26.4	26.3	26.5	26.3
1430_4.5	342772.8	731126.7	4.5	26.3	26.3	26.3	26.3	26.3	26.5	26.2
1431_4.5	342714.6	731131.4	4.5	26.2	26.1	26.1	26.1	26.1	26.2	26.1
1432_4.5	342694	731127.4	4.5	26.4	26.3	26.3	26.3	26.3	26.4	26.2
1433_4.5	342690.5	731125.8	4.5	26.6	26.5	26.5	26.5	26.5	26.7	26.5
1434_4.5	342669.3	731119.1	4.5	28.1	28.0	28.0	28.0	28.0	28.2	28.0
1435_4.5	342665.1	731119.5	4.5	28.1	28.0	27.9	28.0	27.9	28.1	27.9
1436_4.5	342648.4	731120.6	4.5	27.8	27.7	27.7	27.7	27.6	27.9	27.6
1437_4.5	342636	731120.8	4.5	27.6	27.5	27.5	27.5	27.5	27.7	27.5
1438_4.5	342619.7	731121.8	4.5	39.3	39.1	39.0	39.0	38.9	39.6	38.9
1439_4.5	342606.7	731122.1	4.5	37.6	37.4	37.3	37.3	37.3	37.9	37.3
1440_4.5	342590.7	731123.3	4.5	35.5	35.3	35.2	35.3	35.2	35.7	35.2
1434_7.5	342669.3	731119.1	7.5	25.3	25.2	25.2	25.2	25.2	25.3	25.2
1435_7.5	342665.1	731119.5	7.5	25.2	25.2	25.2	25.2	25.1	25.3	25.1
1436_7.5	342648.4	731120.6	7.5	25.1	25.0	25.0	25.0	25.0	25.1	25.0
1437_7.5	342636	731120.8	7.5	24.9	24.8	24.8	24.8	24.8	25.0	24.8
1438_7.5	342619.7	731121.8	7.5	32.7	32.5	32.5	32.5	32.5	32.9	32.5
1439_7.5	342606.7	731122.1	7.5	31.8	31.7	31.6	31.7	31.7	32.0	31.6
1440_7.5	342590.7	731123.3	7.5	31.1	31.0	31.0	31.0	31.0	31.3	30.9
1500_4.5	342432.5	731465	4.5	23.9	23.8	23.8	23.8	23.9	23.9	23.8
1613_1.5	342425	731487	1.5	23.7	23.7	23.7	23.7	23.8	23.7	23.7
1613_4.5	342425	731487	4.5	23.0	22.9	22.9	22.9	23.0	23.0	22.9
1614_1.5	343049	731709	1.5	30.1	30.2	30.2	30.3	30.3	30.4	30.1
1614_4.5	343049	731709	4.5	28.4	28.5	28.5	28.5	28.6	28.6	28.4

**PM<sub>10</sub>**

Receptor name	X(m)	Y(m)	Z(m)	Annual Mean PM <sub>10</sub> Concentration (µg/m <sup>3</sup> )						
				BC	SC1	SC2	SC3	SC4	SC5	SC6
F1	342584.6	731114.4	2.58	18.3	18.2	18.2	18.2	18.1	18.4	18.1
F3	342828.8	731229	2.44	15.5	15.4	15.4	15.4	15.5	15.6	15.4
F6	343117.9	731245.4	2.5	13.7	13.7	13.7	13.7	13.8	13.8	13.7
F7	343292.7	731149.4	2.4	15.3	15.4	15.4	15.3	17.0	16.2	15.3
F8	343339.9	731064.7	2.3	17.0	17.5	17.3	15.3	17.4	18.1	17.2
F9	343377.9	731136.3	2.33	15.4	15.7	15.6	15.8	14.3	15.1	15.6
F10	343361.1	731093.3	2.4	18.3	18.7	18.6	18.4	18.0	19.7	18.5
F11	343437.4	731082.8	2.36	16.6	16.8	16.7	16.5	16.7	16.5	16.7
F12	342347.1	731089	2.67	17.5	17.6	17.5	17.6	17.6	17.6	17.5
F14	343879.4	731075.1	2.41	15.0	15.1	15.1	15.1	15.1	15.1	15.0
F16	343705.1	731243.2	2.42	14.8	14.9	14.9	15.0	15.0	15.1	14.9
F17	343319.2	731071.6	1.3	17.6	18.0	17.9	16.0	18.0	19.6	17.8

Receptor name	X(m)	Y(m)	Z(m)	Annual Mean PM <sub>10</sub> Concentration (µg/m <sup>3</sup> )						
				BC	SC1	SC2	SC3	SC4	SC5	SC6
NO2DF7	343082.3	731465.3	2.44	12.9	12.9	12.9	12.9	12.9	12.9	12.9
NO2DF11	343321.9	731073.3	2.69	17.9	18.3	18.2	16.0	18.3	19.9	18.1
NO2DF12	345315.3	732103.3	2.47	16.3	16.3	16.3	16.3	16.4	16.4	16.3
NO2DF26	343107.4	731739.7	2.66	23.7	23.9	23.9	23.9	24.0	24.2	23.8
NO2DF139	343317.5	731072	2.44	16.9	17.2	17.1	15.7	17.2	18.5	17.0
NO2DF140	343296.5	731095.9	2.59	17.2	17.4	17.3	18.2	17.6	17.7	17.2
NO2DF142	343301.7	731075.2	2.32	16.8	17.0	16.9	16.3	17.0	17.8	16.8
NO2DF145	342662.3	731111.8	2.44	21.5	21.4	21.4	21.5	21.3	21.6	21.3
NO2DF155	342353.3	731058.1	2.4	13.7	13.7	13.7	13.7	13.7	13.8	13.7
NO2DF166	343129	731081.1	2.69	15.5	15.6	15.5	15.5	15.5	14.4	15.5
PM10TEOM3	341970	730978	2.93	14.2	14.2	14.2	14.3	14.2	14.2	14.1
PM10Pa13	341971	730978	2.84	14.3	14.2	14.2	14.3	14.2	14.2	14.2
PM10Os16	341970	730977	3	14.1	14.1	14.0	14.1	14.1	14.1	14.0
PM10Os18	343322	731073	3.11	17.3	17.6	17.5	15.8	17.7	19.1	17.4
1	347063.2	732645.8	1.5	14.9	14.9	14.9	14.9	15.0	15.0	14.9
2	347504.7	732757	1.5	11.8	11.8	11.8	11.8	11.8	11.8	11.8
3	347266.6	732757	1.5	12.4	12.4	12.4	12.4	12.4	12.4	12.4
4	347179.7	732587.3	1.5	12.3	12.3	12.3	12.3	12.3	12.3	12.3
5	347292.1	732569.9	1.5	11.9	11.9	11.9	11.9	11.9	11.9	11.9
6	347224.7	732642.5	1.5	13.1	13.1	13.1	13.1	13.1	13.1	13.1
7	347274.8	732660.9	1.5	12.9	12.9	12.9	12.9	13.0	13.0	12.9
8	347145.9	732572	1.5	12.2	12.3	12.3	12.3	12.3	12.3	12.2
9	347110.2	732573	1.5	12.4	12.4	12.4	12.4	12.4	12.4	12.4
10	347066.2	732568.9	1.5	12.4	12.4	12.4	12.4	12.4	12.5	12.4
11	347014.1	732556.7	1.5	12.4	12.4	12.4	12.4	12.4	12.4	12.4
12	346981.4	732551.6	1.5	12.4	12.4	12.4	12.4	12.4	12.4	12.4
13	346919.1	732544.4	1.5	12.4	12.5	12.5	12.5	12.5	12.5	12.4
14	347228.8	732705.1	1.5	14.0	14.1	14.0	14.1	14.1	14.1	14.0
15	347010.5	732301.1	1.5	12.8	12.8	12.8	12.8	12.8	12.8	12.8
16	346886.3	732533.1	1.5	12.4	12.5	12.5	12.5	12.5	12.5	12.4
17	346841.4	732523.9	1.5	12.5	12.6	12.6	12.6	12.6	12.6	12.5
18	346805.6	732513.8	1.5	12.6	12.7	12.7	12.7	12.7	12.7	12.6
19	346777	732503.5	1.5	12.7	12.8	12.8	12.8	12.8	12.8	12.7
20	346732	732479	1.5	12.8	12.9	12.9	12.9	12.9	12.9	12.8
21	346714.6	732472.3	1.5	12.9	13.0	12.9	12.9	13.0	13.0	12.9
22	346737.1	732570.2	1.5	14.2	14.2	14.2	14.2	14.2	14.3	14.2
23	346896.6	732631.5	1.5	14.4	14.4	14.4	14.4	14.4	14.5	14.4
24	346713.6	732252.4	1.5	13.9	13.9	13.9	13.8	13.8	13.9	13.8
25	346739.2	732258.8	1.5	13.8	13.8	13.8	13.8	13.8	13.8	13.8
26	346792.8	732284.3	1.5	12.8	12.8	12.8	12.7	12.7	12.8	12.7
27	346821.4	732290.9	1.5	12.8	12.8	12.8	12.8	12.7	12.8	12.7
28	346871	732305.3	1.5	12.7	12.7	12.7	12.7	12.7	12.7	12.7
29	346896.6	732312.9	1.5	12.6	12.6	12.6	12.6	12.6	12.6	12.6
30	346942.6	732323.1	1.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
31	347002.3	732333.3	1.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
32	346995.2	732368.1	1.5	12.0	12.0	12.0	12.0	12.0	12.0	12.0
33	347022.8	732380.4	1.5	12.0	12.0	12.0	12.0	12.0	12.0	12.0
34	347038.1	732341.5	1.5	12.2	12.2	12.2	12.2	12.2	12.2	12.2
35	347032.5	732308.3	1.5	12.6	12.6	12.6	12.6	12.6	12.6	12.6
36	346980.9	732292.4	1.5	12.8	12.8	12.8	12.8	12.8	12.8	12.8
37	346925.2	732275.6	1.5	12.8	12.8	12.8	12.8	12.8	12.8	12.8
38	346907.8	732271.5	1.5	12.9	12.9	12.9	12.9	12.9	12.9	12.9
39	346881.8	732262.3	1.5	12.8	12.8	12.8	12.8	12.8	12.8	12.8
40	346846	732254.6	1.5	12.8	12.8	12.8	12.8	12.8	12.8	12.8
41	346810.2	732245.9	1.5	12.8	12.8	12.8	12.8	12.8	12.8	12.8
42	346771.9	732235.3	1.5	12.8	12.8	12.8	12.8	12.8	12.8	12.7
43	346727.4	732225	1.5	12.8	12.8	12.8	12.8	12.8	12.8	12.8
44	346649.2	732441.7	1.5	13.2	13.2	13.2	13.2	13.2	13.3	13.2
45	346596.1	732480.8	1.5	15.4	15.5	15.5	15.5	15.5	15.6	15.4
46	346582.8	732472.6	1.5	15.7	15.8	15.8	15.8	15.8	15.9	15.7
47	346554.7	732460.9	1.5	15.3	15.3	15.3	15.4	15.4	15.4	15.3

Receptor name	X(m)	Y(m)	Z(m)	Annual Mean PM <sub>10</sub> Concentration (µg/m <sup>3</sup> )						
				BC	SC1	SC2	SC3	SC4	SC5	SC6
48	346600.2	732417.9	1.5	13.3	13.3	13.3	13.3	13.4	13.4	13.3
49	346565.9	732400	1.5	13.3	13.3	13.3	13.3	13.3	13.4	13.3
50	346532.2	732388.8	1.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5
51	346498.5	732373.4	1.5	13.5	13.6	13.6	13.5	13.6	13.6	13.5
52	346459.6	732360.2	1.5	13.8	13.9	13.8	13.8	13.9	13.9	13.8
53	346403.9	732401.1	1.5	15.8	15.8	15.8	15.8	15.9	15.9	15.8
54	346475.5	732425.6	1.5	16.0	16.1	16.1	16.1	16.1	16.2	16.0
55	346632.9	732509.9	1.5	14.2	14.2	14.2	14.2	14.2	14.3	14.2
56	346464.2	732331.1	1.5	13.1	13.1	13.1	13.1	13.2	13.2	13.1
57	346471.4	732296.3	1.5	12.7	12.8	12.7	12.7	12.8	12.8	12.7
58	346492.8	732258.5	1.5	12.6	12.6	12.6	12.6	12.6	12.6	12.6
59	346511.3	732215.6	1.5	13.1	13.1	13.1	13.1	13.1	13.1	13.0
60	346549.1	732224.8	1.5	13.0	13.0	13.0	13.0	13.0	13.0	13.0
61	346582.8	732236	1.5	12.8	12.8	12.8	12.8	12.8	12.9	12.8
62	346620.6	732238	1.5	13.1	13.1	13.1	13.1	13.1	13.1	13.1
63	346658.4	732251.3	1.5	12.9	12.9	12.9	12.9	12.9	12.9	12.8
64	346651.3	732208.1	1.5	12.9	12.9	12.9	12.9	12.9	12.9	12.9
65	346622.1	732201.5	1.5	13.0	13.0	13.0	13.0	13.0	13.0	12.9
66	346583.3	732192.3	1.5	13.0	13.0	13.0	13.0	13.0	13.0	13.0
67	346546.5	732183.6	1.5	13.1	13.1	13.1	13.1	13.1	13.1	13.0
68	346509.7	732174.4	1.5	13.1	13.1	13.1	13.1	13.1	13.1	13.1
69	346484.7	732169.8	1.5	13.3	13.3	13.3	13.3	13.3	13.3	13.3
70	346450.4	732156	1.5	13.3	13.4	13.4	13.4	13.4	13.4	13.3
71	346397.8	732137.6	1.5	14.2	14.2	14.2	14.2	14.2	14.3	14.2
72	346429	732142.2	1.5	13.3	13.3	13.3	13.3	13.3	13.3	13.3
73	346466.3	732134.6	1.5	12.6	12.6	12.6	12.6	12.6	12.6	12.6
74	346490.3	732142.2	1.5	12.5	12.5	12.5	12.5	12.5	12.6	12.5
75	346373.8	732114.1	1.5	13.6	13.6	13.6	13.6	13.6	13.7	13.6
76	346358.4	732105.9	1.5	13.8	13.8	13.8	13.8	13.8	13.9	13.8
77	346342.6	732088.1	1.5	13.4	13.4	13.4	13.4	13.4	13.4	13.3
78	346323.2	732087.6	1.5	14.9	14.9	14.9	14.9	14.9	15.0	14.8
79	346373.8	732155	1.5	13.6	13.6	13.6	13.6	13.6	13.7	13.6
80	346354.9	732141.7	1.5	13.3	13.3	13.3	13.3	13.3	13.4	13.3
81	346340	732131.5	1.5	13.2	13.2	13.2	13.2	13.2	13.2	13.2
82	346321.7	732118.2	1.5	13.1	13.1	13.1	13.1	13.1	13.2	13.1
83	346303.3	732101.3	1.5	13.3	13.3	13.3	13.3	13.3	13.3	13.2
84	346277.7	732087	1.5	13.2	13.2	13.2	13.2	13.2	13.3	13.2
85	346240.4	732077.8	1.5	13.1	13.1	13.1	13.1	13.1	13.1	13.1
86	346211.8	732070.7	1.5	13.1	13.1	13.1	13.1	13.1	13.1	13.1
87	346203.1	732041	1.5	14.7	14.6	14.6	14.7	14.6	14.7	14.6
88	346236.3	732043.6	1.5	13.5	13.5	13.5	13.5	13.5	13.5	13.4
89	346268	732058.4	1.5	14.0	14.0	14.0	14.0	14.0	14.1	14.0
90	346288.9	732059.9	1.5	13.5	13.5	13.5	13.5	13.5	13.5	13.4
91	346380.9	732159.6	1.5	13.9	13.9	13.9	13.9	13.9	13.9	13.8
92	346302.8	732063.5	1.5	13.4	13.4	13.4	13.4	13.4	13.4	13.3
93	346208.7	731885.7	1.5	12.7	12.7	12.7	12.7	12.7	12.7	12.7
94	346214.8	731872.4	1.5	12.6	12.6	12.6	12.6	12.6	12.6	12.6
95	346314.5	731770.2	1.5	11.8	11.8	11.8	11.8	11.8	11.8	11.8
96	346285.3	731858.6	1.5	12.0	12.0	12.0	12.0	12.0	12.0	11.9
97	346182.6	731868.8	1.5	12.7	12.7	12.7	12.7	12.7	12.8	12.7
98	346178.6	731958.8	1.5	13.0	13.0	13.0	13.0	13.0	13.0	12.9
99	346131.5	732051.8	1.5	13.1	13.1	13.1	13.1	13.1	13.1	13.1
100	346178.6	732066.6	1.5	13.0	12.9	12.9	13.0	13.0	13.0	12.9
101	346148.4	732057.9	1.5	13.0	13.0	13.0	13.0	13.0	13.0	13.0
102	346145.8	732025.2	1.5	15.1	15.1	15.1	15.1	15.1	15.2	15.1
103	346160.2	732029.3	1.5	14.7	14.7	14.7	14.7	14.7	14.8	14.7
104	346116.2	732047.2	1.5	13.2	13.2	13.2	13.2	13.2	13.2	13.2
105	346126.4	732021.6	1.5	14.9	14.9	14.9	14.8	14.8	14.9	14.8
106	346100.4	732012.4	1.5	13.5	13.5	13.5	13.5	13.5	13.5	13.4
107	346101.4	732043.6	1.5	13.2	13.2	13.2	13.2	13.2	13.3	13.2
108	346083	732040.5	1.5	13.2	13.2	13.2	13.2	13.2	13.3	13.2

Receptor name	X(m)	Y(m)	Z(m)	Annual Mean PM <sub>10</sub> Concentration (µg/m <sup>3</sup> )						
				BC	SC1	SC2	SC3	SC4	SC5	SC6
109	346082	732010.9	1.5	13.5	13.5	13.5	13.5	13.5	13.5	13.4
110	346136.7	731988.4	1.5	13.3	13.3	13.3	13.3	13.3	13.3	13.2
111	346155	732002.7	1.5	13.8	13.8	13.7	13.7	13.8	13.8	13.7
112	346145.3	731966.4	1.5	13.1	13.1	13.1	13.1	13.1	13.1	13.1
113	346172.4	731970	1.5	13.1	13.1	13.1	13.1	13.1	13.2	13.1
114	346153	731946.5	1.5	13.0	13.0	13.0	13.0	13.0	13.0	13.0
115	346159.7	731929.6	1.5	12.9	12.9	12.9	12.9	12.9	13.0	12.9
116	346182.1	731933.2	1.5	13.3	13.2	13.2	13.2	13.3	13.3	13.2
117	346165.8	731911.8	1.5	12.8	12.8	12.8	12.8	12.8	12.9	12.8
118	346192.3	731909.7	1.5	13.1	13.1	13.1	13.1	13.1	13.2	13.1
119	346171.9	731894.4	1.5	12.8	12.8	12.8	12.8	12.8	12.8	12.7
120	346191.8	731843.3	1.5	12.5	12.5	12.5	12.5	12.5	12.5	12.4
121	346197.5	731829.9	1.5	12.4	12.4	12.4	12.4	12.4	12.4	12.4
122	346207.2	731820.8	1.5	12.7	12.7	12.7	12.7	12.7	12.7	12.7
123	346209.2	731789.1	1.5	12.2	12.2	12.2	12.2	12.2	12.3	12.2
124	346181.1	731785	1.5	11.9	11.9	11.9	11.9	11.9	11.9	11.9
125	346213.8	731759.4	1.5	11.9	11.9	11.9	11.9	11.9	11.9	11.9
126	346101.4	731981.8	1.5	12.5	12.5	12.5	12.5	12.5	12.6	12.5
127	346113.7	731968.4	1.5	12.4	12.4	12.4	12.4	12.5	12.5	12.4
128	346167.3	731836.6	1.5	12.1	12.1	12.1	12.1	12.1	12.1	12.0
129	346149.4	731867.3	1.5	12.1	12.1	12.1	12.1	12.1	12.1	12.1
130	346354.9	732387.3	1.5	16.5	16.5	16.5	16.5	16.6	16.6	16.5
131	346325.2	732396.4	1.5	14.3	14.4	14.3	14.4	14.4	14.4	14.3
132	346302.8	732432.3	1.5	12.7	12.7	12.7	12.7	12.8	12.8	12.7
133	346323.7	732276.1	1.5	13.7	13.7	13.7	13.7	13.7	13.7	13.7
134	346332.9	732252.1	1.5	13.2	13.3	13.3	13.2	13.3	13.3	13.2
135	346343.6	732227.1	1.5	13.1	13.1	13.1	13.1	13.1	13.1	13.0
136	346355.4	732199.9	1.5	13.0	13.0	13.0	13.0	13.0	13.1	13.0
137	346285.9	732266.9	1.5	13.3	13.3	13.3	13.3	13.3	13.3	13.3
138	346250.6	732251.6	1.5	13.0	13.0	13.0	13.0	13.1	13.1	13.0
139	346236.3	732245.7	1.5	12.9	13.0	13.0	12.9	13.0	13.0	12.9
140	346206.2	732237.5	1.5	12.8	12.9	12.9	12.9	12.9	12.9	12.8
141	346190.3	732234.9	1.5	12.8	12.9	12.9	12.8	12.9	12.9	12.8
142	346150.4	732222.2	1.5	12.7	12.7	12.7	12.7	12.8	12.8	12.7
143	346132.6	732219.6	1.5	12.7	12.7	12.7	12.7	12.8	12.8	12.7
144	346106.5	732214.5	1.5	12.7	12.7	12.7	12.7	12.7	12.7	12.7
145	346046.2	732204.3	1.5	12.7	12.7	12.7	12.7	12.7	12.7	12.7
146	346031.4	732203.8	1.5	12.7	12.7	12.7	12.7	12.8	12.8	12.7
147	346013	732201.3	1.5	12.7	12.7	12.7	12.7	12.8	12.8	12.7
148	345994.1	732198.7	1.5	12.7	12.8	12.8	12.8	12.8	12.8	12.7
149	346023.7	732324.9	1.5	12.7	12.7	12.7	12.7	12.7	12.7	12.7
150	346241.4	732345.4	1.5	14.9	14.9	14.9	14.9	15.0	15.0	14.9
151	346113.7	732309.6	1.5	14.0	14.0	14.0	14.0	14.1	14.1	14.0
152	345983.3	732279.4	1.5	14.5	14.6	14.6	14.6	14.6	14.6	14.5
153	345950.1	732181.8	1.5	12.6	12.7	12.7	12.7	12.7	12.7	12.6
154	345916.4	732177.2	1.5	12.7	12.7	12.7	12.7	12.7	12.7	12.7
155	345887.8	732173.1	1.5	12.7	12.8	12.7	12.7	12.8	12.8	12.7
156	345852.5	732168.5	1.5	12.8	12.8	12.8	12.8	12.9	12.9	12.8
157	345825.4	732169.6	1.5	13.0	13.0	13.0	13.0	13.0	13.0	13.0
158	345793.8	732164.9	1.5	13.1	13.1	13.1	13.1	13.2	13.2	13.1
159	345914.3	732268.7	1.5	14.4	14.4	14.4	14.4	14.4	14.5	14.4
160	345790.7	732235.5	1.5	14.6	14.6	14.6	14.6	14.7	14.7	14.6
161	345933.3	732020.1	1.5	13.2	13.2	13.2	13.2	13.2	13.2	13.2
162	346067.7	732039	1.5	13.2	13.2	13.2	13.2	13.2	13.2	13.1
163	346063.6	732007.8	1.5	13.4	13.4	13.4	13.4	13.4	13.4	13.4
164	346046.7	732005.3	1.5	13.3	13.3	13.3	13.3	13.3	13.4	13.3
165	346053.9	732035.9	1.5	13.2	13.2	13.2	13.2	13.2	13.3	13.2
166	346039.5	732033.9	1.5	13.2	13.2	13.2	13.2	13.2	13.3	13.2
167	346030.3	732003.2	1.5	13.3	13.3	13.3	13.3	13.3	13.4	13.3
168	346022.2	732030.8	1.5	13.3	13.3	13.3	13.3	13.3	13.3	13.3
169	346005.8	732030.3	1.5	13.1	13.2	13.2	13.2	13.2	13.2	13.1

Receptor name	X(m)	Y(m)	Z(m)	Annual Mean PM <sub>10</sub> Concentration (µg/m <sup>3</sup> )						
				BC	SC1	SC2	SC3	SC4	SC5	SC6
170	346016.6	732001.7	1.5	13.4	13.4	13.4	13.4	13.4	13.4	13.3
171	345991	732028.3	1.5	13.2	13.2	13.2	13.2	13.2	13.2	13.1
172	346001.8	732000.1	1.5	13.4	13.4	13.4	13.4	13.4	13.4	13.4
173	345989.5	731998.6	1.5	13.4	13.4	13.4	13.4	13.4	13.5	13.4
174	345979.8	732025.2	1.5	13.3	13.3	13.3	13.3	13.3	13.3	13.3
175	345962.4	732024.2	1.5	13.2	13.2	13.2	13.2	13.2	13.2	13.2
176	345967.5	731993	1.5	13.2	13.2	13.2	13.2	13.2	13.3	13.2
177	345944.5	732021.1	1.5	13.2	13.2	13.2	13.2	13.2	13.3	13.2
178	345916.4	732017.5	1.5	13.2	13.2	13.2	13.2	13.2	13.3	13.2
179	345927.1	731985.8	1.5	13.2	13.2	13.2	13.2	13.2	13.2	13.2
180	345934.3	731966.9	1.5	12.6	12.6	12.6	12.6	12.6	12.6	12.6
181	345966.5	731957.2	1.5	12.3	12.4	12.4	12.4	12.4	12.4	12.3
182	345799.6	731302.6	1.5	12.2	12.2	12.2	12.2	12.2	12.2	12.2
183	345765.9	731687.8	1.5	12.0	12.0	12.0	12.0	12.0	12.0	12.0
184	345782.8	731664.8	1.5	12.0	12.0	12.0	12.0	12.0	12.0	12.0
185	345756.2	731661.3	1.5	12.1	12.1	12.1	12.1	12.1	12.1	12.1
186	345758.8	731464	1.5	13.9	13.9	13.9	13.9	13.9	13.9	13.9
187	345779.7	731474.2	1.5	14.1	14.1	14.1	14.1	14.1	14.1	14.1
188	345764.3	731488	1.5	13.4	13.5	13.4	13.4	13.4	13.4	13.4
189	345787.9	731436.9	1.5	12.8	12.8	12.8	12.8	12.8	12.8	12.8
190	345812.9	731469.8	1.5	13.1	13.1	13.1	13.1	13.1	13.1	13.1
191	345825.7	731460.1	1.5	13.5	13.5	13.5	13.4	13.4	13.4	13.4
192	345840.5	731450.8	1.5	13.4	13.4	13.4	13.4	13.4	13.4	13.4
193	345880.9	731362.4	1.5	12.6	12.6	12.6	12.6	12.6	12.6	12.6
194	345858.9	731330.8	1.5	13.0	13.0	13.0	13.0	13.0	12.9	12.9
195	345875.3	731290.9	1.5	12.1	12.1	12.1	12.1	12.1	12.1	12.1
196	345866.6	731264.8	1.5	12.0	12.0	12.0	12.0	12.0	12.0	12.0
197	345952.4	731346.1	1.5	11.9	11.9	11.9	11.9	11.9	11.9	11.9
198	345925.3	731398.7	1.5	12.1	12.1	12.1	12.1	12.1	12.1	12.1
199	345821.6	731284.3	1.5	13.3	13.4	13.4	13.3	13.3	13.3	13.3
200	345822.6	731335.9	1.5	13.4	13.4	13.4	13.4	13.4	13.4	13.4
201	345823.6	731382.4	1.5	13.4	13.4	13.4	13.4	13.4	13.4	13.4
202	345823.1	731414.1	1.5	13.4	13.5	13.4	13.4	13.4	13.4	13.4
203	345767.2	732032.9	1.5	12.7	12.7	12.7	12.7	12.7	12.7	12.6
204	345894.9	731984.3	1.5	13.6	13.6	13.6	13.6	13.6	13.6	13.6
205	345888.3	731973.6	1.5	13.4	13.4	13.4	13.4	13.4	13.5	13.4
206	345890.3	731954.7	1.5	13.1	13.1	13.1	13.1	13.1	13.1	13.1
207	345892.4	731945.4	1.5	12.9	12.9	12.9	12.9	12.9	12.9	12.9
208	345893.4	731930.1	1.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
209	345896.5	731916.8	1.5	12.3	12.3	12.3	12.3	12.3	12.3	12.3
210	345897	731903.1	1.5	12.2	12.2	12.2	12.2	12.2	12.2	12.2
211	345877.6	731897.4	1.5	12.1	12.2	12.2	12.2	12.2	12.2	12.1
212	345874	731922.9	1.5	12.4	12.4	12.4	12.4	12.4	12.4	12.3
213	345870.4	731944.9	1.5	12.7	12.7	12.7	12.7	12.8	12.8	12.7
214	345865.3	731979.7	1.5	13.5	13.5	13.5	13.5	13.6	13.6	13.5
215	345853	731941.9	1.5	12.4	12.5	12.5	12.5	12.5	12.5	12.4
216	345856.6	731921.4	1.5	12.3	12.3	12.3	12.3	12.3	12.3	12.3
217	345849.4	731977.1	1.5	13.2	13.2	13.2	13.2	13.3	13.3	13.2
218	345834.1	731974.6	1.5	13.1	13.1	13.1	13.1	13.2	13.2	13.1
219	345817.3	731973.1	1.5	13.2	13.2	13.2	13.2	13.2	13.2	13.2
220	345793.8	731969.5	1.5	13.2	13.2	13.2	13.2	13.2	13.2	13.1
221	345766.1	731971.5	1.5	13.7	13.7	13.7	13.7	13.8	13.8	13.7
222	345767.2	731996.1	1.5	13.3	13.3	13.3	13.3	13.4	13.4	13.3
223	345799.9	731997.1	1.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5
224	345829	732004.8	1.5	13.2	13.2	13.2	13.2	13.2	13.2	13.2
225	345854.6	732009.3	1.5	13.2	13.2	13.2	13.1	13.2	13.2	13.1
226	345873.5	732011.4	1.5	13.2	13.2	13.2	13.2	13.2	13.2	13.2
227	345887.3	732013.4	1.5	13.2	13.2	13.2	13.2	13.3	13.3	13.2
228	345902.6	732015.5	1.5	13.2	13.3	13.3	13.2	13.3	13.3	13.2
229	345797.8	732065.6	1.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
230	345764.1	732065.6	1.5	12.5	12.5	12.5	12.5	12.6	12.6	12.5

Receptor name	X(m)	Y(m)	Z(m)	Annual Mean PM <sub>10</sub> Concentration (µg/m <sup>3</sup> )						
				BC	SC1	SC2	SC3	SC4	SC5	SC6
231	345682.3	731953.6	1.5	13.6	13.6	13.6	13.6	13.6	13.6	13.5
232	345749.8	731965.9	1.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5
233	345751.8	731993.5	1.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5
234	345743.7	732029.8	1.5	12.8	12.8	12.8	12.8	12.8	12.8	12.8
235	345735	732060.9	1.5	12.6	12.6	12.6	12.6	12.6	12.6	12.6
236	345713	732058.4	1.5	12.6	12.6	12.6	12.6	12.6	12.6	12.6
237	345685.4	732053.3	1.5	12.6	12.6	12.6	12.6	12.6	12.6	12.6
238	345659.8	732043.6	1.5	12.6	12.6	12.6	12.6	12.6	12.6	12.6
239	345636.3	732018.6	1.5	12.6	12.6	12.6	12.6	12.6	12.6	12.6
240	345632.8	732028.3	1.5	12.6	12.6	12.6	12.6	12.6	12.6	12.6
241	345632.3	732037.9	1.5	12.6	12.6	12.6	12.6	12.6	12.6	12.6
242	345710.9	731988.4	1.5	13.6	13.7	13.7	13.7	13.7	13.7	13.6
243	345692.6	731986.3	1.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5
244	345671.1	731983.8	1.5	13.2	13.3	13.3	13.3	13.3	13.3	13.2
245	345657.8	731981.8	1.5	13.1	13.1	13.1	13.1	13.2	13.2	13.1
246	345647.6	731981.3	1.5	13.0	13.0	13.0	13.0	13.1	13.1	13.0
247	345637.4	731980.2	1.5	13.0	13.0	13.0	13.0	13.0	13.0	12.9
248	345628.2	731980.2	1.5	12.9	12.9	12.9	12.9	12.9	12.9	12.9
249	345618.5	731976.1	1.5	13.0	13.0	13.0	13.0	13.0	13.0	12.9
250	345609.3	731975.1	1.5	12.9	12.9	12.9	12.9	13.0	13.0	12.9
251	345708.9	731958.8	1.5	13.6	13.6	13.6	13.6	13.7	13.7	13.6
252	345731.4	731962.3	1.5	13.6	13.6	13.6	13.6	13.6	13.6	13.6
253	345663.4	731936.3	1.5	13.2	13.2	13.2	13.2	13.3	13.3	13.2
254	345636.3	731943.4	1.5	13.1	13.1	13.1	13.1	13.2	13.2	13.1
255	345614.9	731948	1.5	13.1	13.1	13.1	13.1	13.1	13.1	13.1
256	345597.5	731944.4	1.5	13.0	13.0	13.0	13.0	13.0	13.0	13.0
257	345589.3	731943.9	1.5	13.0	13.0	13.0	13.0	13.0	13.0	13.0
258	345596.5	731974.1	1.5	12.9	12.9	12.9	12.9	13.0	13.0	12.9
259	345665.5	732082.7	1.5	12.7	12.7	12.7	12.7	12.7	12.7	12.7
260	345678.8	732084.2	1.5	12.7	12.7	12.7	12.7	12.7	12.7	12.7
261	345630.7	732060.2	1.5	12.6	12.7	12.7	12.7	12.7	12.7	12.6
262	345753.9	732156.8	1.5	13.3	13.3	13.3	13.3	13.4	13.4	13.3
263	345728.3	732154.8	1.5	13.6	13.6	13.6	13.6	13.7	13.7	13.6
264	345710.9	732146.1	1.5	13.5	13.5	13.5	13.5	13.6	13.6	13.5
265	345655.8	732193.6	1.5	14.4	14.5	14.4	14.4	14.5	14.5	14.4
266	345685.4	732133.8	1.5	13.4	13.4	13.4	13.4	13.5	13.5	13.4
267	345664.4	732131.3	1.5	13.5	13.6	13.6	13.6	13.6	13.6	13.5
268	345643.5	732125.1	1.5	13.5	13.6	13.5	13.6	13.6	13.6	13.5
269	345626.1	732122.6	1.5	13.6	13.6	13.6	13.6	13.7	13.7	13.6
270	345602.6	732116.9	1.5	13.6	13.6	13.6	13.6	13.7	13.7	13.6
271	345717.3	731681.2	1.5	12.1	12.2	12.2	12.1	12.2	12.2	12.1
272	345551.3	731649.8	1.5	12.6	12.7	12.7	12.7	12.7	12.7	12.7
273	345570.2	731646.2	1.5	12.7	12.7	12.7	12.7	12.7	12.7	12.7
274	345601.3	731625.8	1.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
275	345635.1	731624.8	1.5	12.9	13.0	13.0	12.9	12.9	12.9	12.9
276	345649.9	731601.8	1.5	12.7	12.7	12.7	12.7	12.7	12.7	12.7
277	345564.5	731673.5	1.5	13.0	13.1	13.1	13.1	13.1	13.1	13.1
278	345581.4	731666.4	1.5	13.1	13.2	13.2	13.2	13.2	13.2	13.2
279	345616.2	731661.3	1.5	12.7	12.7	12.7	12.7	12.7	12.7	12.7
280	345632.5	731671	1.5	12.4	12.4	12.4	12.4	12.4	12.4	12.4
281	345666.3	731675.1	1.5	12.3	12.3	12.3	12.3	12.3	12.3	12.3
282	345697.9	731678.6	1.5	12.2	12.2	12.2	12.2	12.2	12.2	12.2
283	345749.5	731685.8	1.5	12.1	12.1	12.1	12.1	12.1	12.1	12.1
284	345738.8	731658.2	1.5	12.2	12.2	12.2	12.2	12.2	12.2	12.2
285	345729.6	731654.1	1.5	12.2	12.2	12.2	12.2	12.2	12.2	12.2
286	345706.6	731650	1.5	12.2	12.3	12.3	12.2	12.3	12.3	12.2
287	345675.4	731647.4	1.5	12.4	12.4	12.4	12.4	12.4	12.4	12.4
288	345681.6	731610.2	1.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
289	345693.3	731584.6	1.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
290	345701.5	731567.3	1.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
291	345710.7	731551.4	1.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5



Receptor name	X(m)	Y(m)	Z(m)	Annual Mean PM <sub>10</sub> Concentration (µg/m <sup>3</sup> )						
				BC	SC1	SC2	SC3	SC4	SC5	SC6
292	345714.8	731537.6	1.5	12.7	12.7	12.7	12.7	12.7	12.7	12.7
293	345724.5	731507.9	1.5	13.9	13.9	13.9	13.9	13.9	13.9	13.9
294	345682.6	731491.6	1.5	13.2	13.3	13.2	13.2	13.2	13.2	13.2
295	345700	731480.9	1.5	13.1	13.2	13.1	13.1	13.1	13.1	13.1
296	345718.9	731473.7	1.5	13.3	13.3	13.3	13.3	13.3	13.3	13.3
297	345664.7	731633.4	1.5	12.6	12.6	12.6	12.6	12.6	12.6	12.6
298	345654.7	731921.9	1.5	13.0	13.1	13.1	13.1	13.1	13.1	13.0
299	345648.6	731915.3	1.5	13.1	13.1	13.1	13.1	13.1	13.1	13.1
300	345643.5	731908.1	1.5	13.0	13.0	13.0	13.0	13.1	13.1	13.0
301	345639.9	731901.5	1.5	13.0	13.0	13.0	13.0	13.0	13.0	13.0
302	345628.7	731885.7	1.5	12.9	12.9	12.9	12.9	13.0	13.0	12.9
303	345625.1	731880.6	1.5	12.9	12.9	12.9	12.9	12.9	13.0	12.9
304	345616.4	731866.3	1.5	12.8	12.9	12.8	12.9	12.9	12.9	12.8
305	345607.2	731852.4	1.5	12.8	12.8	12.8	12.8	12.8	12.9	12.8
306	345624.6	731921.4	1.5	13.0	13.0	13.0	13.0	13.0	13.0	13.0
307	345613.3	731906.6	1.5	12.8	12.8	12.8	12.8	12.9	12.9	12.8
308	345609.3	731900.5	1.5	12.8	12.8	12.8	12.8	12.8	12.9	12.8
309	345597.5	731884.1	1.5	12.7	12.8	12.7	12.8	12.8	12.8	12.7
310	345594.4	731878	1.5	12.8	12.8	12.8	12.8	12.8	12.8	12.8
311	345584.2	731864.7	1.5	12.7	12.7	12.7	12.7	12.7	12.8	12.7
312	345575	731851.9	1.5	12.7	12.7	12.7	12.7	12.7	12.7	12.7
313	345599.5	731842.3	1.5	12.8	12.8	12.8	12.8	12.8	12.9	12.8
314	345590.3	731829.9	1.5	12.8	12.8	12.8	12.8	12.9	12.9	12.8
315	345566.8	731842.3	1.5	12.6	12.6	12.6	12.6	12.6	12.7	12.6
316	345559.7	731830.5	1.5	12.6	12.6	12.6	12.6	12.7	12.7	12.6
317	345584.7	731821.8	1.5	12.8	12.8	12.8	12.8	12.8	12.9	12.8
318	345577.1	731811.1	1.5	12.8	12.8	12.8	12.8	12.9	12.9	12.8
319	345553	731822.1	1.5	12.6	12.6	12.6	12.6	12.6	12.6	12.6
320	345545.4	731811.3	1.5	12.6	12.6	12.6	12.6	12.6	12.6	12.6
321	345568.9	731802.1	1.5	12.9	12.9	12.9	12.9	12.9	13.0	12.9
322	345559.7	731788.3	1.5	12.9	12.9	12.9	12.9	12.9	13.0	12.9
323	345551	731774.5	1.5	12.9	12.9	12.9	12.9	12.9	12.9	12.9
324	345544.3	731764.8	1.5	12.9	12.9	12.9	12.9	12.9	13.0	12.9
325	345535.7	731752.6	1.5	12.9	12.9	12.9	12.9	12.9	13.0	12.9
326	345523.9	731732.6	1.5	12.9	12.9	12.9	12.9	12.9	13.0	12.9
327	345538.7	731802.1	1.5	12.6	12.6	12.6	12.6	12.6	12.6	12.6
328	345532.1	731791.4	1.5	12.6	12.6	12.6	12.6	12.6	12.7	12.6
329	345526.5	731779.6	1.5	12.7	12.7	12.7	12.7	12.7	12.8	12.7
330	345516.8	731768.9	1.5	12.6	12.7	12.7	12.7	12.7	12.7	12.6
331	345558.2	731940.4	1.5	13.0	13.0	13.0	13.0	13.0	13.0	13.0
332	345573	731941.9	1.5	13.0	13.0	13.0	13.0	13.0	13.0	12.9
333	345580.6	731972.1	1.5	12.9	12.9	12.9	12.9	13.0	13.0	12.9
334	345571.4	731970.5	1.5	12.9	12.9	12.9	12.9	13.0	13.0	12.9
335	345562.8	731969.5	1.5	12.9	12.9	12.9	12.9	13.0	13.0	12.9
336	345552.5	731968.4	1.5	12.9	12.9	12.9	12.9	13.0	13.0	12.9
337	345543.8	731967.4	1.5	12.9	13.0	12.9	12.9	13.0	13.0	12.9
338	345535.2	731966.4	1.5	13.0	13.0	13.0	13.0	13.0	13.0	12.9
339	345529.5	731936	1.5	12.9	12.9	12.9	12.9	13.0	13.0	12.9
340	345501.4	731964.1	1.5	13.0	13.0	13.0	13.0	13.1	13.1	13.0
341	345486.1	731964.1	1.5	13.1	13.1	13.1	13.1	13.2	13.2	13.1
342	345505.5	731933.4	1.5	12.9	12.9	12.9	12.9	13.0	13.0	12.9
343	345482.5	731930.4	1.5	12.8	12.8	12.8	12.8	12.9	12.9	12.8
344	345475.9	731929.9	1.5	12.8	12.8	12.8	12.8	12.9	12.8	12.8
345	345472.8	731966.1	1.5	13.2	13.2	13.2	13.2	13.3	13.2	13.2
346	345472.8	732075	1.5	13.5	13.5	13.5	13.5	13.6	13.6	13.5
347	345487.6	732083.7	1.5	13.5	13.5	13.5	13.5	13.6	13.6	13.5
348	345502.4	732089.3	1.5	13.5	13.5	13.5	13.5	13.6	13.6	13.5
349	345521.9	732106.2	1.5	13.7	13.8	13.8	13.8	13.9	13.9	13.7
350	345544.8	732111.8	1.5	13.8	13.8	13.8	13.8	13.9	13.9	13.8
351	345552	732117.4	1.5	14.0	14.0	14.0	14.0	14.1	14.1	14.0
352	345663.7	731531.7	1.5	13.2	13.2	13.2	13.2	13.2	13.2	13.2

Receptor name	X(m)	Y(m)	Z(m)	Annual Mean PM <sub>10</sub> Concentration (µg/m <sup>3</sup> )						
				BC	SC1	SC2	SC3	SC4	SC5	SC6
353	345353.5	731599.4	1.5	12.7	12.7	12.7	12.7	12.7	12.7	12.7
354	345353.5	731626.5	1.5	12.4	12.4	12.4	12.4	12.4	12.4	12.4
355	345368.8	731541.7	1.5	14.3	14.3	14.3	14.3	14.3	14.3	14.3
356	345383.6	731543.2	1.5	15.0	15.1	15.0	15.1	15.0	15.1	15.0
357	345413.8	731535	1.5	13.8	13.9	13.9	13.9	13.9	13.9	13.8
358	345437.3	731530.4	1.5	13.6	13.6	13.6	13.6	13.6	13.6	13.6
359	345451.6	731531.4	1.5	13.9	14.0	13.9	14.0	13.9	14.0	13.9
360	345449.6	731496.7	1.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
361	345438.8	731581	1.5	12.9	12.9	12.9	12.9	12.9	12.9	12.9
362	345469	731632.1	1.5	13.6	13.7	13.7	13.7	13.7	13.8	13.7
363	345490.9	731561.4	1.5	13.4	13.5	13.5	13.5	13.5	13.5	13.5
364	345476.6	731591.5	1.5	14.2	14.4	14.4	14.4	14.3	14.5	14.4
365	345490.4	731626.3	1.5	13.0	13.1	13.1	13.1	13.1	13.2	13.1
366	345625.9	731537.3	1.5	12.9	12.9	12.9	12.9	12.9	12.9	12.9
367	345586	731542.9	1.5	12.9	12.9	12.9	12.9	12.9	12.9	12.9
368	345551.3	731549.1	1.5	12.9	12.9	12.9	12.9	12.9	12.9	12.9
369	345522.6	731552.1	1.5	13.1	13.1	13.1	13.1	13.1	13.1	13.1
370	345627.9	731582.6	1.5	12.4	12.4	12.4	12.4	12.4	12.4	12.4
371	345512.4	731522.3	1.5	13.2	13.3	13.2	13.2	13.2	13.2	13.2
372	345541.5	731522.3	1.5	13.6	13.7	13.6	13.6	13.6	13.6	13.6
373	345580.9	731506.9	1.5	12.8	12.8	12.8	12.8	12.8	12.8	12.8
374	345606.4	731501.3	1.5	12.7	12.8	12.7	12.7	12.7	12.7	12.7
375	345623.3	731502.3	1.5	12.9	13.0	12.9	12.9	12.9	12.9	12.9
376	345650.4	731497.2	1.5	13.0	13.0	13.0	13.0	12.9	12.9	13.0
377	345480.7	731448.8	1.5	12.2	12.2	12.2	12.2	12.2	12.2	12.2
378	345466.9	731413	1.5	12.3	12.3	12.3	12.3	12.3	12.3	12.3
379	345443.4	731396.7	1.5	12.0	12.0	12.0	12.0	12.0	12.0	12.0
380	345440.3	731358.3	1.5	11.9	12.0	11.9	11.9	12.0	12.0	11.9
381	345435.8	731323.6	1.5	11.9	11.9	11.9	11.9	11.9	11.9	11.9
382	345439.8	731300.6	1.5	11.9	11.9	11.9	11.9	11.9	11.9	11.9
383	345435.8	731270.9	1.5	11.7	11.7	11.7	11.7	11.7	11.7	11.7
384	345461.8	731268.9	1.5	11.7	11.7	11.7	11.7	11.7	11.7	11.7
385	345471.5	731294.4	1.5	11.8	11.8	11.8	11.8	11.8	11.8	11.8
386	345474.6	731366.5	1.5	12.0	12.0	12.0	12.0	12.0	12.0	12.0
387	345357.1	731670.4	1.5	12.2	12.2	12.2	12.2	12.2	12.3	12.2
388	345378.5	731781.5	1.5	12.8	12.9	12.9	12.9	12.9	12.9	12.9
389	345508.1	731756.1	1.5	12.7	12.7	12.7	12.7	12.7	12.7	12.7
390	345500.4	731743.9	1.5	12.7	12.8	12.8	12.8	12.8	12.8	12.8
391	345475.1	731708.4	1.5	13.3	13.4	13.4	13.4	13.4	13.5	13.4
392	345461.8	731717.1	1.5	13.0	13.1	13.1	13.1	13.1	13.2	13.1
393	345451.1	731725.3	1.5	12.9	13.0	13.0	13.0	13.0	13.1	13.0
394	345439.8	731731.4	1.5	12.9	13.1	13.1	13.1	13.1	13.1	13.1
395	345430.6	731738.6	1.5	12.9	13.1	13.1	13.0	13.1	13.1	13.0
396	345466.4	731685.4	1.5	13.2	13.4	13.4	13.4	13.4	13.4	13.4
397	345450.6	731685.4	1.5	12.6	12.7	12.7	12.7	12.7	12.8	12.7
398	345462.8	731664.4	1.5	12.9	13.0	13.0	12.9	12.9	13.0	12.9
399	345441.9	731693.6	1.5	12.6	12.7	12.7	12.7	12.7	12.7	12.7
400	345432.7	731700.8	1.5	12.6	12.6	12.6	12.6	12.6	12.7	12.6
401	345412.8	731724.3	1.5	12.7	12.9	12.9	12.8	12.9	12.9	12.8
402	345380.6	731746.3	1.5	12.7	12.8	12.8	12.8	12.8	12.8	12.8
403	345362.7	731746.8	1.5	12.6	12.6	12.6	12.6	12.6	12.7	12.6
404	345419.4	731768.2	1.5	12.5	12.5	12.5	12.5	12.5	12.6	12.5
405	345413.8	731786.1	1.5	12.4	12.4	12.4	12.4	12.4	12.4	12.4
406	345411.2	731797.8	1.5	12.3	12.4	12.4	12.4	12.4	12.4	12.4
407	345385.2	731794.8	1.5	12.5	12.5	12.5	12.5	12.6	12.6	12.5
408	345393.8	731807.1	1.5	12.4	12.4	12.4	12.4	12.4	12.4	12.4
409	345391.8	731818.3	1.5	12.4	12.4	12.4	12.4	12.4	12.4	12.4
410	345390.3	731827.5	1.5	12.4	12.4	12.4	12.4	12.4	12.4	12.4
411	345382.6	731840.3	1.5	12.4	12.4	12.4	12.4	12.4	12.4	12.4
412	345375.4	731859.7	1.5	12.4	12.5	12.5	12.4	12.5	12.5	12.4
413	345371.9	731872.9	1.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5

Receptor name	X(m)	Y(m)	Z(m)	Annual Mean PM <sub>10</sub> Concentration (µg/m <sup>3</sup> )						
				BC	SC1	SC2	SC3	SC4	SC5	SC6
414	345370.8	731881.1	1.5	12.5	12.5	12.5	12.5	12.6	12.6	12.5
415	345372.9	731892.9	1.5	12.6	12.6	12.6	12.6	12.6	12.6	12.6
416	345359.1	731692.9	1.5	12.2	12.3	12.3	12.3	12.3	12.3	12.3
417	345359.6	731713.4	1.5	12.3	12.3	12.3	12.3	12.3	12.3	12.3
418	345361.2	731722.6	1.5	12.3	12.4	12.4	12.4	12.4	12.4	12.4
419	345498.1	731656.9	1.5	13.0	13.1	13.1	13.0	13.0	13.1	13.0
420	345486.3	731677.9	1.5	14.1	14.3	14.3	14.2	14.2	14.3	14.2
421	345512.9	731656.4	1.5	12.8	12.9	12.8	12.8	12.8	12.9	12.8
422	345530.8	731653.3	1.5	12.7	12.8	12.8	12.7	12.7	12.8	12.7
423	345500.7	731699.6	1.5	13.4	13.5	13.5	13.5	13.5	13.5	13.5
424	345447.8	732107.7	1.5	14.7	14.8	14.8	14.8	14.9	14.9	14.7
425	345432.9	732099	1.5	14.7	14.7	14.7	14.7	14.8	14.8	14.7
426	345423.8	732094.9	1.5	14.8	14.8	14.8	14.8	14.8	14.9	14.7
427	345414	732088.3	1.5	14.8	14.8	14.8	14.8	14.9	14.9	14.8
428	345401.3	732085.3	1.5	15.2	15.2	15.2	15.2	15.2	15.3	15.1
429	345356.5	732082.8	1.5	18.4	18.4	18.4	18.4	18.5	18.6	18.3
430	345378.5	732086.9	1.5	16.4	16.4	16.4	16.3	16.4	16.5	16.3
431	345401.8	732092.5	1.5	15.4	15.4	15.4	15.4	15.5	15.5	15.3
432	345419.4	732101.4	1.5	15.1	15.2	15.2	15.1	15.2	15.3	15.1
433	345445.2	732116	1.5	15.4	15.4	15.4	15.4	15.5	15.5	15.4
434	345303.7	732091.3	1.5	16.0	16.1	16.0	16.0	16.1	16.2	16.0
435	345292.2	732087.4	1.5	15.2	15.2	15.2	15.1	15.2	15.3	15.1
436	345280.4	732087.9	1.5	14.4	14.4	14.4	14.4	14.4	14.5	14.4
437	345297.8	732120.4	1.5	14.3	14.3	14.3	14.3	14.3	14.4	14.3
438	345285	732186.6	1.5	13.9	13.9	13.9	13.8	13.9	13.9	13.8
439	345286	732198.1	1.5	14.1	14.1	14.1	14.1	14.2	14.2	14.1
440	345283.7	732202.4	1.5	14.0	14.1	14.0	14.0	14.1	14.1	14.0
441	345284.5	732209.3	1.5	14.2	14.2	14.2	14.2	14.3	14.3	14.2
442	345282.2	732214.1	1.5	14.1	14.1	14.1	14.1	14.2	14.2	14.1
443	345281.7	732220.5	1.5	14.2	14.2	14.2	14.2	14.2	14.2	14.2
444	345270.4	732225.1	1.5	13.8	13.8	13.8	13.7	13.8	13.8	13.7
445	345260	732223.8	1.5	13.5	13.5	13.5	13.5	13.5	13.5	13.4
446	345333.5	731768.7	1.5	12.6	12.7	12.6	12.6	12.7	12.7	12.6
447	345331.5	731782	1.5	12.8	12.9	12.9	12.8	12.9	12.9	12.8
448	345315.7	731783.5	1.5	12.6	12.6	12.6	12.6	12.6	12.6	12.6
449	345311.6	731809.1	1.5	12.6	12.7	12.7	12.7	12.7	12.7	12.6
450	345308	731823.4	1.5	12.7	12.7	12.7	12.7	12.7	12.7	12.7
451	345300.3	731843.8	1.5	12.7	12.7	12.7	12.7	12.7	12.7	12.7
452	345296.3	731862.3	1.5	12.7	12.7	12.7	12.7	12.8	12.8	12.7
453	345262.5	731899.5	1.5	12.6	12.7	12.7	12.7	12.7	12.7	12.6
454	345290.6	731802.9	1.5	12.4	12.4	12.4	12.4	12.5	12.5	12.4
455	345276.3	731801.4	1.5	12.4	12.4	12.4	12.4	12.4	12.4	12.4
456	345258.9	731798.4	1.5	12.3	12.3	12.3	12.3	12.3	12.3	12.3
457	345288.6	731772.3	1.5	12.3	12.3	12.3	12.3	12.4	12.4	12.3
458	345273.3	731765.1	1.5	12.2	12.3	12.3	12.3	12.3	12.3	12.2
459	345253.3	731766.1	1.5	12.2	12.3	12.3	12.3	12.3	12.3	12.2
460	345242.1	731759.5	1.5	12.2	12.2	12.2	12.2	12.2	12.2	12.2
461	345225.7	731793.3	1.5	12.2	12.2	12.2	12.2	12.2	12.2	12.2
462	345212.4	731791.7	1.5	12.2	12.2	12.2	12.2	12.2	12.2	12.2
463	345211.4	731754.9	1.5	12.2	12.2	12.2	12.2	12.2	12.2	12.2
464	345240	731730.4	1.5	12.1	12.2	12.2	12.1	12.2	12.2	12.1
465	345203.2	731720.7	1.5	12.1	12.1	12.1	12.1	12.1	12.1	12.1
466	345355.5	731647.9	1.5	12.3	12.3	12.3	12.3	12.3	12.3	12.3
467	345322.8	731686.3	1.5	12.2	12.2	12.2	12.2	12.2	12.2	12.2
468	345321.8	731666.9	1.5	12.2	12.2	12.2	12.2	12.2	12.2	12.2
469	345319.8	731651.6	1.5	12.2	12.2	12.2	12.2	12.2	12.2	12.2
470	345361.9	732072.4	1.5	17.0	17.0	17.0	16.9	17.1	17.1	16.9
471	345433.4	731988.1	1.5	13.7	13.7	13.6	13.6	13.8	13.7	13.6
472	345459.5	731934.5	1.5	12.9	12.9	12.9	12.9	12.9	12.9	12.9
473	345445.2	731939.1	1.5	12.9	12.9	12.9	12.9	13.0	13.0	12.9
474	345436.5	731945.2	1.5	13.0	13.0	13.0	13.0	13.1	13.1	13.0

Receptor name	X(m)	Y(m)	Z(m)	Annual Mean PM <sub>10</sub> Concentration (µg/m <sup>3</sup> )						
				BC	SC1	SC2	SC3	SC4	SC5	SC6
475	345422.7	731953.9	1.5	13.1	13.1	13.1	13.1	13.2	13.2	13.1
476	345457	731970.8	1.5	13.3	13.3	13.3	13.3	13.4	13.4	13.3
477	345445.7	731978.4	1.5	13.4	13.4	13.4	13.4	13.5	13.5	13.4
478	345414.5	731962.1	1.5	13.3	13.3	13.3	13.3	13.3	13.3	13.2
479	345425.8	732000.4	1.5	13.8	13.8	13.8	13.8	13.9	13.9	13.8
480	345403.3	731975.9	1.5	13.5	13.5	13.5	13.5	13.6	13.6	13.5
481	345398.7	731981	1.5	13.6	13.6	13.6	13.6	13.7	13.7	13.6
482	345419.2	732010.1	1.5	14.1	14.1	14.1	14.1	14.2	14.2	14.1
483	345394.1	731994.8	1.5	14.0	14.0	14.0	14.0	14.0	14.0	13.9
484	345386.4	732009.6	1.5	14.4	14.4	14.4	14.3	14.4	14.4	14.3
485	345415.1	732021.9	1.5	14.4	14.4	14.4	14.4	14.5	14.5	14.4
486	345383.4	732021.4	1.5	14.8	14.8	14.8	14.8	14.8	14.9	14.7
487	345412	732038.2	1.5	14.7	14.7	14.7	14.7	14.8	14.8	14.6
488	345419.7	732053.6	1.5	14.3	14.3	14.3	14.3	14.4	14.4	14.3
489	345376.2	732041.3	1.5	15.9	15.9	15.9	15.9	16.0	16.0	15.8
490	345435.5	732060.7	1.5	13.9	13.9	13.9	13.9	14.0	14.0	13.9
491	345449.3	732065.3	1.5	13.7	13.7	13.7	13.7	13.8	13.8	13.7
492	345461.1	732069.9	1.5	13.6	13.6	13.6	13.6	13.7	13.7	13.6
493	345388	732079.6	1.5	15.6	15.6	15.6	15.6	15.7	15.7	15.5
494	345377.3	732077.1	1.5	16.1	16.1	16.1	16.0	16.2	16.2	16.0
495	345374.4	731917.9	1.5	12.7	12.7	12.7	12.7	12.8	12.8	12.7
496	345370.8	731936.8	1.5	12.9	13.0	12.9	12.9	13.0	13.0	12.9
497	345266.1	731984.4	1.5	15.2	15.3	15.2	15.2	15.3	15.3	15.2
498	345264.6	731967.5	1.5	14.0	14.0	14.0	14.0	14.1	14.1	14.0
499	345261.5	731956.3	1.5	13.6	13.6	13.6	13.6	13.6	13.7	13.6
500	345256.4	731945	1.5	13.3	13.3	13.3	13.3	13.3	13.3	13.2
501	345256.4	731933.3	1.5	13.0	13.0	13.0	13.0	13.1	13.1	13.0
502	345285	731948.1	1.5	13.5	13.5	13.5	13.5	13.5	13.5	13.4
503	345222.1	731971.1	1.5	14.5	14.6	14.6	14.5	14.6	14.7	14.5
504	345194	731966.5	1.5	14.6	14.6	14.6	14.6	14.7	14.7	14.5
505	345158.8	731953.2	1.5	13.9	14.0	13.9	13.9	14.0	14.1	13.9
506	345147	731950.1	1.5	13.9	13.9	13.9	13.9	14.0	14.0	13.9
507	345133.2	731936.3	1.5	13.3	13.4	13.4	13.4	13.4	13.4	13.3
508	345140.9	731917.9	1.5	12.9	12.9	12.9	12.9	12.9	12.9	12.8
509	345177.7	731941.9	1.5	13.3	13.3	13.3	13.3	13.4	13.4	13.3
510	345202.7	731950.1	1.5	13.5	13.5	13.5	13.5	13.6	13.6	13.5
511	345229.3	731956.8	1.5	13.6	13.7	13.7	13.6	13.7	13.7	13.6
512	345093.4	731946.6	1.5	14.6	14.7	14.6	14.7	14.8	14.8	14.6
513	345180.3	732005.6	1.5	15.3	15.4	15.4	15.4	15.5	15.5	15.3
514	345250.8	732025.4	1.5	17.2	17.2	17.2	17.2	17.3	17.3	17.1
515	345222.7	732330.3	1.5	12.7	12.8	12.7	12.7	12.7	12.8	12.7
516	345233.9	732219.5	1.5	13.0	13.0	13.0	13.0	13.1	13.1	13.0
517	345252	732222.3	1.5	13.3	13.3	13.3	13.3	13.3	13.3	13.3
518	345243.6	732220.8	1.5	13.1	13.2	13.2	13.1	13.2	13.2	13.1
519	345226	732217.9	1.5	12.9	12.9	12.9	12.9	13.0	13.0	12.9
520	345218.8	732217.2	1.5	12.9	12.9	12.9	12.9	12.9	12.9	12.9
521	345211.4	732215.4	1.5	12.8	12.8	12.8	12.8	12.8	12.8	12.8
522	345198.9	732214.1	1.5	12.7	12.7	12.7	12.7	12.7	12.7	12.7
523	345186.6	732211.6	1.5	12.5	12.5	12.5	12.5	12.6	12.6	12.5
524	345187.4	732238.9	1.5	12.5	12.5	12.5	12.5	12.6	12.6	12.5
525	345201.9	732241.3	1.5	12.7	12.7	12.7	12.7	12.7	12.7	12.7
526	345205.3	732246.3	1.5	12.6	12.6	12.6	12.6	12.6	12.6	12.6
527	345224.7	732256.6	1.5	12.7	12.7	12.7	12.6	12.7	12.7	12.6
528	345229.8	732253	1.5	12.8	12.8	12.8	12.8	12.8	12.8	12.8
529	345235.7	732251.2	1.5	12.9	12.9	12.9	12.9	12.9	12.9	12.9
530	345240.5	732248.6	1.5	13.0	13.0	13.0	13.0	13.1	13.1	13.0
531	345251.5	732249.4	1.5	13.2	13.2	13.2	13.2	13.3	13.3	13.2
532	345264	732251.2	1.5	13.5	13.5	13.5	13.5	13.5	13.6	13.5
533	345277.6	732259.9	1.5	13.9	13.9	13.9	13.9	14.0	14.0	13.9
534	345276.6	732268.6	1.5	13.7	13.8	13.8	13.7	13.8	13.8	13.7
535	345275.8	732274.3	1.5	13.7	13.7	13.7	13.6	13.7	13.7	13.7

Receptor name	X(m)	Y(m)	Z(m)	Annual Mean PM <sub>10</sub> Concentration (µg/m <sup>3</sup> )						
				BC	SC1	SC2	SC3	SC4	SC5	SC6
536	345274.5	732286.3	1.5	13.5	13.5	13.5	13.5	13.6	13.6	13.5
537	345273.8	732294.5	1.5	13.5	13.5	13.5	13.4	13.5	13.5	13.5
538	345259.4	732301.9	1.5	13.0	13.0	13.0	13.0	13.0	13.0	13.0
539	345259.2	732308.6	1.5	13.0	13.0	13.0	13.0	13.0	13.0	13.0
540	345258.9	732323.1	1.5	13.2	13.2	13.2	13.2	13.2	13.2	13.2
541	345259.2	732332.6	1.5	13.6	13.6	13.6	13.6	13.6	13.7	13.6
542	345260.2	732362.8	1.5	13.6	13.6	13.6	13.6	13.6	13.6	13.6
543	345264.6	732380.9	1.5	13.1	13.2	13.2	13.1	13.2	13.2	13.1
544	345263.5	732390.1	1.5	13.0	13.0	13.0	13.0	13.0	13.0	13.0
545	345224.7	732381.4	1.5	12.7	12.7	12.7	12.7	12.7	12.8	12.7
546	345210.4	732385.2	1.5	12.6	12.6	12.6	12.6	12.6	12.6	12.6
547	345220.1	732382.4	1.5	12.7	12.7	12.7	12.7	12.7	12.7	12.7
548	345196.1	732388.3	1.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
549	345184.8	732391.4	1.5	12.4	12.4	12.4	12.4	12.4	12.4	12.4
550	345195.6	732336.4	1.5	12.6	12.6	12.6	12.5	12.6	12.6	12.6
551	345202.7	732332.8	1.5	12.6	12.6	12.6	12.5	12.6	12.6	12.6
552	345182.5	732321.3	1.5	12.3	12.3	12.3	12.3	12.3	12.3	12.3
553	345181.3	732392.6	1.5	12.4	12.4	12.4	12.4	12.4	12.4	12.4
554	345262.3	732401.7	1.5	12.8	12.8	12.8	12.8	12.8	12.9	12.8
555	345261.8	732408.6	1.5	12.7	12.7	12.7	12.7	12.7	12.8	12.7
556	345260.5	732423.7	1.5	12.6	12.6	12.6	12.6	12.6	12.6	12.6
557	345259.4	732431.8	1.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
558	345257.7	732445.9	1.5	12.4	12.5	12.5	12.4	12.5	12.5	12.4
559	345283	731544.4	1.5	13.5	13.6	13.6	13.6	13.5	13.5	13.5
560	345027.9	731576.6	1.5	13.2	13.2	13.2	13.2	13.1	13.2	13.2
561	345044.8	731578.6	1.5	13.2	13.3	13.2	13.2	13.2	13.2	13.2
562	345056.1	731581.1	1.5	13.2	13.2	13.2	13.2	13.1	13.2	13.2
563	345075.5	731584.2	1.5	13.1	13.2	13.2	13.2	13.1	13.2	13.1
564	345101	731585.3	1.5	13.2	13.2	13.2	13.2	13.2	13.2	13.2
565	345036.1	731530.6	1.5	12.9	13.0	13.0	12.9	12.9	13.0	12.9
566	345066.3	731541.3	1.5	13.1	13.1	13.1	13.1	13.1	13.1	13.1
567	345105.1	731538.2	1.5	12.7	12.7	12.7	12.7	12.7	12.7	12.7
568	345119.9	731544.9	1.5	12.8	12.9	12.8	12.8	12.8	12.8	12.8
569	345135.3	731565.3	1.5	15.2	15.3	15.3	15.3	15.2	15.3	15.2
570	345153.2	731556.6	1.5	13.7	13.7	13.7	13.7	13.6	13.7	13.7
571	345134.3	731588.8	1.5	13.1	13.1	13.1	13.1	13.0	13.1	13.1
572	345148.6	731587.3	1.5	13.2	13.2	13.2	13.2	13.2	13.2	13.2
573	345168	731585.8	1.5	13.3	13.3	13.3	13.3	13.3	13.3	13.3
574	345178.2	731586.8	1.5	13.2	13.2	13.2	13.2	13.2	13.2	13.2
575	345188.4	731585.3	1.5	13.3	13.3	13.3	13.3	13.2	13.3	13.3
576	345201.2	731584.2	1.5	13.3	13.3	13.3	13.3	13.3	13.3	13.3
577	345181.8	731544.4	1.5	12.9	13.0	13.0	13.0	12.9	13.0	12.9
578	345218.6	731551.5	1.5	13.7	13.8	13.8	13.8	13.7	13.7	13.7
579	345243.6	731547.9	1.5	13.6	13.6	13.6	13.6	13.5	13.6	13.6
580	345266.6	731550.5	1.5	14.2	14.3	14.2	14.2	14.2	14.2	14.2
581	345303.4	731550	1.5	14.8	14.9	14.9	14.9	14.8	14.9	14.8
582	345225.7	731581.1	1.5	13.4	13.4	13.4	13.4	13.4	13.4	13.4
583	345240.5	731579.6	1.5	13.4	13.4	13.4	13.4	13.4	13.4	13.4
584	345257.9	731579.1	1.5	13.3	13.4	13.4	13.4	13.3	13.4	13.4
585	345271.7	731577.6	1.5	13.4	13.4	13.4	13.4	13.4	13.4	13.4
586	345311.6	731574.5	1.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5
587	345341.7	731543.2	1.5	14.1	14.2	14.1	14.1	14.1	14.1	14.1
588	345316.7	731595.8	1.5	12.7	12.8	12.7	12.7	12.7	12.8	12.7
589	345317.2	731608.6	1.5	12.5	12.6	12.5	12.5	12.5	12.6	12.5
590	345318.2	731626.5	1.5	12.3	12.4	12.4	12.4	12.4	12.4	12.4
591	345126.3	732230.5	1.5	12.2	12.2	12.2	12.2	12.2	12.2	12.2
592	345157.8	732207	1.5	12.3	12.4	12.4	12.4	12.4	12.4	12.3
593	345145.5	732204.9	1.5	12.3	12.3	12.3	12.3	12.3	12.3	12.3
594	345133	732203.7	1.5	12.3	12.3	12.3	12.3	12.3	12.3	12.3
595	345123.3	732200.9	1.5	12.2	12.2	12.2	12.2	12.2	12.3	12.2
596	345114.3	732192.2	1.5	12.2	12.2	12.2	12.2	12.2	12.2	12.2

Receptor name	X(m)	Y(m)	Z(m)	Annual Mean PM <sub>10</sub> Concentration (µg/m <sup>3</sup> )						
				BC	SC1	SC2	SC3	SC4	SC5	SC6
597	345092.1	732190.4	1.5	12.1	12.1	12.1	12.1	12.1	12.1	12.1
598	345077.8	732193.4	1.5	12.1	12.1	12.1	12.1	12.1	12.1	12.1
599	345068.3	732193.4	1.5	12.1	12.1	12.1	12.1	12.1	12.1	12.1
600	345060.1	732228.2	1.5	12.0	12.0	12.0	12.0	12.0	12.0	12.0
601	345066.3	732224.6	1.5	12.0	12.0	12.0	12.0	12.0	12.0	12.0
602	345072.9	732221.6	1.5	12.0	12.0	12.0	12.0	12.1	12.1	12.0
603	345086.7	732223.3	1.5	12.1	12.1	12.1	12.1	12.1	12.1	12.1
604	345092.3	732232.6	1.5	12.1	12.1	12.1	12.1	12.1	12.1	12.1
605	345110.2	732239.2	1.5	12.1	12.1	12.1	12.1	12.1	12.1	12.1
606	345115.8	732234.6	1.5	12.1	12.1	12.1	12.1	12.1	12.2	12.1
607	345121.7	732233.3	1.5	12.2	12.2	12.2	12.2	12.2	12.2	12.1
608	345141.7	732233.1	1.5	12.2	12.2	12.2	12.2	12.3	12.3	12.2
609	345145.7	732239.9	1.5	12.2	12.2	12.2	12.2	12.2	12.2	12.2
610	345157	732256.1	1.5	12.2	12.2	12.2	12.2	12.2	12.2	12.2
611	345168	732250.2	1.5	12.3	12.3	12.3	12.3	12.3	12.3	12.3
612	345080.6	732359	1.5	12.0	12.0	12.0	12.0	12.0	12.0	12.0
613	345171.8	732209.3	1.5	12.4	12.4	12.4	12.4	12.4	12.5	12.4
614	345175.4	732245.6	1.5	12.3	12.3	12.3	12.3	12.4	12.4	12.3
615	345142.2	732348.4	1.5	12.2	12.2	12.2	12.2	12.2	12.3	12.2
616	345126.3	732351.5	1.5	12.2	12.2	12.2	12.2	12.2	12.2	12.2
617	345148.8	732333.9	1.5	12.2	12.2	12.2	12.2	12.2	12.2	12.2
618	345064.7	732358.5	1.5	11.9	11.9	11.9	11.9	12.0	12.0	11.9
619	345095.4	732352.4	1.5	12.0	12.0	12.0	12.0	12.0	12.1	12.0
620	345044	732383.3	1.5	11.9	12.0	11.9	12.0	12.0	12.0	11.9
621	345031.4	732387.3	1.5	11.9	11.9	11.9	11.9	11.9	11.9	11.9
622	345017.3	732390.4	1.5	11.8	11.8	11.8	11.8	11.8	11.8	11.8
623	345014.7	731930.2	1.5	15.1	15.1	15.1	15.1	15.3	15.3	15.1
624	344907.8	731903.1	1.5	14.9	14.9	14.9	15.0	15.1	15.2	14.9
625	344833.3	731880.1	1.5	14.3	14.3	14.3	14.3	14.5	14.5	14.3
626	344750.4	731528	1.5	13.0	13.0	13.0	13.0	13.0	13.0	13.0
627	344771.4	731531.1	1.5	13.0	13.0	13.0	13.0	13.0	13.0	13.0
628	344783.2	731533.1	1.5	13.0	13.0	13.0	13.0	13.0	13.0	13.0
629	344803.1	731534.1	1.5	13.2	13.2	13.2	13.2	13.1	13.2	13.1
630	344824	731537.8	1.5	13.2	13.2	13.2	13.2	13.1	13.2	13.2
631	344848.1	731543.3	1.5	13.1	13.1	13.1	13.1	13.1	13.1	13.1
632	344867	731546.4	1.5	13.1	13.1	13.1	13.1	13.1	13.1	13.1
633	344894.1	731551.5	1.5	13.1	13.1	13.1	13.1	13.1	13.1	13.1
634	344902.2	731552	1.5	13.2	13.2	13.2	13.2	13.1	13.2	13.2
635	344915.5	731557.6	1.5	13.0	13.0	13.0	13.0	13.0	13.0	13.0
636	344928.3	731560.2	1.5	13.0	13.0	13.0	13.0	13.0	13.0	13.0
637	344954.3	731563.8	1.5	13.1	13.1	13.1	13.1	13.0	13.1	13.1
638	344772.9	731493.8	1.5	13.3	13.3	13.3	13.3	13.3	13.4	13.3
639	344751	731490.2	1.5	13.4	13.4	13.4	13.4	13.3	13.4	13.4
640	344919.1	731530.6	1.5	15.0	14.9	14.9	14.9	14.8	14.9	14.9
641	344955.9	731534.6	1.5	14.4	14.4	14.4	14.4	14.3	14.4	14.3
642	344832.7	731513.2	1.5	14.5	14.5	14.4	14.4	14.4	14.5	14.4
643	344786.7	731506	1.5	14.8	14.8	14.7	14.7	14.7	14.8	14.7
644	344999.8	731542.3	1.5	14.7	14.7	14.7	14.7	14.6	14.7	14.7
645	345015.2	731573	1.5	13.3	13.3	13.3	13.3	13.2	13.3	13.3
646	345008	731505	1.5	13.1	13.1	13.1	13.1	13.1	13.1	13.1
647	344991.7	731490.2	1.5	12.6	12.7	12.7	12.6	12.6	12.7	12.6
648	345018.2	731474.9	1.5	13.2	13.3	13.2	13.2	13.2	13.2	13.2
649	345044.8	731434.5	1.5	12.3	12.3	12.3	12.3	12.3	12.3	12.3
650	344998.3	731454.9	1.5	12.2	12.3	12.3	12.2	12.2	12.3	12.2
651	345068.3	731378.3	1.5	11.9	11.9	11.9	11.9	11.9	11.9	11.9
652	345046.3	731374.2	1.5	11.9	11.9	11.9	11.9	11.9	11.9	11.9
653	344870.2	731926.5	1.5	14.5	14.5	14.5	14.5	14.6	14.7	14.5
654	344983.7	731955.3	1.5	14.4	14.4	14.4	14.4	14.6	14.6	14.4
655	345050.2	731971.5	1.5	14.4	14.5	14.5	14.5	14.6	14.6	14.4
656	344679.4	731477.9	1.5	13.6	13.6	13.6	13.6	13.5	13.6	13.5
657	344550.1	731561.3	1.5	12.6	12.6	12.6	12.6	12.6	12.7	12.6

Receptor name	X(m)	Y(m)	Z(m)	Annual Mean PM <sub>10</sub> Concentration (µg/m <sup>3</sup> )						
				BC	SC1	SC2	SC3	SC4	SC5	SC6
658	344572.6	731518.3	1.5	12.9	12.9	12.9	12.9	12.9	12.9	12.9
659	344576.7	731499.4	1.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5
660	344618.6	731512.7	1.5	12.9	13.0	12.9	12.9	12.9	13.0	12.9
661	344620.1	731541.8	1.5	12.4	12.4	12.4	12.4	12.4	12.4	12.4
662	344657.4	731515.3	1.5	13.0	13.0	13.0	13.0	12.9	13.0	13.0
663	344680.9	731516.8	1.5	13.0	13.0	13.0	13.0	13.0	13.0	13.0
664	344703.9	731520.3	1.5	13.0	13.0	13.0	13.0	13.0	13.0	13.0
665	344728.5	731522.4	1.5	13.1	13.1	13.1	13.1	13.1	13.1	13.1
666	344737.7	731488.1	1.5	13.4	13.4	13.4	13.4	13.4	13.4	13.4
667	344722.3	731484.6	1.5	13.4	13.4	13.4	13.4	13.3	13.4	13.3
668	344701.4	731481.5	1.5	13.5	13.5	13.5	13.5	13.4	13.5	13.4
669	344661	731473.8	1.5	13.6	13.6	13.6	13.6	13.5	13.6	13.6
670	344601.2	731344.9	1.5	12.1	12.1	12.1	12.1	12.1	12.1	12.1
671	344616	731368.9	1.5	12.3	12.3	12.3	12.3	12.3	12.3	12.3
672	344627.8	731349.9	1.5	12.1	12.1	12.1	12.1	12.1	12.1	12.1
673	344578	731376	1.5	12.2	12.2	12.2	12.2	12.2	12.2	12.2
674	344607.6	731440.4	1.5	12.8	12.8	12.8	12.8	12.8	12.8	12.7
675	344610.2	731456.8	1.5	13.3	13.3	13.3	13.3	13.3	13.3	13.2
676	344544.8	731451.1	1.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5
677	344537.6	731460.6	1.5	14.9	15.0	14.9	15.0	15.0	15.0	14.9
678	344643.7	731474.4	1.5	14.2	14.2	14.2	14.2	14.1	14.2	14.2
679	344530.7	731494.3	1.5	13.1	13.2	13.1	13.2	13.2	13.2	13.1
680	344528.2	731512.3	1.5	12.8	12.8	12.8	12.8	12.8	12.9	12.8
681	344514.9	731539.3	1.5	12.5	12.5	12.5	12.5	12.5	12.6	12.5
682	344512.8	731555.7	1.5	12.5	12.5	12.5	12.5	12.5	12.6	12.5
683	344500.6	731489.3	1.5	12.9	12.9	12.9	12.9	12.9	13.0	12.9
684	344680.4	731843.3	1.5	14.4	14.4	14.4	14.4	14.6	14.6	14.3
685	344731.5	731855.6	1.5	14.3	14.4	14.4	14.4	14.5	14.6	14.3
686	344595.1	731824.9	1.5	14.7	14.7	14.7	14.8	14.9	15.0	14.7
687	344507.7	731803.4	1.5	14.6	14.6	14.6	14.7	14.8	14.8	14.6
688	344463.8	731795.8	1.5	15.0	15.0	15.0	15.1	15.2	15.3	15.0
689	344491.9	731719.1	1.5	12.7	12.7	12.7	12.7	12.8	12.8	12.7
690	344529.2	731648.1	1.5	12.3	12.3	12.3	12.3	12.3	12.3	12.2
691	344480.7	731640.9	1.5	12.3	12.3	12.3	12.3	12.4	12.4	12.3
692	344485.5	731623.1	1.5	12.3	12.3	12.3	12.3	12.3	12.3	12.3
693	344493.2	731605.7	1.5	12.3	12.3	12.3	12.3	12.3	12.3	12.3
694	344450.7	731835.1	1.5	14.4	14.4	14.4	14.5	14.6	14.6	14.4
695	344483.5	731843.6	1.5	14.0	14.0	14.0	14.0	14.1	14.2	14.0
696	344511.1	731847.3	1.5	14.0	14.0	14.0	14.1	14.2	14.2	14.0
697	344536.2	731851.3	1.5	14.0	14.1	14.0	14.1	14.2	14.2	14.0
698	344564.2	731857.2	1.5	14.0	14.1	14.0	14.1	14.2	14.2	14.0
699	344583.2	731875	1.5	13.2	13.2	13.2	13.2	13.3	13.3	13.2
700	344582.8	731892.9	1.5	12.7	12.7	12.7	12.7	12.8	12.8	12.7
701	344587.7	731909.9	1.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
702	344685.8	731966.2	1.5	12.2	12.2	12.2	12.2	12.2	12.2	12.2
703	344746.6	731995	1.5	12.1	12.1	12.1	12.1	12.1	12.1	12.1
704	344723.8	731995.8	1.5	12.1	12.1	12.1	12.1	12.1	12.1	12.1
705	344679.7	731881.1	1.5	14.4	14.4	14.4	14.4	14.6	14.6	14.4
706	344305.9	731892.1	1.5	12.6	12.6	12.6	12.6	12.6	12.7	12.6
707	344423.5	731829.8	1.5	14.7	14.7	14.7	14.8	14.9	14.9	14.7
708	344438.5	731833.1	1.5	14.5	14.5	14.5	14.6	14.7	14.7	14.5
709	344404	731825.8	1.5	14.9	15.0	15.0	15.0	15.1	15.2	14.9
710	344385	731823.8	1.5	14.8	14.9	14.9	14.9	15.0	15.0	14.8
711	344368.8	731816.1	1.5	15.7	15.8	15.8	15.9	16.0	16.0	15.8
712	344329.8	731809.6	1.5	15.8	15.9	15.9	16.0	16.1	16.1	15.8
713	344290.9	731807.1	1.5	15.7	15.8	15.7	15.8	15.9	16.0	15.7
714	344284.4	731820.9	1.5	14.6	14.6	14.6	14.7	14.7	14.8	14.6
715	344282.4	731833.9	1.5	14.0	14.1	14.1	14.2	14.2	14.2	14.0
716	344280.4	731845.6	1.5	13.8	13.8	13.8	13.9	13.9	14.0	13.8
717	344279.2	731857.8	1.5	13.7	13.7	13.7	13.8	13.8	13.9	13.7
718	344303.5	731867.9	1.5	13.1	13.2	13.2	13.2	13.2	13.2	13.1

Receptor name	X(m)	Y(m)	Z(m)	Annual Mean PM <sub>10</sub> Concentration (µg/m <sup>3</sup> )						
				BC	SC1	SC2	SC3	SC4	SC5	SC6
719	344323.8	731872.8	1.5	12.8	12.9	12.8	12.9	12.9	12.9	12.8
720	344236.6	731845.6	1.5	13.1	13.2	13.1	13.2	13.2	13.2	13.1
721	344389.8	731770.6	1.5	13.9	14.0	14.0	14.0	14.1	14.1	13.9
722	344362.3	731772.3	1.5	14.3	14.4	14.4	14.4	14.5	14.5	14.3
723	344344	731771.1	1.5	14.5	14.5	14.5	14.6	14.7	14.7	14.5
724	344328.3	731763.4	1.5	14.1	14.1	14.1	14.1	14.2	14.2	14.1
725	344316.5	731761.8	1.5	14.1	14.1	14.1	14.2	14.2	14.3	14.1
726	344301.5	731764.1	1.5	14.5	14.5	14.5	14.6	14.7	14.7	14.5
727	344279.2	731755.3	1.5	14.1	14.1	14.1	14.2	14.2	14.2	14.1
728	344257.3	731750.4	1.5	14.0	14.0	14.0	14.1	14.1	14.2	14.0
729	344245.5	731748.4	1.5	14.0	14.0	14.0	14.1	14.1	14.2	14.0
730	344217.6	731842.2	1.5	13.0	13.0	13.0	13.0	13.1	13.1	13.0
731	344201	731838.9	1.5	12.9	12.9	12.9	12.9	13.0	13.0	12.9
732	344181.1	731837.3	1.5	12.8	12.8	12.8	12.8	12.9	12.9	12.8
733	344166.9	731856.4	1.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
734	344185.6	731859.6	1.5	12.5	12.5	12.5	12.6	12.6	12.6	12.5
735	344221.6	731865.3	1.5	12.7	12.7	12.7	12.7	12.8	12.8	12.7
736	344266.6	731877.4	1.5	12.9	12.9	12.9	12.9	12.9	13.0	12.9
737	344292.6	731889.2	1.5	12.6	12.7	12.7	12.7	12.7	12.7	12.7
738	344314.5	731893.3	1.5	12.6	12.6	12.6	12.6	12.6	12.6	12.6
739	344328.3	731894.1	1.5	12.5	12.5	12.5	12.6	12.6	12.6	12.5
740	344351.8	731900.1	1.5	12.4	12.4	12.4	12.4	12.4	12.4	12.4
741	344349.7	731873.4	1.5	12.7	12.7	12.7	12.7	12.7	12.7	12.7
742	344327.8	731859.2	1.5	12.9	12.9	12.9	13.0	13.0	13.0	12.9
743	344266.6	731892.9	1.5	12.4	12.4	12.4	12.5	12.5	12.5	12.4
744	344213.1	731885.6	1.5	12.3	12.4	12.4	12.4	12.4	12.4	12.3
745	344187.6	731881.1	1.5	12.3	12.3	12.3	12.3	12.4	12.4	12.3
746	344344.2	731466.5	1.5	12.7	12.7	12.7	12.7	12.7	12.7	12.6
747	344488.8	731452.4	1.5	15.0	15.0	15.0	15.0	15.1	15.1	14.9
748	344470.4	731448.9	1.5	14.9	14.9	14.9	14.9	15.0	15.0	14.8
749	344408.6	731419.8	1.5	12.9	12.9	12.9	13.0	13.0	13.0	12.9
750	344385.6	731422.8	1.5	13.3	13.3	13.3	13.4	13.4	13.4	13.3
751	344452.5	731430.4	1.5	13.1	13.1	13.1	13.1	13.1	13.1	13.0
752	344478.1	731490.5	1.5	12.7	12.7	12.7	12.7	12.8	12.8	12.7
753	344450.5	731485.9	1.5	12.7	12.7	12.7	12.7	12.7	12.7	12.7
754	344430	731481.8	1.5	12.7	12.7	12.7	12.7	12.7	12.7	12.7
755	344405	731478.3	1.5	12.6	12.7	12.6	12.7	12.7	12.7	12.6
756	344381	731479.3	1.5	12.5	12.5	12.5	12.6	12.6	12.6	12.5
757	344371.3	731422.6	1.5	13.5	13.5	13.5	13.5	13.6	13.6	13.5
758	344358	731419.5	1.5	13.5	13.5	13.5	13.5	13.5	13.5	13.4
759	344329.8	731462.9	1.5	12.7	12.7	12.7	12.7	12.7	12.7	12.7
760	344318.6	731461.4	1.5	12.7	12.7	12.7	12.7	12.7	12.7	12.7
761	344313.5	731412.8	1.5	13.6	13.6	13.6	13.6	13.7	13.7	13.6
762	344295.6	731456.3	1.5	12.7	12.7	12.7	12.7	12.7	12.7	12.7
763	344296.6	731417.9	1.5	15.1	15.1	15.1	15.1	15.2	15.2	15.0
764	344242	731391.9	1.5	13.1	13.1	13.1	13.1	13.2	13.2	13.1
765	344254.2	731452.2	1.5	12.6	12.6	12.6	12.6	12.7	12.7	12.6
766	344271.6	731402.6	1.5	13.4	13.4	13.4	13.4	13.5	13.5	13.4
767	344223.6	731445	1.5	12.7	12.7	12.7	12.7	12.7	12.7	12.7
768	344217.4	731393.4	1.5	13.5	13.5	13.5	13.5	13.6	13.6	13.5
769	344198	731387.3	1.5	13.4	13.4	13.4	13.4	13.4	13.4	13.3
770	344198	731440.4	1.5	12.7	12.7	12.7	12.7	12.8	12.8	12.7
771	344173	731433.3	1.5	12.9	12.9	12.9	12.9	13.0	13.0	12.9
772	344177.6	731385.8	1.5	13.6	13.6	13.6	13.7	13.7	13.7	13.6
773	344175.5	731354.6	1.5	12.7	12.7	12.7	12.8	12.8	12.8	12.7
774	344178.1	731331.6	1.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
775	344180.1	731309.6	1.5	12.3	12.3	12.3	12.3	12.4	12.4	12.3
776	344155.6	731272.8	1.5	12.2	12.2	12.2	12.2	12.2	12.2	12.2
777	344145.4	731284.1	1.5	12.2	12.2	12.2	12.2	12.3	12.3	12.2
778	344132.6	731308.6	1.5	12.4	12.4	12.4	12.4	12.4	12.4	12.4
779	344144.9	731317.8	1.5	12.4	12.4	12.4	12.5	12.5	12.5	12.4



Receptor name	X(m)	Y(m)	Z(m)	Annual Mean PM <sub>10</sub> Concentration (µg/m <sup>3</sup> )						
				BC	SC1	SC2	SC3	SC4	SC5	SC6
780	344148.4	731336.2	1.5	12.6	12.6	12.6	12.6	12.7	12.7	12.6
781	344141.8	731347.4	1.5	12.7	12.8	12.8	12.8	12.8	12.8	12.7
782	344146.4	731362.3	1.5	13.0	13.1	13.0	13.1	13.1	13.1	13.0
783	344139.8	731376.1	1.5	13.7	13.7	13.7	13.7	13.8	13.8	13.6
784	344213.8	731310.1	1.5	12.2	12.2	12.2	12.2	12.2	12.2	12.2
785	344180.6	731269.3	1.5	12.1	12.1	12.1	12.1	12.1	12.1	12.1
786	344135.7	731422	1.5	12.9	12.9	12.9	12.9	12.9	12.9	12.9
787	344163.8	731470.6	1.5	12.3	12.3	12.3	12.4	12.4	12.4	12.3
788	344132.1	731474.7	1.5	12.2	12.2	12.2	12.3	12.3	12.3	12.2
789	344131.6	731509.9	1.5	12.1	12.1	12.1	12.1	12.1	12.1	12.1
790	344162.8	731515.1	1.5	12.1	12.1	12.1	12.1	12.1	12.1	12.1
791	344178.6	731487.9	1.5	12.2	12.2	12.2	12.2	12.2	12.2	12.2
792	344113.7	731409.5	1.5	12.8	12.8	12.8	12.9	12.9	12.9	12.8
793	344114.7	731362	1.5	13.6	13.6	13.6	13.7	13.8	13.8	13.6
794	344215.6	731744.7	1.5	14.1	14.1	14.1	14.1	14.2	14.2	14.1
795	344419	731775.5	1.5	14.1	14.1	14.1	14.1	14.2	14.2	14.1
796	344421.1	731754	1.5	13.2	13.2	13.2	13.2	13.3	13.3	13.2
797	344443.8	731732.1	1.5	12.9	13.0	13.0	13.0	13.0	13.1	12.9
798	344452.3	731710.6	1.5	12.7	12.7	12.7	12.7	12.8	12.8	12.7
799	344458.3	731695.3	1.5	12.6	12.6	12.6	12.6	12.7	12.7	12.6
800	344463.6	731672.6	1.5	12.4	12.4	12.4	12.4	12.5	12.5	12.4
801	344246.8	731799.8	1.5	15.4	15.4	15.4	15.5	15.6	15.6	15.4
802	344236.2	731748.4	1.5	14.1	14.1	14.1	14.2	14.2	14.3	14.1
803	344224.9	731791.3	1.5	16.3	16.4	16.4	16.5	16.6	16.6	16.4
804	344206.2	731788.5	1.5	16.2	16.3	16.3	16.4	16.5	16.5	16.3
805	344189.2	731744.3	1.5	14.4	14.4	14.4	14.5	14.5	14.6	14.4
806	344176.7	731737.8	1.5	14.0	14.1	14.1	14.1	14.2	14.2	14.0
807	344149.5	731739.4	1.5	14.6	14.6	14.6	14.6	14.7	14.7	14.5
808	344134.5	731731.8	1.5	14.1	14.1	14.1	14.2	14.2	14.3	14.1
809	344123.1	731730.5	1.5	14.1	14.2	14.2	14.2	14.3	14.3	14.1
810	344106.9	731732.1	1.5	14.5	14.6	14.5	14.6	14.7	14.7	14.5
811	344085	731727.3	1.5	14.4	14.4	14.4	14.5	14.5	14.6	14.4
812	344083	731787.3	1.5	13.8	13.8	13.8	13.9	13.9	13.9	13.8
813	344117.1	731790.5	1.5	13.9	14.0	14.0	14.0	14.1	14.1	13.9
814	344143	731794.6	1.5	14.0	14.0	14.0	14.0	14.1	14.1	14.0
815	344178.3	731804.3	1.5	13.7	13.8	13.7	13.8	13.8	13.9	13.7
816	344065.2	731724	1.5	14.4	14.4	14.4	14.4	14.5	14.6	14.4
817	344034.8	731723.2	1.5	14.8	14.8	14.8	14.8	14.9	15.0	14.8
818	344018.2	731728.5	1.5	16.2	16.2	16.2	16.2	16.4	16.4	16.1
819	343998.3	731788.1	1.5	13.4	13.4	13.4	13.4	13.4	13.5	13.4
820	344015.7	731791.3	1.5	13.3	13.3	13.3	13.3	13.4	13.4	13.3
821	344051	731784.8	1.5	13.7	13.7	13.7	13.7	13.8	13.8	13.7
822	343906.3	731646.7	1.5	12.4	12.4	12.4	12.4	12.4	12.5	12.4
823	343842.2	731647.3	1.5	12.4	12.4	12.4	12.4	12.4	12.5	12.4
824	344013.9	731680.3	1.5	12.8	12.8	12.8	12.8	12.8	12.9	12.8
825	343916.7	731725.5	1.5	15.4	15.4	15.4	15.4	15.5	15.6	15.4
826	343951.7	731256.2	1.5	13.0	13.0	13.0	13.0	13.1	13.1	13.0
827	344084.1	731339	1.5	13.4	13.4	13.4	13.5	13.6	13.6	13.4
828	344066.2	731331.8	1.5	13.7	13.7	13.7	13.8	13.9	13.9	13.7
829	344051.9	731323.6	1.5	13.8	13.9	13.8	13.9	14.0	14.0	13.8
830	344035	731311.4	1.5	13.7	13.8	13.8	13.8	13.9	13.9	13.7
831	344018.6	731299.6	1.5	13.7	13.7	13.7	13.8	13.8	13.8	13.7
832	344072.3	731397.8	1.5	12.6	12.6	12.6	12.6	12.6	12.6	12.6
833	344050.8	731392.1	1.5	12.5	12.5	12.5	12.5	12.6	12.6	12.5
834	343974.7	731389.1	1.5	12.6	12.6	12.6	12.6	12.7	12.6	12.6
835	343947.6	731352.3	1.5	13.0	13.0	13.0	13.0	13.1	13.1	13.0
836	343935.8	731392.6	1.5	12.3	12.4	12.3	12.4	12.4	12.4	12.3
837	343948.1	731331.3	1.5	13.2	13.3	13.3	13.3	13.3	13.3	13.2
838	343950.2	731322.1	1.5	13.5	13.5	13.5	13.5	13.6	13.6	13.5
839	343953.8	731307.8	1.5	14.5	14.5	14.5	14.5	14.6	14.6	14.5
840	343952.2	731279.7	1.5	14.6	14.6	14.6	14.7	14.8	14.8	14.6

Receptor name	X(m)	Y(m)	Z(m)	Annual Mean PM <sub>10</sub> Concentration (µg/m <sup>3</sup> )						
				BC	SC1	SC2	SC3	SC4	SC5	SC6
841	343933.3	731303.2	1.5	14.0	14.0	14.0	14.0	14.1	14.1	14.0
842	343919.5	731307.8	1.5	13.4	13.4	13.4	13.4	13.4	13.4	13.3
843	343907.8	731313.4	1.5	13.0	13.0	13.0	13.0	13.1	13.1	13.0
844	343930.8	731275.1	1.5	14.5	14.5	14.5	14.5	14.6	14.6	14.4
845	343954.3	731240.4	1.5	12.7	12.7	12.7	12.7	12.7	12.7	12.7
846	343956.8	731217.4	1.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
847	343990	731254.7	1.5	12.8	12.8	12.8	12.8	12.8	12.8	12.8
848	343992.1	731217.4	1.5	12.4	12.4	12.4	12.4	12.5	12.5	12.4
849	343994.1	731186.7	1.5	12.3	12.3	12.3	12.3	12.3	12.3	12.3
850	343984.4	731153	1.5	12.3	12.3	12.3	12.3	12.3	12.3	12.3
851	343973.7	731156.6	1.5	12.3	12.3	12.3	12.3	12.3	12.3	12.3
852	343960.4	731194.9	1.5	12.3	12.4	12.4	12.4	12.4	12.4	12.3
853	343911.3	731269	1.5	14.2	14.2	14.2	14.3	14.3	14.3	14.2
854	343898.5	731088.6	1.5	13.4	13.4	13.4	13.5	13.5	13.5	13.4
855	343909.8	731089.1	1.5	13.4	13.4	13.4	13.4	13.4	13.4	13.4
856	343918.5	731088.6	1.5	13.4	13.4	13.4	13.4	13.4	13.4	13.4
857	343937.4	731088.1	1.5	13.4	13.4	13.4	13.4	13.4	13.4	13.4
858	343960.9	731087.6	1.5	13.4	13.4	13.4	13.4	13.4	13.4	13.4
859	343981.8	731088.6	1.5	13.2	13.3	13.3	13.3	13.3	13.3	13.2
860	344011.5	731087.1	1.5	13.2	13.3	13.3	13.3	13.3	13.3	13.2
861	344080.5	731111.6	1.5	12.4	12.4	12.4	12.4	12.4	12.4	12.4
862	344111.7	731110.6	1.5	12.3	12.3	12.3	12.3	12.3	12.3	12.3
863	344129.5	731110.6	1.5	12.2	12.2	12.2	12.2	12.2	12.2	12.2
864	344157.6	731109	1.5	12.1	12.1	12.1	12.1	12.1	12.1	12.1
865	344012	731147.3	1.5	12.2	12.3	12.3	12.3	12.3	12.3	12.2
866	343761.1	731285.3	1.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5
867	343886.3	731261.8	1.5	14.2	14.2	14.2	14.2	14.3	14.3	14.1
868	343874	731260.8	1.5	14.5	14.5	14.5	14.5	14.6	14.6	14.4
869	343858.2	731256.2	1.5	14.3	14.4	14.3	14.4	14.4	14.5	14.3
870	343860.7	731286.4	1.5	14.2	14.2	14.2	14.3	14.3	14.3	14.2
871	343874	731288.9	1.5	14.2	14.3	14.2	14.3	14.3	14.4	14.2
872	343892.4	731293.5	1.5	14.1	14.1	14.1	14.1	14.1	14.2	14.0
873	343852.6	731284.8	1.5	14.2	14.2	14.2	14.2	14.3	14.3	14.2
874	343836.7	731290.9	1.5	13.3	13.4	13.3	13.4	13.4	13.4	13.3
875	343837.2	731253.1	1.5	14.6	14.6	14.6	14.7	14.7	14.7	14.6
876	343823.9	731249.1	1.5	14.4	14.5	14.4	14.5	14.5	14.5	14.4
877	343800.9	731244.9	1.5	14.5	14.6	14.6	14.6	14.7	14.7	14.5
878	343786.6	731240.9	1.5	14.3	14.4	14.4	14.4	14.4	14.5	14.3
879	343772.8	731235.8	1.5	13.9	14.0	13.9	14.0	14.0	14.0	13.9
880	343751.4	731232.2	1.5	13.8	13.9	13.8	13.9	13.9	13.9	13.8
881	343734	731229.1	1.5	13.8	13.9	13.8	13.9	13.9	13.9	13.8
882	343715.6	731224.5	1.5	13.7	13.8	13.8	13.8	13.8	13.8	13.7
883	343819.3	731277.6	1.5	14.2	14.2	14.2	14.2	14.3	14.3	14.2
884	343802	731273.1	1.5	14.3	14.3	14.3	14.3	14.4	14.4	14.3
885	343786.6	731270	1.5	14.3	14.3	14.3	14.3	14.4	14.4	14.3
886	343767.2	731268.9	1.5	14.2	14.3	14.2	14.3	14.3	14.3	14.2
887	343749.8	731323.1	1.5	12.8	12.8	12.8	12.8	12.8	12.8	12.8
888	343740.6	731342.1	1.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
889	343717.1	731371.2	1.5	12.2	12.2	12.2	12.2	12.2	12.2	12.2
890	343728.4	731320.1	1.5	12.7	12.7	12.7	12.7	12.7	12.7	12.7
891	343735.5	731297.6	1.5	12.9	12.9	12.9	13.0	12.9	13.0	12.9
892	343740.6	731284.8	1.5	13.1	13.2	13.1	13.2	13.2	13.2	13.1
893	343745.8	731268.9	1.5	13.6	13.6	13.6	13.6	13.6	13.6	13.6
894	343725.8	731264.4	1.5	13.2	13.2	13.2	13.2	13.3	13.3	13.2
895	343674.1	731531.8	1.5	12.1	12.1	12.1	12.1	12.1	12.1	12.1
896	343777.9	731101.3	1.5	13.0	13.1	13.1	13.1	13.1	13.1	13.1
897	343710.5	731270.5	1.5	12.8	12.9	12.9	12.9	12.9	12.9	12.8
898	343699.3	731251.1	1.5	13.5	13.6	13.6	13.6	13.6	13.7	13.6
899	343685.9	731257.3	1.5	13.0	13.1	13.0	13.1	13.1	13.1	13.0
900	343674.2	731262.8	1.5	12.8	12.8	12.8	12.8	12.8	12.8	12.8
901	343697.7	731219.4	1.5	13.6	13.7	13.6	13.7	13.7	13.7	13.6

Receptor name	X(m)	Y(m)	Z(m)	Annual Mean PM <sub>10</sub> Concentration (µg/m <sup>3</sup> )						
				BC	SC1	SC2	SC3	SC4	SC5	SC6
902	343646.6	731238.3	1.5	13.6	13.7	13.7	13.7	13.7	13.8	13.8
903	343630.8	731233.7	1.5	13.7	13.8	13.8	13.8	13.9	13.9	13.8
904	343620.5	731232.7	1.5	13.6	13.7	13.7	13.7	13.8	13.8	13.7
905	343591.4	731226.1	1.5	13.7	13.8	13.8	13.8	13.8	13.9	13.7
906	343575.1	731221.9	1.5	13.8	13.9	13.9	13.9	13.9	14.0	13.8
907	343587.3	731197.9	1.5	14.3	14.4	14.3	14.4	14.4	14.4	14.3
908	343606.8	731203.1	1.5	14.1	14.2	14.2	14.2	14.3	14.3	14.2
909	343637.4	731208.7	1.5	13.9	14.0	14.0	14.0	14.0	14.1	13.9
910	343675.2	731204.1	1.5	13.1	13.1	13.1	13.1	13.2	13.2	13.1
911	343620	731206.1	1.5	14.1	14.2	14.1	14.2	14.2	14.3	14.1
912	343593.4	731241.9	1.5	12.9	12.9	12.9	12.9	13.0	13.0	12.9
913	343646.1	731255.2	1.5	12.8	12.8	12.8	12.8	12.9	12.9	12.8
914	343566.4	731105.9	1.5	13.4	13.5	13.5	13.4	13.5	13.3	13.4
915	343601.6	731103.4	1.5	13.4	13.5	13.5	13.4	13.5	13.2	13.4
916	343645.6	731097.3	1.5	13.6	13.6	13.6	13.6	13.6	13.4	13.6
917	343761.1	731101.9	1.5	13.1	13.1	13.1	13.1	13.1	13.1	13.1
918	343789.7	731100.3	1.5	13.1	13.1	13.1	13.1	13.1	13.1	13.1
919	343511.3	731752.9	1.5	15.8	15.9	15.9	15.9	16.0	16.1	15.8
920	343348.5	731698.6	1.5	15.4	15.5	15.5	15.5	15.6	15.6	15.4
921	343365.5	731700.9	1.5	15.3	15.4	15.4	15.4	15.5	15.5	15.3
922	343385.4	731703.9	1.5	15.3	15.4	15.4	15.4	15.4	15.5	15.3
923	343349.1	731742	1.5	15.2	15.2	15.2	15.2	15.3	15.3	15.2
924	343364.1	731744.3	1.5	15.1	15.1	15.1	15.1	15.2	15.2	15.1
925	343375.1	731746.1	1.5	15.0	15.0	15.0	15.0	15.1	15.1	15.0
926	343386	731747.1	1.5	15.0	15.0	15.0	15.0	15.1	15.2	15.0
927	343402	731749.1	1.5	14.9	15.0	15.0	15.0	15.0	15.1	14.9
928	343406.3	731706.9	1.5	15.3	15.4	15.3	15.3	15.4	15.5	15.3
929	343416.6	731751.1	1.5	14.9	14.9	14.9	14.9	15.0	15.0	14.9
930	343419.8	731708.4	1.5	15.2	15.3	15.3	15.3	15.3	15.4	15.2
931	343436.5	731710.8	1.5	15.2	15.3	15.3	15.3	15.3	15.4	15.2
932	343433.4	731753.8	1.5	14.8	14.8	14.8	14.8	14.9	14.9	14.8
933	343455.9	731713.4	1.5	15.2	15.2	15.2	15.2	15.3	15.4	15.2
934	343451.5	731755.6	1.5	14.8	14.8	14.8	14.8	14.9	14.9	14.8
935	343469.5	731756.8	1.5	14.8	14.8	14.8	14.8	14.9	14.9	14.8
936	343490.6	731751.3	1.5	15.9	16.0	16.0	16.0	16.1	16.2	15.9
937	343532.1	731765.1	1.5	14.3	14.4	14.3	14.4	14.4	14.5	14.3
938	343536.8	731764.9	1.5	14.4	14.4	14.4	14.4	14.5	14.5	14.4
939	343548.6	731765.4	1.5	14.4	14.4	14.4	14.4	14.5	14.5	14.4
940	343554.2	731765.6	1.5	14.4	14.4	14.4	14.4	14.5	14.5	14.4
941	343566	731766.6	1.5	14.4	14.4	14.4	14.4	14.5	14.5	14.4
942	343576.7	731767.4	1.5	14.3	14.4	14.4	14.4	14.5	14.5	14.3
943	343594.2	731768.4	1.5	14.3	14.4	14.3	14.4	14.4	14.5	14.3
944	343610.6	731769.6	1.5	14.3	14.3	14.3	14.3	14.4	14.4	14.3
945	343622.5	731769.6	1.5	14.4	14.4	14.4	14.4	14.5	14.5	14.4
946	343638.9	731770.8	1.5	14.3	14.4	14.4	14.4	14.5	14.5	14.3
947	343649.9	731770.6	1.5	14.4	14.4	14.4	14.4	14.5	14.6	14.4
948	343660.8	731771.1	1.5	14.4	14.4	14.4	14.4	14.5	14.6	14.4
949	343681.1	731771.9	1.5	14.4	14.4	14.4	14.4	14.5	14.5	14.4
950	343699.9	731772.3	1.5	14.3	14.4	14.4	14.4	14.5	14.5	14.3
951	343738	731761.9	1.5	15.9	15.9	15.9	15.9	16.1	16.1	15.9
952	343824	731760.7	1.5	16.2	16.3	16.3	16.3	16.4	16.5	16.2
953	343749.9	731726.8	1.5	14.7	14.7	14.7	14.7	14.8	14.8	14.7
954	343637.4	731729.8	1.5	15.4	15.4	15.4	15.4	15.6	15.6	15.4
955	343528	731724.3	1.5	15.9	15.9	15.9	15.9	16.0	16.1	15.8
956	343539.8	731236.8	1.5	12.8	12.8	12.8	12.8	12.9	12.9	12.8
957	343557.2	731218.4	1.5	13.8	13.9	13.9	13.9	14.0	14.0	13.8
958	343529.6	731208.1	1.5	14.6	14.7	14.7	14.7	14.7	14.8	14.6
959	343505	731206.1	1.5	14.1	14.2	14.2	14.2	14.2	14.3	14.1
960	343488.2	731202.6	1.5	14.2	14.2	14.2	14.3	14.1	14.3	14.2
961	343470.3	731199.5	1.5	14.1	14.2	14.2	14.2	14.0	14.3	14.1
962	343515.8	731180.6	1.5	14.2	14.3	14.3	14.3	14.3	14.4	14.2

Receptor name	X(m)	Y(m)	Z(m)	Annual Mean PM <sub>10</sub> Concentration (µg/m <sup>3</sup> )						
				BC	SC1	SC2	SC3	SC4	SC5	SC6
963	343492.3	731177.5	1.5	14.6	14.7	14.6	14.7	14.5	14.7	14.6
964	343473.9	731171.9	1.5	14.5	14.5	14.5	14.6	14.3	14.6	14.4
965	343460.6	731166.3	1.5	14.2	14.3	14.3	14.3	14.1	14.4	14.2
966	343449.3	731166.3	1.5	14.5	14.6	14.5	14.6	14.3	14.7	14.5
967	343432.5	731165.3	1.5	14.9	15.0	15.0	15.1	14.7	15.1	14.9
968	343411.5	731159.6	1.5	14.9	15.0	15.0	15.2	14.8	15.1	15.0
969	343407.9	731186.2	1.5	14.3	14.4	14.3	14.4	14.3	14.4	14.3
970	343425.3	731189.3	1.5	14.3	14.4	14.4	14.5	14.2	14.5	14.3
971	343448.8	731193.9	1.5	14.3	14.4	14.4	14.5	14.1	14.5	14.3
972	343400.3	731185.7	1.5	14.2	14.2	14.2	14.3	14.3	14.3	14.2
973	343370.1	731182.6	1.5	13.9	14.0	14.0	14.0	14.7	14.1	13.9
974	343345.6	731184.6	1.5	13.8	13.9	13.9	13.9	14.8	14.1	13.8
975	343389	731137.6	1.5	14.6	14.8	14.7	14.9	14.2	14.6	14.7
976	343382.4	731104.9	1.5	15.1	15.3	15.3	15.2	15.1	15.9	15.2
977	343413.1	731107.5	1.5	14.2	14.3	14.3	14.2	14.2	14.6	14.2
978	343430.9	731107	1.5	14.0	14.1	14.0	14.0	14.0	14.2	14.0
979	343465.2	731105.9	1.5	13.8	13.9	13.8	13.8	13.8	13.8	13.8
980	343499.9	731107	1.5	13.6	13.6	13.6	13.6	13.6	13.5	13.6
981	343533.2	731105.9	1.5	13.5	13.6	13.6	13.5	13.6	13.4	13.5
982	343551.5	731105.4	1.5	13.5	13.5	13.5	13.5	13.5	13.3	13.5
983	343314.9	731073.8	1.5	17.8	18.2	18.0	16.3	18.2	19.6	17.9
984	343302.7	731108.5	1.5	15.7	16.0	15.9	16.2	16.7	16.3	15.8
985	343338.2	731198.9	1.5	13.3	13.3	13.3	13.3	13.8	13.4	13.3
986	343288.2	731984.2	1.5	15.7	15.8	15.8	15.7	15.7	15.8	15.7
987	343202.4	731719.5	1.5	18.1	18.2	18.2	18.2	18.3	18.4	18.1
988	343179.7	731715.4	1.5	20.2	20.4	20.3	20.3	20.4	20.5	20.2
989	343195.3	731717.9	1.5	18.7	18.8	18.7	18.7	18.8	18.9	18.7
990	343213.3	731721.1	1.5	17.5	17.6	17.6	17.6	17.7	17.8	17.6
991	343219.4	731725.6	1.5	16.8	16.9	16.9	16.9	16.9	17.0	16.8
992	343228.9	731726.8	1.5	16.5	16.6	16.6	16.6	16.6	16.7	16.5
993	343236	731725	1.5	16.6	16.7	16.7	16.7	16.7	16.8	16.6
994	343244.9	731726.8	1.5	16.3	16.4	16.4	16.4	16.4	16.5	16.3
995	343253.4	731727.8	1.5	16.1	16.2	16.2	16.2	16.2	16.3	16.1
996	343277.4	731732.1	1.5	15.6	15.7	15.7	15.7	15.8	15.8	15.6
997	343315.1	731736.9	1.5	15.4	15.4	15.4	15.4	15.5	15.5	15.4
998	343319.5	731737.6	1.5	15.3	15.4	15.4	15.4	15.4	15.5	15.3
999	343332.5	731739.4	1.5	15.3	15.3	15.3	15.3	15.4	15.4	15.3
1000	343177.3	731773.2	1.5	16.9	17.0	17.0	17.0	17.0	17.1	16.9
1001	343184.6	731781.9	1.5	16.1	16.2	16.2	16.2	16.2	16.2	16.1
1002	343192.8	731791.9	1.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5
1003	343198.9	731797.4	1.5	15.1	15.2	15.2	15.1	15.2	15.2	15.1
1004	343204.1	731813.9	1.5	15.1	15.2	15.2	15.1	15.2	15.2	15.1
1005	343220	731842.7	1.5	15.6	15.6	15.6	15.6	15.6	15.6	15.6
1006	343246.3	731866.5	1.5	14.8	14.9	14.9	14.8	14.9	14.8	14.8
1007	343263.1	731883.6	1.5	14.5	14.6	14.6	14.5	14.5	14.5	14.5
1008	343268	731893.1	1.5	14.6	14.6	14.6	14.6	14.6	14.6	14.6
1009	343271.1	731902.3	1.5	14.7	14.8	14.8	14.8	14.8	14.8	14.8
1010	343274.7	731909.9	1.5	14.7	14.8	14.8	14.7	14.7	14.8	14.7
1011	343276.6	731914.5	1.5	14.7	14.8	14.8	14.7	14.8	14.8	14.8
1012	343277.5	731921.5	1.5	15.1	15.1	15.1	15.1	15.1	15.1	15.1
1013	343279	731933.4	1.5	15.6	15.7	15.7	15.6	15.6	15.7	15.6
1014	343281.1	731944.1	1.5	15.7	15.8	15.8	15.7	15.7	15.8	15.7
1015	343284.2	731959.7	1.5	15.7	15.8	15.8	15.7	15.7	15.8	15.7
1016	343290.3	731997.9	1.5	15.8	15.9	15.9	15.8	15.8	15.9	15.8
1017	343291.8	732007.1	1.5	15.8	15.9	15.9	15.9	15.9	15.9	15.9
1018	343294	732019.6	1.5	15.7	15.8	15.8	15.8	15.8	15.8	15.7
1019	343295.5	732026.3	1.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5
1020	343296.4	732034.9	1.5	15.1	15.2	15.1	15.1	15.1	15.2	15.1
1021	343297.3	732040.7	1.5	14.7	14.8	14.8	14.8	14.7	14.8	14.8
1022	343298.6	732047.4	1.5	14.4	14.4	14.4	14.4	14.4	14.5	14.4
1023	343301	732057.2	1.5	13.9	14.0	14.0	13.9	13.9	14.0	13.9

Receptor name	X(m)	Y(m)	Z(m)	Annual Mean PM <sub>10</sub> Concentration (µg/m <sup>3</sup> )						
				BC	SC1	SC2	SC3	SC4	SC5	SC6
1024	343305.9	732062.7	1.5	13.4	13.4	13.4	13.4	13.4	13.4	13.4
1025	343317.2	732071.4	1.5	12.7	12.7	12.7	12.7	12.7	12.7	12.7
1026	343323.9	732073.9	1.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
1027	343332.5	732078.1	1.5	12.3	12.3	12.3	12.3	12.3	12.3	12.3
1028	343314.3	731452.7	1.5	12.3	12.3	12.3	12.3	12.3	12.3	12.3
1029	343300.5	731450.7	1.5	12.3	12.3	12.3	12.3	12.3	12.4	12.3
1030	343276.2	731447.4	1.5	12.4	12.4	12.4	12.4	12.4	12.4	12.4
1031	343262	731445.4	1.5	12.4	12.4	12.4	12.4	12.5	12.5	12.4
1032	343252.2	731443.8	1.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
1033	343224.7	731442.6	1.5	12.6	12.6	12.6	12.7	12.7	12.7	12.6
1034	343211.3	731467.3	1.5	12.6	12.7	12.6	12.7	12.7	12.7	12.6
1035	343209.3	731476.2	1.5	12.6	12.7	12.6	12.7	12.7	12.7	12.6
1036	343201.6	731498.5	1.5	12.7	12.7	12.7	12.7	12.8	12.7	12.7
1037	343197.5	731518.8	1.5	12.8	12.8	12.8	12.8	12.8	12.8	12.8
1038	343183.3	731557.7	1.5	13.1	13.1	13.1	13.1	13.1	13.1	13.1
1039	343187	731673.5	1.5	19.1	19.2	19.1	19.1	19.2	19.4	19.1
1040	343209.7	731676.8	1.5	18.2	18.3	18.3	18.3	18.4	18.5	18.2
1041	343228.9	731680	1.5	17.4	17.5	17.4	17.5	17.5	17.6	17.4
1042	343250.8	731683.3	1.5	16.6	16.6	16.6	16.6	16.7	16.8	16.6
1043	343271.7	731686.7	1.5	16.1	16.2	16.2	16.2	16.3	16.3	16.1
1044	343294	731690.1	1.5	15.8	15.9	15.9	15.9	16.0	16.0	15.8
1045	343306.9	731692.4	1.5	15.7	15.8	15.8	15.8	15.9	15.9	15.7
1046	343326.4	731695.8	1.5	15.6	15.7	15.7	15.7	15.8	15.8	15.6
1047	343271	731269.3	1.5	12.7	12.7	12.7	12.7	12.8	12.8	12.7
1048	343229.6	731275.9	1.5	12.6	12.6	12.6	12.6	12.7	12.7	12.6
1049	343227	731284.1	1.5	12.6	12.6	12.6	12.6	12.7	12.7	12.6
1050	343222.9	731295.8	1.5	12.6	12.6	12.6	12.6	12.6	12.6	12.6
1051	343214.8	731322.4	1.5	12.5	12.5	12.5	12.5	12.6	12.6	12.5
1052	343206.4	731341.3	1.5	12.5	12.5	12.5	12.5	12.6	12.6	12.5
1053	343204	731350.6	1.5	12.5	12.5	12.5	12.5	12.6	12.6	12.5
1054	343201.6	731357	1.5	12.5	12.5	12.5	12.5	12.6	12.6	12.5
1055	343198.3	731367.2	1.5	12.5	12.5	12.5	12.5	12.6	12.6	12.5
1056	343196.3	731381.8	1.5	12.6	12.6	12.6	12.6	12.6	12.6	12.6
1057	343187.4	731378.1	1.5	12.5	12.5	12.5	12.5	12.6	12.6	12.5
1058	343186.2	731411.8	1.5	13.0	13.1	13.0	13.1	13.1	13.1	13.0
1059	343178.5	731409.3	1.5	12.9	13.0	13.0	13.0	13.0	13.0	13.0
1060	343230.8	731415.8	1.5	12.7	12.7	12.7	12.7	12.7	12.8	12.7
1061	343235.2	731400.4	1.5	12.6	12.6	12.6	12.6	12.6	12.6	12.6
1062	343237.7	731388.6	1.5	12.5	12.6	12.5	12.6	12.6	12.6	12.5
1063	343242.1	731371.6	1.5	12.5	12.5	12.5	12.5	12.6	12.6	12.5
1064	343249.4	731346.1	1.5	12.5	12.5	12.5	12.5	12.6	12.6	12.5
1065	343257.5	731325.4	1.5	12.5	12.5	12.5	12.5	12.6	12.6	12.5
1066	343262.8	731306.8	1.5	12.5	12.6	12.5	12.6	12.6	12.6	12.5
1067	343265.6	731417	1.5	12.4	12.4	12.4	12.4	12.5	12.5	12.4
1068	343296.8	731421.1	1.5	12.3	12.3	12.3	12.3	12.4	12.4	12.3
1069	343312.2	731422.7	1.5	12.3	12.3	12.3	12.3	12.3	12.3	12.3
1070	343180.1	731431.1	1.5	12.9	12.9	12.9	12.9	12.9	12.9	12.9
1071	343151.9	731241.1	1.5	13.2	13.2	13.2	13.2	13.3	13.3	13.2
1072	343259.8	731156.6	1.5	14.6	14.7	14.6	14.6	15.1	14.8	14.6
1073	343270.5	731152.9	1.5	14.7	14.8	14.8	14.8	15.4	15.0	14.7
1074	343287.8	731105.9	1.5	15.4	15.6	15.5	15.6	15.9	15.7	15.4
1075	343276.6	731104.9	1.5	15.3	15.5	15.4	15.3	15.7	15.6	15.4
1076	343264.3	731103.9	1.5	15.4	15.5	15.5	15.3	15.7	15.5	15.4
1077	343243.4	731105.9	1.5	15.0	15.1	15.1	14.9	15.2	14.6	15.1
1078	343201	731109.5	1.5	14.5	14.6	14.6	14.4	14.6	13.8	14.6
1079	343210.7	731078.4	1.5	16.3	16.4	16.3	16.3	16.3	14.7	16.3
1080	343189.2	731077.8	1.5	15.8	15.9	15.9	15.8	15.9	14.3	15.8
1081	343178.5	731074.8	1.5	15.0	15.1	15.0	15.0	15.1	13.9	15.0
1082	343158	731123.8	1.5	13.5	13.5	13.5	13.5	13.6	13.2	13.5
1083	343147.3	731200.8	1.5	13.6	13.6	13.6	13.6	13.7	13.7	13.6
1084	343184.6	731169.6	1.5	13.2	13.2	13.2	13.2	13.3	13.2	13.2

Receptor name	X(m)	Y(m)	Z(m)	Annual Mean PM <sub>10</sub> Concentration (µg/m <sup>3</sup> )						
				BC	SC1	SC2	SC3	SC4	SC5	SC6
1085	343200.5	731161.4	1.5	13.3	13.3	13.3	13.3	13.4	13.3	13.3
1086	343208.6	731163.4	1.5	13.5	13.5	13.5	13.5	13.6	13.5	13.5
1087	343217.8	731166	1.5	13.8	13.8	13.8	13.8	13.9	13.8	13.7
1088	343244.4	731149.6	1.5	13.8	13.8	13.8	13.8	14.0	13.8	13.8
1089	343173.4	731233.9	1.5	13.2	13.2	13.2	13.2	13.3	13.3	13.2
1090	343198.4	731221.7	1.5	13.3	13.3	13.3	13.3	13.4	13.4	13.3
1091	343219.9	731215.6	1.5	13.4	13.4	13.4	13.4	13.5	13.5	13.3
1092	343234.2	731208.9	1.5	13.6	13.7	13.6	13.7	13.8	13.8	13.6
1093	343245.4	731204.8	1.5	13.8	13.8	13.8	13.8	14.0	13.9	13.8
1094	343285.8	731221.2	1.5	13.1	13.1	13.1	13.1	13.3	13.2	13.1
1095	343242.9	731244.7	1.5	12.8	12.8	12.8	12.8	12.9	12.9	12.8
1096	343233.7	731261.6	1.5	12.7	12.7	12.7	12.7	12.8	12.8	12.7
1097	343126.6	731596.1	1.5	14.1	14.1	14.1	14.2	14.2	14.2	14.1
1098	343171.8	731451.2	1.5	12.6	12.7	12.7	12.7	12.7	12.7	12.6
1099	343169.1	731460.1	1.5	12.6	12.7	12.7	12.7	12.7	12.7	12.6
1100	343167.1	731466.2	1.5	12.6	12.7	12.7	12.7	12.7	12.7	12.6
1101	343164.5	731476.1	1.5	12.7	12.7	12.7	12.7	12.7	12.7	12.7
1102	343161.4	731490.1	1.5	12.7	12.7	12.7	12.7	12.8	12.8	12.7
1103	343153.3	731515.4	1.5	12.8	12.9	12.8	12.9	12.9	12.9	12.8
1104	343144.2	731512.2	1.5	12.8	12.8	12.8	12.8	12.9	12.9	12.8
1105	343150.5	731493.8	1.5	12.7	12.7	12.7	12.7	12.8	12.8	12.7
1106	343145.8	731533.1	1.5	12.9	13.0	13.0	13.0	13.0	13.0	13.0
1107	343144.2	731539.8	1.5	13.0	13.0	13.0	13.0	13.1	13.1	13.0
1108	343141.6	731548.1	1.5	13.1	13.1	13.1	13.1	13.2	13.2	13.1
1109	343137.7	731559.8	1.5	13.2	13.3	13.3	13.3	13.3	13.3	13.2
1110	343133.7	731573.6	1.5	13.5	13.5	13.5	13.5	13.6	13.5	13.5
1111	343129.6	731585.8	1.5	13.8	13.8	13.8	13.8	13.9	13.8	13.8
1112	343123.5	731604.6	1.5	14.5	14.5	14.5	14.5	14.6	14.6	14.5
1113	343120.9	731613.7	1.5	15.0	15.1	15.1	15.1	15.2	15.2	15.1
1114	343111.2	731620.6	1.5	16.0	16.1	16.1	16.2	16.2	16.2	16.1
1115	343099.4	731601.1	1.5	14.8	14.9	14.9	14.9	15.0	15.0	14.9
1116	343093.3	731593.4	1.5	14.6	14.7	14.7	14.7	14.8	14.8	14.7
1117	343091.1	731589.6	1.5	14.5	14.6	14.6	14.6	14.7	14.6	14.6
1118	343085.6	731582.1	1.5	14.4	14.5	14.5	14.5	14.5	14.5	14.4
1119	343176.8	731580.5	1.5	13.3	13.4	13.4	13.4	13.4	13.4	13.3
1120	343168.9	731604	1.5	13.9	13.9	13.9	13.9	14.0	14.0	13.9
1121	343161.3	731629.3	1.5	15.1	15.2	15.1	15.2	15.2	15.2	15.1
1122	343152.3	731650.4	1.5	17.7	17.8	17.8	17.8	17.9	18.0	17.7
1123	343087.9	731571.8	1.5	14.0	14.0	14.0	14.0	14.1	14.1	14.0
1124	343064.6	731537.9	1.5	13.7	13.7	13.7	13.8	13.8	13.8	13.7
1125	343052.6	731532.4	1.5	13.9	14.0	14.0	14.0	14.0	14.0	13.9
1126	343048.1	731525.8	1.5	13.9	14.0	13.9	14.0	14.0	14.0	13.9
1127	343044.1	731519.5	1.5	13.9	13.9	13.9	14.0	14.0	14.0	13.9
1128	343039.4	731512.4	1.5	13.9	13.9	13.9	13.9	14.0	14.0	13.9
1129	343049.3	731455.9	1.5	13.2	13.3	13.2	13.3	13.3	13.3	13.2
1130	343056.2	731460.4	1.5	13.1	13.1	13.1	13.1	13.2	13.2	13.1
1131	343019.6	731309.2	1.5	13.7	13.7	13.7	13.7	13.7	13.8	13.6
1132	343023.7	731252.9	1.5	13.5	13.6	13.5	13.6	13.6	13.7	13.5
1133	343087.5	731268.7	1.5	13.4	13.4	13.4	13.4	13.5	13.5	13.4
1134	343124.8	731254.4	1.5	13.2	13.2	13.2	13.2	13.3	13.3	13.2
1135	342965.9	731240.6	1.5	13.1	13.1	13.1	13.1	13.1	13.2	13.1
1136	342976.6	731252.4	1.5	13.2	13.2	13.2	13.2	13.2	13.3	13.2
1137	342988.9	731262.1	1.5	13.4	13.4	13.4	13.5	13.5	13.5	13.4
1138	343004.2	731264.1	1.5	13.7	13.8	13.7	13.8	13.8	13.8	13.7
1139	343083.2	731283.3	1.5	13.2	13.2	13.2	13.2	13.2	13.3	13.2
1140	343086.8	731302.3	1.5	13.0	13.0	13.0	13.0	13.0	13.0	12.9
1141	343089.3	731319.3	1.5	12.9	12.9	12.9	12.9	12.9	12.9	12.8
1142	343088.5	731335.1	1.5	12.8	12.8	12.8	12.8	12.8	12.9	12.8
1143	343086.4	731348.9	1.5	12.8	12.8	12.8	12.8	12.8	12.8	12.8
1144	343084.8	731365.1	1.5	12.7	12.7	12.7	12.7	12.8	12.8	12.7
1145	343061.7	731299.9	1.5	13.2	13.2	13.2	13.2	13.2	13.3	13.1

Receptor name	X(m)	Y(m)	Z(m)	Annual Mean PM <sub>10</sub> Concentration (µg/m <sup>3</sup> )						
				BC	SC1	SC2	SC3	SC4	SC5	SC6
1146	343043.9	731291.8	1.5	13.6	13.6	13.6	13.7	13.7	13.7	13.6
1147	343037.4	731293.8	1.5	13.7	13.7	13.7	13.8	13.8	13.8	13.7
1148	343023.2	731303.9	1.5	13.8	13.8	13.7	13.8	13.8	13.9	13.7
1149	343060.9	731323	1.5	13.0	13.0	13.0	13.0	13.0	13.0	13.0
1150	343061.3	731339.2	1.5	12.9	12.9	12.9	12.9	12.9	13.0	12.9
1151	343062.9	731348.5	1.5	12.9	12.9	12.9	12.9	12.9	12.9	12.8
1152	343061.7	731358.6	1.5	12.8	12.8	12.8	12.8	12.9	12.9	12.8
1153	343085.2	731380.1	1.5	12.7	12.7	12.7	12.7	12.7	12.8	12.7
1154	343103.5	731385	1.5	12.6	12.7	12.7	12.7	12.7	12.7	12.6
1155	343122.9	731390.7	1.5	12.6	12.6	12.6	12.6	12.7	12.7	12.6
1156	343150.9	731399.6	1.5	12.7	12.7	12.7	12.7	12.7	12.7	12.7
1157	343159.8	731381.8	1.5	12.5	12.6	12.6	12.6	12.6	12.6	12.5
1158	343128.2	731372	1.5	12.6	12.6	12.6	12.6	12.6	12.6	12.6
1159	343069	731410.1	1.5	12.9	12.9	12.9	12.9	12.9	12.9	12.9
1160	343048.8	731404.9	1.5	12.9	13.0	13.0	13.0	13.0	13.0	12.9
1161	343044.3	731415.8	1.5	13.0	13.1	13.0	13.1	13.1	13.1	13.0
1162	343081.2	731400	1.5	12.7	12.8	12.8	12.8	12.8	12.8	12.7
1163	343097.8	731405.7	1.5	12.7	12.7	12.7	12.7	12.7	12.7	12.7
1164	343105.9	731260.6	1.5	13.3	13.3	13.3	13.3	13.4	13.4	13.3
1165	343110.8	731258.5	1.5	13.3	13.3	13.3	13.3	13.4	13.4	13.3
1166	343114.6	731410.3	1.5	12.7	12.7	12.7	12.7	12.7	12.7	12.7
1167	343157.8	731423.6	1.5	12.8	12.8	12.8	12.8	12.8	12.8	12.8
1168	343165.5	731426.1	1.5	12.8	12.9	12.8	12.9	12.9	12.9	12.8
1169	343170.8	731427.9	1.5	12.8	12.9	12.9	12.9	12.9	12.9	12.8
1170	343037.7	731425.9	1.5	13.2	13.2	13.2	13.2	13.2	13.2	13.2
1171	342982.4	731421.3	1.5	14.5	14.5	14.5	14.6	14.6	14.6	14.5
1172	342985.9	731415.7	1.5	14.1	14.2	14.1	14.2	14.2	14.2	14.1
1173	342960.5	731388.2	1.5	15.0	15.1	15.1	15.1	15.2	15.2	15.0
1174	342982.7	731324	1.5	14.3	14.3	14.3	14.4	14.4	14.5	14.3
1175	343128.9	731116.2	1.5	13.8	13.8	13.8	13.8	13.8	13.5	13.8
1176	343025.2	731113.1	1.5	13.9	13.9	13.9	13.9	13.9	13.9	13.9
1177	343037.9	731113.1	1.5	13.8	13.9	13.9	13.9	13.9	13.9	13.9
1178	343052.3	731112.6	1.5	13.9	13.9	13.9	13.9	13.9	13.9	13.9
1179	343064.5	731112.1	1.5	13.9	14.0	13.9	14.0	13.9	13.9	13.9
1180	343081.4	731114.1	1.5	13.8	13.8	13.8	13.8	13.8	13.7	13.8
1181	343099.8	731113.1	1.5	13.9	13.9	13.9	13.9	13.9	13.7	13.9
1182	342997.6	731138.6	1.5	13.1	13.2	13.1	13.2	13.2	13.2	13.1
1183	342987.9	731160.1	1.5	13.0	13.0	13.0	13.0	13.0	13.0	13.0
1184	342984.3	731171.9	1.5	13.0	13.0	13.0	13.0	13.0	13.0	13.0
1185	342982.8	731181.6	1.5	12.9	13.0	12.9	12.9	13.0	13.0	12.9
1186	342979.2	731191.3	1.5	13.0	13.0	13.0	13.0	13.0	13.0	12.9
1187	342975.1	731201	1.5	13.0	13.0	13.0	13.0	13.0	13.0	13.0
1188	342973.6	731209.7	1.5	13.0	13.0	13.0	13.0	13.0	13.0	13.0
1189	343030.8	731144	1.5	13.0	13.0	13.0	13.0	13.0	13.0	12.9
1190	343036.9	731157.3	1.5	12.8	12.9	12.9	12.9	12.9	12.9	12.8
1191	343058.9	731168.6	1.5	12.8	12.8	12.8	12.8	12.8	12.8	12.8
1192	343073.7	731164.4	1.5	12.8	12.8	12.8	12.8	12.8	12.8	12.8
1193	343056.9	731183.4	1.5	12.8	12.8	12.8	12.8	12.8	12.8	12.8
1194	343049.7	731198.2	1.5	12.9	12.9	12.9	12.9	12.9	12.9	12.9
1195	343031.8	731173.7	1.5	12.8	12.8	12.8	12.8	12.8	12.8	12.8
1196	343026.7	731189.5	1.5	12.8	12.8	12.8	12.8	12.8	12.8	12.8
1197	343023.1	731198.7	1.5	12.8	12.8	12.8	12.8	12.9	12.9	12.8
1198	343027.7	731214.6	1.5	12.9	12.9	12.9	12.9	12.9	13.0	12.9
1199	343052.3	731208.9	1.5	13.0	13.0	13.0	13.0	13.0	13.0	12.9
1200	343062.5	731228.3	1.5	13.3	13.4	13.3	13.4	13.4	13.4	13.3
1201	343041	731237	1.5	13.3	13.3	13.3	13.3	13.3	13.4	13.3
1202	343090.1	731221.2	1.5	13.4	13.4	13.4	13.4	13.4	13.4	13.3
1203	343123.8	731207.9	1.5	13.4	13.4	13.4	13.4	13.5	13.5	13.4
1204	342995	731213.5	1.5	12.9	12.9	12.9	12.9	12.9	12.9	12.9
1205	342970	731214.1	1.5	13.0	13.0	13.0	13.0	13.0	13.1	13.0
1206	342966.4	731225.3	1.5	13.0	13.1	13.0	13.1	13.1	13.1	13.0

Receptor name	X(m)	Y(m)	Z(m)	Annual Mean PM <sub>10</sub> Concentration (µg/m <sup>3</sup> )						
				BC	SC1	SC2	SC3	SC4	SC5	SC6
1207	342957.2	731113.7	1.5	13.9	14.0	13.9	14.0	13.9	14.0	13.9
1208	342949.9	731148	1.5	13.1	13.1	13.1	13.1	13.1	13.1	13.1
1209	343007.6	731456.8	1.5	14.1	14.1	14.1	14.2	14.2	14.2	14.1
1210	342995.6	731623.1	1.5	14.7	14.8	14.8	14.7	14.8	14.8	14.8
1211	343011.2	731628.3	1.5	15.1	15.2	15.2	15.1	15.2	15.2	15.1
1212	343020.3	731631.3	1.5	15.4	15.5	15.4	15.4	15.5	15.4	15.4
1213	343035.8	731635.3	1.5	15.8	15.8	15.8	15.8	15.9	15.8	15.8
1214	342986	731616.8	1.5	14.3	14.4	14.4	14.3	14.4	14.3	14.3
1215	342972.2	731612.8	1.5	14.1	14.2	14.2	14.1	14.2	14.1	14.1
1216	342961.2	731609.2	1.5	14.0	14.0	14.0	14.0	14.0	14.0	14.0
1217	342967	731649.6	1.5	14.6	14.7	14.7	14.6	14.7	14.6	14.6
1218	342959.5	731646.3	1.5	14.6	14.6	14.6	14.6	14.6	14.6	14.6
1219	342954.3	731644.6	1.5	14.5	14.6	14.6	14.5	14.6	14.5	14.5
1220	342959.2	731525.8	1.5	13.1	13.1	13.1	13.1	13.1	13.1	13.1
1221	342970	731519.6	1.5	13.3	13.4	13.3	13.4	13.4	13.4	13.3
1222	342953.7	731497	1.5	13.2	13.2	13.2	13.2	13.3	13.2	13.2
1223	342985.4	731521.1	1.5	13.9	14.0	13.9	14.0	14.0	14.0	13.9
1224	342994.1	731533.9	1.5	14.0	14.0	14.0	14.1	14.1	14.1	14.0
1225	343021.9	731484.1	1.5	14.0	14.1	14.1	14.1	14.1	14.1	14.0
1226	343029.9	731499.1	1.5	13.9	14.0	14.0	14.0	14.0	14.0	13.9
1227	342997.5	731544.4	1.5	13.8	13.9	13.9	13.9	13.9	13.9	13.8
1228	343003.8	731554.6	1.5	13.9	13.9	13.9	13.9	14.0	14.0	13.9
1229	343013.3	731569.4	1.5	14.0	14.0	14.0	14.0	14.1	14.0	14.0
1230	343019.7	731579.3	1.5	14.1	14.1	14.1	14.1	14.2	14.1	14.1
1231	343028.1	731586.2	1.5	14.4	14.4	14.4	14.4	14.5	14.5	14.4
1232	343033.8	731595.5	1.5	14.5	14.6	14.5	14.6	14.6	14.6	14.5
1233	343025.6	731472.8	1.5	13.9	13.9	13.9	13.9	13.9	13.9	13.9
1234	343018.1	731451.8	1.5	13.7	13.7	13.7	13.7	13.8	13.8	13.7
1235	343026.7	731441.6	1.5	13.4	13.5	13.4	13.5	13.5	13.5	13.4
1236	343036.8	731460.4	1.5	13.5	13.6	13.6	13.6	13.6	13.6	13.5
1237	342959.2	731474.6	1.5	13.9	14.0	14.0	14.0	14.0	14.0	13.9
1238	342954.1	731463.9	1.5	14.1	14.1	14.1	14.1	14.2	14.2	14.1
1239	342948.2	731453.2	1.5	14.1	14.1	14.1	14.1	14.2	14.2	14.1
1240	342942.5	731443.3	1.5	14.1	14.1	14.1	14.1	14.2	14.2	14.1
1241	342992.6	731449.6	1.5	14.8	14.9	14.9	14.9	15.0	15.0	14.8
1242	342990.3	731444.3	1.5	14.8	14.9	14.8	14.9	14.9	14.9	14.8
1243	342987	731438.1	1.5	14.8	14.9	14.8	14.9	15.0	14.9	14.8
1244	342984.8	731433.3	1.5	14.8	14.8	14.8	14.9	14.9	14.9	14.8
1245	342938.6	731748.3	1.5	13.0	13.0	13.0	13.0	13.0	13.0	13.0
1246	343103.9	731753.6	1.5	18.2	18.3	18.3	18.3	18.4	18.5	18.2
1247	343112.5	731756.7	1.5	17.7	17.8	17.8	17.8	17.9	17.9	17.7
1248	343096	731774.7	1.5	15.6	15.7	15.7	15.7	15.7	15.8	15.6
1249	343090.2	731789.1	1.5	14.8	14.9	14.8	14.9	14.9	14.9	14.8
1250	343086.2	731800.4	1.5	14.4	14.4	14.4	14.4	14.4	14.5	14.4
1251	343039.1	731720.6	1.5	16.7	16.7	16.7	16.7	16.8	16.8	16.6
1252	343031.5	731726.8	1.5	16.2	16.2	16.2	16.2	16.3	16.3	16.2
1253	343026.3	731732.6	1.5	16.0	16.0	16.0	16.0	16.1	16.1	16.0
1254	343021.1	731738.6	1.5	15.8	15.9	15.8	15.9	15.9	16.0	15.8
1255	343011.9	731746.3	1.5	15.4	15.4	15.4	15.4	15.4	15.5	15.4
1256	342817	731935.3	1.5	12.6	12.6	12.6	12.6	12.6	12.6	12.5
1257	342810.9	731940.2	1.5	12.4	12.4	12.4	12.5	12.5	12.5	12.4
1258	342804.8	731945.7	1.5	12.3	12.3	12.3	12.4	12.4	12.4	12.3
1259	342799.3	731951.8	1.5	12.2	12.3	12.2	12.3	12.3	12.3	12.2
1260	342791.9	731958.2	1.5	12.1	12.2	12.2	12.2	12.2	12.2	12.1
1261	342951.8	731735.1	1.5	13.1	13.1	13.1	13.2	13.2	13.2	13.1
1262	342923.9	731730.3	1.5	12.8	12.8	12.8	12.8	12.8	12.8	12.8
1263	342936.2	731717.4	1.5	12.9	12.9	12.9	12.9	13.0	13.0	12.9
1264	342945.6	731707.3	1.5	13.0	13.1	13.1	13.1	13.1	13.1	13.0
1265	342960.9	731726.3	1.5	13.2	13.3	13.3	13.3	13.3	13.3	13.2
1266	342971.6	731715.3	1.5	13.4	13.4	13.4	13.4	13.5	13.5	13.4
1267	342978.8	731703.3	1.5	13.6	13.7	13.6	13.6	13.7	13.7	13.6



Receptor name	X(m)	Y(m)	Z(m)	Annual Mean PM <sub>10</sub> Concentration (µg/m <sup>3</sup> )						
				BC	SC1	SC2	SC3	SC4	SC5	SC6
1268	342984.1	731689.7	1.5	13.8	13.9	13.8	13.8	13.9	13.9	13.8
1269	342958	731691.8	1.5	13.3	13.3	13.3	13.3	13.3	13.3	13.3
1270	342962.3	731676.1	1.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5
1271	342996.2	731657.3	1.5	15.4	15.5	15.5	15.4	15.5	15.5	15.4
1272	342920.3	731739.2	1.5	12.8	12.8	12.8	12.8	12.8	12.8	12.8
1273	342910.7	731748.7	1.5	12.7	12.7	12.7	12.7	12.7	12.7	12.7
1274	342940.6	731640.9	1.5	14.3	14.3	14.3	14.3	14.3	14.3	14.3
1275	342948.2	731605.3	1.5	13.8	13.9	13.9	13.8	13.9	13.9	13.8
1276	342937.1	731602.3	1.5	13.8	13.8	13.8	13.8	13.8	13.8	13.8
1277	342923.3	731598.3	1.5	13.7	13.7	13.7	13.7	13.7	13.7	13.7
1278	342909.3	731597.3	1.5	13.8	13.8	13.8	13.8	13.8	13.8	13.8
1279	342895.2	731592.8	1.5	13.7	13.8	13.8	13.7	13.8	13.7	13.7
1280	342949.2	731642.6	1.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5
1281	342944.1	731641.6	1.5	14.4	14.4	14.4	14.4	14.4	14.4	14.4
1282	342933.9	731639.8	1.5	14.1	14.2	14.2	14.1	14.2	14.1	14.1
1283	342905.4	731629.8	1.5	14.0	14.1	14.0	14.0	14.1	14.0	14.0
1284	342890.6	731625.2	1.5	14.0	14.0	14.0	14.0	14.0	14.0	14.0
1285	342871.5	731585.6	1.5	13.7	13.7	13.7	13.7	13.7	13.7	13.6
1286	342885.8	731590.1	1.5	13.7	13.7	13.7	13.7	13.7	13.7	13.7
1287	342894.4	731563.8	1.5	12.9	13.0	13.0	12.9	13.0	13.0	12.9
1288	342909.7	731555.3	1.5	12.9	12.9	12.9	12.9	12.9	12.9	12.9
1289	342900.5	731528.3	1.5	12.7	12.7	12.7	12.7	12.7	12.7	12.7
1290	342873	731534.4	1.5	12.7	12.7	12.7	12.7	12.7	12.7	12.7
1291	342916.7	731552.5	1.5	12.8	12.9	12.9	12.9	12.9	12.9	12.8
1292	342929.2	731546.1	1.5	12.8	12.9	12.9	12.9	12.9	12.9	12.9
1293	342913.9	731521	1.5	12.7	12.8	12.8	12.8	12.8	12.8	12.7
1294	342920.7	731513.4	1.5	12.8	12.8	12.8	12.8	12.8	12.8	12.8
1295	342938.5	731540.6	1.5	12.9	12.9	12.9	12.9	12.9	12.9	12.9
1296	342949.4	731534.3	1.5	12.9	13.0	13.0	13.0	13.0	13.0	12.9
1297	342942.2	731504.2	1.5	12.9	13.0	13.0	13.0	13.0	13.0	13.0
1298	342930.6	731507.6	1.5	12.8	12.9	12.8	12.8	12.9	12.9	12.8
1299	342931.5	731206	1.5	13.1	13.1	13.1	13.1	13.1	13.1	13.1
1300	342884.6	731232.6	1.5	14.1	14.1	14.1	14.1	14.1	14.2	14.0
1301	342815.2	731229.8	1.5	14.0	14.0	14.0	14.0	14.0	14.1	14.0
1302	342833.3	731246	1.5	14.3	14.3	14.3	14.3	14.3	14.4	14.2
1303	342835.4	731260.1	1.5	13.7	13.7	13.7	13.7	13.7	13.8	13.7
1304	342870.8	731228.3	1.5	14.7	14.7	14.7	14.7	14.7	14.8	14.6
1305	342863.5	731214.3	1.5	14.6	14.6	14.5	14.6	14.6	14.6	14.5
1306	342852.8	731202.3	1.5	14.8	14.8	14.8	14.8	14.8	14.9	14.7
1307	342855.6	731184.6	1.5	14.3	14.3	14.3	14.3	14.3	14.4	14.3
1308	342820.3	731165.3	1.5	15.4	15.4	15.4	15.4	15.4	15.5	15.3
1309	342835.8	731167.5	1.5	14.6	14.6	14.6	14.6	14.6	14.7	14.6
1310	342846.5	731162	1.5	14.2	14.2	14.2	14.2	14.2	14.2	14.1
1311	342855.4	731157.9	1.5	13.9	14.0	13.9	13.9	13.9	14.0	13.9
1312	342864.2	731154.7	1.5	13.8	13.8	13.8	13.8	13.8	13.9	13.8
1313	342873.1	731150.2	1.5	13.7	13.7	13.7	13.7	13.7	13.8	13.7
1314	342874.8	731173.2	1.5	13.8	13.8	13.8	13.8	13.8	13.9	13.8
1315	342864.7	731180	1.5	14.0	14.0	14.0	14.0	14.0	14.1	14.0
1316	342887.2	731176.7	1.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5
1317	342894.7	731165.1	1.5	13.4	13.5	13.5	13.5	13.4	13.5	13.4
1318	342897	731158.4	1.5	13.5	13.5	13.5	13.5	13.5	13.5	13.4
1319	342884.3	731115	1.5	14.1	14.2	14.2	14.2	14.2	14.2	14.1
1320	342873.4	731115.3	1.5	14.2	14.2	14.2	14.2	14.2	14.3	14.2
1321	342903.1	731139.6	1.5	13.4	13.4	13.4	13.4	13.4	13.5	13.4
1322	342899.3	731149.6	1.5	13.4	13.5	13.5	13.5	13.5	13.5	13.4
1323	342862.8	731114.3	1.5	14.4	14.4	14.4	14.4	14.4	14.4	14.4
1324	342849	731115.1	1.5	14.5	14.5	14.5	14.5	14.5	14.5	14.4
1325	342841.5	731115.5	1.5	14.5	14.6	14.6	14.6	14.6	14.6	14.5
1326	342830.3	731115.9	1.5	14.7	14.7	14.7	14.8	14.7	14.8	14.7
1327	342819.6	731115.9	1.5	14.9	15.0	14.9	15.0	14.9	15.0	14.9
1328	342809.7	731116.6	1.5	15.1	15.1	15.1	15.1	15.1	15.2	15.1

Receptor name	X(m)	Y(m)	Z(m)	Annual Mean PM <sub>10</sub> Concentration (µg/m <sup>3</sup> )						
				BC	SC1	SC2	SC3	SC4	SC5	SC6
1329	342798.6	731116.7	1.5	15.4	15.4	15.4	15.4	15.4	15.5	15.3
1330	342788.5	731116.9	1.5	15.6	15.7	15.6	15.7	15.6	15.7	15.6
1331	342913	731114.4	1.5	14.0	14.0	14.0	14.0	14.0	14.0	14.0
1332	342924.2	731114	1.5	14.0	14.0	14.0	14.0	14.0	14.0	14.0
1333	342929.7	731114.3	1.5	13.9	14.0	14.0	14.0	14.0	14.0	13.9
1334	342939.5	731113.9	1.5	13.9	14.0	14.0	14.0	14.0	14.0	13.9
1335	342946.5	731114	1.5	13.9	13.9	13.9	13.9	13.9	13.9	13.9
1336	342945.3	731161.3	1.5	13.0	13.1	13.1	13.1	13.1	13.1	13.0
1337	342939.3	731170.8	1.5	13.0	13.1	13.0	13.0	13.1	13.1	13.0
1338	342935.8	731180.5	1.5	13.0	13.1	13.0	13.1	13.1	13.1	13.0
1339	342934.2	731188.5	1.5	13.1	13.1	13.1	13.1	13.1	13.1	13.0
1340	342931	731196.6	1.5	13.1	13.1	13.1	13.1	13.1	13.1	13.1
1341	342929.5	731215.3	1.5	13.1	13.1	13.1	13.1	13.2	13.2	13.1
1342	342916.7	731230.9	1.5	13.3	13.3	13.3	13.3	13.4	13.4	13.3
1343	342904	731231.9	1.5	13.5	13.5	13.5	13.5	13.6	13.6	13.5
1344	342805.8	731416.9	1.5	12.9	12.9	12.9	12.9	12.9	12.9	12.9
1345	342817.7	731412.3	1.5	12.9	12.9	12.9	12.9	12.9	12.9	12.9
1346	342826.2	731405.8	1.5	13.0	13.0	13.0	13.0	13.0	13.0	13.0
1347	342807	731362.1	1.5	13.0	13.0	13.0	13.0	13.1	13.1	13.0
1348	342837.2	731352	1.5	13.7	13.7	13.7	13.6	13.7	13.7	13.6
1349	342861.4	731293.9	1.5	14.0	14.0	14.0	14.0	14.0	14.1	14.0
1350	342898.7	731369.4	1.5	14.8	14.9	14.9	14.9	15.0	14.9	14.8
1351	342874.5	731402.1	1.5	13.1	13.1	13.1	13.1	13.2	13.2	13.1
1352	342783.3	731510.3	1.5	12.6	12.6	12.6	12.6	12.6	12.6	12.6
1353	342797.6	731564.3	1.5	13.6	13.6	13.6	13.6	13.6	13.6	13.6
1354	342782.5	731559.4	1.5	13.5	13.6	13.6	13.5	13.6	13.5	13.5
1355	342773.4	731556.8	1.5	13.5	13.6	13.6	13.5	13.6	13.5	13.5
1356	342758.2	731552	1.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5
1357	342750.1	731550.1	1.5	13.6	13.6	13.6	13.5	13.6	13.6	13.5
1358	342738.8	731546.4	1.5	13.5	13.5	13.5	13.5	13.6	13.5	13.5
1359	342727.2	731539.8	1.5	13.4	13.4	13.4	13.3	13.4	13.4	13.3
1360	342713.3	731535.8	1.5	13.4	13.4	13.4	13.4	13.4	13.4	13.4
1361	342704.8	731532.9	1.5	13.4	13.4	13.4	13.3	13.4	13.4	13.3
1362	342698.6	731466.5	1.5	12.8	12.8	12.8	12.8	12.8	12.8	12.8
1363	342705.9	731460.1	1.5	12.8	12.8	12.8	12.8	12.9	12.8	12.8
1364	342719.2	731455.1	1.5	12.8	12.8	12.8	12.8	12.9	12.8	12.8
1365	342729.8	731451.2	1.5	12.8	12.8	12.8	12.8	12.9	12.8	12.8
1366	342743.5	731445.3	1.5	12.8	12.8	12.8	12.8	12.9	12.8	12.8
1367	342759.5	731451.1	1.5	12.7	12.7	12.7	12.7	12.7	12.7	12.7
1368	342766.3	731463.7	1.5	12.6	12.6	12.6	12.6	12.6	12.6	12.6
1369	342767.5	731474.3	1.5	12.5	12.6	12.5	12.5	12.6	12.6	12.5
1370	342772.8	731485.8	1.5	12.5	12.5	12.5	12.5	12.6	12.5	12.5
1371	342778.9	731499.4	1.5	12.5	12.6	12.6	12.5	12.6	12.6	12.5
1372	342789.7	731516.6	1.5	12.6	12.6	12.6	12.6	12.6	12.6	12.6
1373	342795.5	731531.3	1.5	12.7	12.7	12.7	12.7	12.7	12.7	12.7
1374	342810.8	731501.3	1.5	12.5	12.6	12.6	12.6	12.6	12.6	12.6
1375	342804.8	731486.1	1.5	12.5	12.5	12.5	12.5	12.6	12.5	12.5
1376	342802.7	731473.7	1.5	12.5	12.5	12.5	12.5	12.6	12.5	12.5
1377	342797.3	731462.1	1.5	12.6	12.6	12.6	12.6	12.6	12.6	12.5
1378	342789.6	731451.4	1.5	12.6	12.6	12.6	12.6	12.6	12.6	12.6
1379	342785.8	731442.7	1.5	12.7	12.7	12.7	12.7	12.7	12.7	12.7
1380	342829.6	731520.7	1.5	12.6	12.6	12.6	12.6	12.6	12.6	12.6
1381	342757.2	731351.1	1.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
1382	342719.1	731408.9	1.5	12.8	12.8	12.8	12.8	12.9	12.8	12.8
1383	342728.2	731405.2	1.5	12.8	12.8	12.8	12.8	12.9	12.8	12.8
1384	342736.6	731399.3	1.5	12.8	12.8	12.8	12.8	12.8	12.8	12.8
1385	342739.2	731390.4	1.5	12.7	12.7	12.7	12.6	12.7	12.7	12.6
1386	342708.4	731412.8	1.5	12.8	12.8	12.8	12.8	12.8	12.8	12.8
1387	342736.2	731380	1.5	12.5	12.5	12.5	12.5	12.6	12.5	12.5
1388	342735.6	731371.4	1.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
1389	342760.3	731381.2	1.5	12.7	12.7	12.7	12.7	12.8	12.8	12.7

Receptor name	X(m)	Y(m)	Z(m)	Annual Mean PM <sub>10</sub> Concentration (µg/m <sup>3</sup> )						
				BC	SC1	SC2	SC3	SC4	SC5	SC6
1390	342775.4	731386.9	1.5	13.1	13.1	13.1	13.1	13.1	13.1	13.1
1391	342795.7	731421.8	1.5	12.9	12.9	12.9	12.8	12.9	12.9	12.8
1392	342798.7	731373.7	1.5	13.2	13.2	13.2	13.1	13.2	13.2	13.1
1393	342758.1	731360.6	1.5	12.6	12.6	12.6	12.6	12.6	12.6	12.5
1394	342759.3	731342.3	1.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
1395	342759	731331.6	1.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
1396	342759.3	731321.2	1.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
1397	342762.4	731304.7	1.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
1398	342764.5	731295.2	1.5	12.6	12.6	12.6	12.6	12.6	12.6	12.6
1399	342768.8	731281.4	1.5	12.6	12.6	12.6	12.6	12.7	12.7	12.6
1400	342775.5	731270.1	1.5	12.7	12.7	12.7	12.7	12.7	12.8	12.7
1401	342747.7	731274.8	1.5	12.6	12.6	12.6	12.6	12.6	12.6	12.5
1402	342744.7	731284.8	1.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
1403	342741.3	731294	1.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
1404	342736.1	731300.1	1.5	12.4	12.4	12.4	12.4	12.4	12.4	12.4
1405	342733.3	731302.8	1.5	12.4	12.4	12.4	12.4	12.4	12.4	12.4
1406	342728.5	731308.3	1.5	12.4	12.4	12.4	12.4	12.4	12.4	12.4
1407	342734.6	731341.6	1.5	12.4	12.4	12.4	12.4	12.4	12.4	12.4
1408	342721.1	731331.6	1.5	12.4	12.4	12.4	12.4	12.4	12.4	12.3
1409	342735.5	731355.4	1.5	12.4	12.4	12.4	12.4	12.4	12.4	12.4
1410	342735.3	731363.9	1.5	12.5	12.5	12.5	12.5	12.5	12.5	12.4
1411	342720.3	731135.8	1.5	16.0	16.0	16.0	16.0	16.0	16.1	15.9
1412	342780.4	731260.7	1.5	12.9	12.9	12.9	12.9	12.9	12.9	12.9
1413	342784.7	731250.6	1.5	13.1	13.1	13.1	13.1	13.1	13.1	13.1
1414	342788.9	731242.9	1.5	13.2	13.2	13.2	13.2	13.2	13.2	13.2
1415	342801.8	731230.4	1.5	13.6	13.6	13.6	13.6	13.6	13.6	13.6
1416	342792.3	731200.8	1.5	14.4	14.4	14.4	14.4	14.4	14.5	14.4
1417	342751.1	731260.1	1.5	12.6	12.7	12.7	12.6	12.7	12.7	12.6
1418	342767.6	731218.2	1.5	13.1	13.1	13.1	13.1	13.1	13.2	13.1
1419	342741.3	731230.7	1.5	12.8	12.8	12.8	12.8	12.8	12.8	12.7
1420	342788.7	731194.3	1.5	14.6	14.6	14.6	14.6	14.6	14.7	14.6
1421	342783.6	731189.5	1.5	14.6	14.6	14.6	14.6	14.6	14.7	14.6
1422	342779.9	731186.3	1.5	14.6	14.6	14.6	14.6	14.6	14.7	14.6
1423	342775.8	731182.3	1.5	14.6	14.6	14.6	14.6	14.6	14.7	14.6
1424	342769.8	731176.9	1.5	14.7	14.7	14.7	14.7	14.7	14.8	14.6
1425	342755.6	731165.2	1.5	14.7	14.7	14.7	14.7	14.7	14.8	14.7
1426	342751.3	731162.3	1.5	14.7	14.7	14.7	14.7	14.7	14.8	14.7
1427	342809.3	731158.6	1.5	15.8	15.8	15.8	15.8	15.9	16.0	15.8
1428	342803	731152	1.5	15.8	15.9	15.9	15.9	15.9	16.0	15.8
1429	342765	731117.8	1.5	16.7	16.8	16.7	16.8	16.7	16.9	16.7
1430	342772.8	731126.7	1.5	16.5	16.5	16.5	16.6	16.5	16.7	16.5
1431	342714.6	731131.4	1.5	16.4	16.4	16.4	16.4	16.4	16.5	16.3
1432	342694	731127.4	1.5	16.3	16.2	16.2	16.3	16.2	16.3	16.2
1433	342690.5	731125.8	1.5	16.5	16.5	16.4	16.5	16.4	16.6	16.4
1434	342669.3	731119.1	1.5	18.3	18.2	18.2	18.3	18.2	18.4	18.1
1435	342665.1	731119.5	1.5	18.2	18.1	18.1	18.2	18.1	18.3	18.1
1436	342648.4	731120.6	1.5	18.0	17.9	17.9	18.0	17.9	18.1	17.9
1437	342636	731120.8	1.5	17.9	17.9	17.8	17.9	17.8	18.0	17.8
1438	342619.7	731121.8	1.5	17.4	17.3	17.3	17.4	17.3	17.5	17.3
1439	342606.7	731122.1	1.5	17.0	16.9	16.9	16.9	16.9	17.0	16.8
1440	342590.7	731123.3	1.5	16.3	16.2	16.2	16.2	16.2	16.3	16.2
1441	342673.8	731471.2	1.5	12.9	12.9	12.9	12.9	13.0	12.9	12.9
1442	342689.7	731528.3	1.5	13.4	13.4	13.4	13.4	13.4	13.4	13.3
1443	342679.3	731525.1	1.5	13.4	13.4	13.4	13.4	13.4	13.4	13.4
1444	342668	731521.9	1.5	13.4	13.4	13.4	13.4	13.4	13.4	13.4
1445	342656	731521.8	1.5	13.6	13.6	13.6	13.6	13.6	13.6	13.6
1446	342641.8	731516.8	1.5	13.6	13.6	13.6	13.6	13.6	13.6	13.6
1447	342634.4	731514.9	1.5	13.7	13.7	13.7	13.6	13.7	13.7	13.6
1448	342619.9	731510.4	1.5	13.7	13.7	13.7	13.7	13.8	13.7	13.7
1449	342611.7	731507.9	1.5	13.8	13.8	13.8	13.8	13.8	13.8	13.8
1450	342595	731503.1	1.5	14.0	14.0	14.0	14.0	14.0	14.0	14.0

Receptor name	X(m)	Y(m)	Z(m)	Annual Mean PM <sub>10</sub> Concentration (µg/m <sup>3</sup> )						
				BC	SC1	SC2	SC3	SC4	SC5	SC6
1451	342633.9	731483.4	1.5	13.2	13.2	13.2	13.2	13.2	13.2	13.1
1452	342650.3	731477.9	1.5	13.0	13.0	13.0	13.0	13.1	13.0	13.0
1453	342658.3	731475.9	1.5	13.0	13.0	13.0	13.0	13.0	13.0	13.0
1454	342683.6	731471.2	1.5	12.8	12.8	12.8	12.8	12.9	12.8	12.8
1455	342614.9	731432.7	1.5	12.7	12.7	12.7	12.7	12.7	12.7	12.7
1456	342631.6	731439.6	1.5	13.0	12.9	12.9	12.9	13.0	12.9	12.9
1457	342643.2	731436.4	1.5	12.9	12.9	12.9	12.9	12.9	12.9	12.9
1458	342652.4	731433.8	1.5	12.9	12.9	12.9	12.9	12.9	12.9	12.9
1459	342656.5	731421.9	1.5	12.6	12.6	12.6	12.6	12.6	12.6	12.6
1460	342661.5	731412.1	1.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
1461	342691	731403.4	1.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
1462	342336.4	731121.8	1.5	15.0	15.0	15.0	15.0	15.0	15.0	14.9
1463	342557.2	731145.1	1.5	13.8	13.8	13.8	13.8	13.8	13.8	13.8
1464	342545.8	731142.1	1.5	13.9	13.9	13.9	13.9	13.9	14.0	13.9
1465	342519.8	731132.3	1.5	14.6	14.6	14.5	14.6	14.6	14.6	14.5
1466	342490.4	731137.6	1.5	14.1	14.1	14.1	14.1	14.1	14.1	14.0
1467	342467	731132.8	1.5	14.4	14.4	14.4	14.4	14.4	14.4	14.4
1468	342459.9	731131.9	1.5	14.5	14.5	14.5	14.5	14.5	14.5	14.4
1469	342445.1	731131.2	1.5	14.5	14.5	14.5	14.5	14.5	14.6	14.5
1470	342425.1	731132.6	1.5	14.3	14.4	14.3	14.4	14.4	14.4	14.3
1471	342414.7	731128.9	1.5	14.7	14.7	14.7	14.7	14.7	14.7	14.7
1472	342390.7	731129.8	1.5	14.5	14.5	14.5	14.5	14.5	14.6	14.5
1473	342440.1	731088.9	1.5	16.2	16.2	16.2	16.3	16.2	16.3	16.1
1474	342394.4	731087.9	1.5	16.1	16.2	16.1	16.2	16.2	16.2	16.1
1475	342357.8	731084.8	1.5	16.3	16.3	16.3	16.3	16.3	16.4	16.2
1476	342364.8	731122.7	1.5	15.2	15.2	15.2	15.2	15.2	15.3	15.2
1477	342328	731119.6	1.5	15.1	15.2	15.1	15.1	15.2	15.2	15.1
1478	342307	731115.6	1.5	15.2	15.3	15.3	15.3	15.3	15.3	15.2
1479	342294.5	731113	1.5	15.3	15.4	15.4	15.4	15.4	15.4	15.3
1480	342313.3	731077.3	1.5	17.3	17.4	17.4	17.4	17.4	17.5	17.3
1481	342327.1	731072.2	1.5	15.5	15.5	15.5	15.5	15.5	15.5	15.4
1482	342354.6	731069	1.5	14.4	14.4	14.4	14.4	14.4	14.4	14.4
1483	342284.6	731066.2	1.5	16.8	16.8	16.8	16.8	16.8	16.9	16.7
1484	342277.9	731064.6	1.5	16.8	16.9	16.9	16.9	16.9	17.0	16.8
1485	342271.1	731063	1.5	16.9	17.0	16.9	16.9	17.0	17.0	16.9
1486	342264.9	731061.6	1.5	16.9	17.0	16.9	17.0	17.0	17.1	16.9
1487	342258.4	731060	1.5	16.9	16.9	16.9	16.9	16.9	17.0	16.8
1488	342239.6	731061.3	1.5	18.7	18.8	18.8	18.8	18.8	18.9	18.7
1489	342209.3	731047.3	1.5	15.3	15.3	15.3	15.3	15.3	15.3	15.2
1490	342482.9	731469.4	1.5	14.3	14.3	14.3	14.3	14.3	14.3	14.2
1491	342169.2	731410.6	1.5	14.0	13.9	13.9	13.9	13.9	14.0	13.9
1492	342180.3	731420.6	1.5	13.3	13.3	13.3	13.3	13.3	13.3	13.3
1493	342218.4	731426.8	1.5	13.8	13.8	13.8	13.8	13.8	13.8	13.8
1494	342229.4	731430.1	1.5	13.8	13.8	13.8	13.8	13.8	13.8	13.8
1495	342143.5	731400.6	1.5	14.3	14.3	14.3	14.3	14.3	14.3	14.3
1496	342249.3	731436	1.5	13.8	13.8	13.8	13.8	13.8	13.8	13.8
1497	342260.4	731439.7	1.5	13.8	13.8	13.8	13.8	13.8	13.8	13.7
1498	342372.1	731438.4	1.5	14.4	14.4	14.4	14.3	14.4	14.4	14.3
1499	342395.4	731451.3	1.5	15.5	15.5	15.5	15.4	15.5	15.5	15.4
1500	342432.5	731465	1.5	16.5	16.4	16.4	16.4	16.4	16.4	16.4
1501	342454.7	731471.6	1.5	16.5	16.4	16.4	16.4	16.4	16.4	16.3
1502	342429.5	731449.7	1.5	13.8	13.8	13.8	13.8	13.8	13.8	13.8
1503	342511.2	731460.6	1.5	13.3	13.3	13.3	13.3	13.3	13.3	13.3
1504	342488	731447.9	1.5	13.0	13.0	13.0	13.0	13.0	13.0	13.0
1505	342541.6	731462.9	1.5	13.6	13.6	13.6	13.5	13.6	13.6	13.5
1506	342546.4	731461.9	1.5	13.6	13.6	13.6	13.5	13.6	13.6	13.5
1507	342560.8	731458.8	1.5	13.5	13.5	13.5	13.5	13.6	13.5	13.5
1508	342565.4	731457.9	1.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5
1509	342579.9	731444.1	1.5	12.9	12.9	12.9	12.9	12.9	12.9	12.9
1510	342582.5	731440.4	1.5	12.8	12.8	12.8	12.8	12.8	12.8	12.8
1511	342020.1	731048.7	1.5	12.6	12.6	12.6	12.6	12.6	12.6	12.6

Receptor name	X(m)	Y(m)	Z(m)	Annual Mean PM <sub>10</sub> Concentration (µg/m <sup>3</sup> )						
				BC	SC1	SC2	SC3	SC4	SC5	SC6
1512	341935.6	730963.2	1.5	13.3	13.3	13.3	13.3	13.3	13.3	13.3
1513	341912.7	730956.9	1.5	13.0	13.0	13.0	13.1	13.0	13.0	13.0
1514	341861.7	730947.6	1.5	12.8	12.8	12.8	12.8	12.8	12.8	12.8
1515	341881.2	730949.1	1.5	12.8	12.8	12.8	12.8	12.8	12.8	12.8
1516	341948.7	730933.1	1.5	14.3	14.3	14.2	14.3	14.3	14.3	14.2
1517	341818.5	730976.8	1.5	12.8	12.7	12.7	12.8	12.7	12.7	12.7
1518	341874.3	730987.4	1.5	12.8	12.8	12.8	12.8	12.8	12.8	12.8
1519	341886	730989.9	1.5	12.8	12.8	12.8	12.8	12.8	12.8	12.8
1520	341904.5	730998.1	1.5	12.7	12.7	12.7	12.7	12.7	12.7	12.7
1521	341914.2	731031.2	1.5	12.2	12.2	12.2	12.2	12.2	12.2	12.2
1522	341959.8	731032.6	1.5	12.4	12.4	12.4	12.4	12.4	12.4	12.4
1523	341975.9	731037.5	1.5	12.4	12.4	12.4	12.4	12.4	12.4	12.4
1524	341985.6	731039.4	1.5	12.5	12.5	12.5	12.5	12.5	12.5	12.4
1525	341998.2	731043.3	1.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
1526	342008.9	731045.8	1.5	12.6	12.5	12.5	12.6	12.5	12.6	12.5
1527	342032.7	731053.1	1.5	12.6	12.6	12.6	12.7	12.6	12.7	12.6
1528	342045.8	731055.5	1.5	12.7	12.7	12.7	12.8	12.7	12.8	12.7
1529	342071.1	731053.6	1.5	13.3	13.3	13.2	13.3	13.3	13.3	13.2
1530	342092	731063.8	1.5	13.3	13.3	13.3	13.3	13.3	13.3	13.3
1531	341863.5	731281.4	1.5	13.9	13.9	13.9	13.9	13.9	13.9	13.9
1532	341750.1	731282.4	1.5	12.2	12.2	12.2	12.2	12.2	12.2	12.2
1533	341763.6	731246.8	1.5	12.1	12.1	12.1	12.1	12.1	12.1	12.1
1534	341764.8	731258.3	1.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
1535	341789.7	731258.1	1.5	13.0	13.0	13.0	13.0	13.0	13.0	12.9
1536	341788.4	731294.1	1.5	13.2	13.2	13.2	13.2	13.2	13.2	13.2
1537	341807.8	731302.4	1.5	13.2	13.2	13.2	13.2	13.2	13.2	13.2
1538	341819	731305.6	1.5	13.3	13.3	13.3	13.3	13.3	13.3	13.3
1539	341811.8	731265.5	1.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5
1540	341823.1	731269.4	1.5	13.7	13.7	13.7	13.7	13.7	13.7	13.7
1541	341839.8	731274.2	1.5	13.8	13.8	13.8	13.8	13.8	13.8	13.7
1542	341849.6	731314.7	1.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5
1543	341863.3	731318.3	1.5	13.7	13.7	13.7	13.6	13.6	13.7	13.6
1544	341885.6	731285.2	1.5	13.7	13.7	13.7	13.7	13.7	13.7	13.7
1545	341899.4	731289.9	1.5	13.8	13.8	13.8	13.8	13.8	13.8	13.7
1546	341920.3	731299.1	1.5	14.1	14.1	14.1	14.1	14.1	14.1	14.1
1547	341938.3	731304.4	1.5	14.1	14.1	14.1	14.1	14.1	14.2	14.1
1548	341953.2	731309.3	1.5	14.2	14.2	14.2	14.2	14.2	14.2	14.2
1549	341968	731313.4	1.5	14.2	14.2	14.2	14.1	14.1	14.2	14.1
1550	341990.4	731319.4	1.5	14.1	14.1	14.1	14.1	14.1	14.1	14.1
1551	342010.4	731329.1	1.5	14.6	14.6	14.6	14.5	14.6	14.6	14.5
1552	341999.1	731296.5	1.5	12.7	12.7	12.7	12.7	12.7	12.7	12.7
1553	342001.6	731280.4	1.5	12.4	12.4	12.4	12.4	12.4	12.4	12.4
1554	342003	731275.7	1.5	12.3	12.3	12.3	12.3	12.3	12.3	12.3
1555	341984.8	731271.1	1.5	12.3	12.3	12.3	12.3	12.3	12.3	12.3
1556	341986.3	731266.6	1.5	12.3	12.3	12.3	12.3	12.3	12.3	12.3
1557	342009.1	731256.6	1.5	12.2	12.2	12.2	12.2	12.2	12.2	12.2
1558	342010.6	731252.3	1.5	12.1	12.1	12.1	12.1	12.1	12.1	12.1
1559	342108.7	731347.3	1.5	13.5	13.5	13.5	13.4	13.4	13.5	13.4
1560	342104.7	731388.4	1.5	14.4	14.4	14.4	14.4	14.4	14.4	14.4
1561	342046	731369.1	1.5	14.6	14.6	14.6	14.6	14.6	14.6	14.6
1562	341907.8	731327.8	1.5	14.4	14.4	14.4	14.3	14.3	14.4	14.3
1563	341945.1	731339.9	1.5	14.3	14.3	14.3	14.2	14.2	14.3	14.2
1564	341551.8	730928.3	1.5	12.3	12.3	12.3	12.3	12.3	12.3	12.3
1565	341804.4	730973.8	1.5	12.8	12.7	12.7	12.8	12.7	12.8	12.7
1566	341795.7	730972.3	1.5	12.8	12.7	12.7	12.8	12.7	12.7	12.7
1567	341785.4	730970.6	1.5	12.7	12.7	12.7	12.8	12.7	12.7	12.7
1568	341773.8	730981.8	1.5	12.3	12.3	12.3	12.3	12.3	12.3	12.3
1569	341766	730980.3	1.5	12.3	12.3	12.3	12.3	12.3	12.3	12.3
1570	341757.3	730978.4	1.5	12.3	12.3	12.3	12.3	12.3	12.3	12.3
1571	341746.6	730976.2	1.5	12.3	12.3	12.3	12.3	12.3	12.3	12.3
1572	341780.1	730929.6	1.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5

Receptor name	X(m)	Y(m)	Z(m)	Annual Mean PM <sub>10</sub> Concentration (µg/m <sup>3</sup> )						
				BC	SC1	SC2	SC3	SC4	SC5	SC6
1573	341723.8	730975.6	1.5	12.2	12.2	12.2	12.2	12.2	12.2	12.2
1574	341711.1	730974.4	1.5	12.2	12.2	12.2	12.2	12.2	12.2	12.2
1575	341701.2	730973.9	1.5	12.1	12.1	12.1	12.2	12.1	12.1	12.1
1576	341693.6	730972	1.5	12.1	12.1	12.1	12.2	12.1	12.1	12.1
1577	341683.2	730971.5	1.5	12.1	12.1	12.1	12.1	12.1	12.1	12.1
1578	341674.7	730970.5	1.5	12.1	12.1	12.1	12.1	12.1	12.1	12.1
1579	341666.7	730947.4	1.5	12.7	12.7	12.7	12.8	12.7	12.7	12.7
1580	341648.9	730949.4	1.5	12.4	12.4	12.4	12.5	12.4	12.4	12.4
1581	341641.4	730944.5	1.5	12.6	12.6	12.6	12.6	12.6	12.6	12.6
1582	341627.8	730945	1.5	12.4	12.4	12.4	12.4	12.4	12.4	12.4
1583	341617.1	730938.9	1.5	12.6	12.6	12.6	12.6	12.6	12.6	12.6
1584	341604.5	730946.3	1.5	12.2	12.2	12.2	12.2	12.2	12.2	12.2
1585	341665	730962.8	1.5	12.2	12.2	12.2	12.2	12.2	12.2	12.2
1586	341522.1	730920.5	1.5	12.1	12.1	12.1	12.1	12.1	12.1	12.1
1587	341540.1	730922.4	1.5	12.4	12.4	12.4	12.4	12.4	12.4	12.4
1588	341562.5	730927.6	1.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
1589	341570.5	730932.1	1.5	12.4	12.4	12.4	12.4	12.4	12.4	12.4
1590	341586.3	730930.4	1.5	12.7	12.7	12.7	12.7	12.7	12.7	12.7
1591	341585.8	730944.8	1.5	12.1	12.1	12.1	12.1	12.1	12.1	12.1
1592	341582.9	730953.3	1.5	12.0	12.0	12.0	12.0	12.0	12.0	12.0
1593	341522.6	730934.6	1.5	11.9	11.9	11.9	11.9	11.9	11.9	11.9
1594	341525.8	730945	1.5	11.8	11.8	11.8	11.8	11.8	11.8	11.8
1595	341580.7	730963.5	1.5	11.9	11.9	11.9	11.9	11.9	11.9	11.9
1596	341525.5	730955	1.5	11.8	11.8	11.8	11.8	11.8	11.8	11.8
1597	341511.9	730913.9	1.5	12.0	12.0	12.0	12.0	12.0	12.0	11.9
1598	341494	730911.8	1.5	11.8	11.8	11.8	11.8	11.8	11.8	11.8
1599	341483.5	730909.6	1.5	11.8	11.8	11.8	11.8	11.8	11.8	11.8
1600	341512.9	730896.7	1.5	11.9	11.9	11.9	11.9	11.9	11.9	11.9
1601	341497.8	730896.2	1.5	11.8	11.8	11.8	11.8	11.8	11.9	11.8
1602	341486.4	730894.5	1.5	11.8	11.8	11.8	11.8	11.8	11.8	11.8
1603	341477.7	730928	1.5	11.7	11.7	11.7	11.7	11.7	11.8	11.7
1604	341464.8	730906.9	1.5	11.7	11.8	11.7	11.8	11.8	11.8	11.7
1466_4.5	342490.4	731137.6	4.5	13.8	13.8	13.8	13.8	13.8	13.8	13.8
1467_4.5	342467	731132.8	4.5	14.0	14.0	14.0	14.0	14.0	14.0	14.0
1468_4.5	342459.9	731131.9	4.5	14.0	14.1	14.0	14.1	14.1	14.1	14.0
1469_4.5	342445.1	731131.2	4.5	14.1	14.1	14.1	14.1	14.1	14.1	14.0
1470_4.5	342425.1	731132.6	4.5	14.0	14.0	14.0	14.0	14.0	14.0	13.9
1471_4.5	342414.7	731128.9	4.5	14.2	14.2	14.2	14.2	14.2	14.2	14.2
1472_4.5	342390.7	731129.8	4.5	14.1	14.1	14.1	14.1	14.1	14.1	14.0
1476_4.5	342364.8	731122.7	4.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5
1462_4.5	342336.4	731121.8	4.5	14.3	14.4	14.4	14.4	14.4	14.4	14.3
1477_4.5	342328	731119.6	4.5	14.4	14.5	14.4	14.5	14.5	14.5	14.4
1478_4.5	342307	731115.6	4.5	14.5	14.6	14.6	14.6	14.6	14.6	14.5
1479_4.5	342294.5	731113	4.5	14.6	14.6	14.6	14.6	14.6	14.7	14.6
1530_4.5	342092	731063.8	4.5	13.1	13.1	13.0	13.1	13.1	13.1	13.0
1529_4.5	342071.1	731053.6	4.5	13.0	13.0	13.0	13.0	13.0	13.0	13.0
1528_4.5	342045.8	731055.5	4.5	12.6	12.6	12.6	12.7	12.6	12.6	12.6
1527_4.5	342032.7	731053.1	4.5	12.6	12.6	12.6	12.6	12.6	12.6	12.5
1511_4.5	342020.1	731048.7	4.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
1526_4.5	342008.9	731045.8	4.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
1525_4.5	341998.2	731043.3	4.5	12.4	12.4	12.4	12.4	12.4	12.4	12.4
1524_4.5	341985.6	731039.4	4.5	12.4	12.4	12.4	12.4	12.4	12.4	12.4
1523_4.5	341975.9	731037.5	4.5	12.4	12.4	12.4	12.4	12.4	12.4	12.4
1522_4.5	341959.8	731032.6	4.5	12.3	12.3	12.3	12.4	12.3	12.3	12.3
1466_7.5	342490.4	731137.6	7.5	13.4	13.4	13.4	13.4	13.4	13.4	13.3
1467_7.5	342467	731132.8	7.5	13.5	13.5	13.5	13.5	13.5	13.5	13.4
1468_7.5	342459.9	731131.9	7.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5
1469_7.5	342445.1	731131.2	7.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5
1470_7.5	342425.1	731132.6	7.5	13.4	13.4	13.4	13.4	13.4	13.5	13.4
1471_7.5	342414.7	731128.9	7.5	13.5	13.5	13.5	13.5	13.5	13.6	13.5
1472_7.5	342390.7	731129.8	7.5	13.5	13.5	13.5	13.5	13.5	13.5	13.4

Receptor name	X(m)	Y(m)	Z(m)	Annual Mean PM <sub>10</sub> Concentration (µg/m <sup>3</sup> )						
				BC	SC1	SC2	SC3	SC4	SC5	SC6
1476_7.5	342364.8	731122.7	7.5	13.6	13.7	13.7	13.7	13.7	13.7	13.6
1462_7.5	342336.4	731121.8	7.5	13.6	13.6	13.6	13.6	13.6	13.6	13.6
1477_7.5	342328	731119.6	7.5	13.6	13.6	13.6	13.6	13.6	13.7	13.6
1478_7.5	342307	731115.6	7.5	13.7	13.7	13.7	13.7	13.7	13.7	13.7
1479_7.5	342294.5	731113	7.5	13.7	13.7	13.7	13.7	13.7	13.7	13.7
1530_7.5	342092	731063.8	7.5	12.7	12.7	12.7	12.7	12.7	12.7	12.7
1529_7.5	342071.1	731053.6	7.5	12.7	12.7	12.7	12.7	12.7	12.7	12.7
1528_7.5	342045.8	731055.5	7.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
1527_7.5	342032.7	731053.1	7.5	12.4	12.4	12.4	12.4	12.4	12.4	12.4
1511_7.5	342020.1	731048.7	7.5	12.4	12.4	12.4	12.4	12.4	12.4	12.4
1526_7.5	342008.9	731045.8	7.5	12.4	12.4	12.4	12.4	12.4	12.4	12.3
1525_7.5	341998.2	731043.3	7.5	12.3	12.3	12.3	12.3	12.3	12.3	12.3
1524_7.5	341985.6	731039.4	7.5	12.3	12.3	12.3	12.3	12.3	12.3	12.3
1523_7.5	341975.9	731037.5	7.5	12.3	12.3	12.3	12.3	12.3	12.3	12.3
1522_7.5	341959.8	731032.6	7.5	12.3	12.3	12.3	12.3	12.3	12.3	12.2
1466_10.5	342490.4	731137.6	10.5	13.0	13.0	13.0	13.0	13.0	13.0	12.9
1467_10.5	342467	731132.8	10.5	13.0	13.0	13.0	13.0	13.0	13.0	13.0
1468_10.5	342459.9	731131.9	10.5	13.0	13.0	13.0	13.0	13.0	13.0	13.0
1469_10.5	342445.1	731131.2	10.5	13.0	13.0	13.0	13.0	13.0	13.0	13.0
1470_10.5	342425.1	731132.6	10.5	13.0	13.0	13.0	13.0	13.0	13.0	12.9
1471_10.5	342414.7	731128.9	10.5	13.0	13.0	13.0	13.0	13.0	13.0	13.0
1472_10.5	342390.7	731129.8	10.5	13.0	13.0	13.0	13.0	13.0	13.0	13.0
1476_10.5	342364.8	731122.7	10.5	13.0	13.0	13.0	13.0	13.0	13.1	13.0
1462_10.5	342336.4	731121.8	10.5	13.0	13.0	13.0	13.0	13.0	13.0	13.0
1477_10.5	342328	731119.6	10.5	13.0	13.0	13.0	13.0	13.0	13.0	13.0
1478_10.5	342307	731115.6	10.5	13.0	13.0	13.0	13.0	13.0	13.0	13.0
1479_10.5	342294.5	731113	10.5	13.0	13.0	13.0	13.0	13.0	13.0	13.0
1530_10.5	342092	731063.8	10.5	12.4	12.4	12.4	12.4	12.4	12.5	12.4
1529_10.5	342071.1	731053.6	10.5	12.4	12.4	12.4	12.4	12.4	12.4	12.4
1528_10.5	342045.8	731055.5	10.5	12.3	12.3	12.3	12.3	12.3	12.3	12.3
1527_10.5	342032.7	731053.1	10.5	12.3	12.3	12.3	12.3	12.3	12.3	12.3
1511_10.5	342020.1	731048.7	10.5	12.3	12.3	12.2	12.3	12.3	12.3	12.2
1526_10.5	342008.9	731045.8	10.5	12.2	12.2	12.2	12.2	12.2	12.2	12.2
1525_10.5	341998.2	731043.3	10.5	12.2	12.2	12.2	12.2	12.2	12.2	12.2
1524_10.5	341985.6	731039.4	10.5	12.2	12.2	12.2	12.2	12.2	12.2	12.2
1523_10.5	341975.9	731037.5	10.5	12.2	12.2	12.2	12.2	12.2	12.2	12.2
1522_10.5	341959.8	731032.6	10.5	12.2	12.2	12.1	12.2	12.2	12.2	12.1
1473_0	342440.1	731088.9	0	16.4	16.4	16.4	16.5	16.4	16.5	16.3
1474_0	342394.4	731087.9	0	16.3	16.4	16.3	16.4	16.4	16.4	16.3
1475_0	342357.8	731084.8	0	16.5	16.5	16.5	16.5	16.5	16.6	16.4
1482_0	342354.6	731069	0	14.4	14.5	14.4	14.5	14.5	14.5	14.4
1481_0	342327.1	731072.2	0	15.6	15.6	15.6	15.6	15.6	15.7	15.5
1480_0	342313.3	731077.3	0	17.6	17.7	17.7	17.7	17.7	17.8	17.6
1483_0	342284.6	731066.2	0	17.0	17.0	17.0	17.0	17.0	17.1	16.9
1484_0	342277.9	731064.6	0	17.0	17.1	17.1	17.1	17.1	17.2	17.0
1485_0	342271.1	731063	0	17.1	17.2	17.1	17.2	17.2	17.3	17.1
1486_0	342264.9	731061.6	0	17.1	17.2	17.2	17.2	17.2	17.3	17.1
1487_0	342258.4	731060	0	17.1	17.2	17.1	17.1	17.2	17.2	17.0
1488_0	342239.6	731061.3	0	19.2	19.3	19.2	19.2	19.3	19.4	19.1
1489_0	342209.3	731047.3	0	15.4	15.4	15.4	15.4	15.4	15.5	15.3
1473_4.5	342440.1	731088.9	4.5	15.0	15.0	15.0	15.0	15.0	15.0	14.9
1474_4.5	342394.4	731087.9	4.5	15.0	15.0	15.0	15.0	15.0	15.0	14.9
1475_4.5	342357.8	731084.8	4.5	15.2	15.2	15.2	15.2	15.2	15.2	15.1
1482_4.5	342354.6	731069	4.5	14.0	14.0	14.0	14.0	14.0	14.1	14.0
1481_4.5	342327.1	731072.2	4.5	14.7	14.8	14.8	14.8	14.8	14.8	14.7
1480_4.5	342313.3	731077.3	4.5	15.8	15.8	15.8	15.8	15.8	15.9	15.7
1483_4.5	342284.6	731066.2	4.5	15.5	15.6	15.5	15.6	15.6	15.6	15.5
1484_4.5	342277.9	731064.6	4.5	15.5	15.6	15.6	15.6	15.6	15.6	15.5
1485_4.5	342271.1	731063	4.5	15.6	15.6	15.6	15.6	15.6	15.7	15.5
1486_4.5	342264.9	731061.6	4.5	15.6	15.6	15.6	15.6	15.6	15.7	15.5
1487_4.5	342258.4	731060	4.5	15.5	15.6	15.5	15.6	15.6	15.6	15.5

Receptor name	X(m)	Y(m)	Z(m)	Annual Mean PM <sub>10</sub> Concentration (µg/m <sup>3</sup> )						
				BC	SC1	SC2	SC3	SC4	SC5	SC6
1488_4.5	342239.6	731061.3	4.5	16.2	16.3	16.3	16.3	16.3	16.4	16.2
1489_4.5	342209.3	731047.3	4.5	14.5	14.5	14.5	14.5	14.5	14.6	14.5
1473_7.5	342440.1	731088.9	7.5	13.8	13.8	13.8	13.8	13.8	13.8	13.7
1474_7.5	342394.4	731087.9	7.5	13.8	13.8	13.8	13.8	13.8	13.9	13.8
1475_7.5	342357.8	731084.8	7.5	14.0	14.0	14.0	14.0	14.0	14.0	13.9
1482_7.5	342354.6	731069	7.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5
1481_7.5	342327.1	731072.2	7.5	13.9	13.9	13.9	13.9	13.9	13.9	13.8
1480_7.5	342313.3	731077.3	7.5	14.2	14.2	14.2	14.2	14.2	14.3	14.2
1483_7.5	342284.6	731066.2	7.5	14.1	14.1	14.1	14.1	14.1	14.2	14.1
1484_7.5	342277.9	731064.6	7.5	14.1	14.1	14.1	14.1	14.1	14.2	14.1
1485_7.5	342271.1	731063	7.5	14.1	14.1	14.1	14.1	14.1	14.2	14.1
1486_7.5	342264.9	731061.6	7.5	14.1	14.1	14.1	14.1	14.1	14.1	14.0
1487_7.5	342258.4	731060	7.5	14.0	14.1	14.0	14.1	14.1	14.1	14.0
1488_7.5	342239.6	731061.3	7.5	14.1	14.1	14.1	14.1	14.1	14.2	14.1
1489_7.5	342209.3	731047.3	7.5	13.6	13.6	13.6	13.6	13.6	13.7	13.6
1605_1.5	342265	731104	1.5	16.0	16.1	16.0	16.0	16.1	16.1	16.0
1606_1.5	342245	731099	1.5	16.0	16.1	16.1	16.1	16.1	16.2	16.0
1607_1.5	342227	731096	1.5	15.5	15.5	15.5	15.5	15.5	15.6	15.5
1608_1.5	342210	731091	1.5	15.2	15.3	15.3	15.3	15.3	15.3	15.2
1609_1.5	342187	731086	1.5	14.6	14.6	14.6	14.6	14.6	14.6	14.5
1610_1.5	342153	731078	1.5	13.9	13.9	13.9	13.9	13.9	13.9	13.9
1611_1.5	342123	731071	1.5	13.6	13.6	13.6	13.7	13.6	13.7	13.6
1612_1.5	342111	731069	1.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5
1605_4.5	342265	731104	4.5	14.9	15.0	15.0	15.0	15.0	15.0	14.9
1606_4.5	342245	731099	4.5	14.9	15.0	15.0	15.0	15.0	15.0	14.9
1607_4.5	342227	731096	4.5	14.6	14.6	14.6	14.6	14.6	14.7	14.6
1608_4.5	342210	731091	4.5	14.4	14.4	14.4	14.4	14.4	14.5	14.4
1609_4.5	342187	731086	4.5	14.0	14.0	14.0	14.0	14.0	14.1	14.0
1610_4.5	342153	731078	4.5	13.5	13.5	13.5	13.5	13.5	13.6	13.5
1611_4.5	342123	731071	4.5	13.3	13.3	13.3	13.3	13.3	13.3	13.3
1612_4.5	342111	731069	4.5	13.2	13.2	13.2	13.2	13.2	13.2	13.2
1605_7.5	342265	731104	7.5	13.8	13.8	13.8	13.8	13.8	13.8	13.8
1606_7.5	342245	731099	7.5	13.7	13.7	13.7	13.7	13.7	13.8	13.7
1607_7.5	342227	731096	7.5	13.6	13.6	13.6	13.6	13.6	13.6	13.6
1608_7.5	342210	731091	7.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5
1609_7.5	342187	731086	7.5	13.3	13.3	13.3	13.3	13.3	13.4	13.3
1610_7.5	342153	731078	7.5	13.1	13.1	13.1	13.1	13.1	13.1	13.0
1611_7.5	342123	731071	7.5	12.9	12.9	12.9	12.9	12.9	12.9	12.9
1612_7.5	342111	731069	7.5	12.8	12.8	12.8	12.8	12.8	12.8	12.8
434_4.5	345303.7	732091.3	4.5	15.1	15.1	15.1	15.1	15.2	15.2	15.1
818_4.5	344018.2	731728.5	4.5	14.9	15.0	14.9	15.0	15.1	15.1	14.9
983_4.5	343314.9	731073.8	4.5	15.5	15.7	15.6	15.1	15.8	16.6	15.6
987_4.5	343202.4	731719.5	4.5	17.1	17.2	17.2	17.2	17.3	17.4	17.2
988_4.5	343179.7	731715.4	4.5	18.7	18.8	18.8	18.8	18.9	19.0	18.7
989_4.5	343195.3	731717.9	4.5	17.6	17.7	17.6	17.6	17.7	17.8	17.6
990_4.5	343213.3	731721.1	4.5	16.7	16.8	16.7	16.8	16.8	16.9	16.7
991_4.5	343219.4	731725.6	4.5	16.2	16.3	16.2	16.2	16.3	16.4	16.2
992_4.5	343228.9	731726.8	4.5	15.9	16.0	16.0	16.0	16.0	16.1	15.9
993_4.5	343236	731725	4.5	16.0	16.0	16.0	16.0	16.1	16.1	16.0
994_4.5	343244.9	731726.8	4.5	15.7	15.8	15.7	15.8	15.8	15.9	15.7
995_4.5	343253.4	731727.8	4.5	15.5	15.6	15.6	15.6	15.6	15.7	15.5
1039_4.5	343187	731673.5	4.5	17.6	17.7	17.7	17.7	17.8	17.9	17.6
1040_4.5	343209.7	731676.8	4.5	17.0	17.1	17.0	17.0	17.1	17.2	17.0
1041_4.5	343228.9	731680	4.5	16.4	16.5	16.5	16.5	16.5	16.6	16.4
1042_4.5	343250.8	731683.3	4.5	15.8	15.9	15.8	15.9	15.9	16.0	15.8
1043_4.5	343271.7	731686.7	4.5	15.4	15.5	15.5	15.5	15.5	15.6	15.4
1114_4.5	343111.2	731620.6	4.5	15.3	15.4	15.4	15.4	15.5	15.5	15.3
1122_4.5	343152.3	731650.4	4.5	16.7	16.8	16.8	16.8	16.9	16.9	16.7
1246_4.5	343103.9	731753.6	4.5	17.0	17.1	17.0	17.1	17.1	17.2	17.0
1247_4.5	343112.5	731756.7	4.5	16.7	16.7	16.7	16.7	16.8	16.8	16.7
1251_4.5	343039.1	731720.6	4.5	15.8	15.8	15.8	15.8	15.8	15.9	15.8



Receptor name	X(m)	Y(m)	Z(m)	Annual Mean PM <sub>10</sub> Concentration (µg/m <sup>3</sup> )						
				BC	SC1	SC2	SC3	SC4	SC5	SC6
1252_4.5	343031.5	731726.8	4.5	15.4	15.4	15.4	15.5	15.5	15.5	15.4
1411_4.5	342720.3	731135.8	4.5	15.1	15.0	15.0	15.1	15.0	15.1	15.0
1429_4.5	342765	731117.8	4.5	15.6	15.6	15.6	15.6	15.6	15.7	15.5
1430_4.5	342772.8	731126.7	4.5	15.4	15.4	15.4	15.4	15.4	15.5	15.4
1431_4.5	342714.6	731131.4	4.5	15.3	15.3	15.3	15.3	15.3	15.4	15.3
1432_4.5	342694	731127.4	4.5	15.5	15.4	15.4	15.4	15.4	15.5	15.4
1433_4.5	342690.5	731125.8	4.5	15.6	15.6	15.6	15.6	15.6	15.7	15.5
1434_4.5	342669.3	731119.1	4.5	16.6	16.6	16.5	16.6	16.5	16.7	16.5
1435_4.5	342665.1	731119.5	4.5	16.6	16.5	16.5	16.5	16.5	16.6	16.5
1436_4.5	342648.4	731120.6	4.5	16.4	16.4	16.4	16.4	16.3	16.5	16.3
1437_4.5	342636	731120.8	4.5	16.3	16.3	16.3	16.3	16.2	16.4	16.2
1438_4.5	342619.7	731121.8	4.5	16.0	15.9	15.9	15.9	15.9	16.0	15.9
1439_4.5	342606.7	731122.1	4.5	15.6	15.6	15.6	15.6	15.6	15.7	15.6
1440_4.5	342590.7	731123.3	4.5	15.2	15.2	15.2	15.2	15.2	15.3	15.2
1434_7.5	342669.3	731119.1	7.5	14.8	14.8	14.8	14.8	14.7	14.8	14.7
1435_7.5	342665.1	731119.5	7.5	14.8	14.7	14.7	14.8	14.7	14.8	14.7
1436_7.5	342648.4	731120.6	7.5	14.7	14.7	14.6	14.7	14.6	14.7	14.6
1437_7.5	342636	731120.8	7.5	14.6	14.6	14.6	14.6	14.6	14.6	14.5
1438_7.5	342619.7	731121.8	7.5	14.4	14.4	14.4	14.4	14.4	14.4	14.3
1439_7.5	342606.7	731122.1	7.5	14.2	14.2	14.2	14.2	14.2	14.3	14.2
1440_7.5	342590.7	731123.3	7.5	14.1	14.1	14.1	14.1	14.1	14.1	14.1
1500_4.5	342432.5	731465	4.5	14.5	14.4	14.4	14.4	14.4	14.4	14.4
1613_1.5	342425	731487	1.5	14.3	14.2	14.2	14.2	14.2	14.2	14.2
1613_4.5	342425	731487	4.5	13.6	13.5	13.5	13.5	13.5	13.5	13.5
1614_1.5	343049	731709	1.5	17.1	17.2	17.1	17.2	17.2	17.3	17.1
1614_4.5	343049	731709	4.5	16.1	16.2	16.2	16.2	16.2	16.3	16.1

## Appendix 3 – ADMS Model Verification

The ADMS-Roads dispersion model has been widely validated for this type of assessment and is specifically listed in the Defra's LAQM.TG(09)<sup>5</sup> guidance as an accepted dispersion model.

Model validation undertaken by the software developer (CERC) will not have included validation in the vicinity of the proposed development site. It is therefore necessary to perform a comparison of modelled results with local monitoring data at relevant locations. This process of verification attempts to minimise modelling uncertainty and systematic error by correcting modelled results by an adjustment factor to gain greater confidence in the final results.

The predicted results from a dispersion model may differ from measured concentrations for a large number of reasons, including uncertainties associated with:

- Background concentration estimates;
- Source activity data such as traffic flows and emissions factors;
- Monitoring data, including locations; and
- Overall model limitations.

Model verification is the process by which these and other uncertainties are investigated and where possible minimised. In reality, the differences between modelled and monitored results are likely to be a combination of all of these aspects.

Model setup parameters and input data were checked prior to running the models in order to reduce these uncertainties. The following were checked to the extent possible to ensure accuracy:

- Traffic data;
- Distance between sources and monitoring as represented in the model;
- Speed estimates on roads;
- Background monitoring and background estimates; and
- Monitoring data.

Traffic data was obtained from the Council as detailed in Section 4.1. Separation distances between road sources and receptors were checked using electronic OS mapping data.

### NO<sub>2</sub> Verification

Dundee City Council operates an extensive network of automatic and passive NO<sub>2</sub> monitoring as part of its LAQM commitment. Details of the eleven LAQM monitoring sites located within the vicinity of the modelled road network are presented in Table A1.

In addition to monitoring undertaken by Dundee City Council the assessment had utilised NO<sub>2</sub> diffusion tube monitoring undertaken in the Stannergate area as part of another development. Details of the twelve development monitoring locations are also provided in Table A1, with the site I.D. suffixed with an 'F'.

Whilst urban background sites are useful for giving an indication of background values, they are not useful for the purpose of model verification. Model verification has therefore been undertaken using only the kerbside and roadside sites listed in Table A1.

**Table A1 – Local Monitoring Data Available for Model Verification**

Site I.D.	Site Name	Site Type*	OS Grid Ref	2012 Annual Mean NO <sub>2</sub> Concentration (µg/m <sup>3</sup> )
7 <sup>a</sup>	BALGAVIES PLACE	UB	343082, 731465	18.0
11 <sup>a</sup>	BROUGHTY FERRY ROAD (141)	RS	343322, 731073	<b>44.2</b>
12 <sup>a</sup>	CLAYPOTTS JUNCTION	RS	345315, 732103	26.5
26 <sup>a</sup>	KINGSWAY E. ROUNDABOUT	RS	343107, 731740	<b>40.3</b>
139 <sup>a</sup>	Broughty Ferry Rd 141 (Downpipe)	RS	343317, 731072	37.4
140 <sup>a</sup>	Broughty Ferry Rd Post Box (opp. 141) LP66	RS	343297, 731096	35.4
142 <sup>a</sup>	Broughty Ferry Rd 141 (streetsign)	RS	343302, 731075	32.2
145 <sup>a</sup>	Broughty Ferry Rd - Greendykes	RS	342662, 731112	36.2
155 <sup>a</sup>	Carolina Court	UB	342353, 731058	22.5
164 <sup>a</sup>	Lower Broughty Ferry Road	UB	343545, 730942	16.7
166 <sup>a</sup>	Broughty Ferry Road Lampost 59 (2)	RS	343129, 731081	26.0
F1 <sup>b</sup>	230 Broughty Ferry Rd	RS	342585, 731114	<b>42.1</b>
F3 <sup>b</sup>	Greendykes Rd outside No.58	RS	342829, 731229	27.3
F6 <sup>b</sup>	55 Craigie Ave	KS	343118, 731245	21.7
F7 <sup>b</sup>	Craigie Ave -Strips of Craigie Junction	KS	343293, 731149	25.6
F8 <sup>b</sup>	141 Broughty Ferry Road	KS	343340, 731065	23.3
F9 <sup>b</sup>	2 Craigie Place	KS	343378, 731136	20.2
F10 <sup>b</sup>	3 Dundee Road West	RS	343361, 731093	31.8
F11 <sup>b</sup>	6 Dundee Road West	RS	343437, 731083	34.7
F12 <sup>b</sup>	Broughty Ferry Rd - Carolina Court Junction	RS	342347, 731089	44.6
F14 <sup>b</sup>	Dundee Rd West - Christian Rd	RS	343879, 731075	22.8
F16 <sup>b</sup>	140 Craigie Drive	RS	343705, 731243	20.2
F17 <sup>b</sup>	Broughty Ferry Rd 141 (1)	RS	343319, 731072	37.5

In **bold**, exceedence of the annual mean NO<sub>2</sub> AQO of 40µg/m<sup>3</sup>  
 \*KS = Kerbside, RS = Roadside, UB = Urban Background  
<sup>a</sup> Monitoring undertaken by Dundee City Council as part of LAQM commitments  
<sup>b</sup> Monitoring undertaken as part of another development

### Verification Calculations

The verification of the modelling output was performed in accordance with the methodology provided in Annex 3 of LAQM.TG(09)<sup>5</sup>.

For the verification and adjustment of NO<sub>x</sub>/NO<sub>2</sub>, the LAQM diffusion tube monitoring data was used as shown in Table A1. Data capture for 2012 at all of the kerbside and roadside sites was 75% or greater and so met the threshold outlined in LAQM.TG(09)<sup>5</sup>. Table A2 shows an initial comparison of the monitored and unverified modelled NO<sub>2</sub> results for the year 2012, in order to determine if verification and adjustment was required.

**Table A2 - Comparison of Unverified Modelled and Monitored NO<sub>2</sub> Concentrations**

Site ID	Site Type	Background NO <sub>2</sub>	Monitored total NO <sub>2</sub> (µg/m <sup>3</sup> )	Modelled total NO <sub>2</sub> (µg/m <sup>3</sup> )	% Difference (modelled vs. monitored)
11	RS	20.3	44.2	29.2	-33.9
12	RS	20.3	26.5	28.7	8.3
26	RS	20.3	40.3	40.8	1.3
139	RS	20.3	37.4	27.7	-25.9
140	RS	20.3	35.4	27.5	-22.3
142	RS	20.3	32.2	27.1	-16.0
145	RS	20.3	36.2	35.5	-1.9
166	RS	20.3	26.0	24.9	-4.4
F1	RS	20.3	42.1	29.3	-30.3
F3	RS	20.3	27.3	26.5	-3.0
F6	KS	20.3	21.7	23.4	8.1
F7	KS	20.3	25.6	25.9	1.2
F8	KS	20.3	23.3	28.2	20.8
F9	KS	20.3	20.2	25.8	27.5
F10	RS	20.3	31.8	29.1	-8.5
F11	RS	20.3	34.7	26.6	-23.5
F12	RS	20.3	44.6	27.7	-37.9
F14	RS	20.3	22.8	23.7	3.9
F16	RS	20.3	20.2	24.3	20.4
F17	RS	20.3	37.5	28.8	-23.2

The model was observed to be under predicting by as much as 37.9% and over predicting by as much as 27.5% and no further improvement of the modelled results could be obtained on this occasion through changing the model inputs. Therefore adjustment of modelled results was necessary. The relevant data was gathered to allow the adjustment factor to be calculated.

Model adjustment needs to be undertaken based on NO<sub>x</sub> and not NO<sub>2</sub>. For the diffusion tube monitoring results used in the calculation of the model adjustment, NO<sub>x</sub> was derived from NO<sub>2</sub>; these calculations were undertaken using a spreadsheet tool available from the LAQM website<sup>19</sup>.

Table A3 provides the relevant data required to calculate the model adjustment based on regression of the modelled and monitored road source contribution to NO<sub>x</sub>.

<sup>19</sup> <http://laqm.defra.gov.uk/review-and-assessment/tools/background-maps.html#NOxNO2calc>

**Table A3 – Data Required for NO<sub>2</sub> Adjustment Factor Calculation**

Site ID	Monitored total NO <sub>2</sub> (µg/m <sup>3</sup> )	Monitored total NO <sub>x</sub> (µg/m <sup>3</sup> )	Background NO <sub>2</sub> (µg/m <sup>3</sup> )	Background NO <sub>x</sub> (µg/m <sup>3</sup> )	Monitored road contribution NO <sub>2</sub> (total - background) (µg/m <sup>3</sup> )	Monitored road contribution NO <sub>x</sub> (total - background) (µg/m <sup>3</sup> )	Modelled road contribution NO <sub>x</sub> (excludes background) (µg/m <sup>3</sup> )
11	44.2	86.2	20.3	30.3	24.0	55.8	18.8
12	26.5	43.3	20.3	30.3	6.3	12.9	17.7
26	40.3	75.6	20.3	30.3	20.0	45.3	46.7
139	37.4	68.3	20.3	30.3	17.1	37.9	15.4
140	35.4	63.4	20.3	30.3	15.1	33.0	15.0
142	32.2	55.9	20.3	30.3	12.0	25.6	14.1
145	36.2	65.3	20.3	30.3	15.9	35.0	33.3
166	22.5	34.9	20.3	30.3	2.3	4.6	6.0
F1	26.0	42.2	20.3	30.3	5.8	11.9	9.4
F3	42.1	80.3	20.3	30.3	21.8	50.0	19.0
F6	27.3	45.0	20.3	30.3	7.1	14.7	12.9
F7	21.7	33.1	20.3	30.3	1.4	2.8	6.4
F8	25.6	41.2	20.3	30.3	5.3	10.9	11.5
F9	23.3	36.5	20.3	30.3	3.0	6.1	16.4
F10	20.2	30.2	20.3	30.3	-0.1	-0.2	11.3
F11	31.8	54.9	20.3	30.3	11.5	24.6	18.5
F12	34.7	61.8	20.3	30.3	14.5	31.5	13.0
F14	44.6	87.1	20.3	30.3	24.3	56.8	15.4
F16	22.8	35.5	20.3	30.3	2.5	5.1	6.9
F17	20.2	30.2	20.3	30.3	-0.1	-0.1	8.3

Figure A1 provides a comparison of the Monitored Road NO<sub>x</sub> Contribution versus the Unverified Modelled Road NO<sub>x</sub> and the equation of the trend line based on linear regression through zero. The Total Monitored NO<sub>x</sub> concentration has been derived by back-calculating NO<sub>x</sub> from the NO<sub>x</sub>/NO<sub>2</sub> empirical relationship using the spreadsheet tool available from Defra's website<sup>19</sup>. The equation of the trend lines presented in Figure A1 gives an adjustment factor for the modelled results of 1.400.

Figure A1 and Table A4 show the ratios between monitored and modelled NO<sub>2</sub> for each monitoring location. The sites do not show an acceptable level of agreement, a factor of 1.400 could therefore not be used for verification.

Figure A1 - Comparison of the Modelled Road Contribution NO<sub>x</sub> versus Monitored Road Contribution NO<sub>x</sub> for all monitoring locations

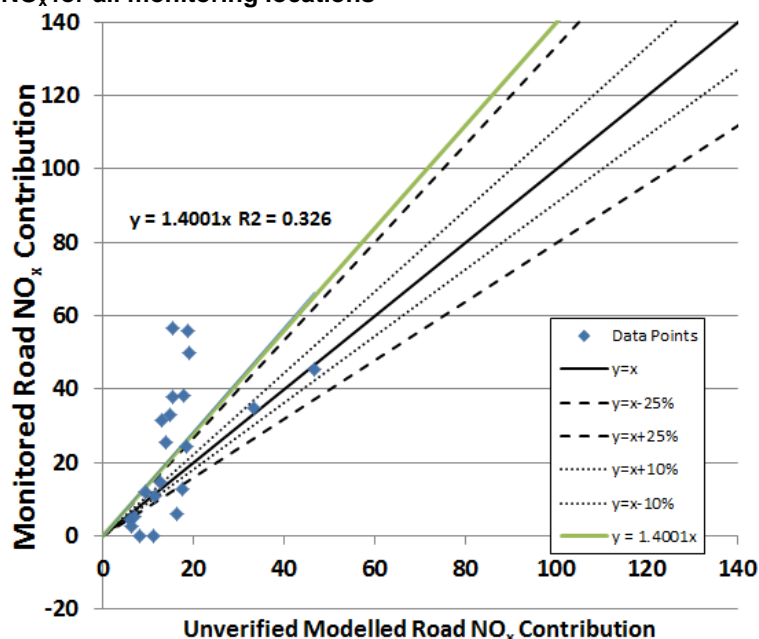


Table A4 – Model NO<sub>2</sub> Verification for all monitoring locations

Site ID	Ratio of monitored road contribution NO <sub>x</sub> / modelled road contribution NO <sub>x</sub>	Adjustment factor for modelled road contribution NO <sub>x</sub>	Adjusted modelled road contribution NO <sub>x</sub> (µg/m <sup>3</sup> )	Adjusted modelled total NO <sub>x</sub> (including background NO <sub>x</sub> ) (µg/m <sup>3</sup> )	Modelled total NO <sub>2</sub> (based upon empirical NO <sub>x</sub> / NO <sub>2</sub> relationship) (µg/m <sup>3</sup> )	Monitored total NO <sub>2</sub> (µg/m <sup>3</sup> )	% Difference (adjusted modelled NO <sub>2</sub> vs. monitored NO <sub>2</sub> )
11	2.97	1.400	26.3	56.7	32.6	44.2	-26.4
12	0.73		24.8	55.1	31.9	26.5	20.1
26	0.97		65.4	95.7	47.6	40.3	18.2
139	2.46		21.6	52.0	30.5	37.4	-18.5
140	2.20		21.0	51.3	30.2	35.4	-14.6
142	1.81		19.8	50.1	29.7	32.2	-8.0
145	1.05		46.6	77.0	40.8	36.2	12.8
155	0.76		8.4	38.8	24.4	22.5	8.4
166	1.26		13.2	43.6	26.7	26.0	2.3
F1	2.63		26.6	56.9	32.7	42.1	-22.4
F3	1.13		18.1	48.4	28.9	27.3	5.7
F6	0.44		8.9	39.3	24.6	21.7	13.8
F7	0.95		16.1	46.4	28.0	25.6	9.5
F8	0.37		23.0	53.4	31.1	23.3	33.5
F9	-0.01		15.8	46.2	27.9	20.2	37.9
F10	1.33		25.8	56.2	32.3	31.8	1.7
F11	2.42		18.3	48.6	29.0	34.7	-16.6
F12	3.68		21.6	52.0	30.5	44.6	-31.7
F14	0.74		9.7	40.1	25.0	22.8	9.7
F16	-0.02		11.6	41.9	25.9	20.2	28.2
F17	2.14	25.1	55.4	32.0	37.5	-14.7	

Although the model was performing well at most monitoring sites, at a number of monitoring sites the model was not performing well or was not showing consistency across similar monitoring

sites. A number of monitoring locations were therefore removed from the model verification process in order that the verification factor would only be calculated from locations where the model was performing well. Table A5 provides a list of monitoring sites which have been removed from the verification process along with the reason for the sites removal.

**Table A5 – Monitoring Sites removed from Verification Process**

Site ID	Ratio of monitored road contribution NO <sub>x</sub> / modelled road contribution NO <sub>x</sub>	Monitored total NO <sub>2</sub> (µg/m <sup>3</sup> )	Reason for Removal of Site from Verification
155	0.76	22.5	Monitored NO <sub>2</sub> very close to assumed background value and so yields artificially low ratio.
F6	0.44	21.7	
F8	0.37	23.3	
F14	0.74	22.8	
F9	-0.01	20.2	Monitored NO <sub>2</sub> below assumed background value and so yields negative ratio.
F16	-0.02	20.2	

A further review of the monitored and modelled ratios revealed that the model was performing differently in different areas. It was noted that in the area of Broughty Ferry Road near Carolina Court and around the Stannergate Roundabout that the model was under predicting by a greater degree to the rest of the modelled area. The model has therefore been split into three verification zones, one covering receptors around the Stannergate Roundabout (Zone B), one on Broughty Ferry Road (Zone C) and one covering the rest of the modelled area (Zone A). The areas of the three zones are illustrated in Figure A2.

**Figure A2 – Verification Zones**

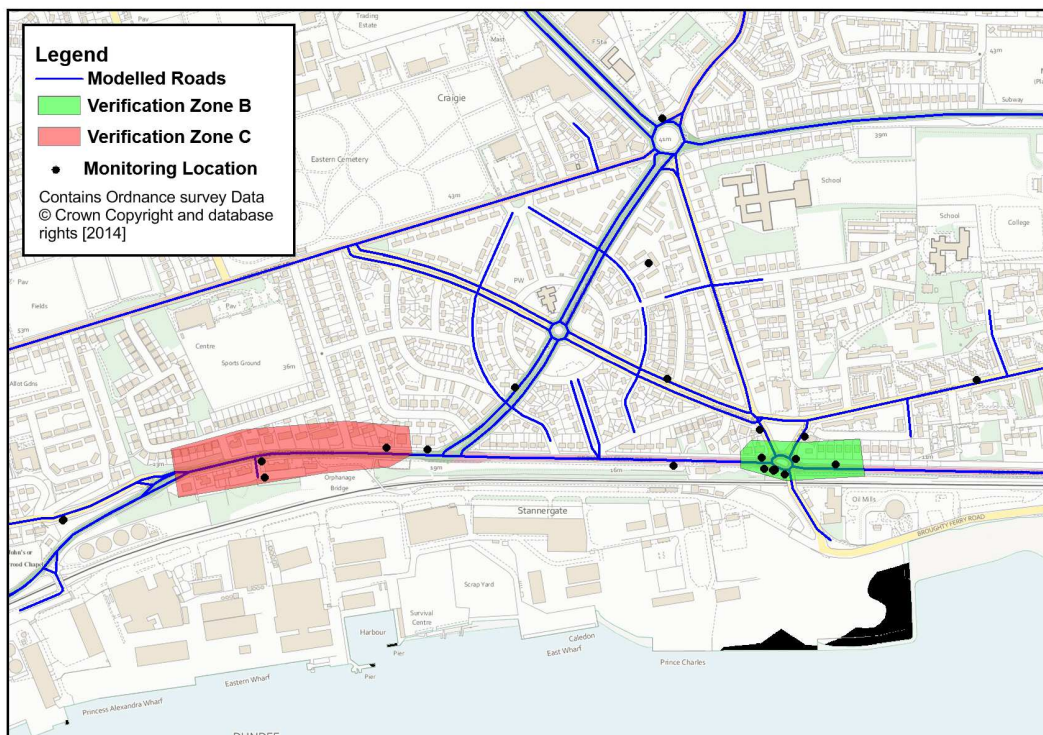


Figure A3 provide a comparison of the Modelled Road Contribution NO<sub>x</sub> versus Monitored Road Contribution NO<sub>x</sub>, and the equations of the trend line based on linear regression through zero for the monitoring locations in Zone A. The equation of the trend lines presented in Figure A3 gives an adjustment factor for Zone A of 0.986.

Figure A3 - Comparison of the Modelled Road Contribution NO<sub>x</sub> versus Monitored Road Contribution NO<sub>x</sub> in Verification Zone A

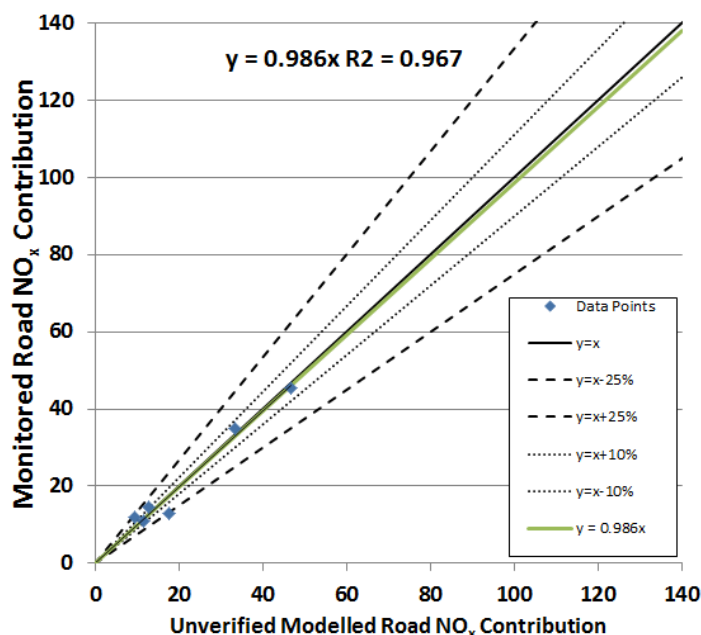


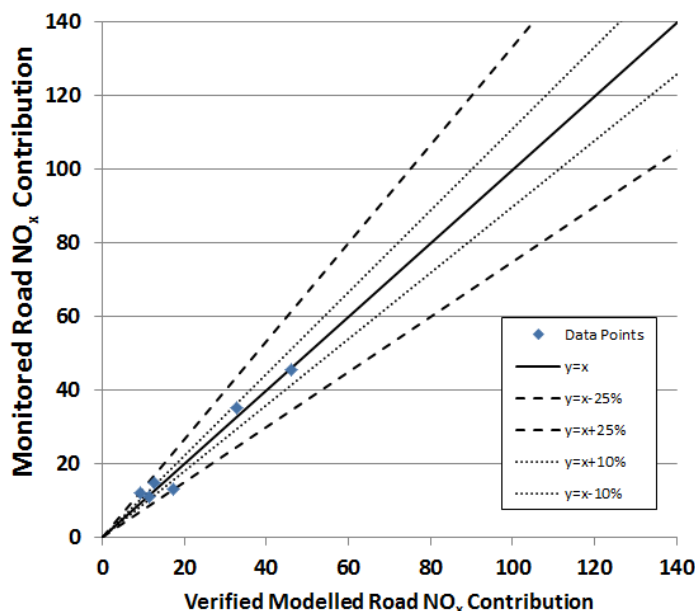
Table A6 and Figure A4 show the ratios between monitored and modelled NO<sub>2</sub> for each monitoring locations in Zone A. All sites considered show acceptable agreement between the ratios of monitored and modelled NO<sub>2</sub> all being  $\pm 25\%$ . A verification factor of 0.986 was therefore used to adjust the model results in Zone A. A factor of 0.986 reduces the Root Mean Square Error (RMSE) from a value of 1.129 to 1.121.

Table A6 – Zone A Model NO<sub>2</sub> Verification

Site ID	Ratio of monitored road contribution NO <sub>x</sub> / modelled road contribution NO <sub>x</sub>	Adjustment factor for modelled road contribution NO <sub>x</sub>	Adjusted modelled road contribution NO <sub>x</sub> (µg/m <sup>3</sup> )	Adjusted modelled total NO <sub>x</sub> (including background NO <sub>x</sub> ) (µg/m <sup>3</sup> )	Modelled total NO <sub>2</sub> (based upon empirical NO <sub>x</sub> / NO <sub>2</sub> relationship) (µg/m <sup>3</sup> )	Monitored total NO <sub>2</sub> (µg/m <sup>3</sup> )	% Difference (adjusted modelled NO <sub>2</sub> vs. monitored NO <sub>2</sub> )
12	0.73	0.986	17.5	47.8	28.6	26.5	7.9
26	0.97		46.0	76.4	40.6	40.3	0.7
145	1.05		32.8	63.2	35.3	36.2	-2.4
166	1.26		9.3	39.6	24.8	26.0	-4.7
F3	1.13		12.7	43.1	26.5	27.3	-3.3
F7	0.95		11.3	41.7	25.8	25.6	0.8



Figure A4 - Comparison of the Modelled NO<sub>2</sub> versus Monitored NO<sub>2</sub> in Verification Zone A



The adjustment factor 0.986 was applied to the road-NO<sub>x</sub> concentrations predicted by the model to arrive at the final NO<sub>2</sub> concentrations in Zone A.

Figure A5 provide a comparison of the Modelled Road Contribution NO<sub>x</sub> versus Monitored Road Contribution NO<sub>x</sub>, and the equations of the trend line based on linear regression through zero for the monitoring locations in Zone B. The equation of the trend lines presented in Figure A5 gives an adjustment factor for Zone B of 2.188.

Figure A5 - Comparison of the Modelled Road Contribution NO<sub>x</sub> versus Monitored Road Contribution NO<sub>x</sub> in Verification Zone B

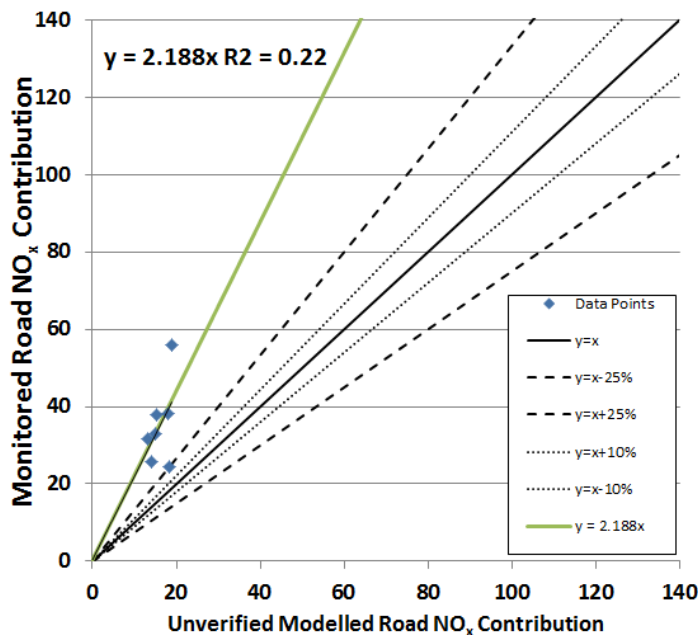


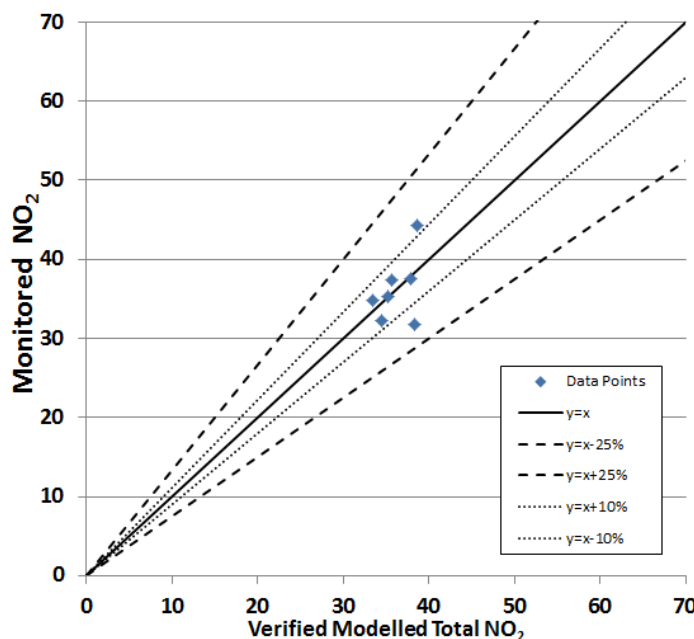
Table A7 and Figure A6 show the ratios between monitored and modelled NO<sub>2</sub> for each monitoring locations in Zone B. All sites considered show acceptable agreement between the

ratios of monitored and modelled NO<sub>2</sub> all being ±25%. A verification factor of 2.188 was therefore used to adjust the model results in Zone B. A factor of 2.188 reduces the Root Mean Square Error (RMSE) from a value of 8.925 to 3.465.

**Table A7 – Zone B Model NO<sub>2</sub> Verification**

Site ID	Ratio of monitored road contribution NO <sub>x</sub> / modelled road contribution NO <sub>x</sub>	Adjustment factor for modelled road contribution NO <sub>x</sub>	Adjusted modelled road contribution NO <sub>x</sub> (µg/m <sup>3</sup> )	Adjusted modelled total NO <sub>x</sub> (including background NO <sub>x</sub> ) (µg/m <sup>3</sup> )	Modelled total NO <sub>2</sub> (based upon empirical NO <sub>x</sub> / NO <sub>2</sub> relationship) (µg/m <sup>3</sup> )	Monitored total NO <sub>2</sub> (µg/m <sup>3</sup> )	% Difference (adjusted modelled NO <sub>2</sub> vs. monitored NO <sub>2</sub> )
11	2.97	2.188	41.2	71.5	38.7	44.2	-12.6
139	2.46		33.8	64.1	35.7	37.4	-4.6
140	2.20		32.8	63.1	35.3	35.4	-0.3
142	1.81		30.9	61.2	34.5	32.2	7.0
F10	1.33		40.4	70.7	38.4	31.8	20.7
F11	2.42		28.5	58.9	33.5	34.7	-3.6
F17	2.14		39.2	69.6	37.9	37.5	1.0

**Figure A6 - Comparison of the Modelled NO<sub>2</sub> versus Monitored NO<sub>2</sub> in Verification Zone B**



The adjustment factor 2.188 was applied to the road-NO<sub>x</sub> concentrations predicted by the model to arrive at the final NO<sub>2</sub> concentrations in Zone B.

Figure A7 provide a comparison of the Modelled Road Contribution NO<sub>x</sub> versus Monitored Road Contribution NO<sub>x</sub>, and the equations of the trend line based on linear regression through zero for the monitoring locations in Zone C. The equation of the trend lines presented in Figure A7 gives an adjustment factor for Zone C of 3.048.

Figure A7 - Comparison of the Modelled Road Contribution NO<sub>x</sub> versus Monitored Road Contribution NO<sub>x</sub> in Verification Zone C

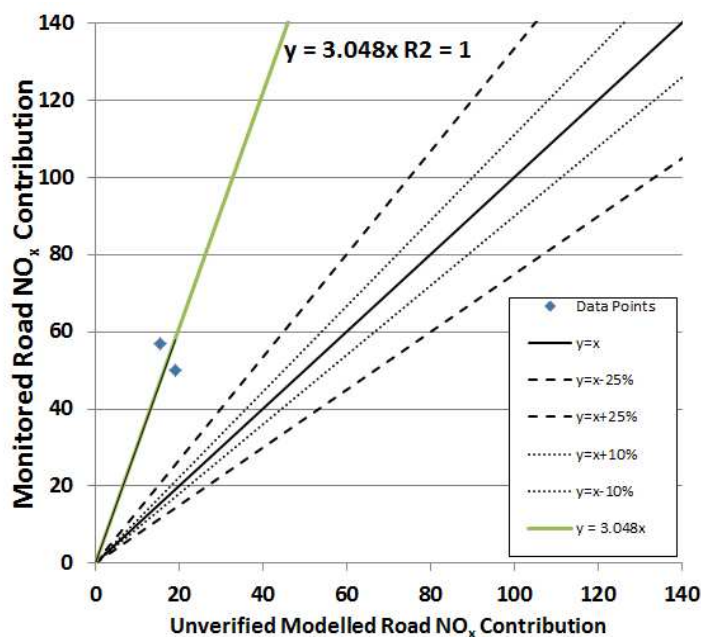
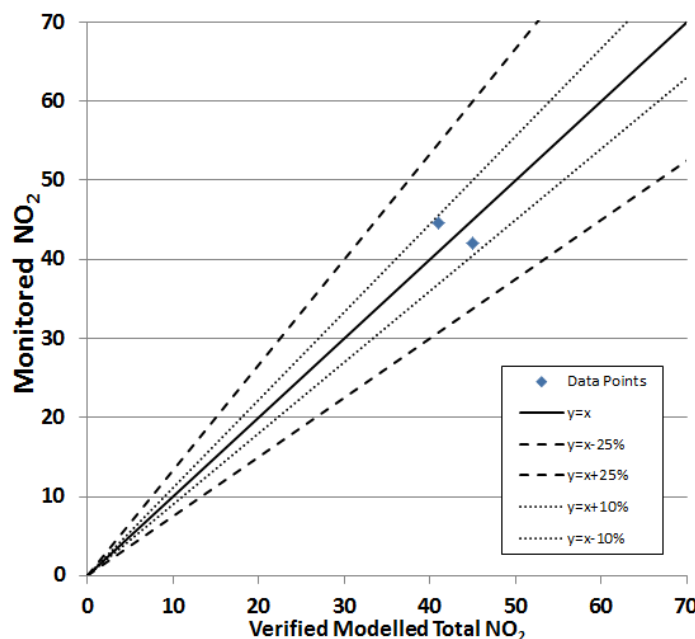


Table A8 and Figure A8 show the ratios between monitored and modelled NO<sub>2</sub> for each monitoring locations in Zone C. All sites considered show acceptable agreement between the ratios of monitored and modelled NO<sub>2</sub> all being  $\pm 25\%$ . A verification factor of 3.048 was therefore used to adjust the model results in Zone C. A factor of 3.048 reduces the Root Mean Square Error (RMSE) from a value of 14.977 to 3.299.

Table A8 – Zone C Model NO<sub>2</sub> Verification

Site ID	Ratio of monitored road contribution NO <sub>x</sub> / modelled road contribution NO <sub>x</sub>	Adjustment factor for modelled road contribution NO <sub>x</sub>	Adjusted modelled road contribution NO <sub>x</sub> (µg/m <sup>3</sup> )	Adjusted modelled total NO <sub>x</sub> (including background NO <sub>x</sub> ) (µg/m <sup>3</sup> )	Modelled total NO <sub>2</sub> (based upon empirical NO <sub>x</sub> / NO <sub>2</sub> relationship) (µg/m <sup>3</sup> )	Monitored total NO <sub>2</sub> (µg/m <sup>3</sup> )	% Difference (adjusted modelled NO <sub>2</sub> vs. monitored NO <sub>2</sub> )
F1	2.63	3.048	57.9	88.2	45.0	42.1	6.9
F12	3.68		47.0	77.4	41.0	44.6	-8.2

Figure A8 - Comparison of the Modelled NO<sub>2</sub> versus Monitored NO<sub>2</sub> in Verification Zone C



The adjustment factor 3.048 was applied to the road-NO<sub>x</sub> concentrations predicted by the model to arrive at the final NO<sub>2</sub> concentrations in Zone C.

NO<sub>2</sub> results presented and discussed herein within Zones A, B and C are those calculated following the process of model verification using adjustment factors 0.986, 2.188 and 3.048 respectively.

### PM<sub>10</sub> Verification

Dundee City Council undertakes PM<sub>10</sub> monitoring as part of its LAQM commitments at 13 locations, of which four sites (as shown in Table A9) are in the vicinity of the modelled road network. None of the PM<sub>10</sub> monitoring locations in the modelled area are urban background sites and so are not suitable for representing background conditions. Background PM<sub>10</sub> concentrations have therefore been taken from the Mains Loan (CM12) urban background site located approximately 1.0km from the modelled road network. Details of CM12 are provided in Table A9.

Table A9 – Local PM<sub>10</sub> Monitoring Data Available for Model Verification

Site I.D.	Site Name	Site Type	OS Grid Ref	2012 Annual Mean NO <sub>2</sub> Concentration (µg/m <sup>3</sup> )
CM3	Broughty Ferry Road Rollalong (TEOM)	UI	341970, 730977	14.2
CM12	Mains Loan (TEOM)	UB	340972, 731893	11.4
CM13	Broughty Ferry Road (Partisol)	UI	341971, 730978	14.3
CM16	Broughty Ferry Road (Osiris)	UI	341970, 730977	13.4
CM18	Stannergate (Osiris)	RS	343322, 731073	19.9

As detailed in LAQM TG(09), the TEOM monitoring site (CM3) and Partisol monitoring site (CM13) are suitable for the purpose of model verification. However the Osiris monitors at CM16 and CM18 are not. Verification has therefore been undertaken using site CM3 and CM13.

PM<sub>10</sub> annual mean background values have been assumed to be 11.4µg/m<sup>3</sup> as observed in 2012 at CM12. This has then been subtracted from the roadside contribution recorded at CM3 and CM13 to give a PM<sub>10</sub> concentration due to road emissions. The modelled road PM<sub>10</sub> concentration is split between those PM<sub>10</sub> emissions from vehicle exhausts and those PM<sub>10</sub> emissions from Brake, Tyre Wear and Abrasion (BTWA) of vehicles.

The BTWA portion of the PM<sub>10</sub> emission should not require any verification as BTWA emissions should be consistent regardless of local conditions. Verification has therefore been undertaken using the exhaust portion of the PM<sub>10</sub> emission only. As shown in Table A10 verification against the exhaust portion of the modelled PM<sub>10</sub> concentration results in an average emission factor for site CM3 and CM13 of 10.789.

**Table A10 – Data Required for PM<sub>10</sub> Adjustment Factor Calculation**

Site ID	PM <sub>10</sub> Concentration(µg/m <sup>3</sup> )						Verification Factor
	Monitored total	Monitored Road	Modelled Exhaust	Modelled BTWA	Modelled total	Monitored Road Exhaust (Monitored Roadside – Modelled BTWA)	Monitored Road Exhaust / Modelled Exhaust
CM3	14.2	2.8	0.23	0.40	0.63	2.4	10.589
CM13	14.3	2.9	0.23	0.40	0.63	2.5	10.988
<i>Average</i>							<i>10.789</i>

PM<sub>10</sub> results presented and discussed herein are those calculated following the process of model verification using an adjustment factor 10.789.

## Appendix 4 – Figures

Figure A9	Ground Floor BC NO <sub>2</sub>
Figure A10	Ground Floor SC1 NO <sub>2</sub>
Figure A11	Ground Floor SC2 NO <sub>2</sub>
Figure A12	Ground Floor SC3 NO <sub>2</sub>
Figure A13	Ground Floor SC4 NO <sub>2</sub>
Figure A14	Ground Floor SC5 NO <sub>2</sub>
Figure A15	Ground Floor SC6 NO <sub>2</sub>
Figure A16	Ground Floor SC1 Impact NO <sub>2</sub>
Figure A17	Ground Floor SC2 Impact NO <sub>2</sub>
Figure A18	Ground Floor SC3 Impact NO <sub>2</sub>
Figure A19	Ground Floor SC4 Impact NO <sub>2</sub>
Figure A20	Ground Floor SC5 Impact NO <sub>2</sub>
Figure A21	Ground Floor SC6 Impact NO <sub>2</sub>
Figure A22	First Floor BC NO <sub>2</sub>
Figure A23	Second Floor BC NO <sub>2</sub>
Figure A24	Below Ground BC NO <sub>2</sub>
Figure A25	Below Ground Floor SC1-SC6 Impact NO <sub>2</sub>
Figure A26	Ground Floor BC PM <sub>10</sub>
Figure A27	Ground Floor SC1 PM <sub>10</sub>
Figure A28	Ground Floor SC2 PM <sub>10</sub>
Figure A29	Ground Floor SC3 PM <sub>10</sub>
Figure A30	Ground Floor SC4 PM <sub>10</sub>
Figure A31	Ground Floor SC5 PM <sub>10</sub>
Figure A32	Ground Floor SC6 PM <sub>10</sub>
Figure A33	Ground Floor SC1 Impact PM <sub>10</sub>
Figure A34	Ground Floor SC2 Impact PM <sub>10</sub>
Figure A35	Ground Floor SC3 Impact PM <sub>10</sub>
Figure A36	Ground Floor SC4 Impact PM <sub>10</sub>
Figure A37	Ground Floor SC5 Impact PM <sub>10</sub>
Figure A38	Ground Floor SC6 Impact PM <sub>10</sub>
Figure A39	First Floor BC PM <sub>10</sub>
Figure A40	Second Floor BC PM <sub>10</sub>
Figure A41	Below Ground BC PM <sub>10</sub>
Figure A42	Below Ground Floor SC1-SC6 Impact PM <sub>10</sub>



## BC NO2 Concentration Ground Floor Level (ug/m3)

- <30 (1559)
- 30 to 36 (39)
- 36 to 40 (8)
- >40 (8)

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Job No. <b>AGGX7725624</b>	Fig. No. <b>A9</b>
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### SC1 NO2 Concentration Ground Floor Level (ug/m3)

- <30 (1559)
- 30 to 36 (38)
- 36 to 40 (8)
- >40 (9)

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Job No. <b>AGGX7725624</b>	Fig. No. <b>A10</b>
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### SC2 NO2 Concentration Ground Floor Level (ug/m3)

- <30 (1560)
- 30 to 36 (37)
- 36 to 40 (9)
- >40 (8)

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Job No. <b>AGGX7725624</b>	Fig. No. <b>A11</b>
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### SC3 NO2 Concentration Ground Floor Level (ug/m3)

- <30 (1559)
- 30 to 36 (40)
- 36 to 40 (7)
- >40 (8)

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Job No. <b>AGGX7725624</b>	Fig. No. <b>A12</b>
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### SC4 NO2 Concentration Ground Floor Level (ug/m3)

- <30 (1559)
- 30 to 36 (38)
- 36 to 40 (8)
- >40 (9)

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Job No. <b>AGGX7725624</b>	Fig. No. <b>A13</b>
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### SC5 NO2 Concentration Ground Floor Level ( $\mu\text{g}/\text{m}^3$ )

- $<30$  (1557)
- 30 to 36 (40)
- 36 to 40 (7)
- $>40$  (10)

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Job No. <b>AGGX7725624</b>	Fig. No. <b>A14</b>	



### SC6 NO2 Concentration Ground Floor Level (ug/m3)

- <30 (1561)
- 30 to 36 (37)
- 36 to 40 (8)
- >40 (8)

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Job No. <b>AGGX7725624</b>	Fig. No. <b>A15</b>
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## SC1 Impact NO2 Ground Floor Level

- Not Exceeding (1605)
- Exceedence Remains (8)
- New Exceedence (1)
- Removes Exceedence (0)

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Job No. <b>AGGX7725624</b>		Fig. No. <b>A16</b>



**SC2 Impact NO2  
Ground Floor Level**

- Not Exceeding (1606)
- Exceedence Remains (8)
- New Exceedence (0)
- Removes Exceedence (0)

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Scale <b>N.T.S.</b>	Date <b>April 2016</b>
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Job No. <b>AGGX7725624</b>	Fig. No. <b>A17</b>
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**SC3 Impact NO2  
Ground Floor Level**

- Not Exceeding (1606)
- Exceedence Remians (8)
- New Exceedence (0)
- Removes Exceedence (0)

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Job No. <b>AGGX7725624</b>	Fig. No. <b>A18</b>
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## SC4 Impact NO2 Ground Floor Level

- Not Exceeding (1605)
- Exceedence Remains (8)
- New Exceedence (1)
- Removes Exceedence (0)

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Scale <b>N.T.S.</b>	Date <b>April 2016</b>
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Job No. <b>AGGX7725624</b>	Fig. No. <b>A19</b>
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**SC5 Impact NO2  
Ground Floor Level**

- Not Exceeding (1604)
- Exceedence Remains (8)
- New Exceedence (2)
- Removes Exceedence (0)

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Job No. <b>AGGX7725624</b>	Fig. No. <b>A20</b>
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**SC6 Impact NO2  
Ground Floor Level**

- Not Exceeding (1606)
- Exceedence Remains (8)
- New Exceedence (0)
- Removes Exceedence (0)

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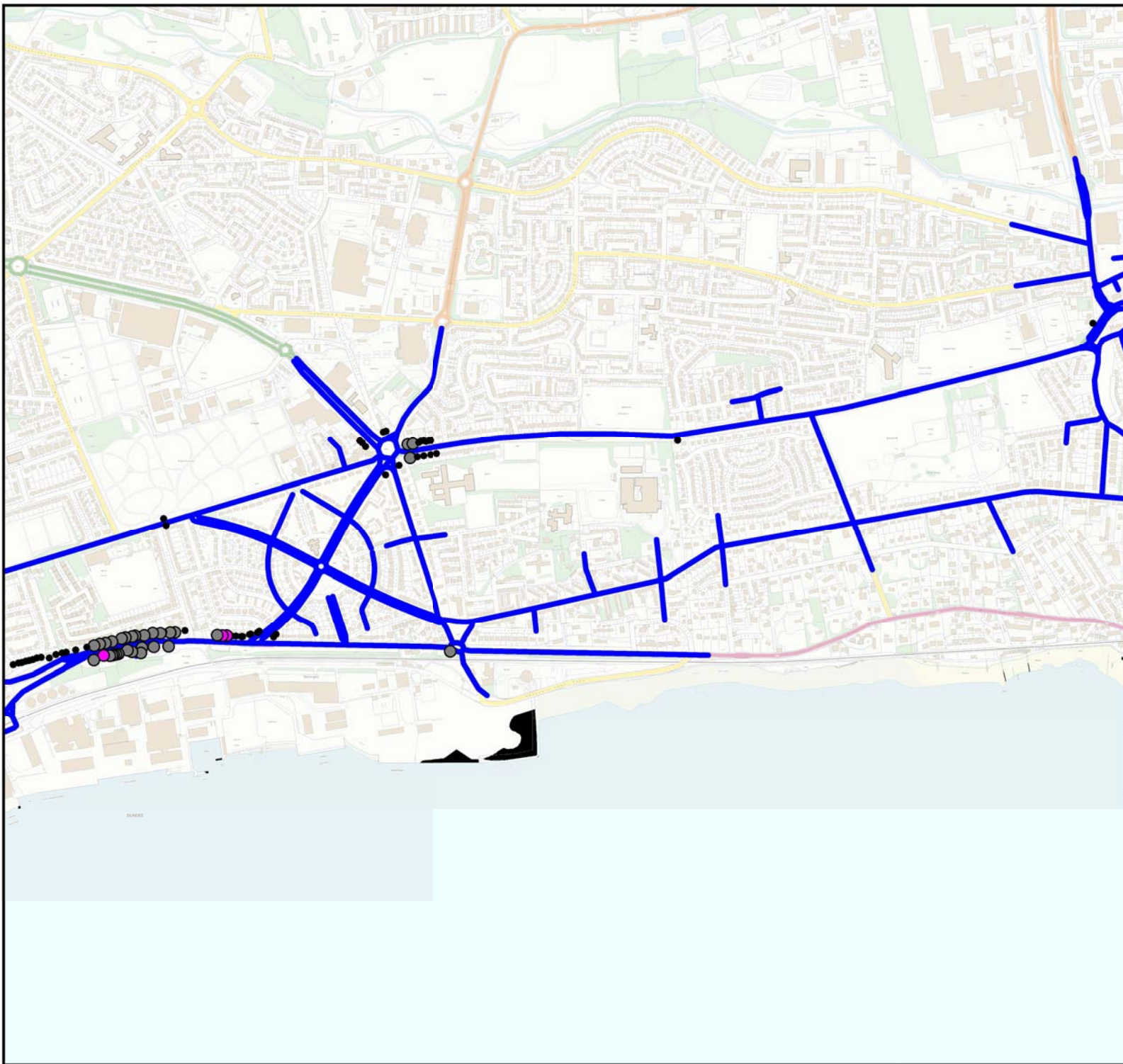
Location  
**Dundee - Stannergate**

Title  
**ADMS Model Results**

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Scale <b>N.T.S.</b>	Date <b>April 2016</b>
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Job No. <b>AGGX7725624</b>	Fig. No. <b>A21</b>
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### BC NO2 Concentration First Floor Level (ug/m3)

- <30 (49)
- 30 to 36 (30)
- 36 to 40 (3)
- >40 (0)

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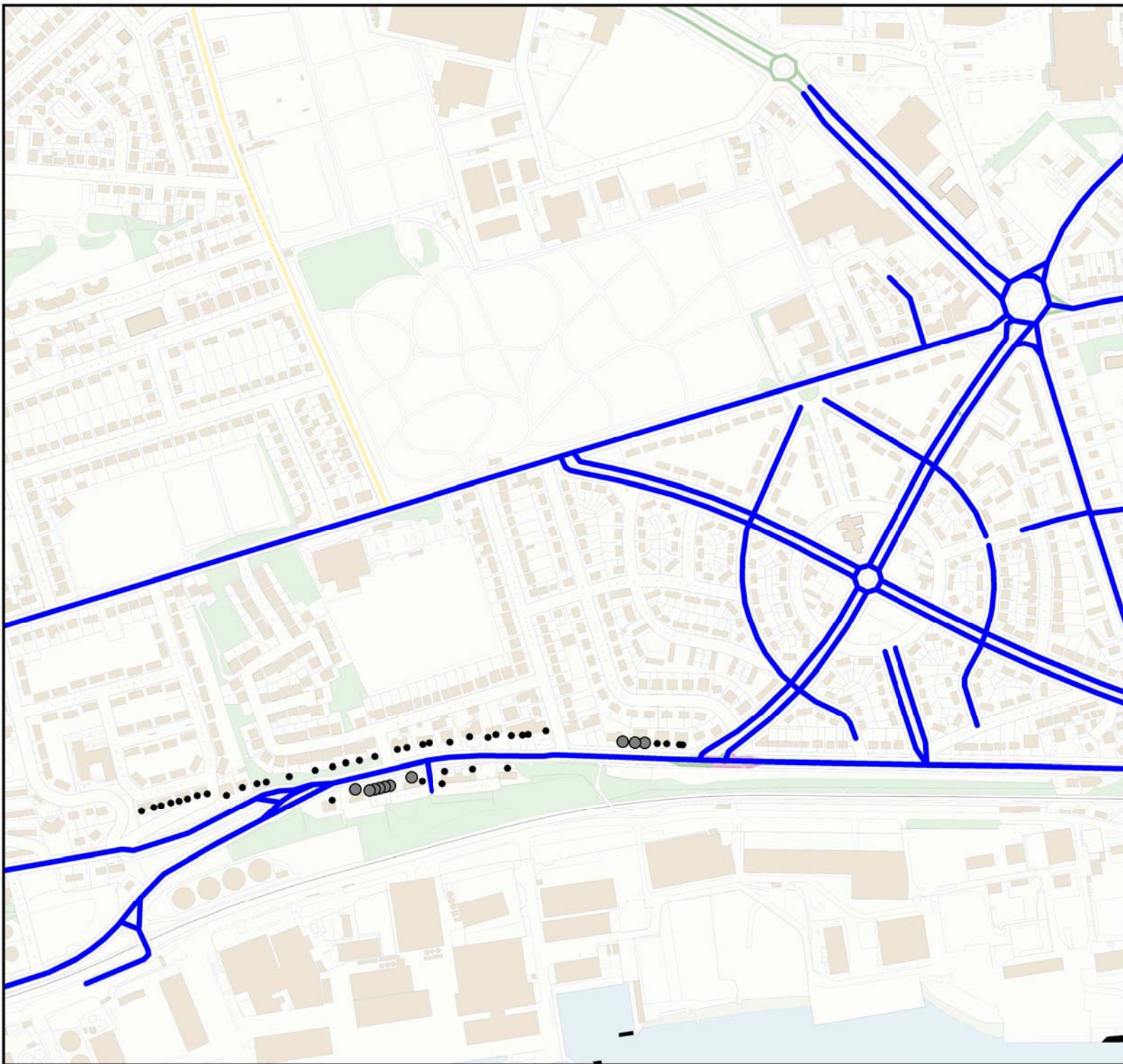
Location  
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Scale <b>N.T.S.</b>	Date <b>April 2016</b>
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Job No. <b>AGGX7725624</b>	Fig. No. <b>A22</b>
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**BC NO2 Concentration  
Second Floor Level (ug/m3)**

- <30 (40)
- 30 to 36 (10)
- 36 to 40 (0)
- >40 (0)

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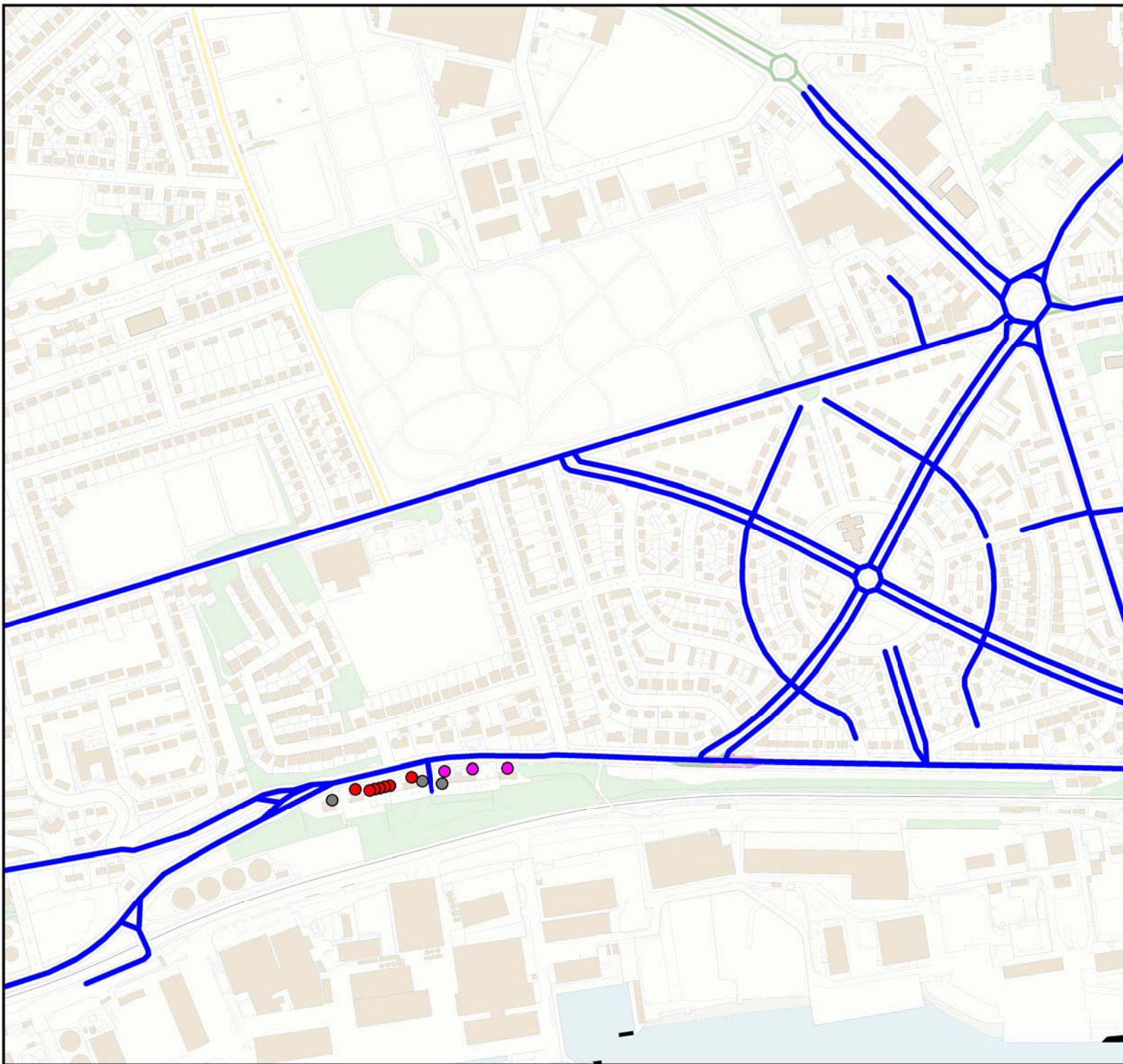
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Scale <b>N.T.S.</b>	Date <b>April 2016</b>
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Job No. <b>AGGX7725624</b>	Fig. No. <b>A23</b>
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**BC NO2 Concentration  
Below Ground Level (ug/m3)**

- < 30 (0)
- 30 to 36 (3)
- 36 to 40 (3)
- >40 (7)

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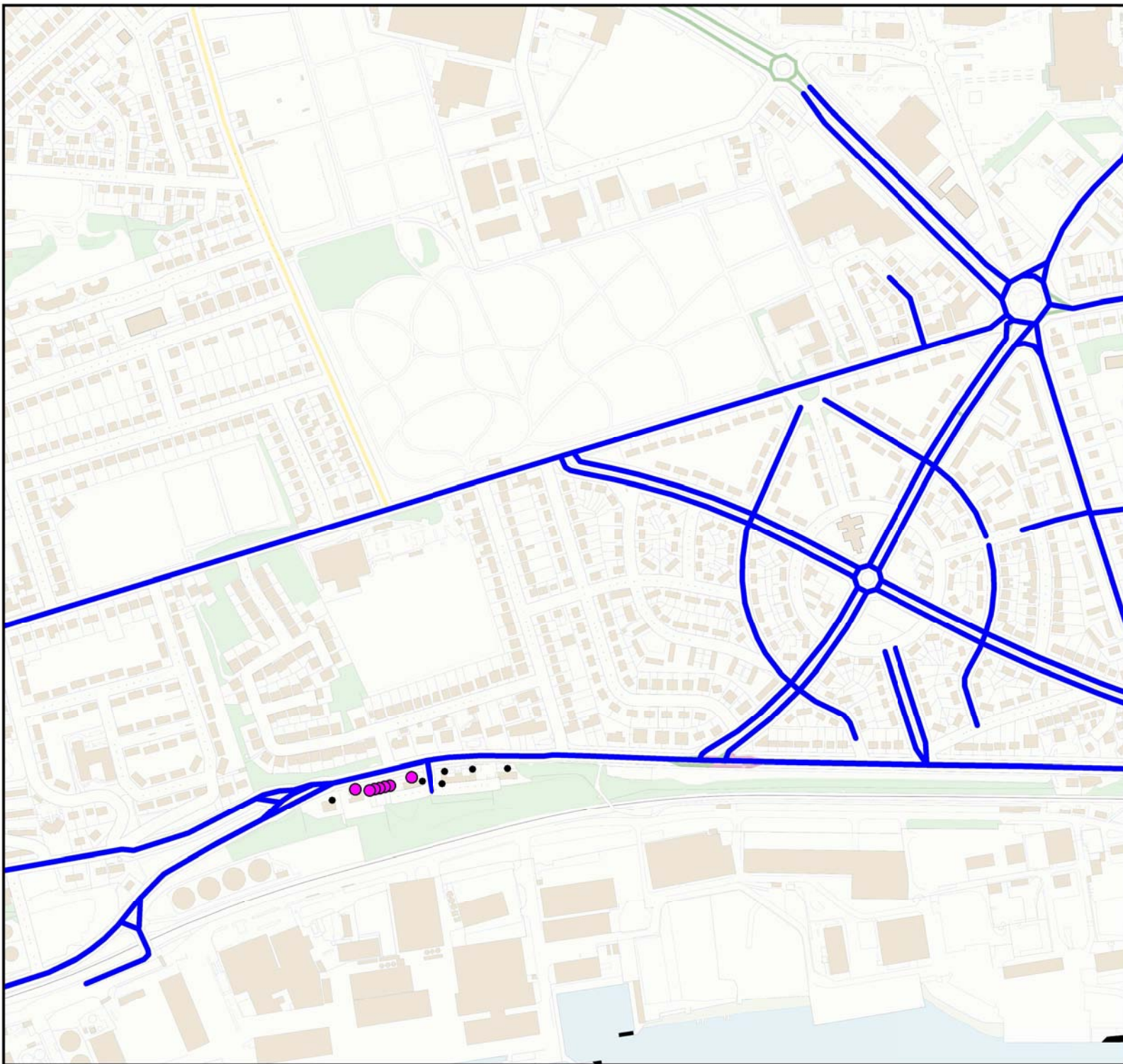
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Scale <b>N.T.S.</b>	Date <b>April 2016</b>
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Job No. <b>AGGX7725624</b>	Fig. No. <b>A24</b>
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**SC1, SC2, SC3, SC4, SC5 & SC6  
Impact NO2 Below Ground Level**

- Not Exceeding (6)
- Exceedence Remains (7)
- New Exceedence (0)
- Removes Exceedence (0)

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Scale <b>N.T.S.</b>	Date <b>April 2016</b>
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Job No. <b>AGGX7725624</b>	Fig. No. <b>A25</b>
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### BC PM10 Concentration Ground Floor Level (ug/m3)

- <13.5 (999)
- 13.5 to 16.2 (564)
- 16.2 to 18 (40)
- >18 (11)

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Scale <b>N.T.S.</b>	Date <b>April 2016</b>
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Job No. <b>AGGX7725624</b>	Fig. No. <b>A26</b>
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### SC1 PM10 Concentration Ground Floor Level (ug/m3)

- <13.5 (986)
- 13.5 to 16.2 (572)
- 16.2 to 18 (45)
- >18 (11)

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Job No. <b>AGGX7725624</b>	Fig. No. <b>A27</b>
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### SC2 PM10 Concentration Ground Floor Level (ug/m3)

- <13.5 (994)
- 13.5 to 16.2 (569)
- 16.2 to 18 (40)
- >18 (11)

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Scale <b>N.T.S.</b>	Date <b>April 2016</b>
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Job No. <b>AGGX7725624</b>	Fig. No. <b>A28</b>
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### SC3 PM10 Concentration Ground Floor Level (ug/m3)

- <13.5 (995)
- 13.5 to 16.2 (564)
- 16.2 to 18 (45)
- >18 (10)

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Scale <b>N.T.S.</b>	Date <b>April 2016</b>
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Job No. <b>AGGX7725624</b>	Fig. No. <b>A29</b>
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### SC4 PM10 Concentration Ground Floor Level (ug/m3)

- <13.5 (983)
- 13.5 to 16.2 (575)
- 16.2 to 18 (45)
- >18 (11)

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Scale <b>N.T.S.</b>	Date <b>April 2016</b>
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Job No. <b>AGGX7725624</b>	Fig. No. <b>A30</b>
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### SC5 PM10 Concentration Ground Floor Level ( $\mu\text{g}/\text{m}^3$ )

- $<13.5$  (975)
- 13.5 to 16.2 (581)
- 16.2 to 18 (45)
- $>18$  (13)

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Job No. <b>AGGX7725624</b>	Fig. No. <b>A31</b>
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### SC6 PM10 Concentration Ground Floor Level (ug/m3)

- <math>< 13.5</math> (1008)
- 13.5 to 16.2 (558)
- 16.2 to 18 (38)
- >18 (10)

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Job No. <b>AGGX7725624</b>	Fig. No. <b>A32</b>
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**SC1 Impact PM10  
Ground Floor Level**

- Not Exceeding (1602)
- Exceedence Remains (10)
- New Exceedence (1)
- Removes Exceedence (1)

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Job No. <b>AGGX7725624</b>	Fig. No. <b>A33</b>
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**SC2 Impact PM10  
Ground Floor Level**

- Not Exceeding (1602)
- Exceedence Remmains (10)
- New Exceedence (1)
- Removes Exceedence (1)

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Scale <b>N.T.S.</b>	Date <b>April 2016</b>
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Job No. <b>AGGX7725624</b>	Fig. No. <b>A34</b>
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**SC3 Impact PM10  
Ground Floor Level**

- Not Exceeding (1603)
- Exceedence Remains (10)
- New Exceedence (0)
- Removes Exceedence (1)

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Scale <b>N.T.S.</b>	Date <b>April 2016</b>
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Job No. <b>AGGX7725624</b>	Fig. No. <b>A35</b>
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**SC4 Impact PM10  
Ground Floor Level**

- Not Exceeding (1602)
- Exceedence Remains (10)
- New Exceedence (1)
- Removes Exceedence (1)

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Scale <b>N.T.S.</b>	Date <b>April 2016</b>
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Job No. <b>AGGX7725624</b>	Fig. No. <b>A36</b>
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**SC5 Impact PM10  
Ground Floor Level**

- Not Exceeding (1602)
- Exceedence Remains (11)
- New Exceedence (1)
- Removes Exceedence (0)

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Title <b>ADMS Model Results</b>		
By <b>FL</b>	Checked <b>JC</b>	Approved <b>JC</b>
Scale <b>N.T.S.</b>		Date <b>April 2016</b>
Job No. <b>AGGX7725624</b>		Fig. No. <b>A37</b>



**SC6 Impact PM10  
Ground Floor Level**

- Not Exceeding (1603)
- Exceedence Remains (10)
- New Exceedence (0)
- Removes Exceedence (1)

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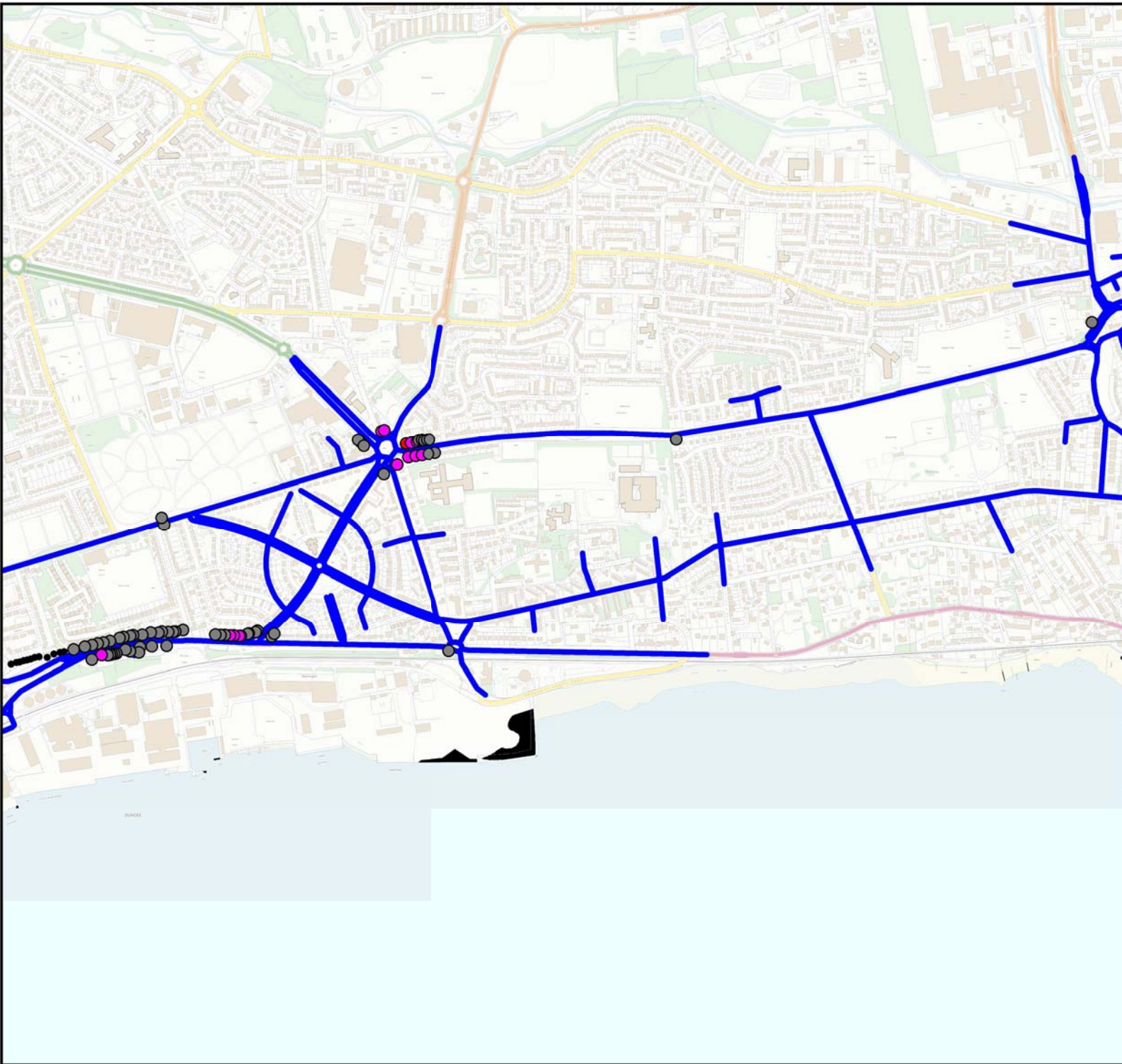
Location  
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Scale <b>N.T.S.</b>	Date <b>April 2016</b>
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Job No. <b>AGGX7725624</b>	Fig. No. <b>A38</b>
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### BC PM10 Concentration First Floor Level (ug/m3)

- <13.5 (12)
- 13.5 to 16.2 (55)
- 16.2 to 18 (14)
- >18 (1)

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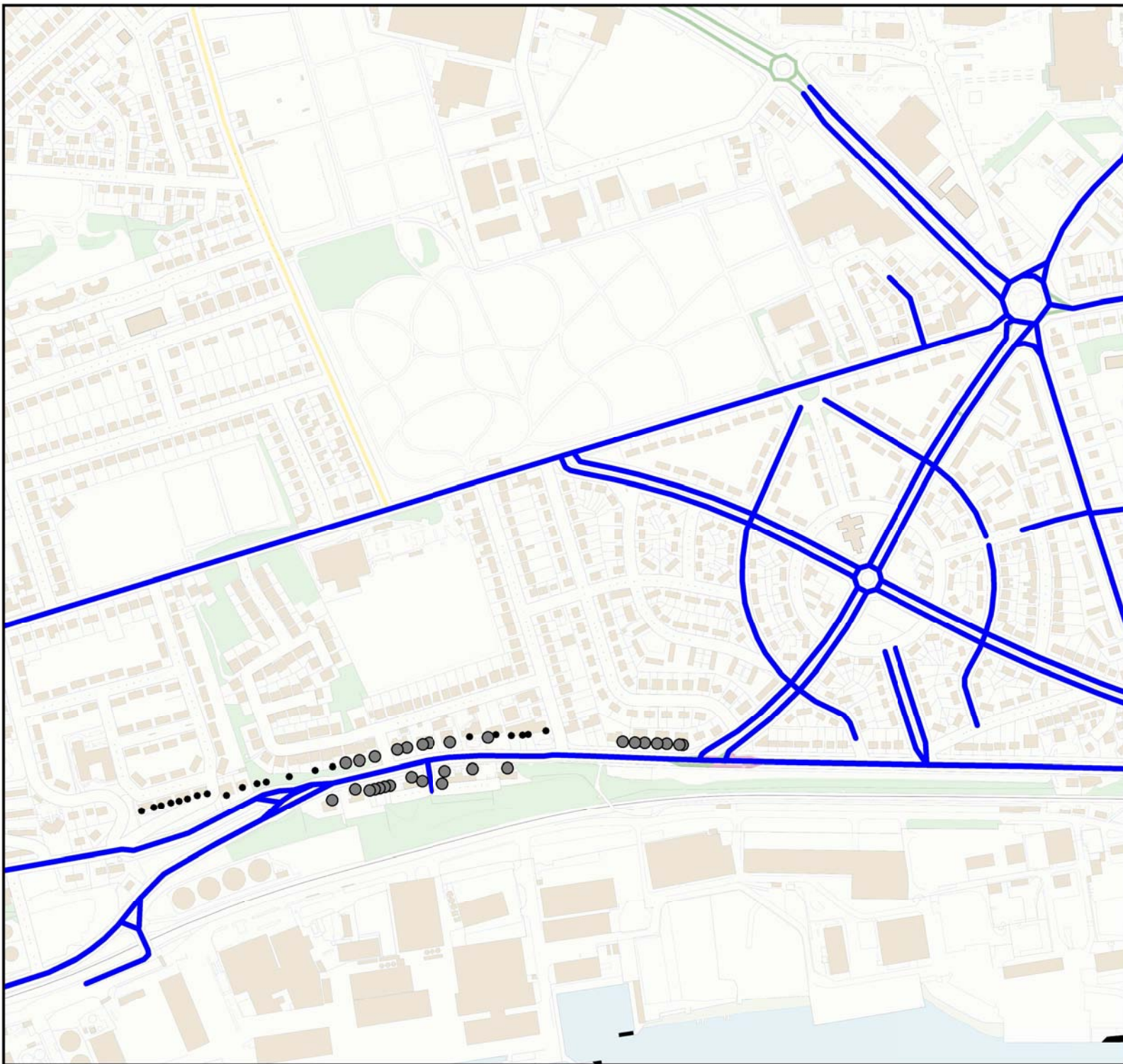
Location  
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Scale <b>N.T.S.</b>	Date <b>April 2016</b>
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Job No. <b>AGGX7725624</b>	Fig. No. <b>A39</b>
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### BC PM10 Concentration Second Floor Level (ug/m3)

- <13.5 (21)
- 13.5 to 16.2 (29)
- 16.2 to 18 (0)
- >18 (0)

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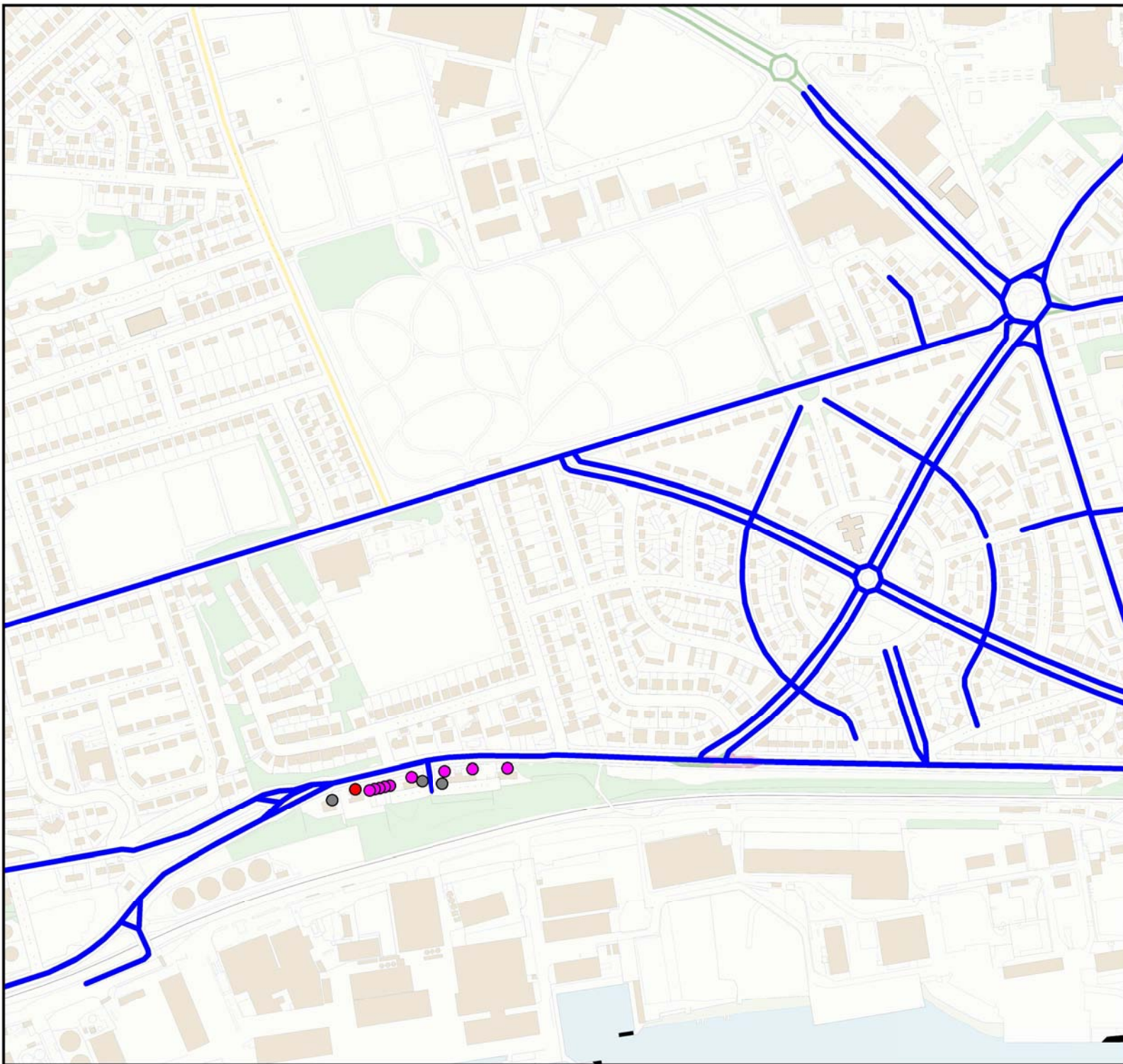
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Job No. <b>AGGX7725624</b>	Fig. No. <b>A40</b>
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**BC PM10 Concentration  
Below Ground Level (ug/m3)**

- <math>< 13.5</math> (0)
- 13.5 to 16.2 (3)
- 16.2 to 18 (9)
- >18 (1)

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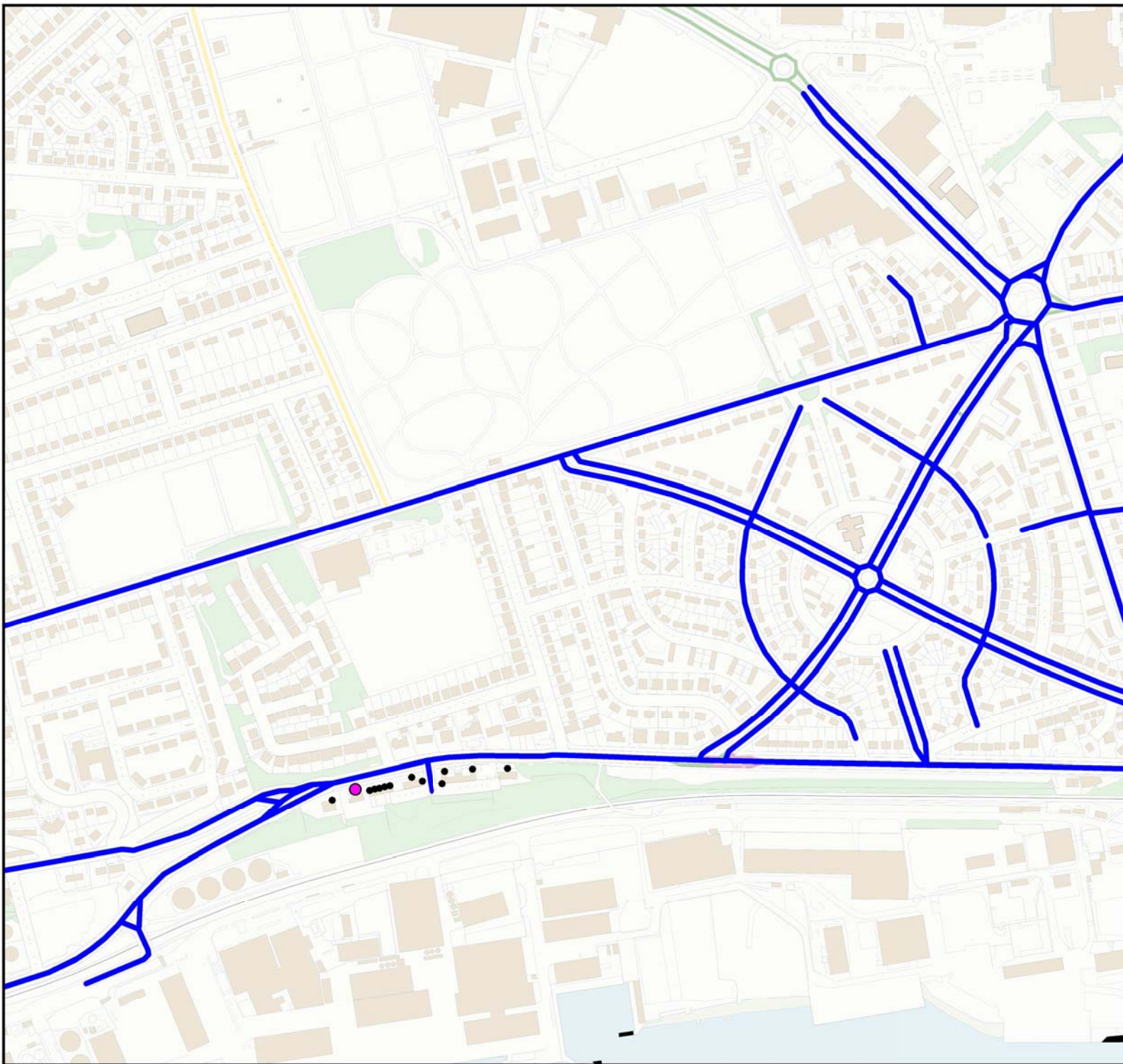
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Job No. <b>AGGX7725624</b>	Fig. No. <b>A41</b>
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**SC1, SC2, SC3, SC4, SC5 & SC6  
Impact PM10 Below Ground Level**

- Not Exceeding (12)
- Exceedence Remains (1)
- New Exceedence (0)
- Removes Exceedence (0)

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Job No. <b>AGGX7725624</b>	Fig. No. <b>A42</b>
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