Air Quality Information, Jan to March 2013

Dublin Airport

HSSE Department

1.0 INTRODUCTION

Dublin Airport Authority (DAA) carries out extensive ambient air monitoring at Dublin Airport and the surrounding area. DAA operate an air monitoring station on site at the airport and carry out diffusion tube monitoring in the surrounding areas. A list of these locations is presented in the table and map below.

This report presents a summary of the air quality results for diffusion tube monitoring of nitrogen dioxide (NO_2) and benzene (January to March) and the Dublin airport air monitoring station results for nitrogen dioxide (NO_2) and particulate matter (PM_{10}) for January to March 2013.

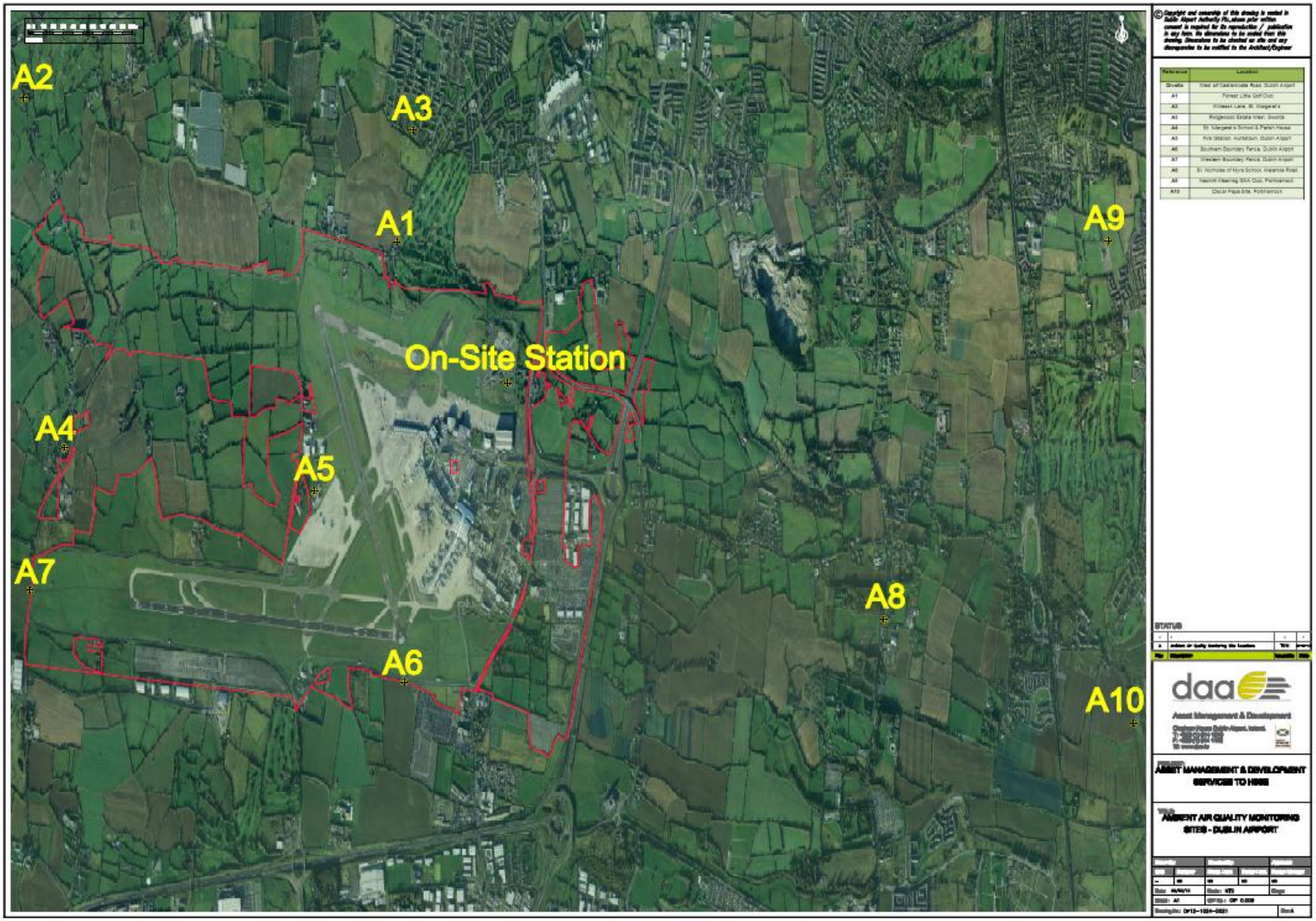
For comparison purposes the Ambient Air Quality Standards Regulations 2011 (SI 180 of 2011) are referenced. The Air Quality Standards Regulations do not require individual companies or operators to carry out air monitoring or compare the results with limit values specified in the Air Quality Standards Regulations. Monitoring for compliance with the Regulations is the responsibility of local authorities and is supervised by the competent authority under the Regulations, the EPA. The results of the DAA monitoring programme are compared with the limit values contained within the Regulations as a means of illustrating the general air quality at each location and not as a measure of compliance.

The results from each monitoring location are well below the ambient standards and are typical of urban and inter-urban areas. For national monitoring results carried out by the EPA and local authorities and information relating to air quality please visit www.epa.ie

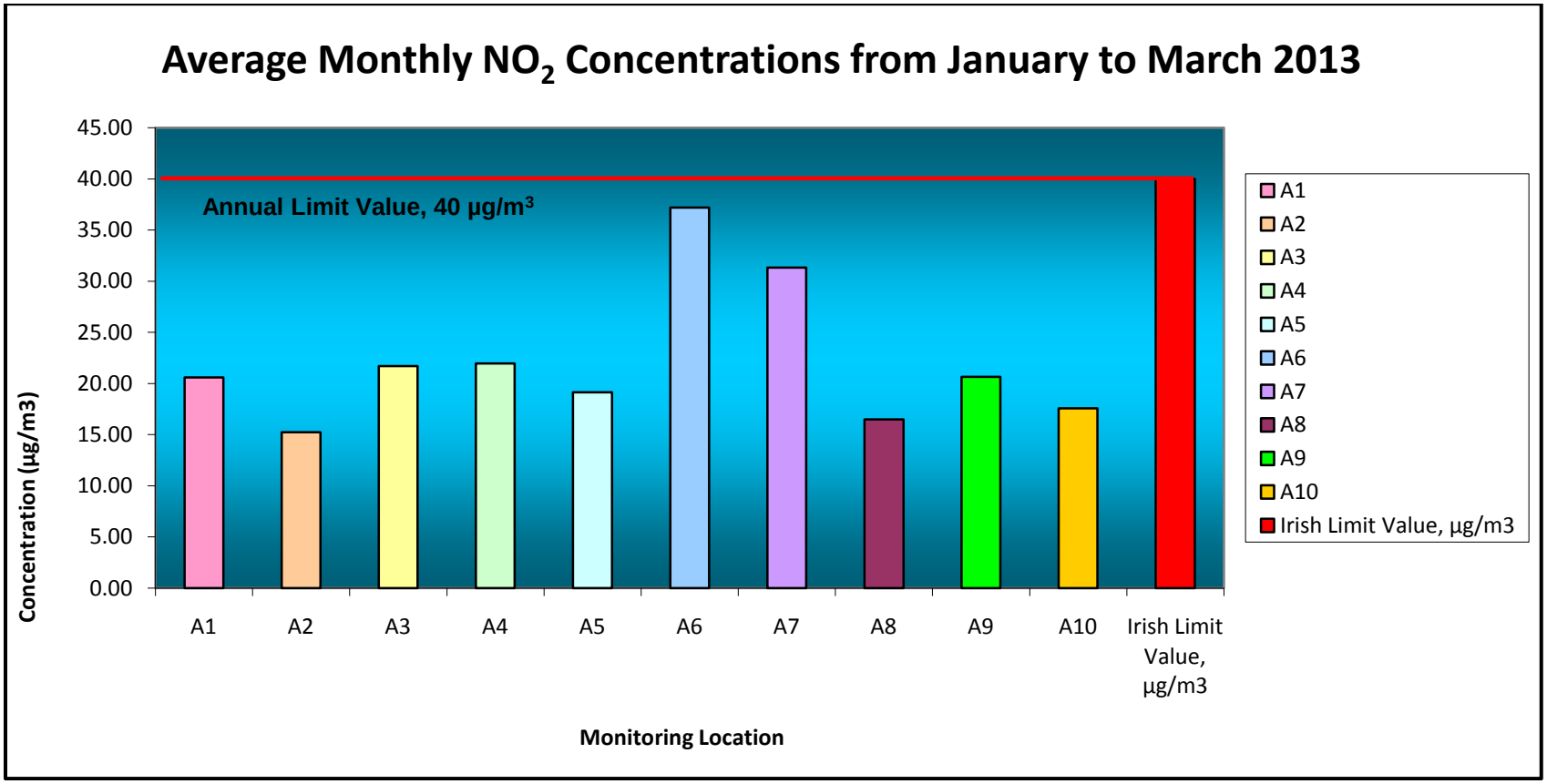
Reference	Location	Measurement Method	Parameters Reported
On-site	West of Castlemoate Road, Dublin Airport	Continuous anlaysers	NO_2, PM_{10}
A1	Forrest Little Golf Club	Passive Tubes	Nitrogen dioxide, benzene
A2	Kilreesk Lane, St. Margaret's	Passive Tubes	
A3	Ridgewood Estate West, Swords	Passive Tubes	
A4	St. Margaret's School & Parish House	Passive Tubes	
A5	Fire Station, Huntstown, Dublin Airport	Passive Tubes	
A6*	Southern Boundary Fence, Dublin Airport	Passive Tubes	
A7	Western Boundary Fence, Dublin Airport	Passive Tubes	
A8	St. Nicholas of Myra School, Malahide Road	Passive Tubes	
A9	Naomh Mearnóg GAA Club, Portmarnock	Passive Tubes	
A10	Oscar Papa Site, Portmarnock	Passive Tubes	

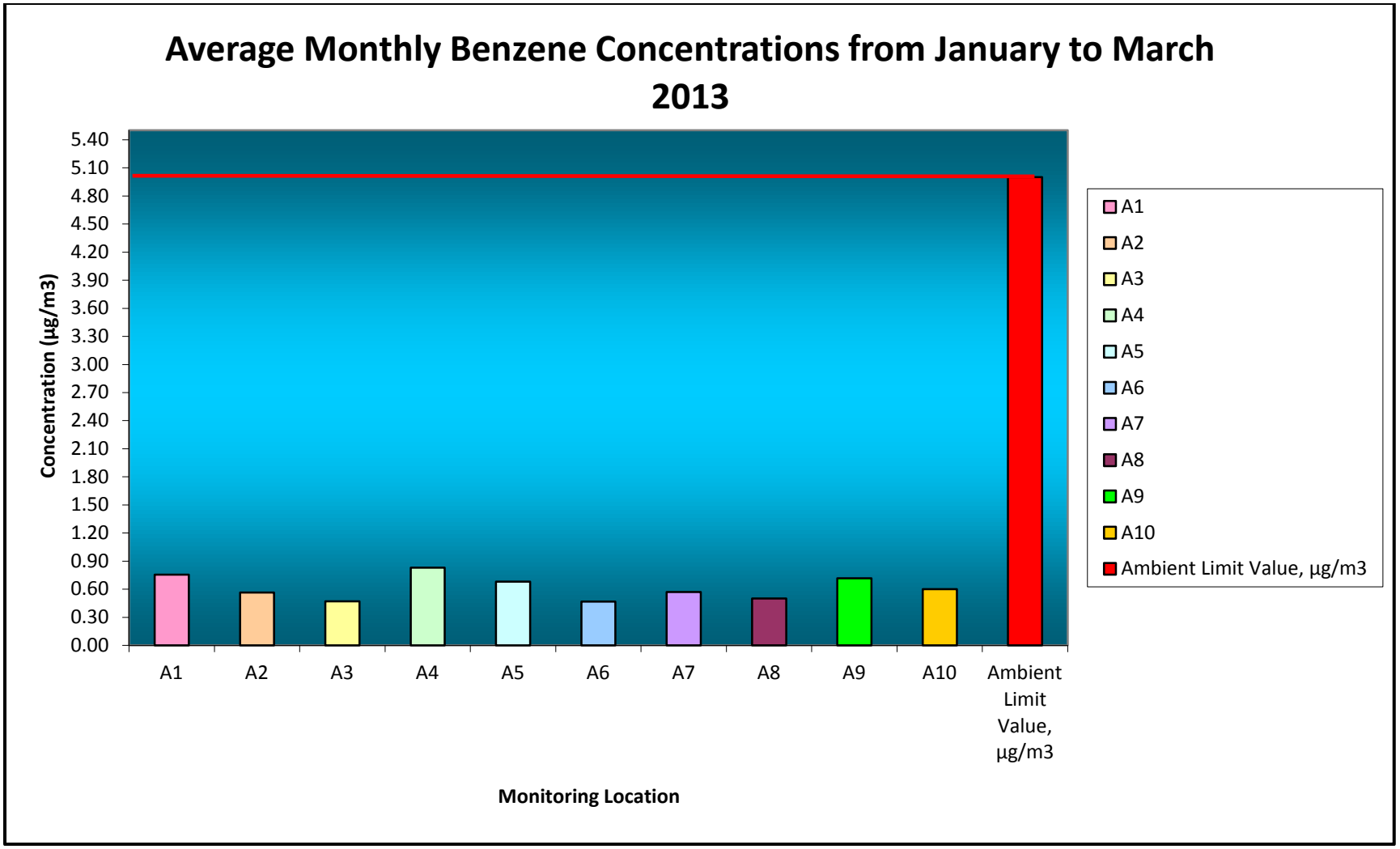
Table 1: Community ambient air monitoring locations

*This location was moved adjacent to the southern boundary fence due to ongoing access issues along R132 during constructions works

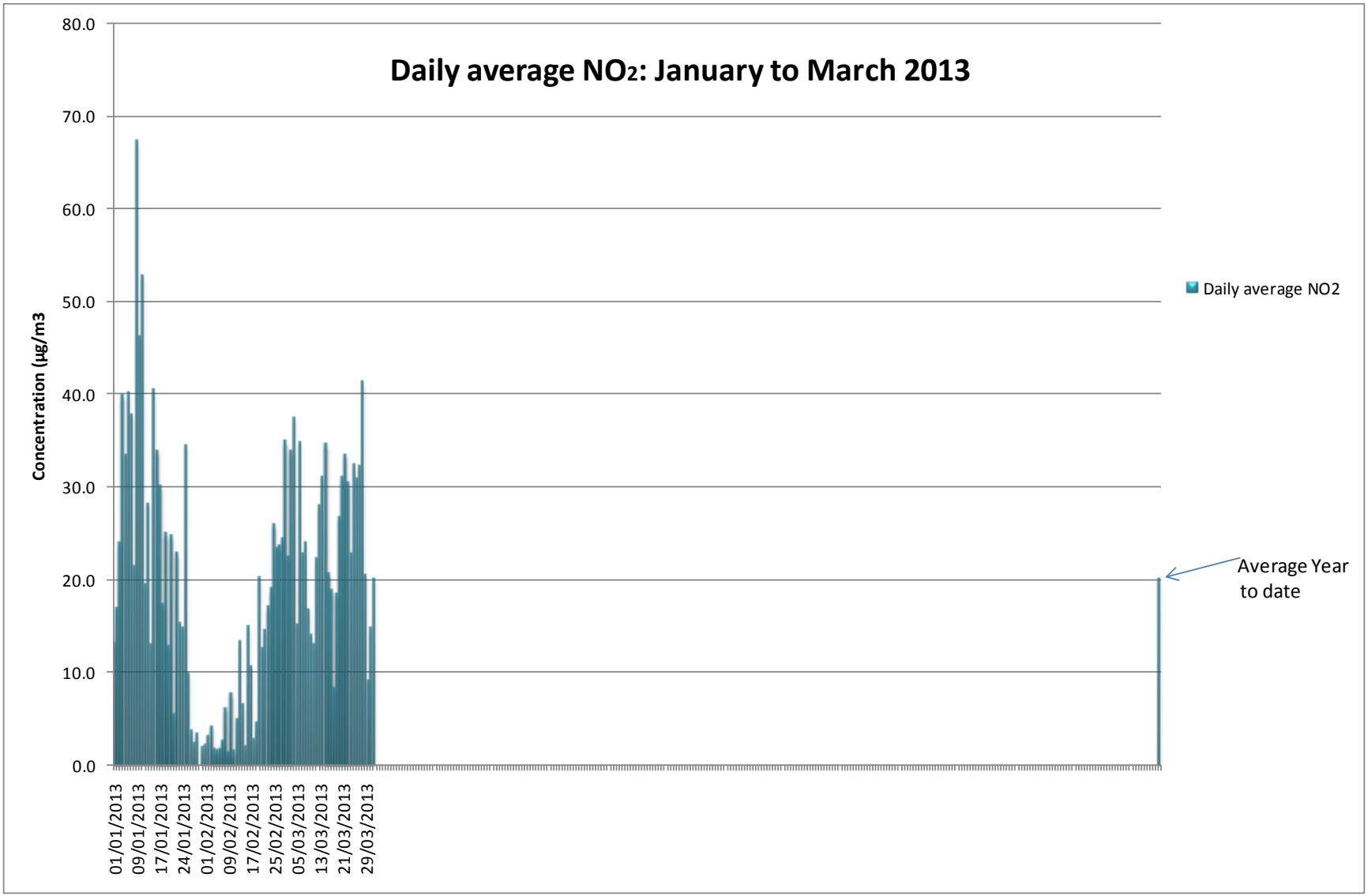

A2
A3
A1
A9
On-Site Station
A4
A5
A7
A8
A6
A10
daa
Asset Management & Development
AMBIENT AIR QUALITY MONITORING SITES - DUBLIN AIRPORT

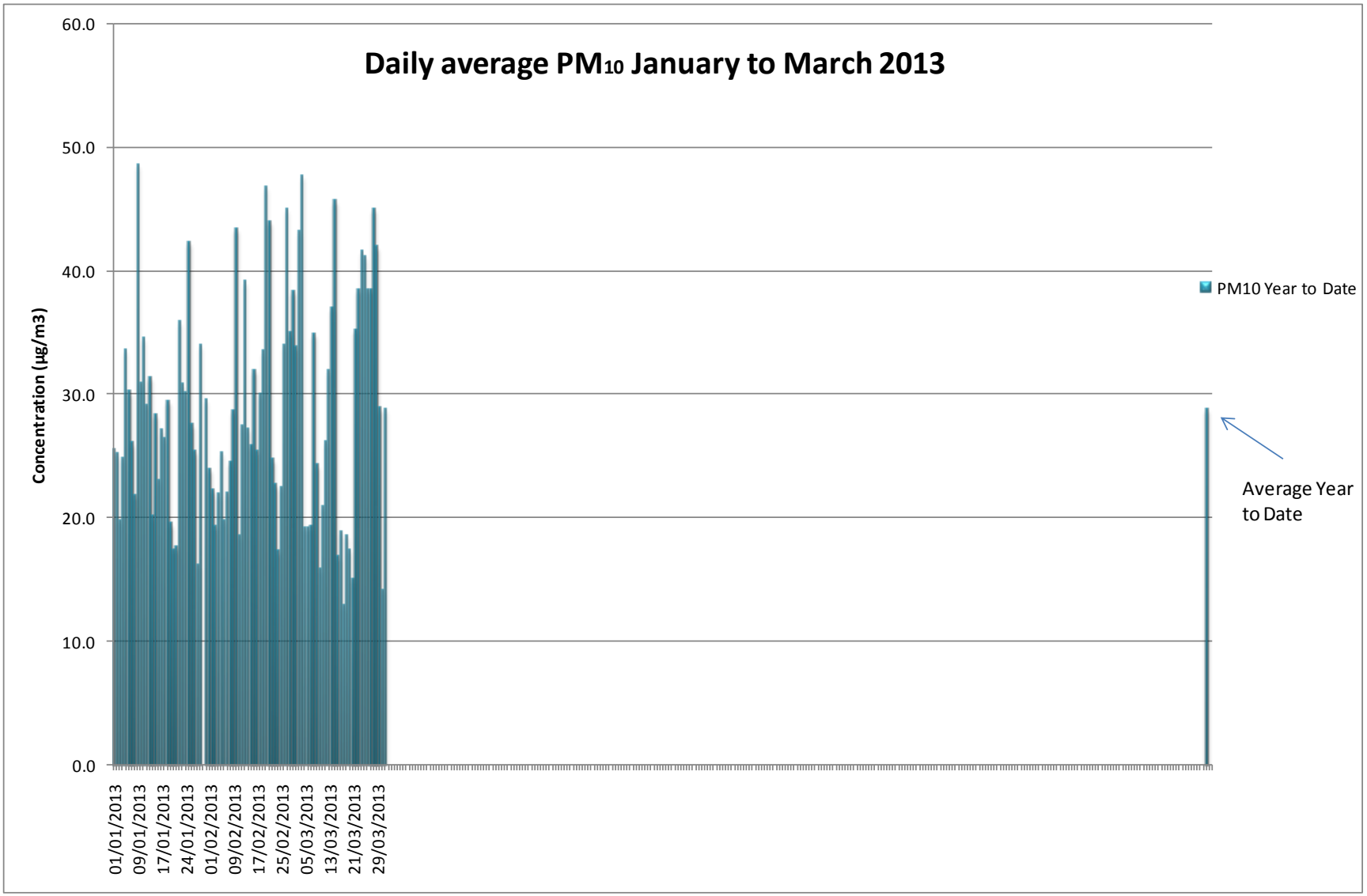
Community Monitoring Results




Average Monthly Benzene Concentrations from January to March 2013
Concentration (µg/m3)
5.40
5.10
4.80
4.50
4.20
3.90
3.60
3.30
3.00
2.70
2.40
2.10
1.80
1.50
1.20
0.90
0.60
0.30
0.00
A1
A2
A3
A4
A5
A6
A7
A8
A9
A10
Ambient Limit Value, µg/m3
Monitoring Location
A1
A2
A3
A4
A5
A6
A7
A8
A9
A10
Ambient Limit Value, µg/m3

On-site Airport Monitoring Station Results




Daily average PM10 January to March 2013
Concentration (µg/m3)
60.0
50.0
40.0
30.0
20.0
10.0
0.0
01/01/2013
09/01/2013
17/01/2013
24/01/2013
01/02/2013
09/02/2013
17/02/2013
25/02/2013
05/03/2013
13/03/2013
21/03/2013
29/03/2013
PM10 Year to Date
Average Year to Date

2.0 RESULTS SUMMARY

Nitrogen dioxide (NO_2): The diffusion tube results for NO_2 indicate that the highest concentrations are recorded adjacent to the main roads around the airport. The monitoring locations are only a few metres from the road and therefore pick up on roadside concentrations which are close to the vehicular emission source. Concentrations further away from the roadways are much lower and similar to the concentrations recorded at the on-site station.

A number of the diffusion tubes have been relocated due to access issues. In some cases, the relocated tubes are closer to roads than previously. These locations will be reviewed on an ongoing basis to assess suitability.

All benzene concentrations are well below the annual limit value.

The results at the Dublin airport monitoring station show concentrations of NO_2 and PM_{10} below the relevant long-term (annual) limit values. There are no concentrations above the short-term limit values.