SOUTHAMPTON CITY COUNCIL

Environmental Health & Consumer Protection Division

AIR QUALITY PROGRESS REPORT FOR 2008

Air Quality in Southampton between January and December 2007

August 2008

CONTENTS

Section 1: Introduction

Local authorities have various duties with respect to local air quality management (LAQM) including delivering the national objectives set out in the Air Quality Strategy for England, Wales and Northern Ireland, plus associated Regulations. Government guidance issued in 2003 [LAQM.PG(03)] sets out the timescales for submission of various reports on air quality. This report takes account of the guidance contained in LAGM.PRG(03) "Progress Report Guidance" (Defra, 2003) and meets the requirement to publish a Progress Report in 2008.

Southampton City Council finalised its 2nd Round Detailed Assessment in December 2004. The Council declared six Air Quality Management Areas (AQMAs) in July 2005.

AQMAs were declared in July 2005 at the following locations for nitrogen dioxide annual mean:

- Bitterne Road
- Town Quay
- Bevois Valley Road
- Redbridge Road
- Junction of Romsey Road and Winchester Road
- Hill Lane, Winchester Road and The Avenue

Southampton City Council finalised its 3rd Round Detailed Assessment in December 2007, declaring two additional Air Quality Management Areas (AQMAs) in July 2008 and amending two existing AQMAs.

AQMAs were declared in July 2008 at the following locations for nitrogen dioxide annual mean:

- Commercial Road
- Millbrook Road

Amendments to existing AQMAs

- The Winchester Road AQMA was dramatically reduced in size.
- The Town Quay AQMA was extended slightly to include the junction to Ocean Village

Maps of the AQMAs are in the appendix

Air quality in Southampton is comparable to other similar sized cities across the UK. To date, approximately 227 local authorities have declared AQMAs in the UK.

Southampton City Council formally adopted its Air Quality Action Plan in April 2008. A separate Progress Report on the Air Quality Action Plan will be published in April 2009.

Section 2: Purpose of the Progress Report

Following consultation on the LAQM process, the Government concluded that it was too 'stop-start' and that gaps of several years might occur between air quality reviews. Updating and Screening Assessments are now required at intervals of three years whilst Progress Reports maintain continuity and are to be produced in the intervening years. 3

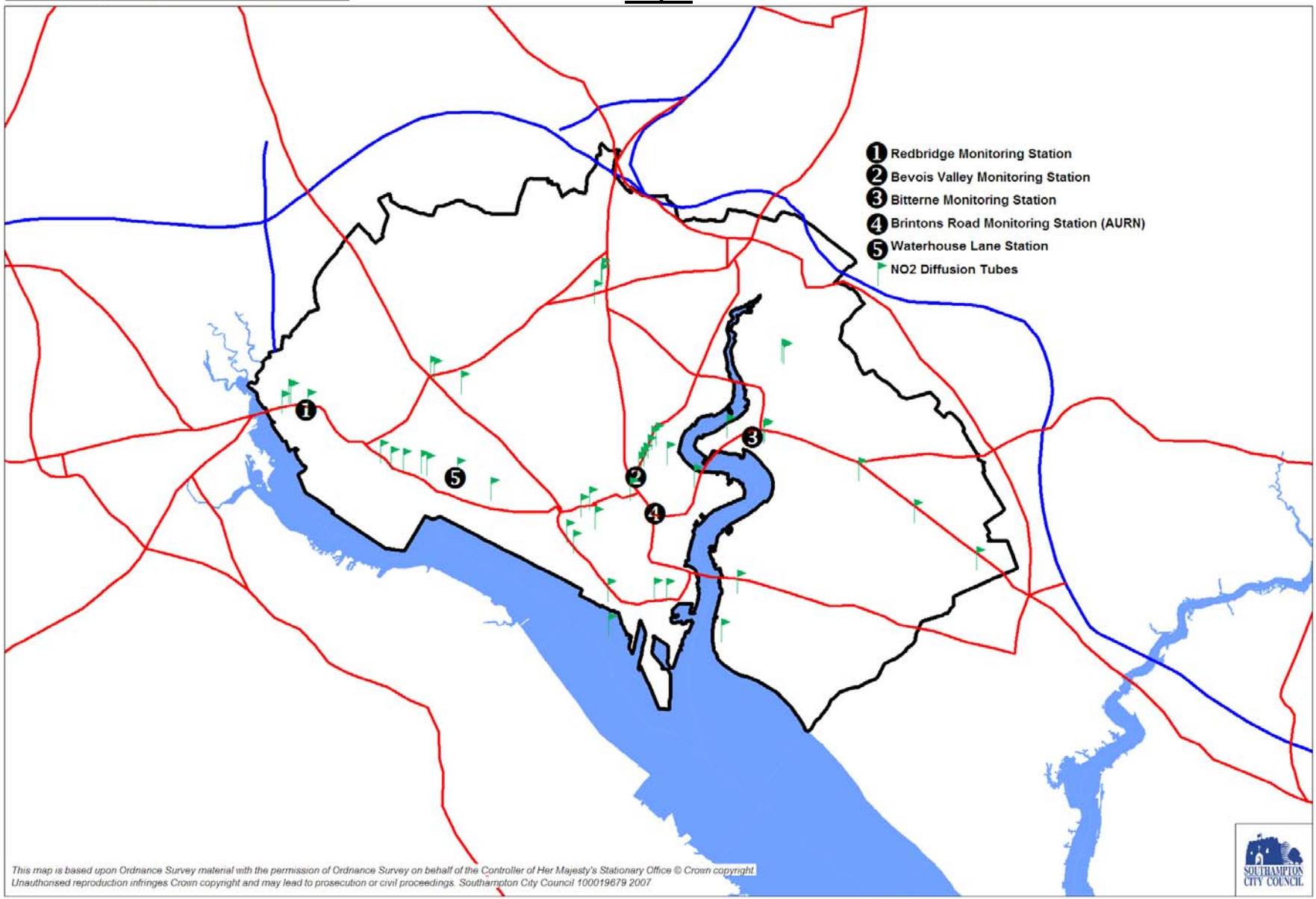
Progress Reports are designed to ensure continuity in the LAQM process and are intended to assist local authorities by –

- Helping retain a profile for LAQM within the authority, including the retention of staff with knowledge of air quality issues.
- Providing a means for communicating air quality information to members and the public.
- Maximising the usefulness and interpretation of the monitoring effort being carried out by the local authority.
- Maximising the value of the investment in monitoring equipment.
- Making the next round of review and assessment that much easier, as there will be a readily available up to date source of information.
- Helping local authorities respond to requests for up-to-date information on air quality.
- Providing information to assist in other policy areas, such as transport and land use planning.
- Providing a ready source of information on air quality for developers carrying out environmental assessments for new schemes.
- Demonstrating progress with implementation of air quality Action Plans and/or air quality strategies.
- Providing a timely indication of the need for further measures to improve air quality, rather than delaying until the next full round of review and assessment.

Section 3: Monitoring

Monitoring Station Locations 2008

Map 1



Levels of air pollution in 2007 were similar to those experienced in 2006. A summary of the results can be found in Table 1 below.

Redbridge School Monitoring Station

The nitrogen dioxide annual mean was 39µg/m^3, just below the 40µg/m^3 standard. A peak hour concentration of 159µg/m^3 was recorded. PM_{10} concentrations averaged 29.5µg/m^3 with 11 exceedences of the 24 hour standard. Redbridge School Station had the highest annual mean for PM_{10} .This is unsurprising as it is only 8 metres from Redbridge Road which has the highest overall traffic flow and highest number of HGVs in the City.

Particulate dust (PM_{10}) peaked at all three monitoring stations on the 25th March, with a 24 hour high of 104µg/m^3 recorded at Redbridge. This was attributed to Saharan sandstorms and caused a dust pollution episode across most of southern England.

Bitterne Monitoring Station

The annual mean nitrogen dioxide level for 2007 was 39.7µg/m^3, extremely close to the 40µg/m^3 standard. A peak hour concentration of 176µg/m^3 was recorded on the 7th February. Only 7 days exceedences of the PM_{10} standard were recorded.

AURN Brintons Road (Six Dials)

An annual mean of 34µg/m^3 was recorded for nitrogen dioxide with a peak hour of 160µg/m^3. The AURN recorded the highest number of exceedences of the PM_{10} standard in Southampton, with 13 exceedences. However, the PM_{10} annual mean concentration of 23µg/m^3 was the lowest concentration measured at all three sites.

Onslow Road

A peak hour concentration of 203.6µg/m^3 was recorded on the 11th December. This is just above the national hour standard and was the only exceedence of the year. Onslow Road recorded the highest nitrogen dioxide annual mean of 56µg/m^3. This monitoring station is located within the Bevois Valley Air Quality Management Area.

Millbrook Road

In September 2007 a small roadside monitoring station was installed at the junction with Waterhouse Lane. The ratified data for nitrogen dioxide over the period 20/9/2007 - 14/5/2008 produced a mean of 54.6µg/m^3, well above the annual mean standard. Data capture for this period was 97%. The peak hour for this period was 202µg/m^3. This initial data validates the accuracy of the existing diffusion tubes already located here and confirms the decision to declare an AQMA along the road where there are residential properties close to the kerb.

Table 1 – Monitoring results for 2007

	Monitoring Site				
Pollutant	Redbridge	Bitterne	Six Dials (AURN)	Onlsow Road	Millbrook Road
Particulates (PM_{10}) $\mu g/m^3$	Average of 29.5µg/m3, peak day of 104ug/m^3 on the 25th March 11 days above the daily mean standard Data Capture 94%	Average of 25.6µg/m^3, peak day of 102µg/m^3 on the 25th March, 7 days above the standard Data Capture 91.3%	Average of 23µg/m^3, Peak day of102µg/m^3 On 25th March 13 days above the standard. Data Capture 98.3%	N/A	N/A
Nitrogen Dioxide $\mu g/m^3$	Average of 39.0µg/m^3 peak hour of 159µg/m^3 on 16th November Data Capture 94%	Average of 39.7µg/m^3, peak hour 176µg/m^3 on 7th February Data Capture 88%	Average of 34µg/m^3, peak hour of 160µg/m^3 Data Capture 77.6%	Average of 56µg/m^3, peak hour of 203.6µg/m^3. Data capture 90.6%	Average of 54.6µg/m^3, peak hour of 202µg/m^3. Data capture 97% *
Sulphur Dioxide $\mu g/m^3$	Average of 8.8µg/m^3 peak 15 minute of 122µg/m^3 on 21st April Data Capture 86%	Average of 2.4µg/m^3, peak 15 minute 114µg/m^3 on the 31st May Data Capture 89.5%	Average of 3µg/m^3 peak 15 minute of 82µg/m^3 Data Capture 98.1%	N/A	N/A
Carbon Monoxide mg/m^3	N/A	N/A	Average of 0.2mg/m^3 peak 8 hour mean of 2.2mg/m^3 Data Capture 96.9%	N/A	N/A
Ozone $\mu g/m^3$	Average of 37µg/m^3 Peak 8 Hour of 111µg/m^3 on 2nd April 2 days above the standard Data Capture 94%	N/A	Average of 31µg/m^3 peak 8 hour mean of 91µg/m^3 0 days above the standard Data Capture 97.3%	N/A	N/A
Benzene $\mu g/m^3$	N/A	N/A	Average of 1.0µg/m^3 100% data capture (pumped diffusion tube)	N/A	N/A

*** Millbrook Road monitoring station results are for the period from 20/09/07 – 14/05/08**
(µg/m^3 = micrograms per cubic metre, ppb = parts per billion, N/A= Non applicable ppm = parts per million

Description of the Monitoring Stations in Southampton

AURN – Brintons Road (Six Dials)

DEFRA Automatic Urban Network Station, Brintons Road, by Six Dials Junction, established 1994, classified as an Urban Centre site. This site is approximately 8 metres from the kerb of Northam Road and has around 33,000 vehicles per day (3.5% HGV). Pollutants monitored at this site include NO_x, SO_2, O_3, CO, PM_{10} and benzene (by pumped diffusion tube). It is in a residential area with houses close to the road. O.S. Grid Ref: 442583, 112248.

Bitterne

Mobile Unit located at Bitterne Road in the railway station car park. Pollutants monitored include NO_2, SO_2, and PM_{10}. This is a residential area approximately 10 metres from Bitterne Road/Bullar Road Traffic Lights and close to railway line. It has 33,000 vehicles per day, 3.5% HGV, 30mph speed limit. The monitoring station is located on the edge of the Air Quality Management Area. O.S. Grid Ref: 443987, 113340

Redbridge

The monitoring station at Redbridge Community School was established April 1999. It is situated approximately 8 metres from the kerb of Redbridge Road and is the most heavily trafficked road in Southampton, comprising of a 3-lane dual carriageway, and 50-mph speed limit. This road is the designated route into the port for HGVs. Average Daily Traffic count of 76,000 vehicles per day, 8% HGV. The pollutants monitored include NO_x, SO_2, O_3 and PM_{10}. A residential area with several schools and sports grounds next to the road.
O.S. Grid Ref: 437549, 113721.

Onslow Road

This site is located 2 metres from the kerb and is opposite 3 Onslow Road. It lies within the Bevois Valley AQMA and was established in July 2005. Onslow Road has 18,000 vehicles per day, 2.6% HGV and a 30mph speed limit. This site only monitors oxides of nitrogen. O.S. Grid Ref: 442304, 112771.

Millbrook Road

This site is located at the junction of Millbrook Road/Waterhouse Lane, Freemantle. It lies within the Millbrook Road AQMA, established September 2007. The site is funded by Marchwood Power Station as part of a planning condition to monitor emissions downwind of the stack. Pollutants monitored are NO_x and O_3. The site is situated 6 metres from the kerb, and has 53,000 vehicles per day (4.5% HGV).
Grid Reference: 439702,112768

National Air Quality Standards

The table below summarises the National Air Quality Standards which are set out in the National Air Quality Strategy. Southampton City Council has a statutory duty to achieve these standards by the assigned date.

Pollutant	Air Quality Objective		Date to be achieved by
	Concentration	Measured as	
Particles (PM_{10})	50µg/m^3 (gravimetric) not to be exceeded more than 35 times a year (TEOM data multiply by 1.3)	Daily (24 hour mean)	31.12.2004
Nitrogen Dioxide	105 ppb (200µg/m^3) not to be exceeded more than 18 times a year	1 hour mean	31.12.2005
	21 ppb (40µg/m^3)	annual mean	31.12.2005
Sulphur Dioxide	132 ppb (350µg/m^3) not to be exceeded more than 24 times a year	1 hour mean	31.12.2004
	47 ppb (125µg/m^3) not to be exceeded more than 3 times a year	24 hour mean	31.12.2004
	100 ppb (266ug/m^3) not to be exceeded more than 35 times a year	15 minute mean	31.12.2005
Carbon monoxide	10ppm (11.6mg/m^3)	running 8-hour mean	31.12.2003
Benzene	5.00ug/m3	annual mean	31.12.2010
1,3 Butadiene	1ppb (2.25ug/m^3)	running annual mean	31.12.2003
Lead	0.5ug/m^3	annual mean	31.12.2004
	0.25ug/m^3	annual mean	31.12.2008
Ozone	50 ppb (100ug/m^3) not to be exceeded more than 10 times a year	Daily maximum of running 8 hour mean	31.12.2005

Nitrogen Dioxide Diffusion Tube Data for 2007 in µg/m^3

Site Name	Raw annual mean	Data Capture	Scaled annual mean 0.9 factor applied	Distance from Receptor	Distance Scaling Factor	Average at Receptor
Sandringham Road(garden)	22.8	100%	20.6	0		20.6
Redbridge School 1	51.3	100%	46.1	0		46.1
Redbridge School 2	50.1	66%	45.1	0		45.1
Redbridge School 3	51.7	66%	46.5	0		46.5
485 Millbrook Road	43.2	16%	38.9	0		-
Aukland Road Site disbanded	49.3	42%	44.4	Receptor removed		-
Regents Park Junction	48.3	91%	43.4	2m		43.4
Pilgrim Court	38.2	100%	34.4	0m		34.4
Anglesea Road	47.3	100%	42.6	6m	0.9	38.3
Cranbury Place	63.6	91%	57.3	1m		57.3
Bitterne Road	49.6	100%	44.6	2m		44.6
Bitterne Road AMS	38.6	100%	34.7	0m		34.7
206 Bitterne Road	47.9	91%	43.1	4m	0.95	40.9
Bitterne Library	42.5	100%	38.3	0		38.3
Brintons Road 1	38.3	100%	34.4	0		34.4
Brintons Road 2	37.1	66%	33.4	0		33.4
Brintons Road 3	38.6	66%	34.8	0		34.8
The Avenue	53.8	100%	48.4	17m	0.75	36.3
Town Quay Road	50.5	100%	45.4	1m		45.4
Town Quay Ferry	32.0	100%	28.8			28.8
41-59 Onslow Road	56.9	100%	51.2	2m		51.2
3 Rockstone Place	44.9	100%	40.4	2m		40.4
Mt Pleasant Road	39.9	66%	35.9	1m		35.9
Mt Pleasant Crossing	41.8	91%	37.6	1m		37.6
Charlotte Place	48.3	100%	43.4	6m	0.9	39.1
22-28 Onslow Road	52.6	100%	47.4	2m		47.4
Wyndham Court	35.6	100%	32.1	0m		32.1
5 Commercial Road	49.4	100%	44.5	1m		44.5
Hill Lane	47.1	100%	42.4	6m	0.9	38.2
Victoria Road	29.1	100%	26.2	0m		26.2
Victoria Road/Portsmouth Road	49.9	91%	44.9	6m	0.9	40.4
Hse 305 Millbrook	48.8	100%	44.0	0m		44.0

Rd						
kerb 305 Millbrook Rd W	58.6	83%	52.7	5m	0.95	50.1
St Andrews Road	45.2	83%	40.7	1m		40.7
Fitzhugh Street	42.9	100%	38.6	0m		38.6
Bursledon/Kathleen Road	49.6	100%	44.6	4m	0.95	42.4
Canute Road	40.6	100%	36.5	1m		36.5
431 Winchester Road	34.7	100%	31.2	3m	0.95	29.6
347A Winchester Road	50.4	91%	45.4	4m	0.95	43.1
134 Romsey Road	51.1	17%	45.9	0m		-
148 Romsey Road	58.6	83%	52.7	5m	0.95	50.1
67 Tower Gdns	31.2	58%	28.1	0m		28.1
1 Little Oak	23.9	50%	21.5	0m		21.5
Blacksmith Arms	35.0	58%	31.5	0m		31.5
38 Old Redbridge Road	44.4	50%	40.0	2m		40.0
539 Millbrook Road	41.2	42%	37.1	0m		-
Ladbrokes	51.1	42%	46.0	0m		-
M271 *	52.5	100%	47.3	10m	0.9	47.3
Coniston Road *	48.8	100%	43.9	0m		43.9

* Highways Agency Tubes April 06-March 07

All Tubes Gradko, 20% TEA in water.

The 0.9 scaling factor was calculated by taking the average of all 3 co-location studies in Southampton at Automatic Oxides of Nitrogen Analysers.

Redbridge	0.780
Six Dials AURN	0.897
Bitterne Road	1.025
Average	0.900

The national correction factor for 17 co-location studies using the same type of tube for 2007 was 0.89. The local factor was very similar to the National Factor.

Discussion of 2007 Nitrogen Dioxide Diffusion Tube Results

Most of the tubes within the existing 8 AQMAs were above the 40µg/m^3 standard in 2007. There were 3 tube sites outside existing AQMAs that were above the standard in 2007 at relevant receptors.

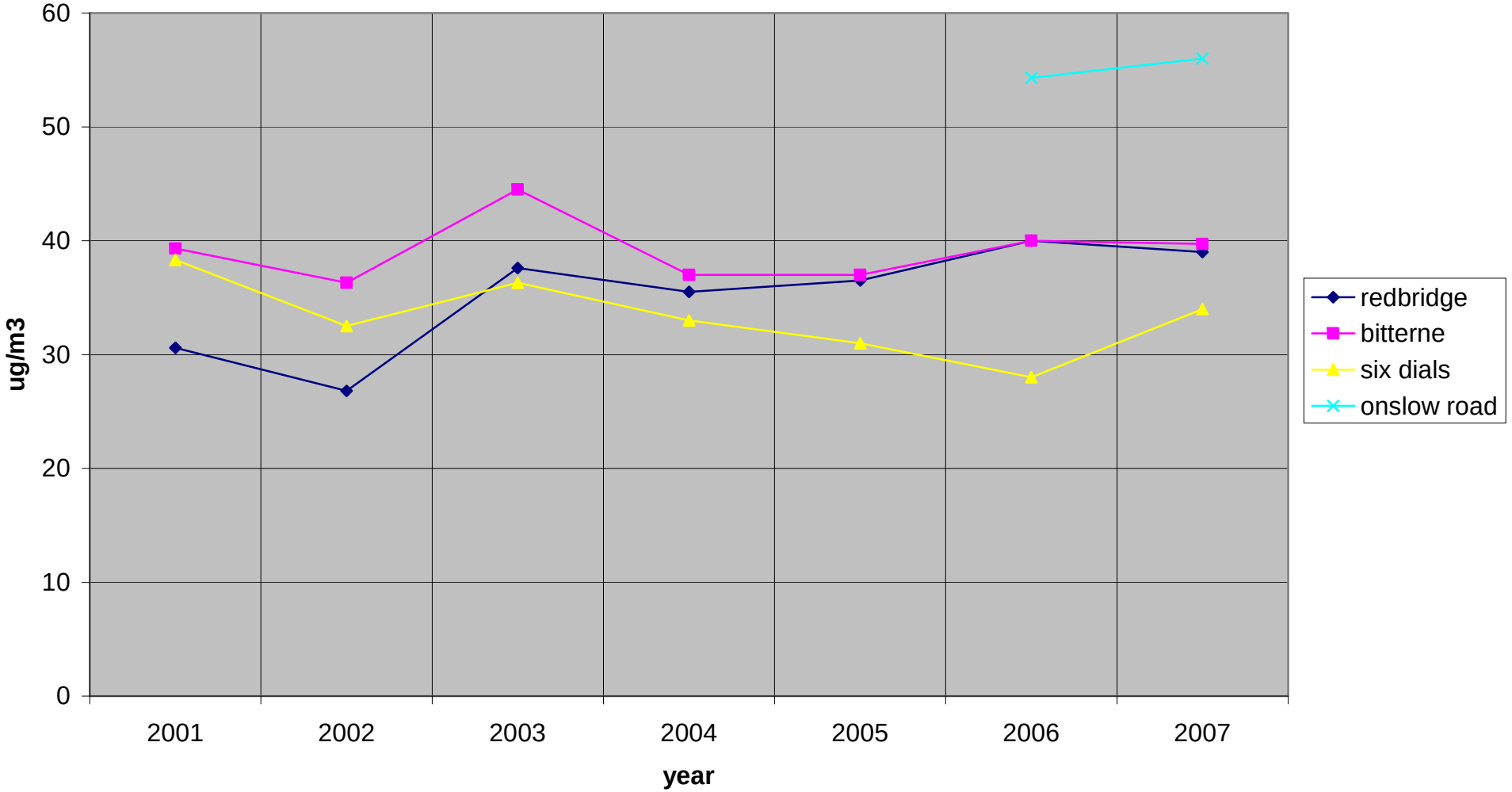
- Victoria Road/Portsmouth Road Junction 40.4 ug/m^3
- St. Andrews Road 40.7 ug/m^3
- Bursledon/Kathleen Road Junction 42.4 ug/m^3

In April 2008 the diffusion tube at Bursledon/Kathleen Road Junction was moved to the residential façade of the nearest house from its present kerbside location on a lamp post. This will provide façade measurements which are more accurate than distance scaling from the kerbside.

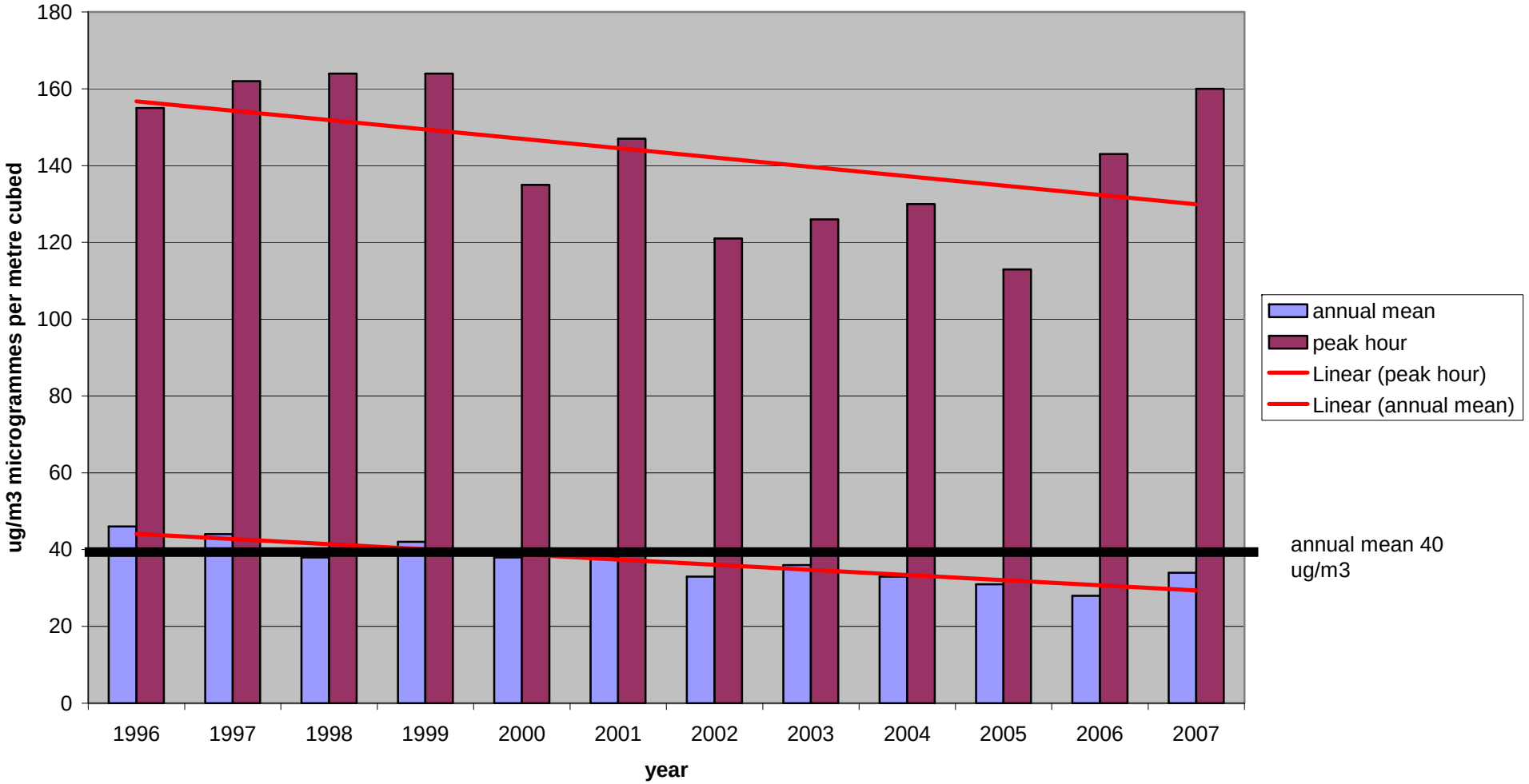
St. Andrews Road will be assessed as part of the Updating and Screening Assessment in April 2009. In 2006 the annual mean at this location was only 34.7µg/m^3, well below the standard. It is possible that road infrastructure changes around Charlotte Place Roundabout have caused an increase in traffic flow along St. Andrews Road, resulting in more nitrogen dioxide. It would be relatively straightforward to extend the AQMA around Charlotte Place roundabout to include St Andrews Road, if necessary.

Victoria Road/Portsmouth Road Junction was just above the annual mean standard after scaling the data from its kerbside location. In 2006 it was below the standard at 37.4µg/m^3. We will continue monitoring at this location and assess it in 2009. There may be an opportunity in the future to locate a small oxides of nitrogen analyser near this location but this will be dependent on financial support from the developer of the Vosper Thorneycroft shipyard.

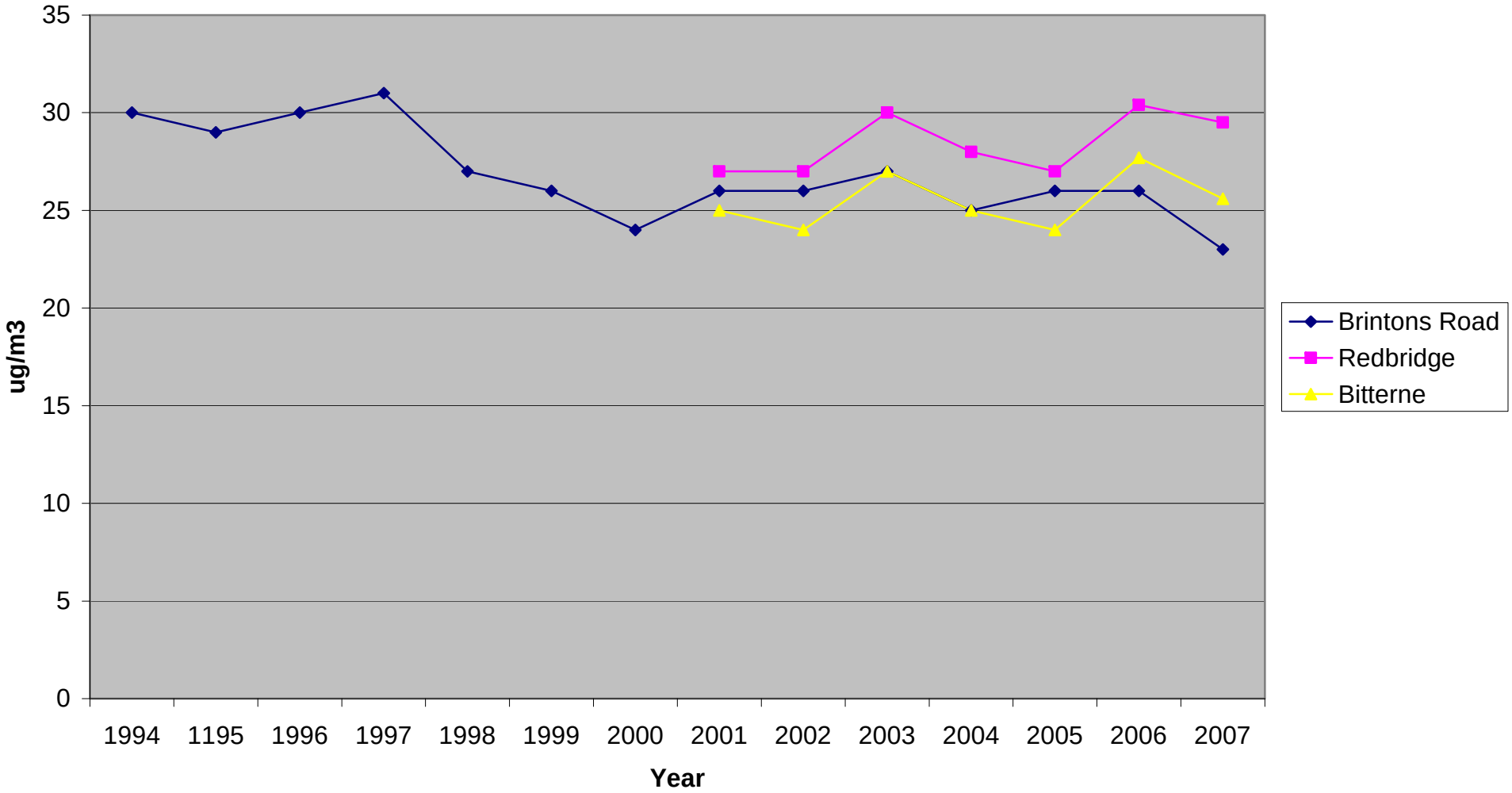
Graph 1 Nitrogen Dioxide Annual Mean 2001-2007



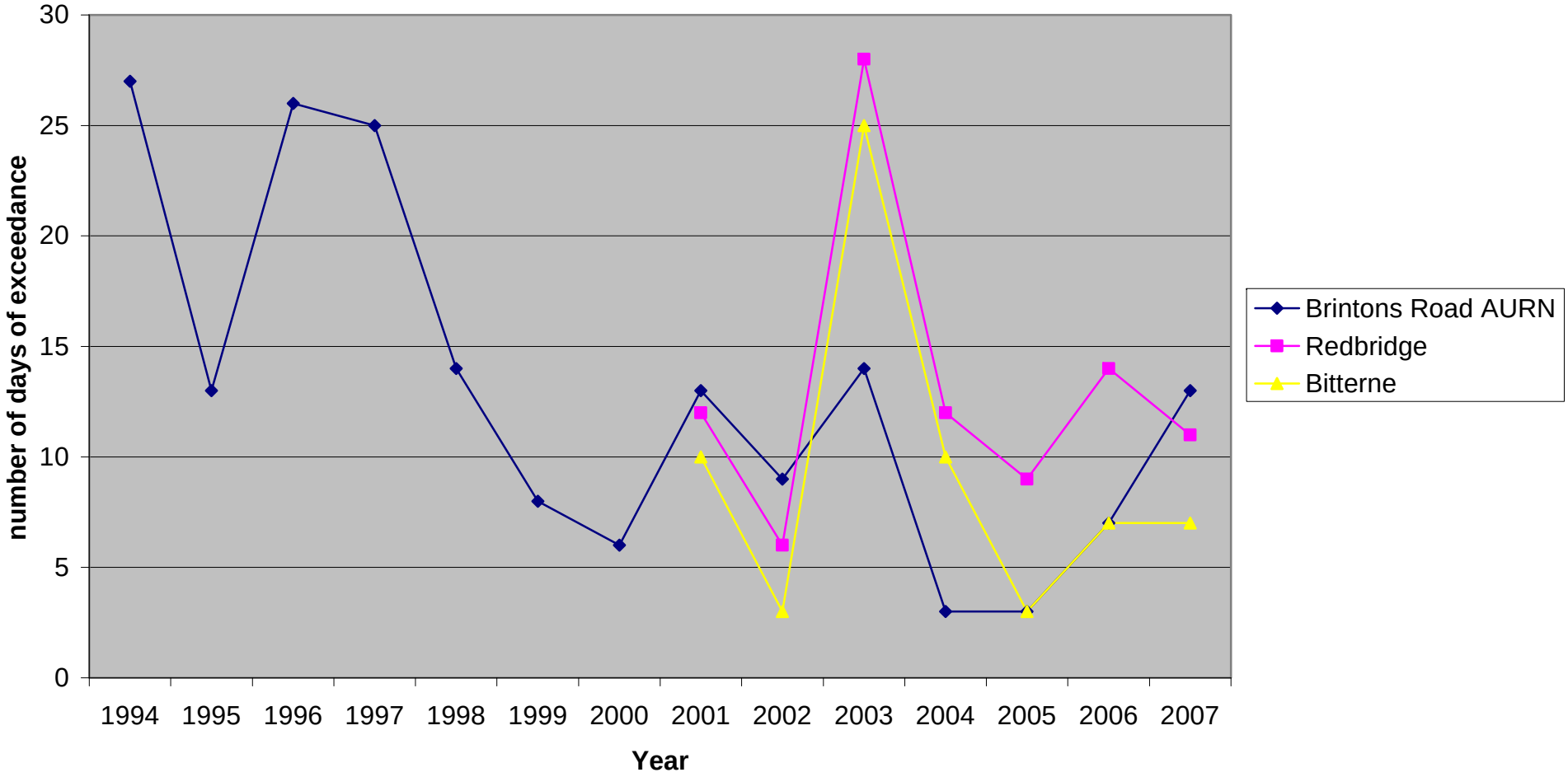
Graph 2 Nitrogen Dioxide Annual and Maximum Hourly Average at Brintons Road Monitoring Station (AURN)



Graph 3 Particulate Dust (PM10) Annual Mean 1994-2007



Graph 4 Particulate Dust (PM10) days of exceedance of 50ug/m3 daily mean standard



Discussion of Graph 1

The highest nitrogen dioxide annual mean for the last 2 years has been recorded at Onslow Road, a fairly new roadside monitor. Redbridge and Bitterne have "hovered" around the annual mean of 40µg/m^3 for the last 2 years. Redbridge has increased since 2001/2002. This could be due to the increased flow of heavy goods vehicles accessing the Port. Redbridge Road is the main, signposted route into the western docks.

Discussion of Graph 2

Annual mean nitrogen dioxide has been steadily reducing at the longest established monitoring station in Southampton. However in 2007 it increased slightly from its low in 2006. The 2007 annual mean of 34µg/m^3 was still well below the 40µg/m^3 standard. The peak hour has fluctuated throughout the 11 year period. 2007 recorded a peak hour of 160µg/m^3, well below the hourly mean standard but the highest since 1999.

Discussion of Graph 3

Particulate dust (PM_{10}) at Brintons Road has reduced from an annual mean of 30µg/m^3 in 1994 to 23µg/m^3 in 2007. All 3 monitoring stations have varied according to the weather conditions with peaks and troughs. Redbridge appears to have increased slightly in the last 2 years. This could be due to the increase in HGVs using Redbridge Road to access the Port. The monitoring station is only 8m from the kerb of the M271 slip road onto Redbridge Road, the main route into the Port for HGVs. This road has the highest traffic flow and highest percentage of HGVs in the City.

Discussion of Graph 4

The number of days of exceedance of the 50 µg/m^3 PM_{10} standard have oscillated according to the weather conditions. 2003 recorded peak levels due to the hot summer. In 2007 Brintons Road on Six Dials Junction recorded 13 days of exceedance, the highest of the 3 stations in Southampton.

Benzene Pumped Diffusion Tubes

Southampton takes part in the national network to monitor benzene by pumped diffusion tubes. The National Physical Laboratory (NPL) organises the survey and collates the data.

In 2007 the monitored benzene annual mean was 1.00µg/m^3, well below the air quality standard of 5.00µg/m^3 to be achieved by the end of 2010.

Section 4: Authorised Process changes

New Part A Process: A 600 MW gas fired power station is currently under construction at Marchwood, New Forest, outside the city boundary. It is due to commence operations in Spring 2009. This is just across the water from Southampton Water from the city. The prevailing south-westerly wind could blow emissions towards the city from the 70m stack. However, this is one of the new generation, much cleaner, power stations with vastly reduced emissions compared to older power stations. The auxiliary boiler will use low NO_x burners for the abatement of NO_x emissions. The air modelling undertaken as part of the PPC Application to the Environment Agency predicts as a worst case scenario an increase of 0.88 µg/m^3 of NO_2 for the annual mean, 900m downwind of the stack. This is over Southampton Water.
Likely increments to NO_2 at the nearest downwind receptors in Southampton are likely to be less than this. A condition attached to the PPC permit issued by the Environment Agency was to monitor nitrogen dioxide for one year before operations commence, and 2 years after. Marchwood Power Ltd installed a nitrogen dioxide analyser in a small roadside enclosure at the junction of Millbrook Road and Waterhouse Lane in September 2007. This location was declared an AQMA in 2008 due to road vehicle emissions.

The existing Marchwood energy from waste incinerator has applied to the Environment Agency, to increase its throughput of domestic waste from 287,000 tonnes to 310,000 tonnes. This will increase emissions slightly.

Part B Process Changes:
Closed down
Trucks, Ashley Crescent, Sholing, concrete crusher
Hanson Aggregates, Hazel Road, Woolston, concrete batcher
Veracity Petrol Filling Station

Part A1 closed down, surrendered permit
Barcadi Martini, dock area

New Part Bs
U-Drive, First Avenue, waste oil burner
Seaward Accident Centre, West Quay Road, paint sprayer.
7 existing dry cleaners have been authorised under the new regime of permitting.

Biomass

An application has been received for a biomass boiler at Harefield Primary School. There are no AQMAs close to the school.

Fuel type: wood pellets, Boiler output: 200 Kw, Stack (internal diameter at exit point) 300mm, Emission rate (g/s) 133 g/s
Volumetric flow rate at exit temperature (m^3/s) 0164 m^3/s
The air quality impact will be minimal.

Section 5: New and changed local developments

Southampton Airport expansion: During 2007 passenger numbers using the airport increased to 1,965,000 passengers. This is predicted to rise to above 2 million in 2009. The airport is outside the City boundary but many of the aircraft overfly the City.

Residential Development throughout the City

Statistics are available for the financial year 2007/2008. During this period 139 residential houses were built, and 912 flats. There were 151 losses of residential dwellings, so a net increase of 900 dwellings.. The mid 2007 Office of National Statistics (ONS) estimate of Southampton's population was 231,200.

The 2001 census shows there is on average 1 car per household in Southampton. In the City centre where most of the residential development has occurred the average is 0.8 cars per household. 900 * 0.8 = an additional 720 cars in the City, associated with the residential development.

Commercial Development

- Relocation of Carnival Cruises Europe HQ Office to West Quay Road. 90 car spaces, currently under construction.

- Ocean Village, new hotel, 150 flats, 250 space car park. The worst case increase in NO_2 annual mean was predicted to be 0.09µg/m^3 at a residential receptor within the Town Quay AQMA. The air quality assessment was slight adverse.

- A new Sainsburys Store to be built on the site of the Portswood Bus Station has been given provisional planning approval. The Sainsburys would have 325 car parking spaces. The development site would also include a medical centre with 40 spaces and 140 residential units with 119 car spaces. The developer would install a new cycle lane to the site. The air quality assessment was slight adverse.

- Mayflower Plaza, 150 bed hotel, 180 Apartments has been given planning approval. Construction is likely to commence in 2009. There are very few parking spaces to be built as part of the development. In fact, it will have much less parking than the previous land-use. The site benefits from high accessibility to public transport. The apartments will be built on the south side of the site away from the Commercial Road AQMA. The hotel will be built on the AQMA northern side fronting onto Commercial Road.

- East Park Terrace, 322 bed hotel, 219 flats and an office block, £110 million development. This will be built on the site of the old Health Clinic, close to the Bevois Valley/Charlotte Place AQMA. It will have a minor adverse impact on local air quality. The developer has taken into account the existing poor air quality around Charlotte Place Roundabout. The residential flats have been located as far away as possible from the pollutant sources overlooking St. Andrews Park. The Office Block

has been located overlooking Charlotte Place Roundabout. Offices are not a relevant receptor under the guidance. The maximum predicted increase in NO_2 annual mean was 0.2µg/m^3 this is of negligible significance.

- IKEA Store currently under construction on West Quay Road due to open Spring 2009. 886 car parking spaces will be provided in a multi storey. The car park will be chargeable in line with the other car parks serving West Quay Shopping Centre. The development will increase traffic flow on West Quay Road between Harbour Parade and Leisure World by 11%. The largest increase in NO_2 caused by the development was predicted at a receptor close to West Quay Road. The modelling predicted 39.6µg/m^3 a 5.1% increase in NO_2 but still below the objective in 2008. A receptor within the Town Quay AQMA is above the NO_2 annual mean objective with or without the development in 2008. The development increases NO_2 by 0.8µg/m^3,1.8%, slight adverse. The site benefits from very good access to public transport. Customers who use public transport to access the Store will benefit from reduced delivery charges for items bought at the store to encourage sustainable transport. The Store will provide 50 cycle spaces, a new cycle lane outside the Store and improvements to the local road infrastructure.

Section 6: Local Air Quality Strategy

On 10th May 2004 Southampton City Council adopted the Air Quality and Climate Change Strategy. A summary of the strategic objectives of this Strategy are detailed below.

Southampton City Council aims to be a leader in efforts to combine improvements in air quality whilst addressing climate change. In 2001 Southampton City Council signed the Nottingham Declaration on Climate Change as it is recognised that greenhouse gas emissions are contributing to global climate change. The Declaration commits the Council to take a precautionary approach to the impacts of climate change and write an action plan to manage any associated risks or opportunities.

Southampton City Council has agreed to adopt a national process under the Kyoto Protocol (1997) where an overall reduction in greenhouse gas emissions of 5.2% by 2008 –2012 was set. The European Union as a whole is committed to reducing greenhouse gas emissions by 8% on their 1990 levels by between 2008 and 2012.

The UK is aiming for a reduction of its 6 greenhouse gas emissions to 12.5% below 1990 levels by 2008-2012. The Council also supports the United Nations Framework Convention on Climate Change to continue to cut emissions of carbon dioxide (CO2), the main factor considered by all who have signed up to it.

Southampton City Council has related its own strategy to match the priorities under the UK Climate Change programme which is to ensure that the UK is secure in its delivery of its international target of reducing emissions of carbon dioxide. The UK goal of reducing carbon dioxide emissions is 20% on 1990 levels by 2010.

Southampton City Council therefore is committed to reducing the carbon dioxide emissions for Southampton by 20% on 1997 levels by 2010.

Southampton currently produces an estimated **1117.95KTonnes** per year. In line with the government targets of reducing the CO2 targets by 20%, Southampton will be required to reduce a total amount of **223.59Ktonnes by 2010**.

In order to tackle modern air pollution the UK Government introduced new legislation in the form of the Environment Act 1995. The Government has set National Air Quality objectives for eight main air pollutants to protect health, vegetation and ecosystems. The European Air Quality Framework Directive 96/62/EC and Daughter Directives on ambient air quality and assessment and management, establish legally binding limit values for sulphur dioxide, nitrogen dioxide, particles and lead to be achieved by 1January 2005 and 2010.

Southampton City Council has a statutory obligation under the Government Air Quality (England) Regulations 2000, therefore will work towards the achievement of statutory objectives for **seven key air pollutants**.

To support the national agenda, one of Southampton City Council's top five priorities, 'Improving the Street Scene and the Environment', seeks to invest in recycling, Combined Heat and Power and environmental works to improve the city and the global environment.

Two key challenges have also been highlighted in the Community Strategy, which too supports the climate change and air quality agenda. The first is to improve the city's impact on global environmental issues by increasing the number of energy efficient buildings and creating more locally sourced energy. The second is to raise awareness of the importance of air quality and measures that can be taken to deal with climate change.

The Council, therefore will continue to take action now and for the future generations to reduce greenhouse gas emissions and other pollutants that affect the City. Developing new initiatives and building on existing programmes, the City Council is committed to ensuring the momentum for clean air actions and an overall good quality of life in the city.

17 key strategic objectives have been identified which will drive forward work to tackle climate change and air quality in Southampton.

	Key Strategic Objectives
1	Local Air Quality Objectives: • to improve the quality of life for all the people of Southampton • to ensure good air quality for all the people of Southampton • to maintain ambient air quality where it is good and improve it in other cases
2	Southampton City Council has a statutory obligation under the Government Air Quality (England) Regulations 2000, therefore, Southampton City Council will work towards the achievement of statutory objectives for seven key air pollutants**.**
3	To meet the Councils commitment to the Nottingham Declaration (signed in 2001) on climate change and other objectives set out in the Medium Term Plan.
4	**Southampton City Council will support UK Government Target:** Southampton City Council is committed to reducing **the carbon dioxide** emissions for Southampton of **20% by 2010**
5	Local Transport Plan (LTP) key targets:

	• Consideration of air quality as part of sustainable transport awareness campaigns and publicity exercises, e.g. Travel Plans, TravelWise. • Consideration of air quality issues when preparing transport policy, strategy and the LTP. • Consideration of air quality issues in relation to highways capital and revenue programmes and new highway infrastructure measures, e.g. junction improvements, Advanced Transport Telematics, scheme design, etc. • Consideration of air quality issues when purchasing vehicles for the City Council fleet.
6	Southampton City Council will aim to work towards creating a sustainable city to ensure a decent home for all by meeting the housing needs of the city, improving poor housing conditions, ensuring housing is warm, safe and affordable and promoting the use of sustainable materials in construction.
7	To increase support for local business and industry to reduce energy use and transportation miles.
8	Southampton City Council will introduce energy benchmarking and monitoring to review progress on energy use for Council owned buildings.
9	All council procurement will be assessed for its sustainability implications. Produce environmental quality criteria including a consideration of air pollution and carbon reduction issues for insertion into all new tender documentation.
10	Southampton City Council will seek to lead by example. Sustainability will be a key factor in service and business plans and a programme of education and awareness raising will encourage the adoption of environmental management principles throughout the Council and take into account climate change and air quality targets.
11	Ensure that LTP actions are delivered through planning system to reduce the emissions of carbon dioxide from surface transport to 20% below 1990 levels by 2010.
12	The City Council, as a waste collection and disposal authority, will be put in place measures to meet UK waste targets by developing its waste collection and recycling services and securing disposal which minimises the emissions of greenhouse gases**.**
13	Southampton City Council will seek to ensure that external investment in city through the AIF will consider implications on the air quality and carbon emissions targets.
14	Southampton City Council will provide a basis for considering the air quality impact of major development and maintain ambient air quality where it is good and improve it in other cases.
15	Southampton City Council will work with developers, through planning process to establish agreed best practice for developments encompassing, climate change and air quality.
16	To encourage the provision of adequate, economically, technically and environmentally sound and sustainable flood and coastal defence measures.
17	Southampton City Council will achieve, as far as possible, a 90% data capture and will upgrade the air quality monitoring system; network infrastructure equipment and data management systems.

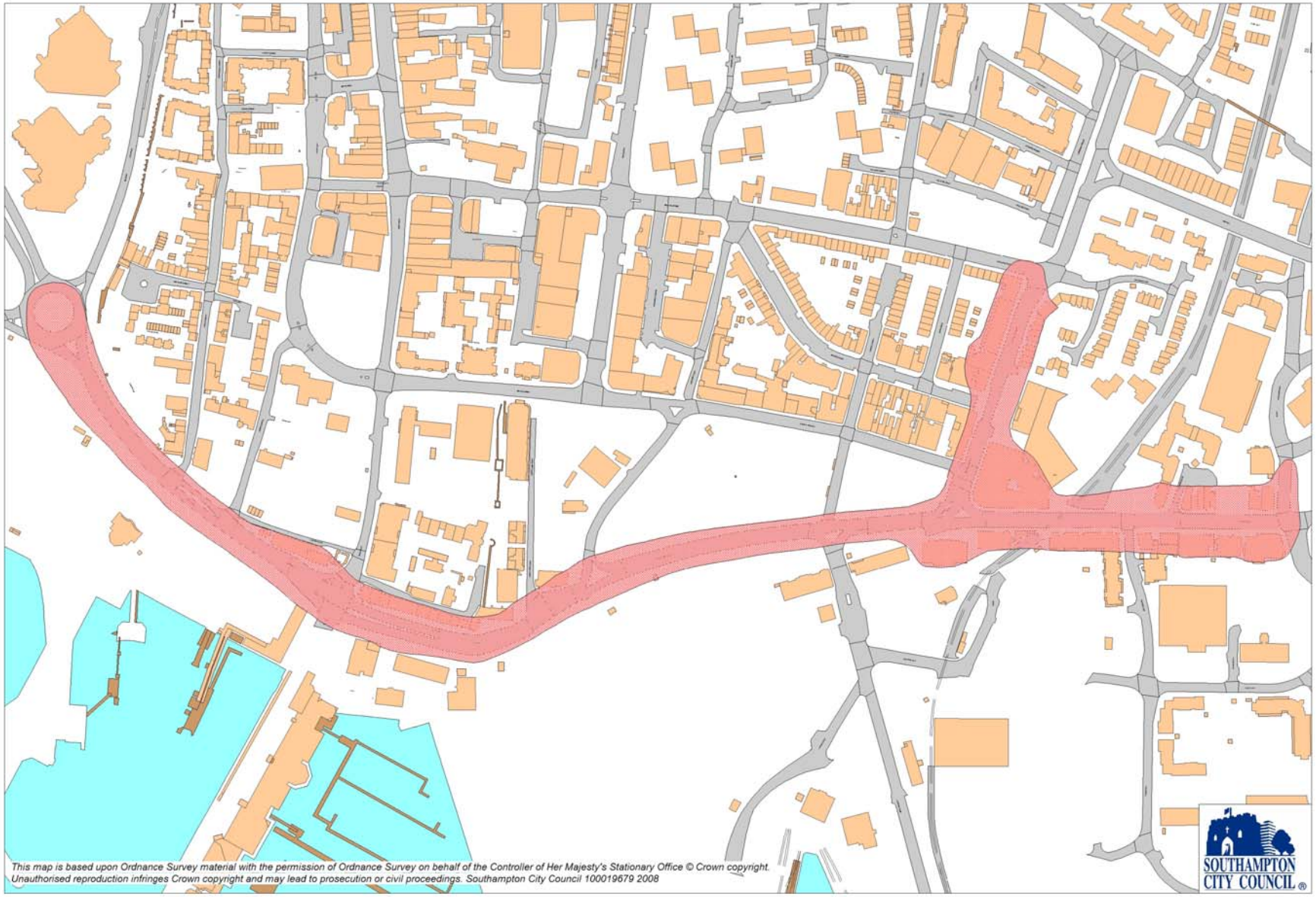
Appendix

New and amended Air Quality Management Areas in Southampton

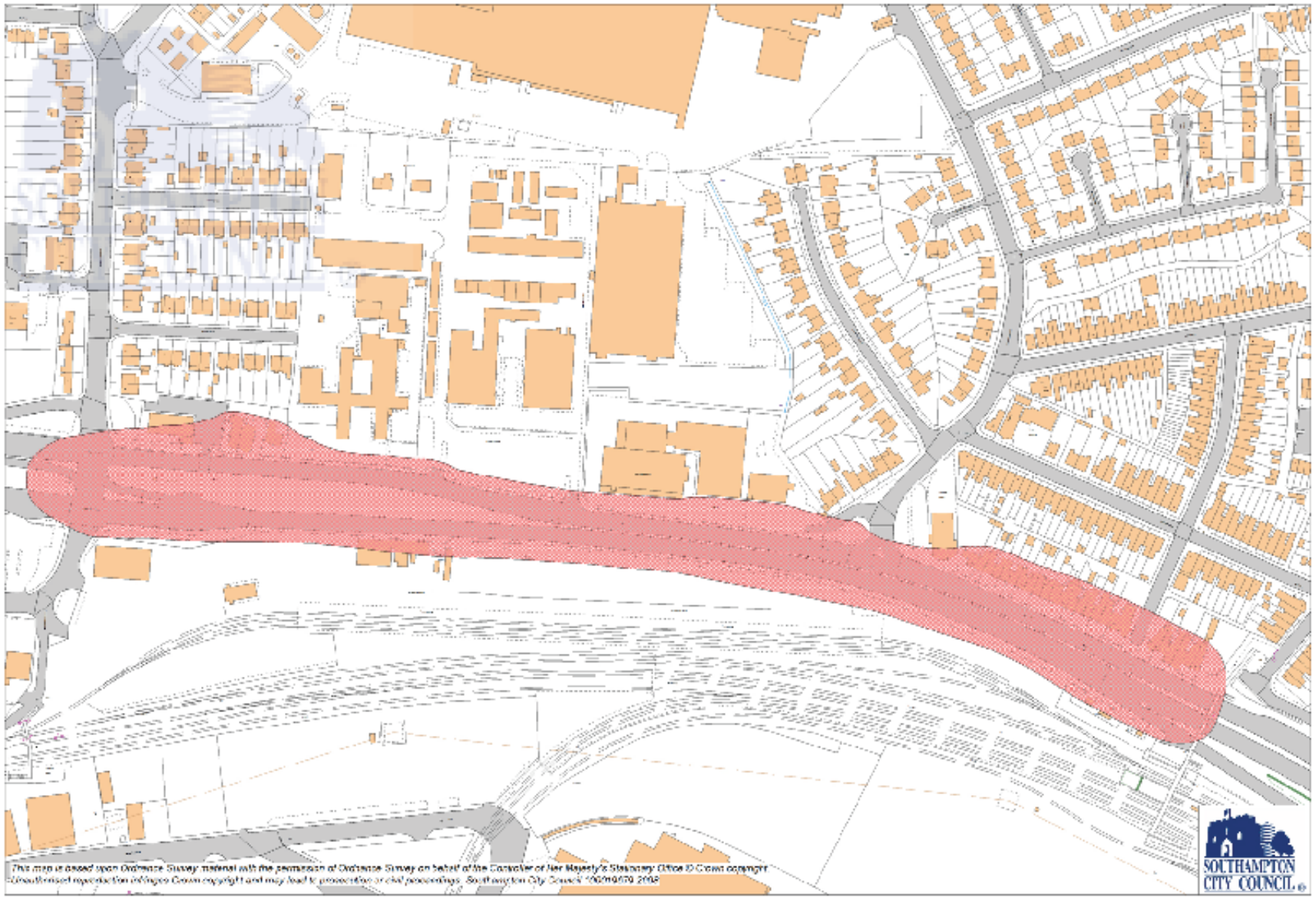
- **AQMA 3 Winchester Road amendment, reduction in length to around junction**
- **AQMA 4 Town Quay-Ocean Village amendment, extended slightly towards entrance to Ocean Village**
- **New AQMA 7 Millbrook Road**
- **New AQMA 8 Commercial Road**

AIR QUALITY MANAGEMENT AREA 3

AIR QUALITY MANAGEMENT AREA 4



AIR QUALITY MANAGEMENT AREA 7



AIR QUALITY MANAGEMENT AREA 8