



**West Lancashire District Council**  
**Air Quality**  
**Progress Report**  
**2008**

## Executive Summary

Part IV of the Environment Act 1995 places a statutory duty on local authorities to review and assess the air quality within their area taking into consideration the relevant government guidelines and guidance.

This progress report has been undertaken in accordance with the progress report guidance LAQM.PRG(03)

The objective of this progress report is to comment on the progress of implementing the local air quality management objectives and how West Lancashire District Council achieves and maintains the local authorities air quality.

The 2007 Progress Report concluded that West Lancashire District Council did not have to declare an Air Quality Management Area in the Stanley Street area of Ormskirk, an area that had been previously identified as having the potential to exceed the Air Quality objective value for Nitrogen Dioxide.

In agreement with Defra, new monitoring sites were located at Wigan Road and Moor Street, Ormskirk, in conjunction with other established monitoring locations, including another new site located at Liverpool Road South, Burscough.

The monitoring results for 2007 showed that with the exception of the Moor Street location all sites were meeting the Air Quality objective value for Nitrogen Dioxide. The Moor Street site was exhibiting a slight exceedence of the annual  $40\mu\text{g}/\text{m}^3$  objective value requiring West Lancashire District Council to carry out a Detailed Assessment of this area.

After consulting with Defra it was agreed that due to difficulties in locating a chemiluminescent continuous monitoring station, the best course of action was to employ a number of diffusion tube sites giving a spatial awareness of Moor Street and its immediate area. Each site was located in a position that represented exposure to residential property and triplicate tubes were used at each of these locations.

The detailed assessment monitoring began in March 2008 and will continue for a period of 12 months. Due to the delay Defra have agreed that our detailed assessment will be accepted for 2009, but it would be appropriate for West Lancashire District Council to submit this early Progress report.

The 2006 Updating and Screening Assessment report (USA) acknowledged the detailed assessment and analysis of new monitoring information and changes to pollution sources in West Lancashire District Council since the previous Updating and Screening Assessment in 2003.

The outcome of the USA indicates that the objectives for all seven pollutants regulated by the Air Quality Regulations 2000 and the Air Quality [Amendment] [England] Regulations 2002 are already met or will be met by their target years.

The next Updating and Screening Assessment report is due in 2009.



## **Contents**

- 1. Introduction**
- 2. Monitoring sites**
- 3. Maps of Monitoring sites**
- 4. 2007 NO<sub>2</sub> Monitoring results**
- 5. Local Trends in NO<sub>2</sub> levels**
- 6. New local developments**
- 7. Summary**

# 1. Introduction

This report has been prepared to fulfill West Lancashire District Council's obligation under the Environment Act 1995 to review and assess local air quality, and has taken guidance from LAQM.PRG(03) Progress Report Guidance, produced by Defra. The overall aim of this progress report is to

- Report on implementing air quality management and our aim to achieve and maintain air quality objectives.
- Communicate the latest information on air quality monitoring and assessment to the public and elected members.
- Assist our responses to requests for up to date air quality issues
- Provide information that is both relevant and useful to other policy areas within local government and other government agencies e.g. land use and planning.

West Lancashire District Council is presently undertaking NO<sub>2</sub> monitoring, and as a result of recommendations in previous Updating and Screening Air Quality reports is not required to carry out monitoring for the other six pollutants controlled under the air quality regulations.

The data provided in this report comes from current monitoring initiatives and can be taken to be the latest information following on from our previous air quality reviews and assessments.

In order to make this document as understandable as possible it is recommended that the report be read in conjunction with air quality documents available from our web site [www.westlancsdc.gov.uk](http://www.westlancsdc.gov.uk). On the home page click on the link to Environment and follow the link to Air Quality, once on this page scroll down to the heading Air Quality in West Lancashire and then click on the download Air Quality report to view the reports available. Hard copies can be made available on request.

## 2. Monitoring sites

The 2007 monitoring sites highlighted and described in the 2007 Progress Report are listed below

| <u>LOCATION</u>                 | <u>SITE REF NO</u> |
|---------------------------------|--------------------|
| Burscough Street, Ormskirk      | 1                  |
| Southport Road, Ormskirk        | 2                  |
| Moor Street, Ormskirk           | 3                  |
| Chequer Close, UpHolland        | 4                  |
| Halsall Lane, Ormskirk          | 5                  |
| Stanley Street, Ormskirk        | 6                  |
| Wigan Road 1, Ormskirk          | 7                  |
| Liverpool Road South, Burscough | 8                  |
| Wigan Road 2, Ormskirk          | 9                  |

The new sites for the detailed assessment are listed below, there are 11 sites in total. Monitoring started in March 2008

| <u>LOCATION</u>                                  | <u>SITE REF NO</u> |
|--|--------------------|
| 14 Wigan Road, Ormskirk                          | 11                 |
| 31 Knowsley Road, Ormskirk                       | 12                 |
| 41 Stanley Street, Ormskirk                      | 13                 |
| 55 Moor Street, Ormskirk                         | 14                 |
| 50 Moor Street, Ormskirk                         | 15                 |
| Junction of St Helens Road/Moor Street, Ormskirk | 16                 |
| 19b St Helens Road, Ormskirk                     | 17                 |
| Beaconsfield Court, Park Road, Ormskirk          | 18                 |
| 16 St Helens Road, Ormskirk                      | 19                 |
| 75 Aughton Street, Ormskirk                      | 20                 |
| Junction of Park Road/Aughton Street, Ormskirk   | 21                 |

#### 14 Wigan Road, Ormskirk

The tube is located 2m from ground level on the façade of domestic property, approximately 5m from the kerbside of Wigan Road and 39m from the traffic lighted junction of Wigan Road and Stanley Street. Wigan Road is a busy road taking traffic into and out of Ormskirk to the areas of Westhead and Skelmersdale, and traffic often backs up at busy times of the day.

#### 31 Knowsley Road, Ormskirk

The tube is located 2m from ground level on the façade of domestic property, approximately 6m from the kerbside of Knowsley Road. Knowsley Road takes traffic out of Ormskirk to the nearby Edge Hill University campus and as a route to the M58 Motorway and the Rainford Bypass. During busy times of the day standing traffic can build up at this location.

#### 41 Stanley Street, Ormskirk

The tube is located 2m from ground level on the façade of domestic property, approximately 6m from the kerbside of Stanley Street and 18m from the traffic lighted junction of Stanley Street and Wigan road. Stanley Street is a one-way road that is part of the town centre road system, and often has standing traffic during peak hours.

#### 55 Moor Street

The tube is located 2m from ground level on the façade of domestic property, approximately 2m from the kerbside of Moor Street. Moor Street takes the west bound traffic going into and through the town centre from Stanley Street, Wigan Road and St. Helens Road. Moor Street also takes the east bound traffic leaving Ormskirk and heading for Skelmersdale and other areas.

#### 50 Moor Street

The tube is located 2m from ground level on the façade of domestic property, approximately 2m from the kerbside of Moor Street. This site is on the other side of Moor Street in respect of the above site and near to the road junction influenced by Ormskirk bus station. This is the original site identified in the 2007 monitoring results that resulted in the initiation of the current detailed assessment.

#### Junction of St. Helens Road/Moor Street, Ormskirk

This tube is located 2m from ground level on a road sign approximately 0.1 m from the façade of the nearest commercial building and 1m from the kerbside of St Helens Road. There are no domestic properties in this immediate vicinity, however the site was chosen because it was felt necessary to obtain vital Nitrogen Dioxide levels at this road Junction to complete the overall spatial nature of the detailed assessment area.

A major influencing factor in monitoring at this location is the nearby Ormskirk bus station situated at this junction, which contributes to the overall traffic type and volume.

#### 19b St Helens Road, Ormskirk

The tube is located 2m from ground level on the façade of domestic property, and is approximately 5m from the kerbside of St Helens Road and its traffic lighted junction with Park Road. This location tracks the flow of west and south bound traffic through the town centre. Traffic is slow throughout this length of road and often backs up at peak hours.

#### Beaconsfield Court, Park Road, Ormskirk

The tube is located 2m from ground level on the façade of domestic property, and is approximately 4m from the kerbside of Park Road. Similar to the 19b St Helens Road site but this site follows the east bound traffic through the town centre. Traffic is slow at this location but does not tend to build up to the same extent as the above site.

#### 16 St Helens Road, Ormskirk

The tube is located 2m from ground level on the façade of domestic property, and is approximately 6m from the kerbside of St Helens Road. This road takes the traffic in and out of the town centre from Edge Hill College, Skelmersdale, the M58 and the Rainford bypass. Traffic coming in to the town centre tends to become standing at this location during peak hours.

#### 75 Aughton Street, Ormskirk

The tube is located 2m from ground level on the façade of domestic property, and is approximately 5m from the kerbside of Aughton Street. Aughton Street leads traffic into and out of Ormskirk from the Liverpool area. Traffic is generally slow in this area and does become standing at busy periods.

#### Junction of Park Road/ Aughton Street, Ormskirk

The tube is located 2m from ground level on the façade of a building housing a number of privately owned flats, and is approximately 3m from the kerbside of the junction of Park Road and Aughton Street. This is a busy, traffic lighted junction in the town centre with traffic into and out of Ormskirk heading towards Liverpool, Southport and Skelmersdale.

### **3. Maps of Monitoring sites**



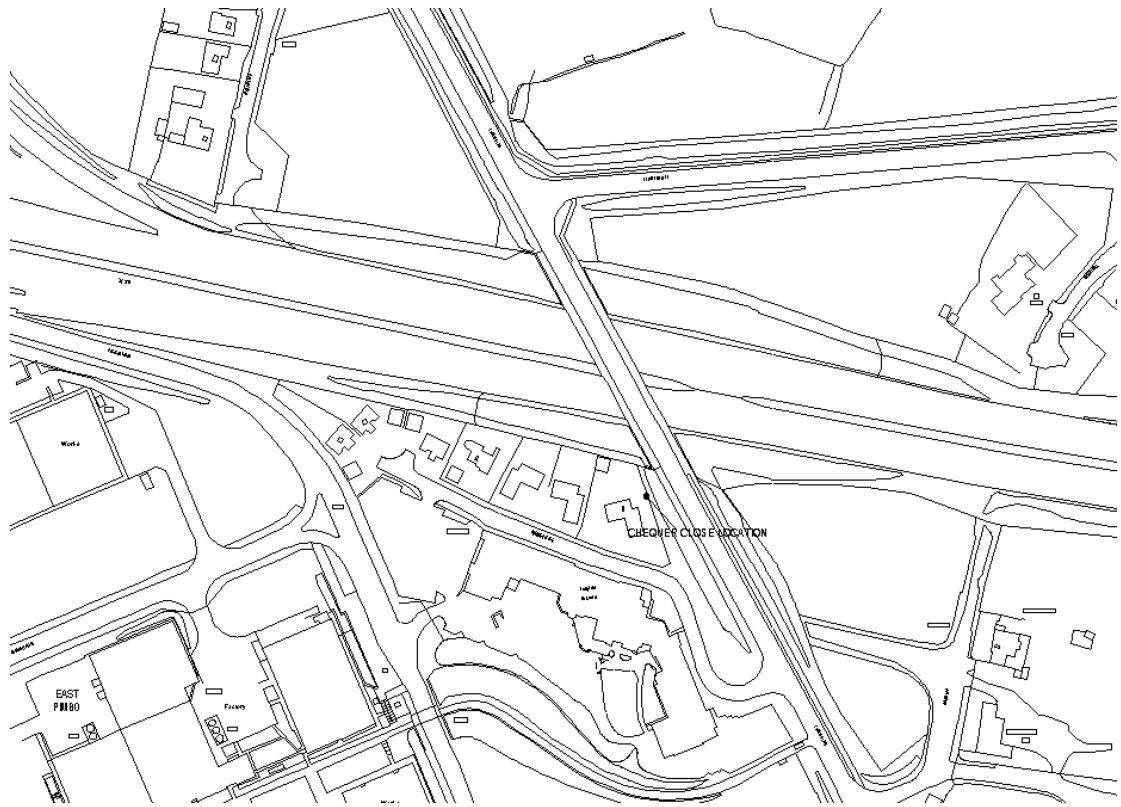
**BURSCOUGH STREET, ORMSKIRK  
SITE REF NO 1**



**SOUTHPORT ROAD, ORMSKIRK  
SITE REF NO 2**



**MOOR STREET, ORMSKIRK  
SITE REF NO 3**



**CHECQUER CLOSE, UpHOLLAND  
SITE REF NO 4**





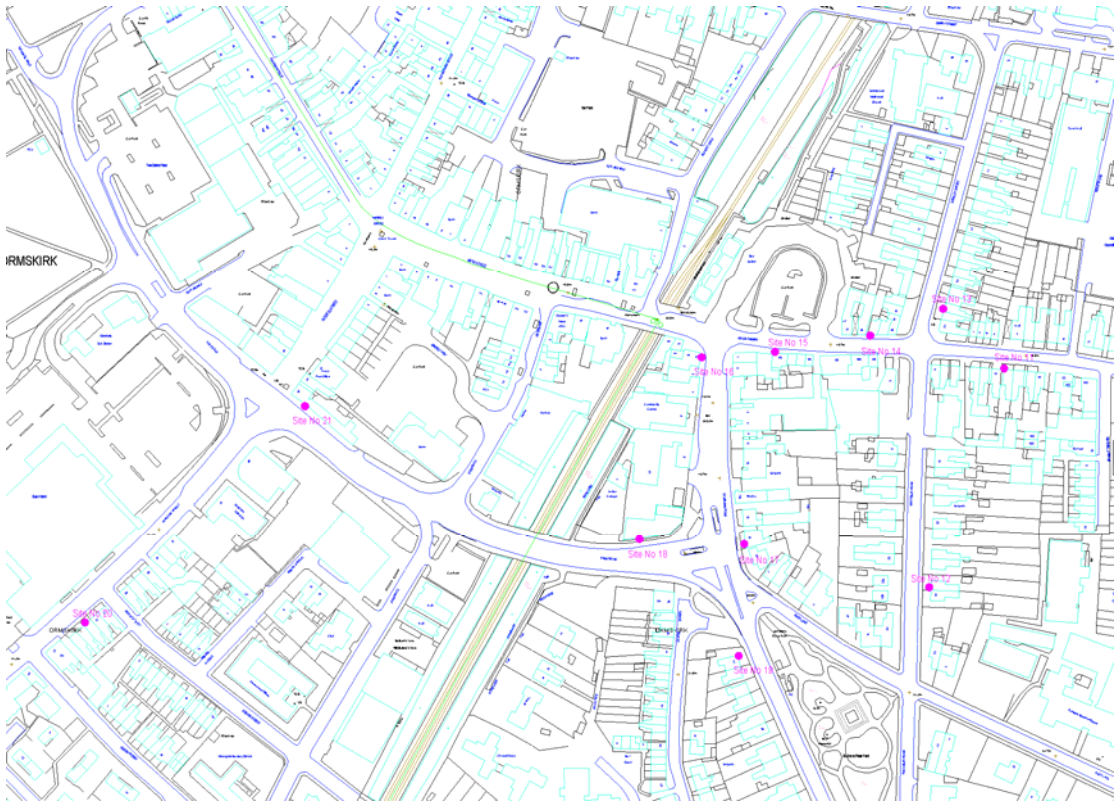
**STANLEY STREET, ORMSKIRK  
SITE REF NO 6**







**WIGAN ROAD 2, ORMSKIRK  
SITE REF NO 9**



**SITE MAP SHOWING ALL DETAILED  
ASSESSMENT LOCATIONS  
SITE REF NO's 11-21**

#### 4. 2007 NO<sub>2</sub> Monitoring results ( in ug/m<sup>3</sup> )

|                 | Burscough Street | Southport Road | Moor Street  | Chequer Close | Halsall Lane | Stanley Street | Wigan Road 1 | Liverpool Road South | Wigan Road 2 |
|-----------------|------------------|----------------|--------------|---------------|--------------|----------------|--------------|----------------------|--------------|
| <b>Jan 07</b>   | 23.4             | 17.1           | 38.7         | 29.7          | 31.5         | 28.8           | 34.2         | 27.0                 | 27.0         |
| <b>Feb 07</b>   | 39.6             | 34.2           | 59.4         | 30.6          | 34.2         | 34.2           | 34.2         | 35.1                 | 37.8         |
| <b>Mar 07</b>   | 21.6             | 30.6           | 41.4         | 32.4          | 39.6         | 27.9           | 33.3         | 32.4                 | 27.9         |
| <b>April 07</b> | 27.9             | 18.0           | 55.8         | 34.2          | 44.1         | 25.2           | 21.6         | 33.3                 | 34.2         |
| <b>May 07</b>   | 20.7             | 18.0           | 38.7         | 27.0          | 38.7         | 22.5           | 29.7         | 27.9                 | 32.4         |
| <b>June 07</b>  | 14.4             | 18.0           | 51.3         | 27.0          | 34.2         | 20.7           | 35.1         | 30.6                 | 27.9         |
| <b>July 07</b>  | 16.2             | 11.7           | 38.7         | 29.7          | 21.6         | 22.5           | 29.7         | 27.9                 | 72.9         |
| <b>Aug 07</b>   | 12.6             | Tube Missing   | 24.3         | 18.0          | 16.2         | 16.2           | 23.4         | 15.3                 | Tube Missing |
| <b>Sept 07</b>  | 25.2             | 26.1           | 37.8         | 24.3          | 28.8         | 17.1           | 27.0         | 25.2                 | 18.0         |
| <b>Oct 07</b>   | 32.4             | 28.8           | 47.7         | 37.8          | 36.0         | Tube Missing   | 36.0         | 33.3                 | 32.4         |
| <b>Nov 07</b>   | 36.9             | 26.1           | 49.5         | 36.0          | 40.5         | 26.1           | 42.3         | 39.6                 | 39.6         |
| <b>Dec 07</b>   | 40.5             | 41.4           | 56.7         | 34.3          | 41.4         | 38.7           | 42.3         | 41.4                 | 36.9         |
| <b>Avg.</b>     | <b>25.9</b>      | <b>24.6</b>    | <b>45.0*</b> | <b>30.1</b>   | <b>33.9</b>  | <b>25.5</b>    | <b>32.4</b>  | <b>30.8</b>          | <b>35.2</b>  |

The results have been adjusted for diffusion tube bias using a factor of 0.90 as highlighted on the Defra Air Quality Review and Assessment Website.

West Lancashire District Council use Bureau Veritas as our diffusion tube supplier and analyst.

The method used in the analysis of the tubes is 10% TEA in water.

Note: \* This result exceeds the annual mean objective value of 40ug/m<sup>3</sup>, its location in Moor Street, Ormskirk is the subject of the Detailed Assessment outlined in this report.

## 5. Local Trends in NO<sub>2</sub> levels

Throughout the time West Lancashire District Council have been monitoring for Nitrogen Dioxide levels in Ormskirk only two sites have remained constant. The two sites are;

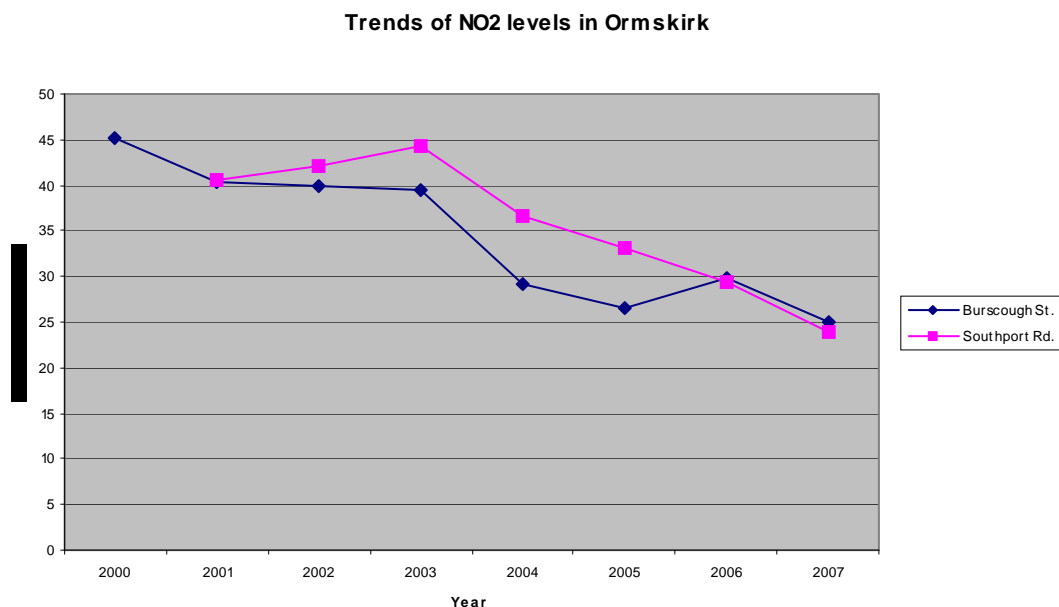
Burscough Street, Ormskirk

Southport Road, Ormskirk

Both these sites were initially part of the National Network monitoring programme and were designated kerbside sites. The Burscough Street site still remains as a kerbside site but the Southport Road site was moved from a kerbside site to a site on the façade of residential property located here at the beginning of 2007. The site is now located some 12m further back from its original position.

Below is a graphical representation exhibiting the relationship of the two sites in Nitrogen Dioxide levels for seven years, between the years 2000 and 2007. Guidance tells us that it is normal practice to only consider a trend as being significant when five years worth of data are available. As can be seen from the graph, the overall trend is a significant reduction in the levels of Nitrogen Dioxide experienced at these two sites in Ormskirk.

This exhibited trend of falling Nitrogen Dioxide levels indicates that Nitrogen Dioxide levels may be reducing for the Ormskirk area in general.



## 6. New Local Developments

Since West Lancashires 2007 Progress report there has been seven new Permits issued under Pollution Prevention & Control Act 1990 and The Pollution Prevention & Control (England & Wales) Regulations 2000. They are as follows:

1. Lydney Containers Ltd., Gardiners House, Gardiners Place, Skelmersdale, WN8 9SP  
Coating of Metal Containers
2. Europanel, 1 Gerrards Place, Skelmersdale, WN8 9SU  
Manufacture of Timber and Wood Based Products
3. Village Dry Cleaners, 4 Orrell Lane, Burscough, L40 0SL  
Dry Cleaning Installation
4. Andrews Launderette and Dry Cleaners, 110 Sandy Lane, Skelmersdale, WN8 8LQ  
Dry Cleaning Installation
5. Johnsons Cleaners, 1 Burscough Street, Ormskirk, L39 2EG  
Dry Cleaning Installation
6. Swiftclean Ltd. 44 Church Street, Ormskirk L39 3AW  
Dry Cleaning Installation
7. Delph Cleaners, 24 Moss Delph Lane, Aughton, L395DZ  
Dry Cleaning Installation

On consultation with Defras LA Support Help Desk, confirmation was provided that none of the above processes are likely to release significant emissions of LAQM regulated pollutants.

There have been two new developments since our last Progress report that require consideration in this report.

- Burscough Road mixed use Development
- Edge Hill University additional car parking facility

## Burscough Road mixed use Development

This mixed use development began a phased opening in April 2008 with the opening of a DIY store followed by other retail shops and offices.

The site is located on the east side of Burscough Road and to the north of Ormskirk town centre. Burscough Road is a single carriageway road that provides a link between the town centre ring road system and the A59 County Road.

At the request of West Lancashire District Council Planners Lancashire County Council have commissioned and completed a Traffic assessment and Traffic Plan for this development. Copies of both reports can be viewed on the Councils web site [www.westlancsdc.gov.uk](http://www.westlancsdc.gov.uk) and searching the planning search function for Planning Application number 2006/0862

The traffic assessment highlighted five junctions to be assessed;

- Site access /Burscough Road
- Burscough Road/A59 County Road
- Burscough Road/Yew Tree Road
- Yew Tree Road/A59 County Road
- Burscough Street/A570 Derby Street West

The traffic assessment concluded that the Yew Tree Road/A59 County Road junction has negligible/minimal impact on traffic flows. The remaining four junctions demonstrate that there is a material increase in traffic at these study junctions and that further modeling consideration is given to the traffic impact of the development at these junctions.

The further modeling assessments are summarized below:

Junction modeling and analysis predicts that the site access/Burscough Road junction will operate at high levels of spare capacity and low/negligible queues, it is concluded that the access road will easily accommodate the estimated 2008 and 2023 traffic demands.

Modelling of the Burscough Road/A59 County Road junction predicts that the junction will operate above capacity in the 2008 pm peak hour development situation. A junction improvement scheme is proposed and this will satisfactorily mitigate the traffic impact of the development and also provides significant benefits for pedestrians.

Modelling of the Burscough Road/Yew Tree Road demonstrates that the junction operates with high levels of spare capacity and low/negligible queues. It is concluded that the development has no material detrimental impact at this junction.

Junction modeling and analysis predicts that the existing Burscough Street/A570 Derby Street West junction operates well above capacity in the 2008 base am peak hour situation with associated queues on Burscough Street. A junction improvement

scheme is proposed and achieves a significant improvement in junction performance and also assists pedestrians crossing Burscough Street.

It is the intention of West Lancashire District Council to implement Nitrogen Dioxide diffusion tube monitoring to correctly assess the impact the development has on Nitrogen Dioxide levels in this area. To this aim we will be choosing suitable sites to locate the tubes once the development is complete and operating to its capacity.

#### Edge Hill University additional car parking facility

Planning application was sought and granted (Planning Application No. 2007/0834) for a three year temporary additional car parking area.

Edge Hill commissioned a consultant to carry out a Traffic Impact Assessment to consider the traffic impact of the development on the local highway network. The report can be viewed via the Councils web site [www.westlancsdc.gov.uk](http://www.westlancsdc.gov.uk)

The traffic assessment highlighted two junctions to be assessed;

- Edge Hill University access/A570 St Helens Road
- Edge Hill University access/Ruff Lane

From previous traffic surveys the peak hour use was established, and a robust worse case scenario inputted in to an industry standard LINSIG modeling programme. The assessment concluded that even allowing for the worst case scenario the existing site access junction with the A570 St Helens Road is predicted to operate within capacity during the peak hours.

Due to the sensitive nature of the Ruff Lane junction (residential) it was recommended that the A570 St Helens junction remains the sole access for vehicles using the campus and that the Ruff Lane access is the subject of a planning condition for emergency use only. It is also recommended that a continuous review and update of the Travel Plan should be undertaken.

The immediate area when exiting on to St Helens Road from Edge Hill is of open aspect, with residential properties set well back from the roadside. As such it is not anticipated that Nitrogen Dioxide levels will be of concern for these properties, however it is our intention to monitor this area at some point in the near future.

There are no other new developments or processes such as landfill sites, quarries mineral developments etc. that have any implications upon the Air Quality in West Lancashire.

## 7. Summary

In West Lancashire District Councils 2007 Progress report, only a limited set of data results for Nitrogen Dioxide levels was available, and it was considered to be insufficient to come to an informed decision on the status of Nitrogen Dioxide levels at the monitoring sites. Now that a full years worth of monitoring data is available from 2007, the annual averages of Nitrogen Dioxide have been calculated. The results show that based on the diffusion tube results, the Moor Street site in Ormskirk, is exceeding the annual mean objective value of  $40\mu\text{g}/\text{m}^3$  by  $5.0\mu\text{g}/\text{m}^3$

On the basis of these results and after consultation with the Air Quality helpdesk, West Lancashire District Council has proceeded to a Detailed Assessment at the Moor Street site location using diffusion tubes as the monitoring tool. A series of eleven sites, using triplicate tubes at each site, including the original Moor Street location were placed and designed to saturate this location in order to give a spatial awareness to the assessment. Monitoring began in March 2008 and is set to continue for a period of twelve months.

The two new local developments at, Burscough Road and Edge Hill University have had traffic assessments and traffic plans commissioned and completed. The conclusions of both reports state that all roads and junctions will operate well within capacity during peak hours, with no detrimental impact by any increase in traffic. Planned junction improvements will further mitigate any traffic impact. No significant increases in Nitrogen Dioxide levels are anticipated at these locations. To confirm this further monitoring will be carried out for Nitrogen Dioxides at both sites.

From the indications provided in section 5 of this report it appears that the local trend in Nitrogen Dioxide levels is one of reducing levels. Checks will continue to monitor this trend where the information is available

The aims of West Lancashire District Council are:

- To assess the results of the Detailed Assessment and take the appropriate action required.
- Consider monitoring for Nitrogen Dioxide at locations evaluated for both the Burscough Street development and the Edge Hill site.
- To continually survey West Lancashire to assess possible sites that may require monitoring.
- To promote and provide information regarding the importance West Lancashire District Council places on Air Quality and the role Environmental Services plays in this.
- To ensure that the residents of West Lancashire enjoy acceptable levels of Air Quality
- Comply with the requirements set out in the Air Quality regulations of Part IV of the Environment Act 1995.