

9. Better Air Quality

Maintaining and improving Air Quality is a key priority in Southend. During LTP1, air quality improved considerably. Between 2001/02 and 2004/05, PM10 levels fell by 22% (from 26µg/m³ to 20µg/m³) and NO₂ emissions by 26% (from 32 µg/m³ to 24µg/m³). Air quality in Southend is considerably better than the minimum levels required by the Government's National Air Quality Strategy targets and there are no Air Quality Management Areas in Southend.

The importance of Better Air Quality was evident in the first Local Transport Plan (2001/02 – 2005/06) which identified the Borough's approach to Local Agenda 21 issues and highlighted the importance of the four over-riding themes of the Quality of Life Plan (2000): better transport, a healthy economy, a thriving community and a greener environment.

Since then, a more holistic approach to environmental quality and sustainability issues has become an integral part of the development of both Community and Corporate Plans within the Council. The Community Plan specifically sets out the objective of achieving an 'Environmentally Aware Community' with an over-riding ambition of 'Improved transport and infrastructure, and a quality environment'. The Plan also identifies how the Southend Strategic Partnership, the Integrated Transportation Partnership, and the Biodiversity and Environmental Awareness Working Party will co-ordinate initiatives to achieve this objective.

The Council will promote the use of alternative fuels and low-emission vehicles in order to reduce greenhouse gas emissions and promote air quality improvements. This will be partly led by the "Smarter Choices" programme and joint environmental health and transport promotions.

Air Quality Management

During LTP1, the Essex Air Quality Consortium (a formal partnership between 13 of the 14 Essex Authorities) commissioned Updating and Screening Assessments (USA) in each of the local authority areas. The report for Southend was completed in October 2003 and concluded that no detailed assessment was required with respect to emissions arising from all sources assessed. Furthermore, it concluded that predictions of air quality in future years indicated that the current air quality objectives set out in the Government's National Air Quality Strategy will be met at all receptor sites. No Air Quality Management Areas (AQMAs) have therefore been determined as necessary within the Southend area.

However, the report did highlight the fact that the provisional annual PM10 objective for 2010 was exceeded at busy roadsides and junctions. Whilst a detailed assessment of the 2010 PM10 objectives was not required at that stage, it was suggested that future progress reports should provide updates for comparison against the 2010 objective.

The Essex Air Quality Consortium jointly fund an Air Quality Officer within the Environmental Strategy Unit of Essex County Council. Annual Local Air Quality Progress Reports were completed in April 2004 and April 2005 as part of the national 'Update and Screening Assessment' (USA) process. Both reports, undertaken by independent air quality consultants and subsequently approved by Defra, concluded that 'Southend is currently meeting the air quality objectives and is not at risk of exceeding the objectives by the relevant target dates'. The 2005 report specifically noted that 'there are a number of general measures in the Southend LTP which are aimed at reducing the impact of road transport on air quality'.

Southend has had the benefit since July 2001 of a UK Automatic Urban and Rural Network air quality monitoring station, operated on behalf of Defra, which is sited at Chalkwell Park and

against which computer modelling and air quality projections have been validated. Separately, the Council has operated two additional automatic monitors: one on the A127 which has been measuring concentrations of PM10 since April 2002, and one on Eastern Avenue (A1159) which has been measuring concentrations of PM10 and oxides of Nitrogen since June 2001. However, problems with both sites occurred during 2004/5 and in view of the alternative evidence of good local air quality, continued operation of the monitors is currently under review in the light of financial constraints facing the authority.

The authority has undertaken Nitrogen Dioxide diffusion tube sampling since 1995. In order to validate measurements, sampling tubes have been co-located with an automatic monitor since August 2002. The Council has acknowledged the comments within the Updating and Screening Assessment in 2003 and has both increased and targeted the Nitrogen Dioxide monitoring programme that has been taken into account in subsequent Annual Air Quality Progress Reports. In this respect, it is intended to extend the diffusion tube sampling programme in 2005/6 to obtain additional data in relation to high volume junctions, particularly along the A13 London Road. The 2006 Update and Screening Assessment is also giving specific attention to traffic issues and reviewing the need for real-time monitoring at locations of concern.

How the Strategy will improve Air Quality

Improvements in air quality will largely be delivered through the Tackling Congestion Strategy, particularly through measures which:

- encourage use of sustainable modes;
- reduce the need to travel, especially by car; and
- reduce the amount of queuing traffic thereby reducing the emission rates associated with idling vehicles.

This is illustrated in **Figure 9.1**.

Within the Environmental Rooms, the road hierarchy, traffic management and other supporting measures will create quiet, safe environments where the impacts of traffic (noise and climate change) are minimised, and walking and cycling are encouraged. Walking and cycling improvements which create safe corridors between 'rooms' will play an important part in encouraging journeys under 2kms to be made using sustainable modes of transport.

The Local Development Framework will ensure that new development is located in areas which are accessible by non-car modes and which reduce the overall need to travel.

Delivering Other Local Priorities

Measures identified for delivering Better Air Quality also contribute to Southend's local quality of life objective. As the measures also deliver the Tackling Congestion shared priority, the air quality strategy indirectly contributes to local objectives relating to regeneration, achieving an efficient transport system, and raising community awareness.

The Better Air Quality strategy will produce healthier communities by monitoring air quality and ensuring that emissions of PM10 and NOx meet the objectives in the National Air Quality Strategy.

The Integrated Transportation Partnership has a shared objective with the Southend Strategic Partnership of protecting and enhancing the environment and a commitment to reducing CO2 emissions whether originating from transport or any other source. This will help manage climate change.

Air Quality Indicators and Targets

The headline targets, reflecting the National Air Quality Strategy, are:

- Maintain levels of PM10 below 20µg/m3 throughout LTP2;
- Maintain levels of NO2 below 40µg/m3 throughout LTP2.

Figure 9.1 Better Air Quality - Cause Effect Diagram

