

On 10 July 2013, The Leamington Spa Courier carried an article [1] on 'Air pollution linked to lung cancer and heart failure:

"Air pollution, chiefly from traffic exhaust fumes in cities, is having a serious and sometimes fatal effect on health."

The Leamington Old Town junction of High Street, Clemens Street and Bath Street has been designated [2] as a likely breach of the Nitrogen Dioxide (annual mean) objective as specified in the Air Quality Regulations (England / Wales) 2000.

In the past 30 years, there has been a significant level of growth in road traffic activity in Europe (Williams, 2000). The increased use of automobiles has partially contributed to the difficulties EU countries have faced in regards to abiding by the limits set in the first Daughter Directive (99/30/EC), which was part of the Air Quality Framework Directive (96/62/EC).

Current research [3] suggests that vegetation may reduce concentrations of two of the most harmful urban air pollutants, nitrogen dioxide (NO<sub>2</sub>) and coarse particulate matter (PM<sub>10</sub>), by as much as 40% and 60% respectively. Results suggest that plants growing vertically on building walls could remove nearly 10 times as much NO<sub>2</sub> and nearly 12 times as much PM<sub>10</sub> from street-canyon air as horizontally grown rooftop vegetation.

Research at Staffordshire University identifies green wall functions include: protection of building surfaces from ageing and acid rain, acting as sustainable urban drainage (SUDs), atmospheric pollution abatement (removal of particulates, aerosols, gasses, volatilised chemicals), reduction of light and noise pollution, visual amenity, climate change mitigation/urban climate conditioning including human health, biodiversity (habitat, stepping-stones), promoting economic development, etc..

Green infrastructure also has positive effects on human wellbeing and promotes a general feeling of safety (Kuo & Sullivan 2001).

Notes:

1. The Courier: <http://www.leamingtoncourier.co.uk/news/health/air-pollution-linked-to-lung-cancer-and-heart-failure-1-5277654> (accessed 01.08.2013).

2. Warwick District Council, Environmental Services Unit, 14.03.2013.

3. Environ Health Perspectives, 2013 January; 121(1): a14.

References:

World Health Organisation, Copenhagen (2006) Air quality guidelines: Global Update 2005. Particulate matter, ozone, nitrogen dioxide and sulfur dioxide.