AGENDA ITEM NO. 12

HORFIELD AND LOCKLEAZE NEIGHBOURHOOD PARTNERSHIP

Wednesday 4th March 2015

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Title: Environment Group Report

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Recommendation:

1. Note updates from the Environment Group
2. Note report on Air Quality – unfortunately Andrew cannot be present at the meeting

1. Environment Group

Meeting held 12th January 2015.

1.1. Updates:

Monks Parks Open Space Children's Playground – complete

Dorian Road footpath – due to be completed mid February 2015

RE-planting of existing annual meadows – ordered to be seeded in Spring

Hanging baskets for Filton Avenue – ordered, to be installed early Summer

2. Air Quality – Andrew Edwards

2.1. 20 mph zones

The argument used to state that air quality is worsened by the introduction of 20mph zones is based on the fact that at present, a typical vehicle travelling at a steady speed of 30mph is more efficient and emits less pollutants that a vehicle travelling at a steady 20mph. When modelling of the impact of 20mph zones was carried out by BCC, before the pilot scheme for 20mph was rolled out, the model inputs reflect this increase in emissions at a steady 20mph over those from a vehicle travelling at a steady 30mph. The assessment showed a very slight worsening of air quality when assessed on this basis. However, any worsening, under this scenario was considered imperceptible.

However, the real world impact of vehicles travelling more slowly is much more complicated than reflected by

steady vehicle speeds. Vehicles emit the highest level of pollutants per km travelled when accelerating or when they are stationary. One of the major potential benefits of the introduction 20mph areas is that traffic flow should be smoothed with less acceleration and a smoother flow of traffic. Evidence from extensive air quality monitoring in Berlin, where a 30 kph speed limit (down from 50kph) was introduced, showed significant improvements in air quality as a result of the reduction in vehicle speeds. Recent air quality microsimulation modelling (which is capable of accounting for traffic flows, speeds and accelerations in individual vehicle lanes) in an air quality management area in Surrey showed improvements in air quality with the introduction of 20mph zones. This is because the microsimulation model could take into account the reduction in bursts of acceleration associated with 20mph over 30mph limits.

The main impetus for 20mph areas is one of safety to help people feel safer on the roads and pavements with the aim of encouraging people to walk and cycle more often and complete fewer trips in vehicles. The introduction of 20mph zones is one of the air quality improvements measures that Defra have funded as part of air quality improvement plans for local authorities. The introduction of 20mph zones is driven by the associated improvements in safety. Whilst the evidence on the air quality impacts is not clear cut, there is a growing body of evidence that the introduction of 20mph zones can have significant air quality benefits and contribute to a modal shift in travel patterns which will lead to improvements in air quality.

2.2. Future Developments

All proposed developments that have the potential to impact negatively on air quality or be negatively impacted by air quality where it is already poor have to submit an air quality assessment as part of the planning

application process. This takes into account the impacts from the development itself and also looks at cumulative impacts of any developments for which planning permission has been granted but which may yet been built.

Developments which increase vehicle movements have the potential to worsen air quality. In relation to the Memorial Ground development, the air quality assessment showed that there was the potential for a slight worsening as a result of increased traffic, however, in the relevant locations assessed, exceedences of the objective were not predicted. Monitoring along Filton Road has been conditioned as part of the planning permission; any exceedences of the air quality objective for NO_2 objective in specified locations will trigger an annual payment from the developer which will be used for measures to improve air quality.

We work with colleagues in neighbouring authorities to ensure that we are aware of the potential impacts from developments in South Gloucestershire.

As pollutants from vehicles have the biggest impact upon air quality in Bristol, the Strategic Transport Team is responsible for implementing measures to help improve air quality. A range of projects are being implemented, which form part of the Joint Local Transport Plan 3 http://www.westofengland.org/transport/joint-local-transport-plan. The plan includes measures to improve air quality within Bristol, these include the promotion of walking and cycling and improvements to the public transport provision, the development of the Metrobus, enhanced train services, Local Sustainable Transport Fund Initiatives and the promotion of ultra-low emission vehicles.

2.3. Monitoring in Horfield and Lockleaze

Air quality is monitored throughout Bristol. There are currently 7 sites where real time air quality is collected. There are an additional 100+ sites where annual NO_2 concentrations are measured using diffusion tubes. An annual report

of monitoring results is published on the Bristol City Council website and submitted to Defra.
http://www.bristol.gov.uk/page/air-quality-bristol

Air quality monitoring within Bristol has been carried out for over 15 years and forms a required part of the local air quality review and assessment process. The monitoring network has been refined over the years as areas of concern have been identified and other areas have been shown to meet the air quality strategy objectives. The map shows the current locations in Horfield, Lockleaze and the immediate surrounding area where diffusion tubes are used to measure annual NO_2 concentrations. The 2013 concentrations are shown for some of the locations, a full list of results and recent trends can be found in the 2014 Progress Report. For reference, the annual objective for NO_2 is 40µg/m^3. This objective is only relevant where long term exposure occurs, for example at residential properties, hospitals, residential homes and Schools.

2.4. Actions to Improve Air Quality

The actions of people in Bristol can have a direct impact upon the air quality within the city. How people choose to travel, the kind of vehicles they buy and the way in which they are used can have a direct impact, positive or negative, in their neighbourhood and the city in general. An increased understanding of the health impacts associated with poor air quality and the factors which impact on air quality, when combined with an improved offering of practical transport options could help to improve air quality. Raising awareness within the local community and wider Bristol area is something that would be a very positive step in this process and is something that Bristol City Council is looking to do in 2015. Where possible, we'd be keen to work with the Partnership on initiatives identified and offer support.

Map Showing 2013 Monitoring Data for NO_2