

**Stockton Environment Partnership Meeting**  
**Minutes of meeting held Thursday 28 January 2010**  
**The Planetarium, Wynyard Woodland Park**

**Present:** J Garside (Chair) (JG), Cllr Mrs J Beaumont (JB), Cllr Mrs M Rigg (MR), McCann (JMcC), M Chicken (MC), G Clingan (GC), E Restall (ER), M Sandbrook (MS), N Ellison (NE), D Munt (DM), S Morrow (SM), H Stuttard (HS), D Fionda (DF) R S Atkinson (RSA), T Lewis (TL), (H Clayton (HC) (Minute Taker)

**Apologies:** N McKay, C Hayward, J Arger, R Young, C Straughan, J Trevillian, J Hutchinson

**1. Minutes & Matters Arising from Previous Meeting held 12 November 2009**

Previous minutes were accepted as a true record and there were no matters arising.

**2. Light Pollution Levels – Ed Restall**

ER welcomed everyone to the Planetarium and gave a presentation on light pollution levels.

Light pollution levels have a significant impact on a variety of things including the natural rhythms of day and night. The decline of nocturnal animals, insect predators, birds breeding patterns because of the wrong time of the year. For humans, better sleeping patterns in the darkness. Research shows that cancer repelling hormones need complete darkness to be produced. For economic costs, around 1% UK electricity budget is consumed by street lighting.

Street lighting not only illuminates the immediate surrounding area, but also the night sky. When capped off with shields, it stops the light ascending upwards, allowing the night sky to be seen.

The Sodium vapour lamp produces strong light and is often used to illuminate trunk roads. Spherical lights and security lights can be replaced by low wattage bulbs. The unshielded blue lights which produce high glare and scatter, quite often seen at out of town shopping centres, may look pretty but are illegal when installed after April 2006 and set a bad example to the public.

Statistics obtained by the Campaign to Protect Rural England between 1993 and 2000 show an increase of 42% in light pollution regionally over the 7 years, significantly more than the 24% nationally over the same period.

It is not necessary to have complete darkness, but to achieve a sensible balance, from an environmental and economic perspective. It will take a considerable time to roll-back through strategic planning to achieve this. Some of the facts are 30% of street lighting illuminates upwards, costing around £110m per year in electricity bills. 22 million homes in the UK of which one in ten have 500 watt security floodlights which equates to a cost of £36m. Overall £880m unwanted light

illuminates the night sky from commercial premises annually. 5.6 Million tonnes of carbon dioxide is produced annually lighting up the UK at night.

Cylindrical lamp heads have now been phased out. Spherical and Conventional lamp heads which expose the bulb are not suitable. Hemispherical lamp heads are an improvement but far from perfect. The flat cut off type which keep the bulb unexposed are the best. The exposed parts of a the bulb in a light fitting produce glare, but flat glass technology, which provides a full cut-off, prevents this and-allows for lower wattage bulbs to be used.

Statutory Nuisances regarding light pollution came into force in April 2006. The new law doesn't tackle all forms of lighting only some. SBC adopted a light pollution policy in March 2007, relating to planning issues, any new build areas having the correct street lighting fitted, ensuring any new street lighting makes a minimal contribution and enforcing the 2006 Clean Neighbourhoods and Environment legislation.

Some of the simpler technological solutions could be around better maintenance programmes and more suitable bulb wattage. Educating the general public and commercial industry regarding what types of lights and bulbs to be used. Bring in new technology, LED lighting is continually improving.

There are still some local areas where light pollution levels are good and the stars are easy to see. ER informed the group that there are more stars in the galaxy than grains of sand on an average beach. The Milky Way is just one of 200 billion galaxies in the universe and is one hundred thousand light years across. The northern hemisphere is very rich in stars. ER then talked about the various star constellations that are on show in the sky at night and advised that there are information leaflets to take away and further information on the SBC and Planetarium websites; in particular: [www.wynyard-planetarium.net/lightpollution.htm](http://www.wynyard-planetarium.net/lightpollution.htm)

MC then advised the group that SBC had adopted the Light Pollution Policy and came here to talk about light pollution levels impact in more detail after Ed's presentation. MC advised that the target is to reduce energy consumption by SBC by 25%. Street lighting is the biggest single expense outlay costing £1m per year. There are about 27 thousand street lights which are around 30 years old and it costs one thousand pounds per light to replace.

### **3. Dimming of Street Lighting – Mike Sandbrook**

MS briefed the group on an energy saving progress report regarding the dimming of some of the borough's street lights. An initial experiment began in 2007/08 in Darlington Lane where 5 lamp columns continued to be fully illuminated and 5 were dimmed by 50%. This demonstrated a 30% saving in energy consumption against a 50% reduction in output. Residents are not aware this is taking place.

A similar exercise is taking place along the footpath of Castle Eden Walkway where 6 lamp column cells are switched off between midnight and 5.00am. This has achieved a saving cost of 18%. Again there has been no response from the public.

In June 2009, infrastructure was set up to control all street lighting across the borough via a central management system. Initially there were some teething problems with radio control delayed implementation, but this has now been resolved and the system now has its own dedicated frequency. 50,000 lights are now controlled via this system which can be dimmed down and switched off. The dimming process takes about 10 minutes to achieve.

To-date, 4 other areas in the borough are being programmed to have street lighting dimmed. These are; Whitehouse Road in Billingham where there are 53 columns, 30% is currently being dimmed and no response from residents has been received. Darlington Lane on Roseworth, 20 columns to be dimmed at a cost of £58k. Elm Tree Avenue and Westbury Street will be next on the programme, subject to funding.

The programme is funded from a 5 year interest free loan of £135k. Street lighting operate on an electric cell of 70 lux with a switch off at 40 lux. Looking at changing 2,000 units to electric cells of 35 lux with a switch off of 18 lux. MC advised the group that Stockton had to submit a significant bid PFI to borrow money to replace lighting stock. SBC now control the specification for all new street lighting submitted by developers. RSA enquired if energy saving bulbs could be used to replace the existing stock? MS advised that this type of lighting wouldn't be suitable.

The ongoing programme is to replace another 3,000 units giving an approximate saving of £13k.

An LED lighting scheme is running in Middlesbrough, MS passed round a photograph of how it looked. The main difference showed that LED light only lit the immediate area and created other areas of total darkness, whereas the traditional street lighting was illuminating a much larger area.

MC advised that the masterplan is to install new street lighting columns with the new technology when the existing ones need replacing, but residents still need to be convinced that street lighting is about lighting footpaths and roads not residents gardens.

MS also advised that traffic bollards are now being changed to the reflective type rather than being illuminated.

RSA said couldn't a plastic cover be placed over the lamp head to reduce the light pollution? MS advised that if it wasn't manufactured then it wasn't available. MR enquired about specialist lights in conservation areas looking authentic and would they be similar to the lighting specifications discussed? MS advised that he was unaware of any manufacturer making heritage lanterns that would be efficient.

#### **4. Electric Vehicles update – Neil Ellison**

NE briefed the group on the latest news regarding electric vehicles. One North-East has signed an agreement with Nissan to manufacture 620 recharge docking

points by end of this year. North East England is the flagship for this development. SBC have to submit a list of locations.

Nissan will be producing an electric car called the Leaf by January 2011. Batteries will be built at the Sunderland plant. SBC will be submitting a bid for the infrastructure. Newcastle will be the approved installers.

The electric cars will be pre-programmed with the recharge points. The vehicles should be able to travel 120 miles along the main commuter routes.

SBC will have match funding for 20 locations around the borough. The draft list is Billingham City Learning Centre, Billingham Forum, Billingham Community Centre, Kingsway House, Stockton Riverside College, Education Centre, The Square next to Municipal Buildings, Wellington Square, Castlegate Centre, Wynyard Woodland Park, Preston Park, Thornaby Town Centre, Eaglescliffe and Yarm Railway Stations and RSPB Saltholme reserve. This is subject to further consultations and feasibility studies.

One North-East will be funding recharge points at Wolviston Interchange and Teesside Shopping Park, these will be standard and rapid rechargers. The company is also having talks with Durham Tees Valley airport and Tesco supermarkets to install recharge points at these locations.

JB enquired why there wasn't a recharge point in Norton? NE advised that it was predicted there would be a low volume of useage in this area. JB thought that Yarm railway station wasn't really a good location and more suitable for it to be sited in Yarm High Street. MR agreed with sighting it in Yarm High Street and thought that the Eaglescliffe Station recharging point would be well suited not only for the station, but also for the local shops that are nearby.

NE advised it is predicted that by 2020, 20% will be full electric cars. Nissan will not be putting any more revenue into developing petrol / diesel engines and will be totally focusing development on electric technology.

He also advised the group that if anyone had any comments regarding the 20 locations suggested, then he would be happy to receive them. The final list will be submitted in April.

Payment for the electricity supplied by the UK energy company npower will be free for the first 4 years. Then it is proposed that bills will be similar to charging of mobile phone contracts and bills.

**6. Any Other Business**

Nothing mentioned.

**7. Date of Next Meeting: Thursday 4 March 2010**