

Decision Maker: **Environment Portfolio Holder**
For pre-decision scrutiny by the Environment PDS
Committee on

Date: 15th November 2011

Decision Type: Non-Urgent Executive Non-Key

Title: **Street Lighting Annual Report**

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Chief Officer: Nigel Davies, Director of Environmental Services type name here

Ward: All

1. Reason for report

1.1 This report proposes the street lighting replacement programme for 2012/13, outlines the programme for future years and additionally provides an update on issues brought forward at recent meetings of the Highway Assets Working Group.

2. **RECOMMENDATIONS**

2.1 **The Environment Portfolio Holder is asked to:**

- i) **agree the schemes listed in Appendix 'A' to form the basis of the Council's programme of street lighting replacement works for 2012/13 and, subject to budgetary provision, for the works to be progressed;**
- ii) **note the outline programme for future years, as listed in Appendix 'B'; and**
- iii) **note the issues discussed at the recent meetings of the Highway Assets Working Group.**

Corporate Policy

1. Policy Status: Existing policy. Undertaking Street Lighting Improvements contributes directly to a number of policy aims evident in Building a Better Bromley including Safer Communities, Quality Environment, Vibrant Town Centres.
 2. BBB Priority: Quality Environment. Improving the Street Scene - Maintain roads, pavements and street lighting in a good condition.
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Financial

1. Cost of proposal: Estimated cost £606k for column replacement & £1.291m for maintenance
 2. Ongoing costs: Recurring cost.
 3. Budget head/performance centre: Highways
 4. Total current budget for this head: £1.897m pa
 5. Source of funding: Existing revenue budget 2011/12
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Staff

1. Number of staff (current and additional): 4
 2. If from existing staff resources, number of staff hours: 4 fte
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Legal

1. Legal Requirement: Non-statutory - Government guidance.
 2. Call-in: Call-in is applicable
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Customer Impact

1. Estimated number of users/beneficiaries (current and projected): Borough wide
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Ward Councillor Views

1. Have Ward Councillors been asked for comments? No.
2. Summary of Ward Councillors comments:

3. COMMENTARY

- 3.1 The Council has a programme of street lighting improvements where, on a road by road basis, the lighting stock is removed and replaced with new equipment. The replacement strategy was derived as a result of a number of incidents (one locally) where columns had suffered complete failure and collapsed on to the highway. The strategy seeks to prioritise replacement of the Council's ageing lighting stock to reduce the risk of potential performance and structural failures.
- 3.2 Replacement columns are made from galvanised steel with added coating protection along the column root. This level of specification should ensure a column replacement cycle of 30 years, although in favourable conditions this may extend to 40 years. High quality lanterns complete the replacement work. Given these are appropriately maintained (regularly changing lamps and cleaning) these should offer a life of approximately 20 years. Work is implemented on site through the Council's Street Lighting Improvement and Maintenance Contract 2007 with May Gurney Limited (Cartledge). This is a schedule of rates contract where schemes are called off as and when required.
- 3.3 During last financial year (2010/11) 530 columns and lanterns were replaced as part of the improvement programme. Given the street lighting stock comprises approximately 27,500 units a column replacement rate based on the improvement programme of once every 46 years is being achieved. This exceeds the predicted life of 25 to 30 years of most existing columns and represents an on-going risk to the Council. This risk is being managed through a programme of supplementary testing and by monitoring the results of condition assessments carried out as part of routine maintenance. Last year 47 steel columns were replaced as a result of failing structural testing of columns located in the Borough's unadopted roads. In addition any structural faults identified during routine condition assessments (TR 22) are fixed on an ad hoc basis. This may entail single columns being replaced, recommendations for sleeving (where concrete columns are trimmed and capped with a galvanised metal sleeve) - 95 columns were replaced last year. A further 22 columns were replaced located along the borough's footpaths, to mitigate risks associated with the health and safety of maintenance staff.
- 3.4 The current improvement programme principally targets the remaining concrete columns in the borough. Records indicate there are of the order of 6,000 concrete columns. However, certain makes of older steel columns may also need to be replaced, on a scheme basis, where there are concerns about condition. Column type, age (where known) and condition information has been used in conjunction with the highway maintenance footway programmes of work to ensure schemes are ordered in appropriate priority. This year the prioritisation process has been the subject of further discussions at meetings of the Highway Assets Working Group. This is dealt with later in this report under the working HAWG section at 3.9 and beyond.
- 3.5 The schemes listed in Appendix A form the basis of the Council's programme of street lighting replacement works for 2012/13. This has been developed on the basis that the current year's funding will be made available with an allowance for inflation. The roads listed in Appendix B will largely form the basis of future programmes of work, subject to the results of condition surveys .
- 3.6 In order to limit the impact of UK Power Network's fees (UKPN charge the Council to carry out all electrical connections/disconnections and to provide new services etc) a trial is being developed where suitably qualified contractors will be employed on a day basis (rent a joiner) to complete connections which will enable the Council to have greater control over the programming of all aspects of the works. Once the trial has been completed it will be evaluated to determine whether there have been service efficiencies and improvements and hence whether to extend the trial in the future.

- 3.7 All new schemes will be designed to meet the requirements of the current British and European standards where appropriate and will use the latest street lighting equipment. Since 2008 this has included using dimming, where appropriate, following the successful dimming trial at Pickhurst Green. The improvement programme brings the added benefits of modern lanterns which direct and control emitted light downwards, increasing lamp spacing and reducing light pollution. All new street lighting uses a white light which provides better colour perception for users over and above older low pressure sodium lamps which emit orange light.
- 3.8 Customer satisfaction surveys of completed improvement schemes are undertaken on a regular basis. This comprises distributing a questionnaire in leaflet form to all households in the location of the scheme. Approximately 50% of the schemes completed each year are targeted in this way. Satisfaction with the scheme/work is consistent with 80% of questionnaires returned indicating satisfaction with overall impression of the scheme as better than fair.

Highway Assets Working Group

- 3.9 The Highway Assets Working Group (HAWG), commissioned by the Environment PDS Committee at its meeting on 16th June 2011, has met twice since July 2011 to consider levels of service and investment strategies for highway and street lighting maintenance. A paper was presented to the last meeting held in September 2011 to stimulate discussion in respect of the justification of street lighting replacement projects and levels of service for street lighting.

Justification of street lighting replacement projects

- 3.10 The main drivers for the street lighting improvement programme include helping to meet the Council's duties in ensuring a safe network according to the Highways Act 1980 and the Council's Environment Portfolio Plan. The programme contributes to meeting published Environment Portfolio Outcomes 4, Securing our Transport Infrastructure and 5, Improving Transportation and the cross cutting theme, Contribute to Wider Environmental Improvements.
- 3.11 The HAWG reviewed the improvement programme prioritisation system and endorsed the priority to continue to replace the concrete column stock. However, there is scope to further refine the prioritisation process by selecting those columns most at risk (generally pre-tensioned concrete columns manufactured by Concrete Utilities) and for these to be replaced on a whole of road basis. Where roads have concrete columns that can be classified as a lower risk (generally those columns manufactured in standard reinforced concrete, say by GEC) these could be replaced on an individual basis. There is a further residual risk from certain older steel columns and these would be replaced subject to the results of testing, this could be on an individual or whole of street basis depending on the extent of faulty columns. This is consistent with current practice.

Levels of Service

Lighting Levels

- 3.12 The HAWG discussed options which could introduce part night lighting and switching off to the borough. However, these options were not received favourably and there was no desire to trial this level of service at this stage.
- 3.13 Dimming of new improvement schemes had been trialled previously and, where conditions allow, was an accepted level of service. Many unclassified roads now have 60 watt Cosmopolis white lamps installed that are dimmed between midnight and dawn. The HAWG acknowledged there may be scope to extend dimming in the borough to encompass traffic routes. This is particularly suited to traffic routes with lamps of higher outputs (up to 250W). A business case

is to be investigated, and given the availability of funding and subject to consultation is to be considered further for implementation.

- 3.14 The technology supporting variable lighting is developing quickly and although use of variable electronic ballasts is a trusted and reliable solution and is the current system of choice, it is likely that the flexibility and benefits of Central Management Systems will need to be considered in the not too distant future. Central Management Systems can facilitate infinitely variable light, but they also monitor lamps, ballasts and mains supply and can measure energy and power factor which can lead to reduced routine maintenance and energy costs.

4 POLICY IMPLICATIONS

- 4.1 Environment Portfolio Plan – Outcome 1 Improving the street scene, maintain roads pavements and street lighting in good condition, in particular follow up the successful energy-saving pilot on the dimming of street lighting at appropriate times.
- 4.2 Undertaking a street lighting improvement programme of street lighting replacement, including variable lighting equipment, is a demonstration of the commitment to achieving the above outcome.

5 FINANCIAL IMPLICATIONS

- 5.1 It is proposed that the programme of replacement columns as listed in Appendix A, will be funded from the 2012/13 street lighting replacement (revenue) budget which, until decisions are made regarding future budgets, will be assumed to be the same level as the current year's budget, £606k.
- 5.2 Other street lighting maintenance and improvement works are funded from the balance of the 2011/12 revenue budget as shown below : -

Activity	2011/12 Budget £'000
Maintenance Works	
Routine maintenance	677
Non-routine maintenance	323
Lamp column painting	55
Unrecovered impact damage	107
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	1,162
Improvement Works	
Minor improvements	129
	129
Total maintenance budget	<hr/> <hr/> 1,291

- 5.3 It should be noted that these budgets are subject to change following any decisions taken during the forthcoming 2012/13 budget setting process.

6 LEGAL IMPLICATIONS

- 6.1 The Highways Act 1980 empowers the Council as Highway Authority to provide lighting. The Council has a duty of care to the highway user and must ensure it can demonstrate it has systems and programmes in place to ensure the safety of all highway lighting equipment.

Non-Applicable Sections:	Personnel implications
Background Documents: (Access via Contact Officer)	None