

11 September 2014**Agenda Item: 13**

REPORT OF SERVICE DIRECTOR, HIGHWAYS

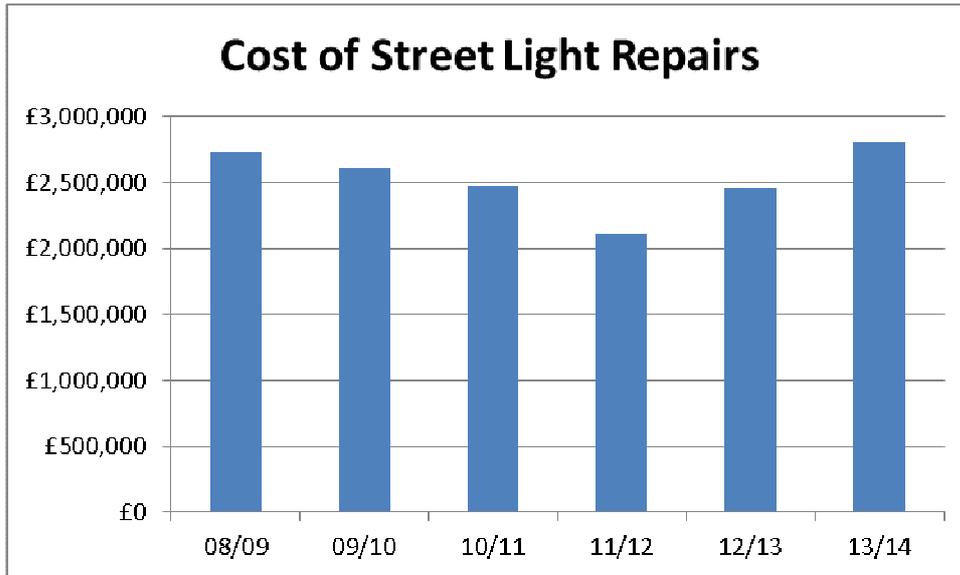
STREET LIGHTING UPDATE

Purpose of the Report

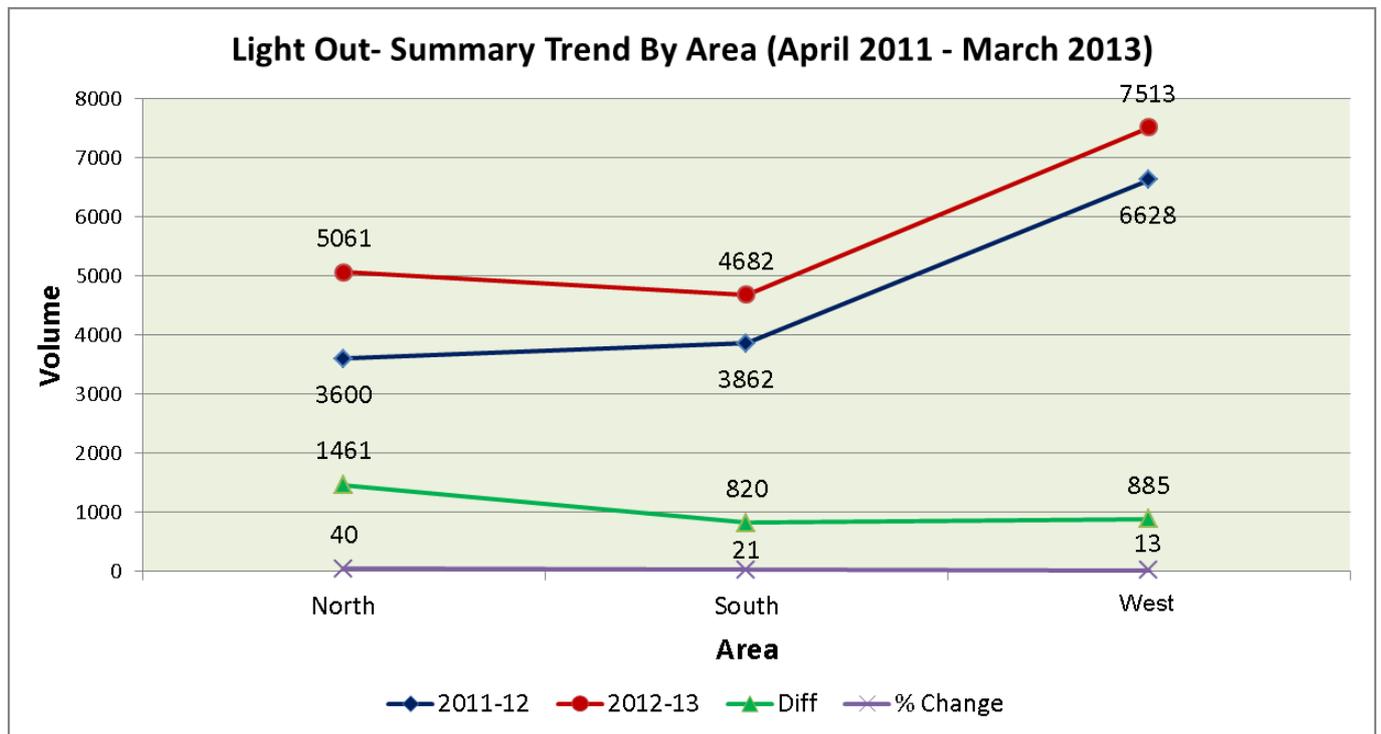
1. The purpose of this report is to update committee regarding street lighting routine repairs (lamp replacement) and the introduction of energy saving measures.

Routine Maintenance – Lamp Replacement

2. Until April 2011 a planned maintenance programme for street lighting routine repairs (lamp replacement) was undertaken – sometimes known as “Bulk Clean and Change”. From April 2011 this was stopped in preference to responding to individual reports of street lighting faults (light not working) – sometimes known as “Burn to Extinction”. This operational arrangement was implemented to address savings in the budget required at the time. It was also acknowledged that there may be an increase in faults on individual roads.
3. The benefit of a planned maintenance approach is that it reduces the time and cost of making repeat visits to different street lights along the same street/in the same area. The benefit of a respond to reports approach is that each lamp is used until it fails rather than being replaced at its manufactured service life. The impact of changing from a planned to reactive maintenance approach is therefore that lamps fail in a random manner. Over time this results in additional cost to carry out repairs/lamp replacements as the need to return to the same street increases over time. This then continues as the lamps are being replaced at different times and subsequently will continue to wear out/fail at different times. A planned maintenance approach also reduces lamp failure and repairs due to other faults as often these can be picked up and dealt with during the planned maintenance visit.
4. In 2011/2012 a budget saving of £500,000 was realised from this change of approach, however in 2012/2013 this benefit reduced to £142,800, and in 2013/2014 there was a net increase in the cost of £153,235 as shown below.



5. As well as a cost implication of continuing with a reactive maintenance approach the number of faults is increasing creating a backlog of repairs in turn causing a longer time between a report of fault (lamp out) and its repair. The chart below looks at the three operational depots showing a total increase of 3166 faults from 2011/12 to 2012/13 representing a 22% increase across the county.



6. A business process review using the Council's "LEAN+" approach was undertaken in July 2013 to determine the best approach to reduce future repair times and costs. The average cost to repair a single faulty lamp is approximately £65 (using a conventional lamp). An analysis of the long term implications of each approach was undertaken for the Gedling and Rushcliffe area and the results are shown opposite.

| <u>Gedling and Rushcliffe operational area</u> | Approximate number of lamps | Number of Potential Spot Fix Visits required | Number of Bulk Clean and Change weeks required | Cost of Spot Fix Visits by zone | Cost of Bulk Clean and Change visits | Difference |
|--|-----------------------------|--|--|---------------------------------|--------------------------------------|----------------|
| Zone 3 (furthest from Gamston) | 8200 | 8200 | 14 | £738,000 | £156,800 | £581,200 |
| Zone 2 (mid distance from Gamston) | 13000 | 13000 | 22 | £910,000 | £246,400 | £663,600 |
| Zone 1 (shortest to Gamston) | 12000 | 12000 | 20 | £540,000 | £224,400 | £315,600 |
| TOTALS | 33200 | 33200 | 56 | £2.188M | £627,600 | £1.560M |

Assumptions & Calculation Method:

1. If no bulk clean and change approach adopted all lamps in each area will be visited at some point in spot fix mode
 2. A spot fix visit is approximately £90 for Zone 3; £70 for Zone 2 and £45 for Zone 1 and includes travelling time, labour and materials.
 3. A bulk clean and change visit to all Zones includes electrician & mate @ £70 per hour including plant hire.
 4. Traffic management costs are not included.
 5. Two 2 man crews dedicated to bulk clean and change could clean & change approximately 600 lamps per week in one location.
 6. Multiply the cost for each zone by the number of lamps to derive the total spot fix cost .
 7. Divide District lamp totals by 600 to derive the number of weeks needed for bulk clean and change
 8. 2 x 2 man crews would need to expend 80 hours of effort per week to replace 600 lamps
 9. Multiply number of weeks by 80 to derive total number of hours needed to bulk clean and change
 10. Multiply total bulk clean and change hours needed by £140 to derive cost of bulk clean and change visits
- NB: The Rushcliffe & Gedling operational area includes the area south of the A52

7. The outcome of the LEAN+ review was a recommendation for the reintroduction of a planned maintenance or bulk clean and change approach to reduce the repair cost.

Financial Implications

8. The re-introduction of a planned maintenance approach (Bulk Clean and Change Programme) will cost an additional £400k in the first year and £200k in the second. This is because of a need to maintain a reactive approach during the re-introduction as the lamps are changed through planned maintenance there is a reduction in the reactive faults. This funding has been approved by Finance and Property Committee on 14th May 2014.

Other Options Considered

9. As part of the review an investigation was made into the feasibility of introducing LED lamps as part of that planned maintenance programme. However a greater one-off investment would be needed. Once the planned maintenance programme is re-established this will be reviewed.
10. 10,000 LED lantern replacements are being introduced in the County at the moment through the interest free Salix Energy Efficiency Loan Scheme (SEELS). In addition all planned street lighting column replacements (where the street lighting column has worn out) are also being fitted with LED lamps.

Statutory and Policy Implications

11. This report has been compiled after consideration of implications in respect of crime and disorder, finance, human resources, human rights, the NHS Constitution (Public Health only), the public sector equality duty, safeguarding of children and vulnerable adults, service users, sustainability and the environment and ways of working and where such implications are material they are described below. Appropriate consultation has been undertaken and advice sought on these issues as required.

Recommendation

13. It is recommended that Committee note the contents of the report.

Andrew Warrington
Service Director Highways

For any enquiries about this report please contact:

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Constitutional Comments

This report is for information only.

Financial Comments

This report is for information only.

Background Papers and Published Documents

1st March 2011: Transport and Highways Committee Report

Electoral Division(s) and Member(s) Affected

- All