

**Decision Maker:** ENVIRONMENT PORTFOLIO HOLDER

**Date:** 1<sup>st</sup> September 2021

**Decision Type:** Non-Urgent Executive Non-Key

**Title:** STREET LIGHTING LED CONVERSION PROGRAMME

**Contact Officer:** Garry Warner, Assistant Director (Highways)  
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**Chief Officer:** Colin Brand – Director of Environment and Public Protection

**Ward:** (All Wards);

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1. Reason for report

- 1.1 The purpose of this report is to finalise proposals for the capital programme to allow the remaining streetlight in Bromley to be converted to LED to provide potential revenue budget savings as part of the transformation programme.

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2. **RECOMMENDATION(S)**

The Environment Portfolio Holder approves: -

- i. Proposed programme for lantern conversions and column replacements

### Impact on Vulnerable Adults and Children

1. Summary of Impact: None
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### Corporate Policy

1. Policy Status: Existing Policy:
  2. BBB Priority: Excellent Council Quality Environment Safe Bromley Vibrant, Thriving Town Centres :
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### Financial

1. Cost of proposal: £3.164m
  2. Ongoing costs: : Recurring revenue saving £183k
  3. Budget head/performance centre: Highways – Street Lighting
  4. Total current budget for this head: £3.6m (revenue budget)
  5. Source of funding: Invest to Save Fund and existing revenue budgets
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### Personnel

1. Number of staff (current and additional): 33.5
  2. If from existing staff resources, number of staff hours:
- 

### Legal

1. Legal Requirement: Statutory Requirement :
  2. Call-in: Applicable:
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### Procurement

1. Summary of Procurement Implications: None
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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: n/a

### 3. COMMENTARY

#### Background

- 3.1 As the Highway Authority, LB Bromley own and maintain 27,796 lamp columns and 1,732 illuminated road signs across the borough, many of which have exceeded their recommended design life of 25 years. In 2012 the Council approved an invest to save project to replace 8,000 of the oldest concrete and steel lamp columns and install energy efficient LED lanterns to these and a further 6,500 structurally sound steel streetlights in residential roads.
- 3.2 Street lighting on busy traffic routes require higher levels of lighting than residential roads, and therefore consume more electricity. Salix Energy Efficient and SEALS funding has recently been used to fund lantern conversions of 3,650 lamp columns on the borough's busiest roads.
- 3.3 The structural condition of the remaining steel lamp columns and signposts is carefully monitored using ultrasonic testing to identify areas of corrosion, and the latest survey identified the following assets that will require replacing during the next four years:

Centre Island Posts	35
Illuminated Signpost	84
10M column	47
8m column	22
6m column	152
5m column	160
4.5m column	1
4m column	29
Cast iron columns	790
<b>Total</b>	<b>1320</b>

#### Proposed Capital Project

- 3.4 Following recent improvements 6,276 lamp columns, mainly in residential roads and town centres, are still fitted with older lanterns which have a high electricity consumption. Replacing these with new low energy LED lanterns would reduce electricity and maintenance costs, as well as improve the reliability of the lamp posts.
- 3.5 The previous invest to save funding for the earlier scheme has been repaid. In July 2021 Executive approved a further capital invest to save project to allow all corroded lamp columns and signposts to be replaced, and low energy LED lighting installed on all remaining street lighting in the first year of the programme. The savings made through reduced unit rates for new lamp columns together with energy efficiency, reduced maintenance and CCL would be achieved after one year. By utilising the revenue budgets for lamp column replacements and minor improvements the capital investment will be repaid within four years.
- 3.6 Condition assessments will continue to be undertaken to identify those lamp columns that would be life-expired at the end of the four-year programme. It will then be possible to reassess the ongoing revenue budget requirement for street lighting replacement and running costs and reflect any resultant budget savings in the Council's future financial forecast.
- 3.7 Is proposed that the LED conversions will be delivered through the existing street lighting contract with Riney at an accelerated timetable. Riney have confirmed that they have the capacity to complete the project within the required timescale.

## Proposed Replacement Lanterns

- 3.8 Following the success of previous LED conversion projects, it is proposed that similar LED lanterns manufactured by URBIS are used to replace the 5567 lanterns in residential roads as part of this project. These have proven to be cost effective and reliable, and using the same manufacture simplifies future maintenance. The current street lighting contract also includes for the supply and installation of these lanterns.
- 3.9 The programme will only include for lanterns to be replaced, and other than locations where corrosion has been identified through structure testing, no lamp columns will be replaced or relocated. In some roads the existing lamp columns are only 5m high. Where the column foundations allow it is proposed that these columns will be extended to 6m in height to improve the lighting levels provided by the new lanterns. Details of these roads is shown in Appendix 1.
- 3.10 In several areas, such as Chislehurst High Street, ornate lanterns have previously been installed. In other roads, such as High Street St Mary's Cray, heritage 'gas lamp' design lanterns are fitted. In these cases, which total 709 lamp columns, it is proposed that replacement lamp units are retrofitted within the existing lanterns to retain the aesthetic appearance of the lanterns. Details of these roads is shown in Appendix 2.
- 3.11 The previously approved dimming profile will be used for all installations.

## 4 POLICY IMPLICATIONS

- 4.1 The Council's vision for Bromley is that it remains a place where people choose to live and do business. Modern, safe, reliable and efficient street lighting has an important part to play in realising this vision particularly in terms of improving public perception of the street scene, enhancing community safety and security and promoting the accessibility of public transport and other local services during the hours of darkness. These align well with the policy priorities in Building a Better a Bromley.

## 5 FINANCIAL IMPLICATIONS

- 5.1 At its meeting on 15<sup>th</sup> July 2021, Executive agreed for up to £3.2m to be drawn down from the Invest to Save Fund, to be repaid from savings within the Street Lighting revenue budget. On the basis of the invest to save option, the cost of replacing corroded lamp columns the remaining stock of streetlights with LED's is now estimated at £3.164m, as follows:

	2021/22 £'000	2022/23 £'000	Total £'000
Lantern Conversions (excluding heritage)	681	817	1,498
Heritage Lanterns	182	218	400
Column Replacements	557	669	1,226
Staff costs	18	22	40
	1,438	1,726	3,164

- 5.2 As part of the invest to save project approved in 2012, it was agreed that the revenue budgets for lamp column replacements, minor improvements and saving from reduced energy and CCL would be used to repay the invest to save fund. As funding for that phase has now been fully repaid, those same revenue budgets are once again available to provide initial investment in 2021/22, and then subsequently to repay the amount required from invest to save funding; the amounts currently available are as follows:

Street Lighting Budget Head	Revenue Budget 2021/22 £'000
Lamp column replacements	584
Minor improvements	47
<b>Total</b>	<b>631</b>

5.3 Therefore, of the total investment of £3.164m, £0.631m will be met from these revenue budgets with the balance of £2.533m drawn down from the Invest to Save Fund.

5.4 Annual revenue budget savings from energy efficiency, reduced maintenance and the Climate Change Levy are estimated at £183k a year after installation is completed. Taking this into account, assuming installation takes place from November 2021 to September 2022, and allowing for estimated interest payments on the outstanding Invest to Save funding balance over the life of the project, the following table summarises the estimated savings and demonstrates that the investment will be repaid over 4 years.

	2021/22 £'000	2022/23 £'000	2023/24 £'000	2024/25 £'000	2025/26 £'000	Full Year £'000
Savings						
- Energy	-33	-111	-157	-157	-157	-157
- CCL	-2	-6	-8	-8	-8	-8
- Maintenance	-4	-12	-17	-17	-17	-17
Total Savings	-38	-130	-183	-183	-183	-183
Repayments from Street Lighting revenue budgets	0	-631	-631	-631	-168	0
	-38	-760	-814	-814	-351	-183
Repayments to Invest to Save Fund	38	760	814	814	168	0
<b>Balance of Revenue Savings</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>-183</b>	<b>-183</b>

5.5 Recurring annual savings of at least £183k are therefore projected from 2025/26 once all repayments have been made. After scheme completion, the overall future budget requirement for street lighting will be reviewed and any further savings will need to be reflected in the Council's financial forecast.

### 3 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.

<b>Non-Applicable Sections:</b>	Impact on vulnerable adults and children Personnel implications Procurement implications
Background Documents: (Access via Contact Officer)	

## **Appendix 1 – Roads that require column extensions**

Albert Road, Chelsfield  
Alexandra Road, Biggin Hill  
Almond Way, Bromley  
Amherst Close, St Mary Cray  
Anerley Vale, Anerley  
Anglesea Road, St Mary Cray  
Armstrong Close, Bickley  
Arthur Road, Biggin Hill  
Artington Close, Farnborough  
Ashfield Close, Beckenham  
Atkinson Close, Orpington  
Augustus Lane, Orpington  
Autumn Grove, Bromley  
Aviemore Close, Beckenham  
Badgers Copse, Orpington  
Bankside Close, Biggin Hill  
Barfield Road, Bickley  
Bargrove Close, Penge  
Barnet Wood Road, Hayes  
Barnmead Road, Beckenham  
Barry Close, Orpington  
Batchwood Green, St Pauls Cray  
Baths Road, Bromley  
Beblets Close, Orpington  
Beck Lane, Beckenham  
Beckenham Place Park Road, Beckenham  
Beckford Drive, Orpington  
Beddington Road, St Pauls Cray  
Beech Road, Biggin Hill  
Berens Road, St Mary Cray  
Berrys Hill, Cudham  
Bertie Road, Sydenham  
Birkdale Close, Orpington  
Blean Grove, Penge  
Bradford Close, Bromley  
Bredhurst Close, Penge  
Briar Lane, West Wickham  
Brittenden Parade, Chelsfield  
Broadwater Gardens, Farnborough  
Brooks Way, St Pauls Cray  
Brookside, Orpington  
Brosse Way, Bromley  
Bucks Cross Road, Chelsfield  
Bull Lane, Chislehurst  
Camden Close, Chislehurst  
Cardinal Close, Chislehurst  
Carolyn Drive, Orpington  
Carters Hill Close, Mottingham  
Cathcart Drive, Orpington  
Cedars Road, Beckenham  
Chancery Lane, Beckenham  
Chapmans Lane, St Pauls Cray  
Chaterhouse Road, Orpington  
Chequers Close, St Pauls Cray  
Chestnut Close, Orpington  
Chiltern Gardens, Shortlands  
Christ Church Roadm Beckenham  
Church Drive, West Wickham  
Church Hill, Cudham  
Church Lane, Chislehurst  
Church Road, Farnborough  
Church Road, Chelsfield  
Church Row, Chislehurst  
Churchill Way, Biggin Hill  
Claremont Close, Farnborough  
Clifford Avenue, Chislehurst  
Cobden Road, Farnborough  
College Slip, Bromley  
Coniscliffe Close, Chislehurst  
Cooden Close, Bromley  
Corn Mill Drive, Orpington  
Courtlands Avenue, Hayes  
Cow Lane, Chislehurst  
Cowper Close, Bromley  
Crockenhill Road, St Mary Cray  
Crown Close, Orpington  
Crown Lane, Bromley  
Crown Lane, Chislehurst  
Crown Road, Orpington  
Dene Drive, Orpington  
Downw Avenue, Cudham  
Downs Avenue, Chislehurst  
Downs Bridge Road, Beckenham  
Duxberry Close, Bickley  
Eagles Drive, Biggin Hill

Eastcote, Orpington

Eccleston Close, Orpington  
Edgewood Drive, Orpington  
Edith Road, Orpington  
Elmbank Drive, Bromley  
Elmdene Close, Beckenham  
Elmfield Park, Bromley  
Empress Drive, Chislehurst  
Ethelbert Close, Bromley  
Fairway Gardens, Beckenham  
Farnborough Hill, Green Street Green  
Farrant Close, Orpington  
Fir Tree Close, Orpington  
Fox Close, Orpington  
Franklin Road, Penge  
Fuller Close, Orpington  
Garrard Close, Chislehurst  
Gladstone Road, Farnborough  
Glendower Crescent, Orpington  
Glentrammon Close, Orpington  
Glentrammon Gardens, Orpington  
Goddington Lane, Orpington  
Grays Farm Road, St Pauls Cray  
Grays Road, Biggin Hill  
Greatwood, Chislehurst  
Green Lane, Chislehurst  
Greenfield Drive, Bromley  
Greenleigh Avenue, St Pauls Cray  
Hackington Crescent, Beckenham  
Hanley Place, Beckenham  
Hannah Close, Beckenham  
Hanover Drive, Chislehurst  
Hardings Lane, Penge  
Harmony Way, Bromley  
Haven Close, Mottingham  
Hawkinge Walk, St Pauls Cray  
Hawkwood Lane, Chislehurst  
Hawstead Lane, Chelsfield  
Hazel Walk, Bromley  
Hazel Wood Road, Cudham  
Heathfield, Chislehurst  
High Elms Road, Downe  
High Street, Penge  
High Street, St Mary Cray  
High Street, Chislehurst

Highbury Close, West Wickham  
Highfield Avenue, Orpington  
Highfield Road, Biggin Hill  
Highwood Drive, Orpington  
Hillcrest Road, Biggin Hill  
Hilldown Road, Hayes  
Hillside Lane, Hayes  
Hillside Road, Shortlands  
Hillview Road, Orpington  
Hockenden Lane, St Pauls Cray  
Hollybrake Close, Chislehurst  
Homefield Close, St Pauls Cray  
Hornbeam Way, Bromley  
Horsell Road, St Pauls Cray  
Hyde Drive, St Pauls Cray  
Inchwood, West Wickham  
Irene Road, Orpington  
Jugg Hill, Biggin Hill  
Julian Road, Orpington  
Kelsey Square, Beckenham  
Kent Close, Orpington  
Kent House Road, Beckenham  
Keswick Road, Orpington  
Kingsmead, Biggin Hill  
Knights Ridge, Chelsfield  
Kynaston Road, Orpington  
Laburnum Way, Bromley  
Ladycroft Way, Farnborough  
Lansdowne Place, Anerley  
Layhams Road, West Wickham  
Leamington Avenue, Orpington  
Leesons Hill, St Pauls Cray  
Leesosns Way, St Pauls Cray  
Lennard Road, Beckenham  
Letchworth Drive, Bromley  
Lime Close, Bromley  
Limes Road, Beckenham  
Limes Row, Farnborough  
Lockesley Drive, St Mary Cray  
Lullington Road, Penge  
Luxtard road, Downe  
Lynwood Grove, Orpington  
Magpie Hall Lane, Bromley  
Main Road, St Pauls Cray  
Main Road, Biggin Hill  
Malan Close, Biggin Hill  
Manorfields Close, Chislehurst

Market Meadow, St Mary Cray  
Martindale Avenue, Orpington  
Masons Hill, Bromley  
Maybury Close, Petts Wood  
Mead Road, Chislehurst  
Mead Way, Hayes  
Meadow View, St Pauls Cray  
Meadside Close, Beckenham  
Mickleham Close, St Pauls Cray  
Milk Street, Bromley  
Mill Place, Chislehurst  
Montana Gardens, Beckenham  
Moorcroft Gardens, Bickley  
Morris Close, Orpington  
Mortimer Road, Orpington  
Murray Road, St Pauls Cray  
Newnhams Close, Bromley  
North Street, Bromley  
Northfield Close, Chislehurst  
Northumberland Gardens, Bickley  
Oak Lodge Drive, Beckenham  
Oakfield Road, Penge  
Oakhurst Close, Chislehurst  
Oatfield Road, Orpington  
Old Manor Way, Chislehurst  
Old Station Yard, Hayes  
Oleander Close, Farnborough  
Orchard Green, Orpington  
Orchard Square, Orpington  
Osgood Avenue, Orpington  
Palace Grove, Anerley  
Palace View, Bromley  
Palmerston Road, Farnborough  
Park Road, Chislehurst  
Park Road, Beckenham,  
Parkland Mead, Bickley  
Parkside Close, Penge  
Peel Road, Farnborough  
Perry Hall Road, Orpington  
Perry Street, Chislehurst  
Piermont Place, Bickley  
Pinewood Close, Orpington  
Pitt Road, Farnborough  
Place Farm Avenue, Orpington  
Plawsfield Road, Beckenham  
Pleasant View Place, Farnborough  
Poverest Road, St Mary Cray

Prince Imperial Road, Chislehurst  
Priory Close, Chislehurst  
Puffin Close, Beckenham  
Pump House Close, Shortlands  
Queen Anne Avenue, Shortlands  
Queens Passage, Chislehurst  
Queens Road, Chislehurst  
Ramsden Road, Orpington  
Red Hill, Chislehurst  
Redroofs Close, Beckenham  
Regency Mews, Beckenham  
Ringshall Road, St Pauls Cray  
Rookery Gardens, St Mary Cray  
Rosecroft Close, Biggin Hill  
Royal Parade, Chislehurst  
Rydal Drive, West Wickham  
School Road, Chislehurst  
Selwyn Place, St Pauls Cray  
Shepherds Green, Chislehurst  
Shire Lane, Farnborough  
Silverdale Road, St Pauls Cray  
Single Street, Biggin Hill  
Slades Drive, Chislehurst  
South Street, Bromley  
Southwater Close, Beckenham  
Spring Gardens, Chelsfield  
Springfield Road, Bromley  
Springholm Close, Biggin Hill  
St Benjamins Drive, Chelsfield  
St George's Road, Beckenham  
St John's Road, Petts Wood  
St Mary's Green, Biggin Hill  
St Mary's Grove, Biggin Hill  
St Peter's Lane, St Pauls Cray  
St Timothy's Mews, Bromley  
Standard Road, Downe  
Stanley Road, Orpington  
Star Lane, St Mary Cray  
Starts Close, Farnborough  
Starts Hill Avenue, Farnborough  
Station Road, St Mary Cray  
Station Road, Penge  
Stockwell Close, Bromley  
Stonegate Close, St Pauls Cray  
Sunningvale Avenue, Biggin Hill  
Swivelands Road, Biggin Hill  
Sylvan Walk, Bickley



The Glade, Bickley  
The Retreat, Chelsfield  
The Ridge, Orpington  
The Woodlands, Chelsfield  
Thorndon Close St Pauls Cray  
Thornton Road, Bromley  
Tillingbourne Green, St Mary Cray  
Tower Close, Orpington  
Towncourt Lane, Petts Wood  
Tubbenden Close, Orpington  
Tubbenden Lane South, Orpington  
Tudor Close, Chislehurst  
Tudor Road, Beckenham  
Tudor Way, Petts Wood  
Turners Meadow Way, Beckenham  
Turpington Close, Bromley  
Valley View, Biggin Hill  
Vanburgh Close, Orpington  
Vicarage Drive, Beckenham

Viewlands Avenue, Biggin Hill  
Vine Road, Orpington  
Walnuts Road, Orpington  
Waring Close, Orpington  
Warning Drive, Orpington  
Warren Road, Chelsfield  
Weller Place, Downe  
Wells Road, Bickley  
West Common Road, Hayes  
Wimpole Close, Bromley  
Wireless Road, Biggin Hill  
Wirral Wood Close, Chislehurst  
Woodcote Drive, Orpington  
Woodland Way, West Wickham  
Woodlands Close, Bickley  
Worlds End Lane, Orpington  
Wynford Grove, St Pauls Cray  
Yeovil Close, Orpington

## **Appendix 2 - Ornate/ heritage lanterns to be retrofitted**

Adelaide Road, Chislehurst  
Alexander Road, Chislehurst  
Anerley Grove, Anerley  
Anerley Hill, Anerley  
Armstrong Close, Bickley  
Ashfield Close, Beckenham  
Auckland Road, Anerley  
Autumn Grove, Bromley  
Barnmead Road, Beckenham  
Beckford Drive, Orpington  
Belvedere Road, Anerley  
Bucks Cross Road, Chelsfield  
Camden Park Road, Chislehurst  
Camden Way, Chislehurst  
Chancery Lane, Beckenham  
Charlotte Park Avenue, Bickley  
Chatterton Road, Bromley  
Church Lane, Chislehurst

Church Road, Farnborough  
Church Road, Chelsfield  
Church Road, Bromley  
Cintra Park, Anerley  
Claremont Close, Farnborough  
College Slip, Bromley  
Coniscliffe Close, Chislehurst  
Crystal Palace Station Road, Anerley  
D'arcy Place, Bromley  
Edward Road, Chislehurst  
Elm Bank Drive, Bromley  
Fairway Gardens, Beckenham  
Fox Hill, Anerley  
Green Lane, Chislehurst  
Greenfield Drive, Bromley  
Greenleigh Avenue, St Pauls Cray  
Heath Park Drive, Bickley  
High Elms Road, Downe

High Street, St Mary Cray  
High Street, Farnborough  
High Street, Downe  
High Street, Chislehurst  
High Street, Orpington  
Highbury Close, West Wickham  
Homefield Close, St Pauls Cray  
Hyde Drive, St Pauls Cray  
Kelsey Lane, Beckenham  
Kelsey Square, Beckenham  
Ladycroft Way, Farnborough  
Lansdown Place, Anerley  
Ledrington Road, Anerley  
Lime Close, Bromley  
Limes Road, Beckenham  
Limes Row, Farnborough  
Loop Road, Chislehurst  
Luxted Road, Downe  
Main Road, St Pauls Cray  
Maple Road, Penge  
Meadside Close, Beckenham  
Milk Street, Bromley  
Mill Place, Chislehurst  
Moorcroft Gardens, Bickley  
Mosslea Road, Bromley  
North Street, Bromley  
Northfield Close, Chislehurst  
Northumberland Gardens, Bickley  
Oakhurst Close, Chislehurst  
Oakwood Close, Chislehurst  
Old Hill, Chislehurst  
Osgood Avenue, Orpington  
Palace Grove, Anerley  
Palace Road, Bromley  
Park Road, Chislehurst  
Parkside Close, Penge  
Piermont Place, Bickley  
Plawsfield Road, Beckenham  
Pleasant View Place, Farnborough  
Poverest Road, St Mary Cray  
Pump House Close, Shortlands  
Queens Passage, Chislehurst  
Queens Road, Chislehurst

Redroofs Close, Beckenham  
Regency Mews, Beckenham  
Rosecroft Close, Biggin Hill  
Royal Parade, Chislehurst  
Rydal Drive, West Wickham  
South Street, Bromley  
Southwater Close, Beckenham  
St Benjamins Drive, Chelsfield  
St George's Road, Beckenham  
St Pauls Cray Road, Chislehurst  
St Timothys Mews, Bromley  
Station Road, Penge  
Station Road, St Mary Cray  
Sylvan Walk, Bickley  
The Chenies, Petts Wood  
Tudor Road, Anerley  
Tudor Road, Beckenham  
Vicarage Drive, Beckenham  
Walpole Road, Bromley  
Warren Road, Chelsfield  
Watts Lane, Chislehurst  
Weller Place, Downe  
West Street, Bromley  
Wirral Wood Close, Chislehurst  
Yester Park, Chislehurst