

**REPORT TO: ECONOMIC DEVELOPMENT AND INFRASTRUCTURE SERVICES COMMITTEE ON 13 MARCH 2012**

**SUBJECT: REVENUE BUDGET 2012/2013 – ROADS MAINTENANCE**

**CAPITAL BUDGET 2012/2022 – RESURFACING, BRIDGES, PASSING PLACES, LIGHTING COLUMN REPLACEMENT AND LIGHTING IMPROVEMENTS**

**BY: CORPORATE DIRECTOR (ENVIRONMENTAL SERVICES)**

**1. REASON FOR REPORT**

- 1.1 To ask the Committee to approve detailed plans for the expenditure of funds allocated from the Revenue Budget 2012/2013 to roads maintenance and from the Capital Budget 2012/2022 to resurfacing/reconstruction/surface dressing, bridges, footways, drainage, passing places, lighting column replacement, hydro network alterations and lighting improvements.
- 1.2 This report is submitted to the Committee in terms of Section G (1) of the Council's Administrative Scheme in relation to Capital and Revenue Budgets and, Section G (17) of the Council's Administrative Scheme relating to the functions of the Council as Roads Authority.

**2. RECOMMENDATION**

**2.1 The Committee is asked:**

- (a) to approve the detailed allocation of funds, from the Revenue Budget 2012/2013 to Roads Maintenance activities, as detailed in APPENDIX 1 of this report.
- (b) to agree that the capital allocations for carriageway resurfacing/reconstruction and for surface dressing are combined to allow an appropriate mix of such works to minimize whole life cost and to agree the allocation of these funds, as detailed in Appendix 1 of this report. Such works will be in accordance with the Prudential Code for Capital Finance in Local Authorities,
- (c) to agree that the capital allocation for drainage and ironworks becomes the allocation for drainage and other works.
- (d) to grant authority to the Roads Maintenance Manager to proceed with necessary roads maintenance works whilst noting that the Roads Maintenance Manager will, as soon as possible, publish a main list of schemes, which can be funded by the budget provision recommended in this

**report, and a reserve list of desirable schemes, which cannot presently be funded, along with a list of projects to be funded from the Capital allocation.**

- (e) to note that the list of schemes will be drawn up in accordance with the principles and objectives detailed in this report, in the Roads Asset Management Plan (see separate report to this Committee), and in the Capital Plan 2012-2022 reported to the Moray Council on the 17 January 2012.**
- (f) to grant delegated authority to the Roads Maintenance Manager to approve, in the event of any project being unable to proceed, the substitution of high priority schemes as replacements.**
- (g) to grant delegated authority to the Roads Maintenance Manager to amend the programme of planned works should works of higher priority emerge, due, for example, to a sudden deterioration in condition, to the consequential effects of winter or flooding.**

### **3. BACKGROUND**

- 3.1 Reference is made to the allocation of capital funds for 2012/2022 at the meeting of the Moray Council on 17 January 2011 (item 3 refers) and revenue funds for 2012/2013 at the meeting of the Moray Council on 9 February 2012 (item 2 refers).
- 3.2 In approving capital funds for 2012/2022, the Council agreed to detailed reports being submitted to the appropriate Service Committee for approval. This report satisfies the above requirement as well as presenting proposals for all roads maintenance expenditure.
- 3.3 This report is submitted before the start of the next financial year to meet the committee cycle, consequently it has not been possible to prepare detailed lists of proposed maintenance works in the various categories to accompany this report. Detailed lists will be circulated to Members at a later date.
- 3.4 The Roads Asset Management Plan, which is the subject of a separate report to this Committee, describes the roads asset, its condition, a financial summary and identified risks. There are associated lifecycle plans for:
  - Carriageway
  - Footways, footpaths and cycle tracks
  - Structures
  - Street lighting
  - Street furniture
- 3.5 Lifecycle plans further describe the asset and its condition, applicable policies and procedures, if and how forward works programmes are developed and performance measures.

- 3.6 It is recognized that there are major gaps in the Roads Asset Management Plan so a number of improvement actions have been identified.

#### **4. PROGRESS DURING 2011/2012 AND CONSIDERATIONS**

##### **General**

- 4.1 The table in **APPENDIX 1** includes a summary of estimated outturn expenditure for 2011/2012 and proposals for 2012/2013. Capital funding is £2,588k more and roads revenue funding is the same as allocated in 2011/2012 (excluding electricity).
- 4.2 Capital budgets will be about 10% under spent. A major footway reconstruction in Forres has been delayed until next year, bridge works have not progressed and there was no requirement to use the £36k allocated to lighting – hydro network alterations.
- 4.3 It is estimated that the winter and other emergencies budget will overspend by 4%. That may seem surprising given the mild winter experienced so far this year. However, as recognized in 2012/13 revenue budget report to the Council on 9 February 2012 (reference agenda item 2), the budget for roads winter maintenance is based on mild winter weather and any adverse weather conditions would result in a budget overspend. **APPENDIX 2** shows some trends related to winter maintenance.
- 4.4 Electricity costs have risen by 13% over the year.
- 4.5 Routine maintenance works cannot be funded from Capital – the Prudential Code requires that works funded from capital add value to the asset as against maintaining the asset value. The allocation to general maintenance covers reactive and cyclical work which is vital to ensuring the safety of users of the network.

##### **Reserve List**

- 4.6 Details to be provided to Members at a later date will include the reserve list – a list of desirable works that cannot be funded. **APPENDIX 3** is a summary of the value of reserve list works from 1999 to February 2012.

There are various aspects that will have an effect on the value of the reserve list. These include:

- Inflation
- Available budget
- Enhanced condition information from the Scottish Road Maintenance Condition Survey (SRMCS)
- More comprehensive inspection of bridges and other structures
- More use of the reserve list database to record desirable works
- Mix of work, for example, high value resurfacing or low value drainage

- 4.7 Staff are inspecting roads now, to inform the programme of works for 2012/13. The list will be updated from those inspections and is yet to be fully updated to reflect inflation during 2011/12. Figures for desirable bridgeworks have been brought up to date, adding £5 million to the value of the reserve list.

The reserve list provides a subjective measure of the backlog of works necessary to bring the roads network into good condition. It is not comprehensive. There will always be a backlog of work. The Roads Asset Management Plan provides further supporting information.

### **Roads Maintenance**

## **5. GENERAL PROPOSALS**

- 5.1 The table in **APPENDIX 1** contains summary details of recommended expenditure against work type for 2012/2013.

### **Resurfacing/reconstruction/surface dressing**

- 5.2 The mix of work proposed in 2012/13 has been determined to maintain or improve on current carriageway condition as measured by the Scottish Road Maintenance Condition Survey (SRMCS) over the life of the 2012 – 2022 capital plan and as reported in the Roads Asset Management Plan.
- 5.3 Annual road construction inflation of 8% is assumed.
- 5.4 Over the last two years, £310k has been spent on a proprietary process which rejuvenates bitumen surface layers using bitumen emulsion and surface dressing. For lighter trafficked roads, this is a promising half way house between full resurfacing and surface dressing with reduced carbon emissions compared to more traditional treatments. It is likely that further cautious use will be made of such treatments, which can only be judged over the longer term.

### **Surface Dressing**

- 5.5 Surface dressing funded from the capital allocation is a necessary component of surfacing using bitumen macadams – to seal the surface as these materials are not fully impermeable. Surface dressing funded from revenue is used to restore texture to road surfaces and to prevent further deterioration of road surfaces. Surface dressing is an important treatment to maintain carriageway condition. It is proposed to increase the total budget for surface dressing by £360k or 41%.

### **Footway Works**

- 5.6 The budget for footway works has increased to £400k plus a £84k carry over due to a delay in starting a planned scheme in Forres. As yet there is no

developed process to formally assess footway condition and future deterioration. The reserve list value of desirable footway works stands at £4.6 million. It is hoped to hold the condition of footways and to progress formal condition assessments.

### **Drainage and Other Works**

- 5.7 Whilst the entry in the capital plan refers to drainage and ironworks, this allocation usually includes for work on other assets such as safety barrier. This work has, in the past, been mostly funded from the revenue budget but an increase in the capital allocation to £560k means this is no longer necessary, thus relieving some of the pressure on work streams that can only be funded from revenue.
- 5.8 Drainage works are vital to protecting the roads asset – even the most basic tracks will last longer if they are well drained. Because existing drainage can be hidden or because drainage schemes often go into adjacent land, the staff time to investigate and design solutions to problems can be extensive. Typically this work is left to be carried out in the autumn/winter, after other more weather sensitive works have been completed. The budget is therefore prone to being cut due to other pressures as occurred this year (2011/12).
- 5.9 Drainage will become more of an issue in future years, as a focus is put on the effects of climate change and the Government publishes guidance on measures necessary to mitigate against increased and more intense rainfall.

### **Bridges**

- 5.10 The bridges team adopted a widely used (UK standard) inspection regime for bridges three years ago. A full set of data is now available from these inspections. As reported in the Roads Asset Management Plan, the majority of bridges in Moray are in a 'fair' to 'very good' condition.
- 5.11 The maintenance strategy is to direct capital spending on the 'poor' category or where the bridge assessment programme has indicated that strengthening or replacement is required. Otherwise, risk relating to these poor or understrength bridges is managed either by imposing weight limits or by more frequent monitoring.
- 5.12 Two bridges which will require significant funding over the next ten years (to avoid imposing weight restrictions) are:-
- B9103 Arthur's Bridge - significant corrosion of the steel reinforcement. At present this is monitored every six months however a cost benefit analysis has been carried out and replacement of the deck is the preferred solution.
  - B9103 Boat o Brig - significant corrosion of the steel reinforcement requiring either major repairs or replacement of the whole concrete deck. This will be the subject of a future report to committee once options have been costed.

- 5.13 Options for funding will include consequential effects of delaying maintenance of other roads assets.

### **Passing Places**

- 5.14 The provision of additional passing places on single track minor roads improves road safety and reduces verge over run damage. With a small budget allocation of £45,000, priority is given to those locations where no land purchase is required or where adjacent landowners are prepared to cooperate with the Council to allow extension of the road boundary at minimal cost.

### **Lighting**

- 5.15 The table below shows number of columns removed and number erected over the last two years with indicative numbers based on the budget allocation for 2012/13.

<b>Budget £'000</b>	<b>2010/11</b>		<b>2011/12</b>		<b>2012/13 estimate</b>	
	<b>No of columns removed</b>	<b>No of columns erected</b>	<b>No of columns removed</b>	<b>No of columns erected</b>	<b>No of columns to remove</b>	<b>No of columns to erect</b>
			Last years estimate in brackets			
<b>Capital Column replacement</b>	317	325	325 (310)	266 (330)	225	210
<b>Capital Lighting Improvement</b>	88	82	46 (110)	49 (100)	50	45

In addition, 467 lanterns were replaced in 2011/2012 (forecast 120). It is forecast that 200 lanterns will be replaced in 2012/13.

- 5.16 The mix of work in lighting, following detailed design, was different from that forecast and there has been some underspend of capital allocation. This explains why column replacement from lighting improvements is down and lantern replacement is up.
- 5.17 Improved lighting has typically less lamps, using less power to produce more effective whiter light. Predicted energy savings for 2011/12 are 111,300kW or £10,017 based on current energy rates.
- 5.18 The Street Lighting Lifecycle Plan within the Roads Asset Management Plan, describes this asset group and forecasts future financial pressures.

- 5.19 There was a significant reduction in energy costs of £98k per annum between 2009/10 and 2010/11. That will be negated by Distribution Use of System (pass through) charges for 2012/13 which will rise, in the Scottish and Southern Energy area by 16% next year. This matter has been referred to Cosla. When added to the raw energy increase of 10% next years unit rate will be in the region of 12.1p per unit.
- 5.20 The objective, in determining column replacement schemes, will be to maximise the reduction in numbers of columns in excess of 30 years old, having regard to those which have deteriorated to the greatest degree. Any system of lighting so replaced will be designed to current standards using modern, energy efficient components.
- 5.21 The objective, in determining lighting improvement schemes, will be to replace unreliable systems of lighting and/or those which do not provide lighting that is fit for purpose. A secondary consideration will be the age and condition of the lighting columns.
- 5.22 A trial scheme has been installed in Nether and Upper Dallachy, to help evaluate the cost and potential benefit of LED (light emitting diode) lighting. LED Lighting is more expensive to install but should provide very reliable, low energy lighting systems.

### **Traffic Works**

- 5.23 It is proposed to increase the revenue budget allocated to traffic works (signs and lines) by 16% to £180k, particularly to improve maintenance of road markings.

### **Private (Unadopted) Roads**

- 5.24 There are some 180 roads listed as Private (Unadopted), with a total length of 45.2km. Following last year's budget consultation and reduction, no revenue budget was allocated to maintaining the surface of these private roads. The Council has continued to receive a number of representations from frontagers affected by this. Given that the revenue budget allocated to roads maintenance has not increased, and given future pressures forecast in the 2012/13 Revenue Budget Report by the Corporate Director (Corporate Services), no budget allocation is proposed.
- 5.25 It may be that this Committee would wish to more fully debate issues surrounding these Private (Unadopted) Roads and call for a report to a future Committee.

### **General Maintenance**

- 5.26 It is proposed that the sum allocated to general maintenance, the routine, cyclical and day to day maintenance of the network, be increased by £131k, to match the estimated expenditure for 2011/12. If this budget is exhausted, urgent and necessary works will have to supplant more planned activities detailed above where these are funded from the revenue allocation.

### **Lighting Maintenance**

- 5.27 This budget has remained the same for a number of years but has been under pressure. An 8% increase is proposed to £280k.

## **6. DETAILED PROPOSALS**

- 6.1 Members are asked to note that, for reasons referred to in paragraph 3.3, they have not been issued with specific proposals for maintenance works in the various categories but are being asked to approve the monetary allocations to the various types of work.
- 6.2 As in previous years, the Roads Maintenance Manager will, as soon as possible, publish a main list of schemes that can be funded by the budget provision recommended in this report, and a reserve list of desirable schemes, which cannot presently be funded, along with a list of projects to be funded from Capital. Practicalities dictate that some of these works will have started in advance of the full list being available. Notwithstanding budget constraints, response repair works will be required throughout the forthcoming year, to maintain the roads in a safe condition.
- 6.3 Members are asked to appreciate that priority will be given to schemes on the basis of engineering judgement and safety issues, and many of those will have been placed ahead of schemes identified from public requests.
- 6.4 Funding priorities will therefore continue to be directed towards essential maintenance works – resurfacing, surface dressing, patching, drainage, street lighting, bridge maintenance, verge maintenance, road markings and signing for safety.
- 6.5 Members are asked to consider that if public requests for additional works are received during the course of the financial year, they be assessed, and unless they constitute an immediate safety hazard, are added as appropriate to the Reserve Lists for consideration in future years programmes based on priority and budget provision.
- 6.6 In formulating these recommendations, staff have given, and will give, their best consideration, from the information available, to recommending works that will maintain the roads network in as serviceable a condition as possible whilst aiming to minimise whole life costs in so far as budgets allow.

## **7. SUMMARY OF IMPLICATIONS**

### **(a) Single Outcome Agreement/ Service Improvement Plan**

Addressing the transport infrastructure is one of the ten key priorities in the 2009 Single Outcome Agreement.



**(b) Policy and Legal**

The Council is responsible for the maintenance of 1541km of road, 474 bridges, and 17,097 street lighting units, which have been adopted by the Local Authority in terms of the Roads (Scotland) Act 1984. The Act places a duty on the Local Authority to maintain the roads, lighting units and structures so adopted, but does not prescribe the level of maintenance to be delivered.

Codes of Practice for Highway Maintenance Management, Management of Highway Structures and for Highway Lighting Management identify good practice and consideration has to be given to this advice.

The Council have agreed standards for response to identified roads and lighting defects (public performance standards).

The Council's Winter Maintenance Policy and Procedures set out requirements in relation to provision of a winter maintenance service.

**(c) Financial implications**

The proposals detailed in this report can be accommodated within the relevant 2012/13 revenue and capital allocation which are:

Capital	£5,968,000
Revenue	£4,831,941 (excluding electricity charges)

Electricity charges are forecast to rise significantly in 2012/13.

**(d) Risk Implications**

There is a risk of exceeding revenue budget although every attempt will be made not to do so. General maintenance budgets are considered to be the minimum required. In particular, winter budgets are likely to be exceeded as the amount allocated is below the average cost of winter based on the last 9 years.

**(e) Staffing Implications**

There are no staffing implications, however, in determining the mix of work, it is important to have regard to maintaining the size of the workforce, particularly to provide a winter maintenance service in line with Council Policy and in accordance with legislation on health and safety, driver's hours and working time directives.

**(f) Property**

There are no property implications as a result of this report.

**(g) Equalities**

There are no equalities implications as a result of this report.

**(h) Consultations**

L Paisey (Principal Accountant) has been consulted and comments have been taken into consideration.

A Scott, Legal Services Manager has been consulted and is in agreement with the report.

**8. CONCLUSION**

**8.1 The committee is asked to note the estimated expenditure against programmed expenditure set for 2011/12, to note condition of the various roads asset groups as described in this report and in the Roads Asset Management Plan and to agree the split of revenue and capital allocation to the various maintenance headings for 2012/13.**

Author of Report: Roads Maintenance Manager

Background Papers: Report to Environmental Services Committee – 8<sup>th</sup> March 2011  
Reports to the Moray Council – 17<sup>th</sup> January and 9<sup>th</sup> February 2011.

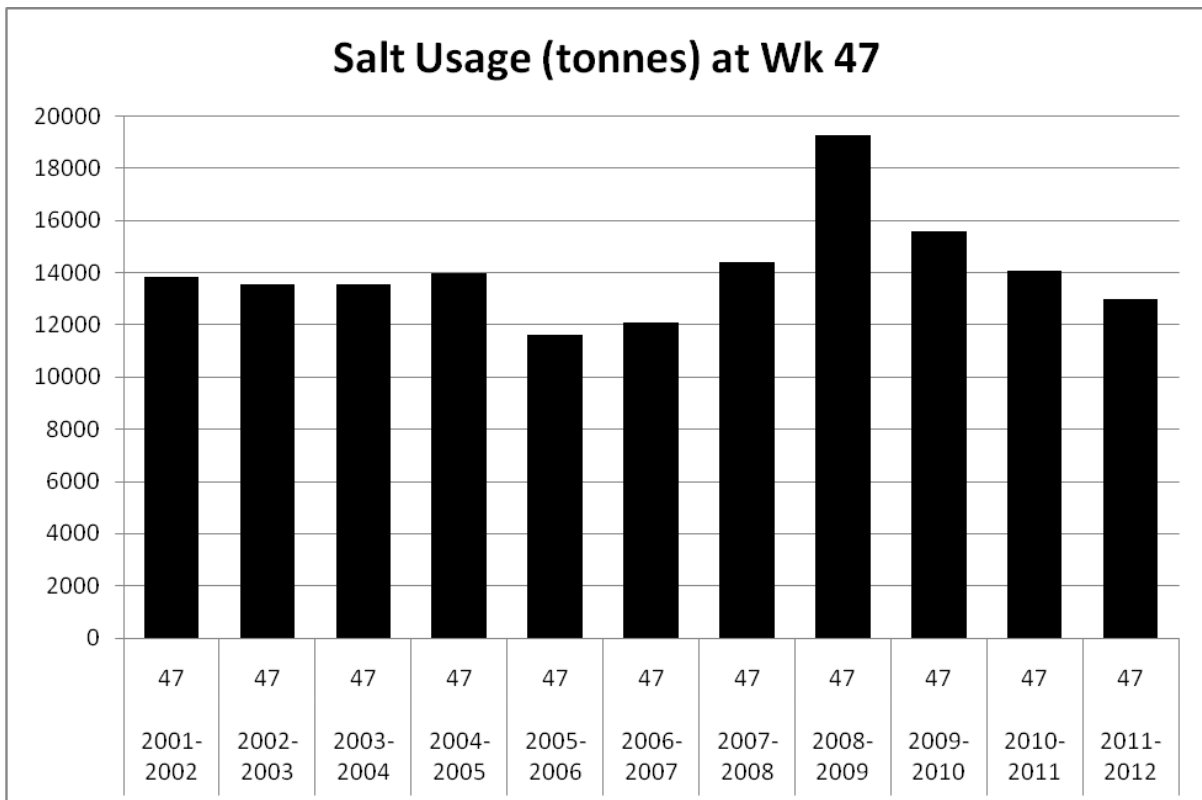
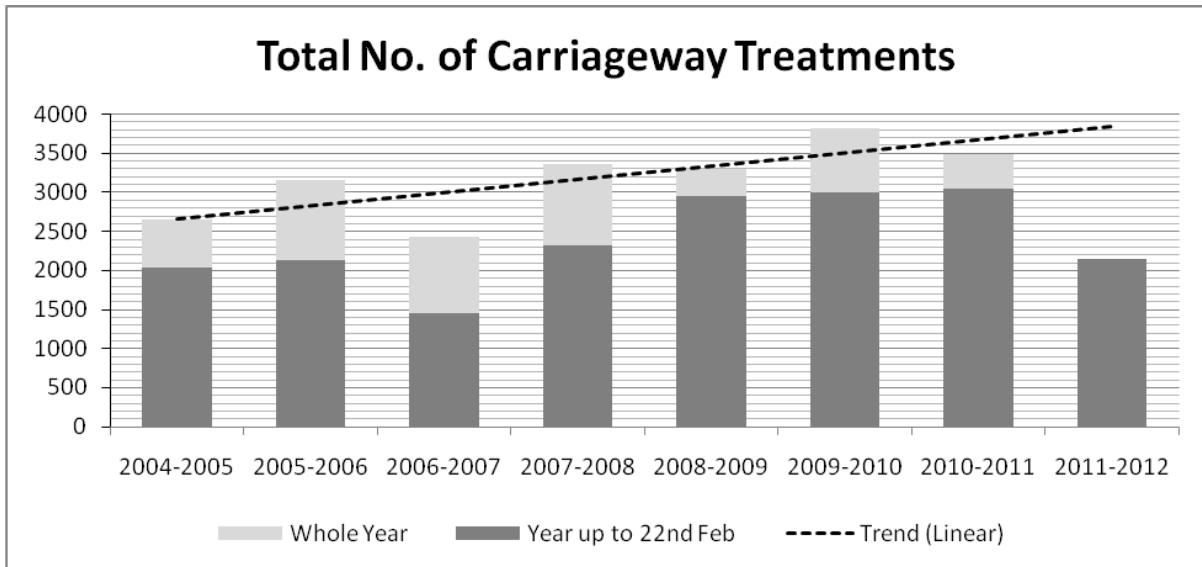
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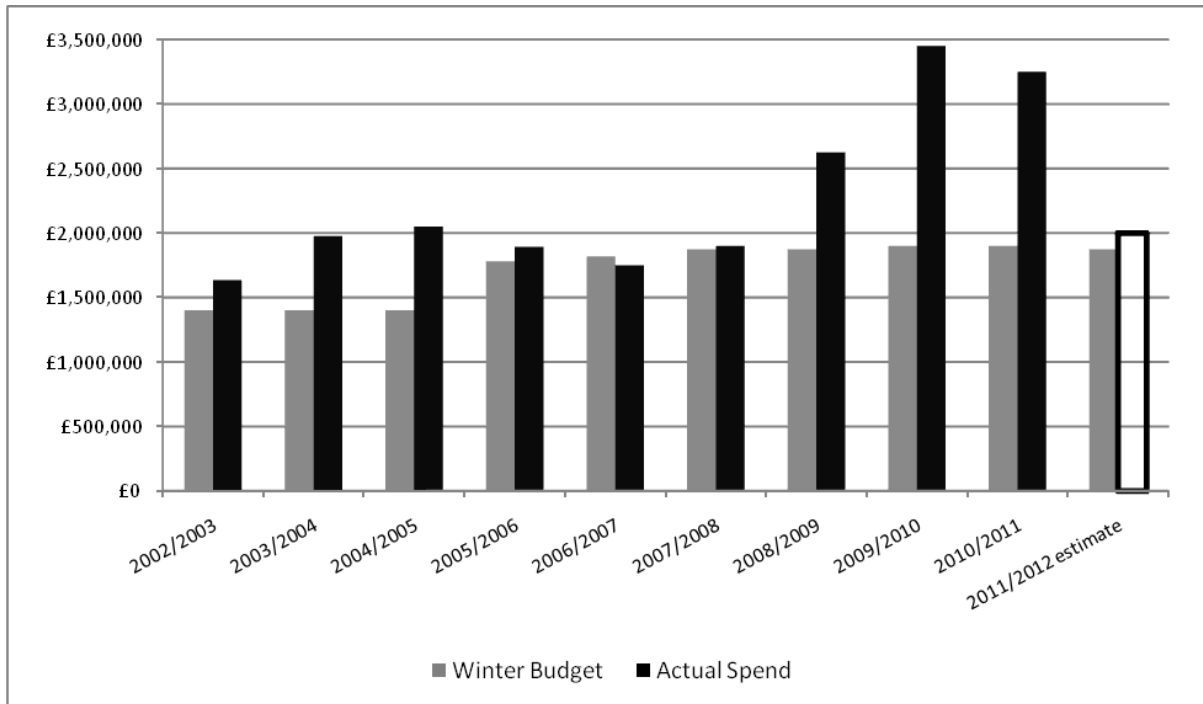
## APPENDIX 1

	2011/2012 End of Year Budget	c/f from 2010/2011	2011/2012 Estimated Expenditure	2012/2013 Proposals	plus c/f from 2011/2012
<b>Capital</b>					
Carriageway Resurfacing/Reconstruction	£1,766,000	£121,000	£1,887,000	£3,430,977	
Surface Dressing (recently resurfaced roads)	£226,000	£6,000	£244,000	£553,023	£-12,000
Footway Resurfacing/Reconstruction	£84,000	£58,000	£58,000	£64,000	£84,000
Footways, footpaths and steps				£330,000	
Bridges Non-routine Works	£220,000	£134,000	£180,000	£200,000	£174,000
Bridge assesment and strenghthening	£250,000	£53,000	£100,000	£220,000	£203,000
Drainage and Other Assets Replacements	£49,000	£29,000	£67,000	£560,000	£11,000
Passing Places	£55,000	£13,000	£73,000	£45,000	£-5,000
Lighting Improvements	£220,000	£86,000	£255,000	£145,000	£51,000
Lighting - Hydro Network Alterations	£0	£36,000	£0		£36,000
Column Replacement	£510,000	£70,000	£539,000	£420,000	£41,000
<b>Sub-total</b>	<b>£3,380,000</b>	<b>£606,000</b>	<b>£3,403,000</b>	<b>£5,968,000</b>	<b>£583,000</b>
<b>Winter Maintenance &amp; Other Emergencies</b>					
Winter Maintenance	£1,872,964		£1,953,231	£1,872,964	
Other Emergencies	£0		£45,000	0	
<b>Sub-total</b>	<b>£1,872,964</b>		<b>£1,998,231</b>	<b>£1,872,964</b>	
<b>Electricity</b>					
Signs	£16,000		£16,000	£21,170	
Lighting	£485,000		£550,000	£746,500	
<b>Sub-total</b>	<b>£501,000</b>		<b>£566,000</b>	<b>£767,670</b>	
<b>Revenue Budget (Roads Maintenance)</b>					
General Maintenance	£1,528,606		£1,653,500	£1,660,000	
Surface Dressing	£611,859		£618,752	£678,977	
Footway Works	£16,000		£17,000	£20,000	
Bridge Works	£100,000		£70,000	£100,000	
Traffic Works	£155,000		£131,000	£180,000	
Drainage and Other Works	£268,512		£130,000	£20,000	
Lighting Maintenance	£259,000		£275,000	£280,000	
Transportation Studies	£20,000		£20,000	£20,000	
<b>Sub-total</b>	<b>£2,958,977</b>		<b>£2,915,252</b>	<b>£2,958,977</b>	
<b>TOTAL</b>	<b>£8,712,941</b>		<b>£8,882,483</b>	<b>£11,567,611</b>	<b>£583,000</b>

Items shaded grey were adjustments to budget.

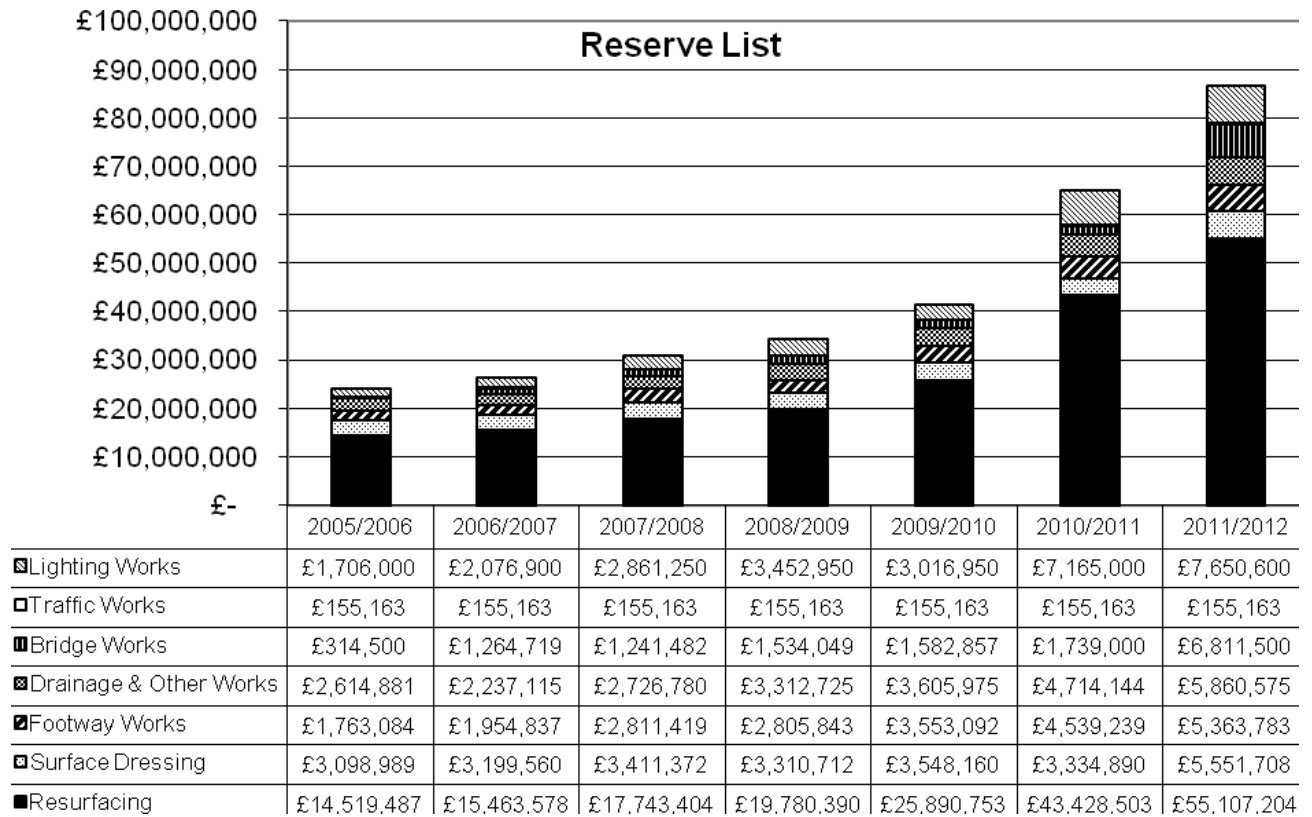
**APPENDIX 2**





- Excluding least and most costly years, average expenditure = £2,205,539.
- Costs in 2009/10 and 2010/11 would have been greater had salt been more readily available from suppliers.

## APPENDIX 3



- Bridges desirable works data now up to date.
- Footway and resurfacing updated for inflation.