Herefordshire Council

DECISION MAKER:	**CABINET - HIGHWAYS AND TRANSPORTATION**
DECISION DATE:	**25 JULY 2013**
TITLE OF REPORT:	**MAJOR INVESTMENT IN HIGHWAY INFRASTRUCTURE ASSETS**
REPORT BY:	**HEAD OF HIGHWAYS AND COMMUNITY SERVICES**

1. Classification

Open

2. Key Decision

This is a Key Decision because it is likely to result in the Council incurring expenditure which is, or the making of savings which are, significant having regard to the Council's budget for the service or function to which the decision relates.

This is a Key Decision because it is likely to be significant in terms of its effect on communities living or working in an area comprising one or more wards in the County.

NOTICE has been served in accordance with Part 3, Section 9 (Publicity in connection with key decisions) of The Local Authorities (Executive Arrangements) (Meetings and Access to Information) (England) Regulations 2012

3. Wards Affected

County-wide

3. Purpose

To highlight and agree the need for additional investment in improvement in county road conditions and to delegate the approval of the detailed case and programme for such investment to officers.

4. Recommendation(s)

THAT:

a. **Cabinet authorises the Director for Places and Communities (in consultation with the Chief Officer Finance and Commercial) to develop the detailed business case for investment in improvement in road conditions.**

b. **That the detailed business case and associated programme of works shall be developed to enable works to commence from the spring of 2014.**

c. **Cabinet authorises the Director for Places and Communities, subject to the Chief Officer Finance and Commercial being satisfied that that the business case for investment represents value for money, to proceed with the delivery of the programme of works to improve the condition of roads in accordance with the key performance parameters established in the detailed business case;**

5. Alternative Options

5.1 That additional investment is not made and the Council continues to maintain Herefordshire's roads in accordance with sound asset management practices but wholly within the maintenance allocations and grant funding made available by Central Government.

6. Reasons for Recommendations

6.1 Strategic modelling of the condition of the carriageway asset over its lifecycle identifies that the up-front investment in the order of an extra £20Million (this equates to £34Million approx. of capital highway maintenance works over 2 years, as opposed to the typical £7Million per annum that is typically invested in this area of work) in highway maintenance would deliver significant benefits. This would create an environment where road condition can be sustained across all asset groups by on-going investment at current levels.

As a consequence the demand for reactive repairs in response to safety defects should be reduced. This in turn would reduce the risk to the travelling public, enhance public satisfaction with roads and support the local economy.

Further benefits are anticipated as this will reduce the demand on the Council's revenue budgets through reducing the risk associated with fixing roads that are deemed to be out of repair and claims by third parties for damages.

7. Key Considerations

Scale of the Need

7.1 The highway asset is the largest physical asset that is managed by the council. It extends to over 2000 miles in length and has a financial value in excess of £2.6 Billion (Gross Replacement Cost or GRC).

7.2 In 2012 the level of depreciation in the carriageway asset was measured at £94 Million (Deprecation being the difference between the GRC and the Depreciated Replacement Cost (DRC)). This figure represents the scale of investment that is needed to return the roads to as-new condition throughout. This figure has been calculated on the basis set out in the CIPFA Code of Practice on Transport Infrastructure Assets – Guidance to support Asset Management, Financial Management and Reporting (published March 2010) all as required by HM Treasury for Whole Government Accounts. The value taking full account of the condition of the asset at that time.

7.3 Whilst the asset comprises of many components including bridges, lighting, footways, cycleways and street furniture; the carriageway (roads) makes up by far the greatest proportion of the asset with a GRC of over £2.4 Billion.

7.4 It is the state of our roads that is the source of greatest concern to all highway users, be they drivers, pedestrians or cyclists. This concern is clearly reflected in the National Highway & Transport (NHT) network public opinion survey return for Herefordshire, and our 4th quartile performance for satisfaction with the condition of road surfaces at 26.89% satisfaction. This in stark contrast with our 1st quartile performance for winter service, which is in the top 3 nationally.

7.5 The 2012 Herefordshire Quality of Life Survey also identifies road and pavement repairs as an area that is most in need of improvement and a priority (i.e. both important and in need of improvement).

7.6 In addition to the high level of concern expressed by our customers, there is increased risk of damage to vehicles and personal injury as the condition of our roads deteriorates. This has resulted in increased levels of claims against the council as the highway authority. Whilst the highway authority does exercise its statutory defence against such claims under section 58 of the Highways Act 1980, increases in the levels of such claims will inevitably lead to increases in both direct cost to the council's revenue budgets (in the response to claims that cannot be defended, in the defence of claims and insurance premiums)

7.7 The above is clear evidence that the state of our roads is something that is important to the County's health, wellbeing and economy.

Current Performance

7.8 The County's roads are the subject of condition surveys each year and comparison of this technical view of condition sees our Principal Roads (A roads) typically performing in the 2nd Quartile nationally and our Non-Principle Classified Roads (B and C Roads) in the 3rd Quartile.

7.9 Revenue spend on highway maintenance in Herefordshire is amongst the very lowest per head of population and Km length in the country.

7.10 Capital expenditure on roads is made available by Central Government through the Local Transport Plan and the 'Maintenance Block Allocation', as derived through a formula by the Department For Transport (DfT).

The Impact of Severe Weather

7.11 Over resent winters severe weather has had a significant negative impact on the condition of our roads. In response to these conditions, Central Government has assigned additional funding with a proportion, by DfT formula, being allocated to Herefordshire's roads. However, the level of funding received has fallen short of the sums required to address the assessed 35% (approximate) increase in the level of deterioration in the asset over each severe winter. In addition to this persistent flooding during 2012 caused significant damage to highway assets. Whilst this

impairment has been addressed in part through Bellwin funding, this has only allowed the most severe damage to be addressed and not the associated accelerated deterioration in the asset.

7.12 Roads that are in need of maintenance are also less resilient to the impact of weather. Underlying condition is a product of historic underinvestment in the maintenance of the highway asset over decades. This is a circumstance that is reflected nationally but is particularly acute in counties, such as our own, that have high proportion of rural minor roads. Many of these roads have evolved and do not have a construction that is designed to cater for the loads and/or volumes associated with modern traffic.

Central Government Response

7.13 This legacy of underinvestment is fully acknowledged by Central Government and on the 27 June 2013 the Chief Secretary to the Treasury presented a plan to Parliament entitled Investing in Britain's Future. The plan they states that 'Roads underpin a free-flowing and successful economy but have suffered from massive historic underinvestment. This trend, when combined with a model of delivery, has served to hold back the country's transport infrastructure for the worse. The result of this underinvestment is that UK is currently ranked 24th in the world for quality of roads. France is currently first, Germany is 10th, and Spain is 13th in the world.'

7.14 The plan proposes to 'support local authorities to repair the local road network, investing nearly £6 billion over the next Parliament to tackle the significant maintenance backlog that exists today.'

7.15 It is not yet clear how this funding will be distributed amongst local authorities and as any funding will not be available for two years it is recommended that appropriate action is taken locally to address Herefordshire's needs. Our investment planning will however, need to adapt accordingly as further announcements are made.

Herefordshire's Approach to the Management of the Highway Asset

7.16 The continued development of sound asset management is integral to improving the condition of our roads. Asset management is a strategic approach that identifies the optimal allocation of resources for the management, operation, preservation and enhancement of the highway infrastructure to meet the needs of current and future customers. In Herefordshire we have been developing our asset management techniques to understand the challenges we face and identify the means of delivering better outcomes for our customers within the constraints of increasingly limited public funds.

7.17 Through our active involvement with groups such as the Midlands Service Improvement Group (MSIG) and the West Midlands Highway Alliance, Herefordshire Council has actively participated in the development of asset management practices in the highways sector. This has supported our development (in draft) our Transport Asset Management Plan and enabled us to embed sound asset management practices in the contracts with our service providers. Recently the Highways Maintenance Efficiency Programme (HMEP) has published Lifecycle Planning

Toolkits that have enabled us to model the impact of various investment and treatment scenarios on the condition of our roads over the projected life of the asset.

7.18 We have used the HMEP Carriageway Lifecycle Planning Toolkit to establish the asset lives for each class of road, and as a result to amend the asset life used to for the purposes of calculating depreciation in our accounts. The average is asset live across all carriageway asset groups is 34 years. When accounting rules change from recording depreciated historic cost we intend to align the asset register with the road class that are being used by the Highway Service in its asset management regimes.

Homogeneous Asset Group	Asset Life (years)
A Road: Urban	29
A Road: Rural	24
B Road: Urban	31
B Road: Rural	30
C Road: Urban	35
C Road: Rural	33
UC Road: Urban	38
UC Road: Rural	39

7.19 This work has also helped establish the parameters used for the capitalisation of highway maintenance expenditure.

7.20 Having established asset lives through lifecycle planning, we have moved on to developed the detail within our model and project future condition based on a 'steady state' at current funding levels. The output of this work can be used to test the viability of any invest to save investment proposal. The results of the 'steady state' model are summarised in Appendix A

7.21 In their report entitled 'Going the distance – Achieving better value for money in road maintenance' published in May 2011, the Audit Commission recognise that Council's need to reconcile short term problems and long term priorities and that the importance of making the right choice in the delivery of the maintenance strategy is key to improving value for money in road maintenance. The report's recommendations include the following:

- Clarity over how we intend to respond to current pressures while minimising whole-life costs of local roads;
- Setting services standards that we can afford;
- The publication and explanation of our approach to road maintenance;
- Applying asset management principles when making investment decisions;
- Addressing the barriers to greater joint purchasing and collaboration;
- Better decisions though clear and focused asset management plans and through better data about the road network;
- Improved cost-effectiveness by sharpening procurement through analysing cost variations; efficiencies through collaboration; working closely with

contractors to reduce costs and secure innovation; being robust in defending road user compensation claims and working with utilities to reduce the number of road openings and to improve reinstatements;

- Working with professional bodies to determine the optimal balance between planned and unplanned maintenance of the local road network.

We have embraced these recommendations in our approach to service design and the procurement of our Public Realm Services and the development of this the case for major investment in the highway asset, and will continue to do so.

Optimising the Approach to Investment in the Carriageway Asset

7.22 To test the proposed approach to investment in the carriageway asset we have modelled three invest to save scenarios: the first is based on the provision of an extra £20 Million of 'up front' investment; the second is based on an 'up front' extra over investment of £10 Million; and the third is based on an initial extra over investment of £10 Million that is followed up in five years with a further £10 Million extra over investment.

7.23 All the above scenarios assume a regular capital investment of £7 Million which is consistent with the levels of funding that have been regularly available for capital highway maintenance through the Local Transport Plan.

7.24 The basis of the extra over investment being set at £20 Million (and proportions thereof) is detailed in Appendix B. This being the approximate investment required to treat a proportion of the highway network, by class of road, that is equivalent to the proportion of those roads that had been identified as in need of maintenance following the 2011/12 road condition surveys.

7.25 The results of the modelling for each of the three scenarios described above are summarised in Appendix C.

7.26 Comparison of the four scenarios modelled (Steady State; £20 M 'up front'; £10 M 'up front'; and £10 M followed by a further £10 M) draws the following conclusions:

- The steady state is not sustainable with road condition remaining in a state of managed decline across most asset groups.
- That an extra over investment of £10 Million, whilst making an initial impact in the condition of roads, is insufficient to create the 'step change' in condition that is required to create the environment where road condition can be sustained by on-going investment at current levels.
- That the £10 M followed by £10 M approach substantially improves road condition, but fails to fully establish the environment where road condition can be sustained across all road classes by on-going investment at current levels.
- That the £20 M up front scenario can create an environment where road condition is enhanced to a level where it can be sustained across all road classes by on-going investment at current levels.

It should be noted that whilst the data used to populate the model used has been

7.27 derived from the detailed survey and analysis of Herefordshire's highway assets, the model used, is just that a model of reality and a number of valid assumptions have been used in its creation to enable its effective use. Whilst the model is sufficiently robust to determine the preferred investment profile (£20 million 'up front') at this stage, further detailed work will be required to translate the results of this strategic modelling into an efficient and effective programme of works. Similarly, further analysis will be required to establish the precise level of investment as a consequence of this strategic modelling, but it is anticipated that the scale of the additional investment required will be in the order of £20 Million.

Approach to the Development of a Detailed Business Case for Investment in the Carriageway Asset

7.28 On the 13 June 2013, as part of the report entitled Streetscene Major Procurements we reported to cabinet that one objective of the procurement of the Public Realm Services Contract was to ensure the availability of a facility for up-front investment in the highways asset. This investment being available through working with the Provider.

7.29 The Provider of Public Realm Services will develop the capital investment programme based upon the strategy identified through the strategic modelling described above. That detailed business case will need to enable a programme of activity that is designed to optimise road quality while minimising overall spend, and should demonstrate that the reduction in overall spend, particularly as a result of a reduced demand for reactive works to fix potholes (and other highway surface defects) and a reduction in the cost of related highway claims, can support the cost of investment.

That detailed business case must demonstrate that the capital investment programme does represent value for money to the Council.

7.30

8. Community Impact

8.1 As stated in paragraph 7.7 above there is clear evidence that the state of our roads is something that is important to the County's health, wellbeing and economy.

9. Equality and Human Rights

9.1 Equalities and diversity requirements have been integrated into the process through which the highway service has been procured as part of our Public Realm Services contract and an equality impact assessment will be carried out before the new delivery arrangements are in place.

10. Financial Implications

The proposal considered here includes for the detailed consideration of the source additional investment up to the sum of £20 Million. As a key component of the detailed business case the cost of repayment associated with any viable finance options will need to be fully understood.

The council has typically adopted financing options that repay prudential borrowing over the life of the asset being financed, which is now established as 34 years in the case of the carriageway asset. Initial analysis of the revenue savings indicated as achievable by the preferred bidder as part of the procurement for the Public Realm Services Contract indicates that these savings can finance the cost of repaying the investment sum over a period of 20 years. Clearly this period would be reduced if the investment sum can be reduced or grant or capital receipt funding could be contributed to reduce the borrowing requirement.

Prior to a decision being made all financing options will be considered in detail, in particular estimations of potential amounts and timescales will need to be refined so the implications that this will have on the affordability and consequential value for money is proven to represent the best use of our resources. This in the context of current pressures, projected demand and reduction in the whole life cost of the asset through sound asset management.

11. Legal Implications

11.1 The Council is the Highway Authority for all roads in Herefordshire, with the exception of Trunk roads and Motorways. As such we are under a duty to maintain the highways maintainable at the public expense. This duty is set out in section 41 of the Highways Act 1980.

The Special defence in action against the highway authority for damages for non-repair of the highway is set out in section 58 of the Highways Act. In Section 58 in defending an action in respect to damage resulting from a failure to maintain a highway maintainable at the public expense the authority must prove that such care as in all circumstances was reasonably required to secure that part of the highway to which the action relates was not dangerous for traffic. For the purposes of such a defence the court shall have particular regard to

- The character of the highway, and the traffic which was reasonably to be expected to use it;
- The standards of maintenance appropriate for a highway of that character and used by such traffic;
- The state of repair in which a reasonable person would have expected to find the highway;
- Whether the highway authority knew, or could reasonably have been expected to know, that the condition of the part of the highway to which the action relates was likely to cause danger to users of the highway;
- Where the highway authority could not reasonably have expected to repair that part of the highway before the cause of the action arose, what warning notices of its condition had been displayed.

But for the purposes of such a defence it is not relevant to prove that the highway authority had arranged for a competent person to carry out or supervise the maintenance of the part of the highway to which the action relates unless it is also proved that the authority had given him proper instructions with regard to the maintenance of the highway and that he had carried out the instructions.

As such any failure to meet this duty may result in the Council being required to repair

any adopted highway that is considered by the courts as being 'out of repair. Similarly, an inability on the part of the Council to demonstrate a reasonable system of inspection and repair may result in the failure of any defence under section 58. As a consequence the council may be required to direct its funds towards works to fix roads that are deemed to be out of repair and/or towards claims for damages.

12. Risk Management

12.1 The risks, their consequences and any mitigating actions will be considered in detail as part of the detailed business case referred to above.

13. Consultees

13.1 Balfour Beatty Living Places.

14. Appendices

Appendix A -The results of the 'steady state' model

Appendix B - The basis of the extra over investment being set at £20 Million (and proportions thereof)

Appendix C - The results of the modelling for each of the three invest to save scenarios

15. Background Papers

15.1 None identified.