

From: **Barbara Cooper, Corporate Director – Growth, Environment and Transport**

To: **Matthew Balfour - Cabinet Member for Planning, Highways, Transport & Waste**

Decision No: 17/00082

Subject: **Definition of our Resilient Highway Network**

Classification: Unrestricted

Summary: This report briefly updates the Cabinet Committee on the County Council's progress towards achieving a Band 3 Incentive Fund rating in order to avoid a reduction in capital funding provided by the Department for Transport for highway maintenance. A key requirement of the Incentive Fund is that local authorities must review and define a Resilient Highway Network so that investment in that part of that network may be prioritised. This report proposes a definition of Kent's Resilient Highway Network.

Recommendation(s):

The Cabinet Member for Planning, Highways, Transport & Waste is asked to agree the proposed criteria to be used in adopting a definition for Kent's Resilient Highway Network, as part of our wider approach to Highways Asset Management and to maximise Incentive Fund resource.

1. Introduction

1.1 This report proposes a definition for Kent's Resilient Highway Network, so that this may be used alongside other factors to prioritise capital maintenance resource on that part of the wider highway network and in turn improve the county's resilience against extreme weather and other emergencies going forward.

2. Financial Implications

2.1 This decision does not have any direct financial implications as defining our Resilient Highway Network is about prioritising existing capital resource on that part of the overall network, in recognition of its importance to the economy of Kent and the wellbeing of its residents and businesses, particularly during extreme weather events.

3. Policy Framework

3.1 Defining our Resilient Highway Network and prioritising existing capital resource in that key part of our overall network, will enable Kent to evidence a Band 3 Incentive Fund rating and maximise Department for Transport (DfT) capital funding for 2018/19, 2019/20 and 2020/21. Retaining this funding and continuing to implement our highway asset management strategy contributes to our day to day management of highway maintenance and therefore plays a vital part in delivering Our Vision in Kent County Council's Strategic Statement *Increasing Opportunities, Improving Outcomes*.

4. Background

- 4.1 Changes to DfT rules for funding highway maintenance have been introduced through its Incentive Fund to encourage local authorities to embed the use of asset management principles and methodology into their management of highway maintenance and decision making around funding and priorities. The main aim of the asset management approach being encouraged by DfT is that local authorities use appropriate levels of information to clearly link investment decisions with an understanding of what that means in terms of outcomes and how that relates to strategic objectives. An increasing proportion of DfT maintenance funding provided to the County Council is based on our ability to evidence that we have fully adopted the use of asset management techniques.
- 4.2 Incentive Fund ratings are based on an annual self-assessment questionnaire containing 22 questions covering asset management, resilience, customers, operational delivery, benchmarking and efficiency. Under this mechanism, in January 2016, we assessed ourselves as a Band 1 authority. Since then, guided by a Member Task and Finish Group and this Cabinet Committee, officers have been implementing a series of measures to improve our rating and we achieved a Band 2 Incentive Fund rating in January 2017. That work continues and we are on course to achieve a Band 3 rating by the end of this year and maximise Incentive Fund resource in 2018/19. If we had remained at Band 1 instead of achieving a Band 3 rating at the end of this year, we would receive £4.6m less in capital funding in each year from 2018/19.

5. Resilience

- 5.1 Resilience is high on the DfT's agenda. The severe winter weather of 2013/14 had a major impact on transport systems, including local roads, which in some parts of the country were flooded for prolonged periods. As a consequence of this disruption, the Secretary of State for Transport commissioned a Transport Resilience Review, which was published in July 2014. All 63 recommendations were supported by the DfT. A key one for local roads was that:

“Local Highway Authorities identify a ‘resilient network’ to which they give priority in order to maintain economic activity and access to key services during extreme weather”

- 5.2 The Incentive Fund mechanism acknowledges that resilience is a key component of highways asset management through three related questions. Two of these relate to the implementation of the 2012 Highways Maintenance Efficiency Programme (HMEP) Potholes Review and HMEP Guidance on the Management of the Highway Drainage Asset, which Kent has already implemented.
- 5.3 The remaining question requires local authorities to review and define their Resilient Network. Kent needs to agree and publish a document that sets out criteria for defining our Resilient Highway Network, so that it informs decision making and enables asset managers to prioritise existing capital resource in 2018/19 and beyond.

6. Resilient Highway Network

6.1 Whilst the County Council has long had robust systems in place to respond effectively to severe weather emergencies and therefore improve highway resilience, it does not currently have a defined Resilient Highway Network. However, in addition to the national road classification system (which is intended to direct motorists towards the most suitable routes for reaching their destination by identifying roads that are best suited for traffic), we already follow a tiered approach to the management and planned maintenance of our 5,400 miles (8,700 km) of highway network. Such maintenance is prioritised using a number of factors including Kent's Road Maintenance Hierarchy which has four categories: Major Strategic (MS), Other Strategic (OS), Locally Important (LI) and Minor (M). This hierarchy reflects how roads are actually used in Kent. Thus, in practice, the County Council already prioritises investment in important routes. A breakdown of our highway network by both national road classification and maintenance hierarchy, together with category definitions, are set out below.

	Maintenance Hierarchy					Road Classification				
	MS	OS	LI	M	Total	A	B	C	U	Total
km	431	784	1,252	6,200	8,667	995	449	1,886	5,337	8,667
miles	269	490	782	3,875	5,416	622	280	1,179	3,335	5,416

- Major Strategic (MS) – routes, or parts of routes, linking major urban centres where these are not linked by trunk roads.
- Other Strategic (OS) – routes, or parts of routes, between other urban centres or centres of industry/commerce.
- Locally Important (LI) – routes, or parts of routes, of local importance in distribution of goods or people.
- Minor Roads (M) – all other routes, including estate roads and rural lanes.

6.2 Our maintenance hierarchy is also used to determine the Winter Maintenance Network which includes all MS, OS and LI routes. This network defines the precautionary salting routes and totals about 1,560 miles (2,500km) or 30% of the whole highway network. There is a further refinement of this network, called the *Minimum* Winter Network, which determines the priority routes that are to be kept open in the event of a prolonged snow emergency. This network is around 750 miles (1,200km) in length, about 14% of the total network.

6.3 The County Council also has a Severe Weather Plan which sets out how the authority will respond to and manage the effects of severe weather events including snow, ice, wind, rain and flooding. This too prioritises our response on MS, OS and LI routes.

6.4 The brief for a Resilient Highway Network is somewhat different to that for our winter and severe weather plans, which have been developed to allow KCC to discharge its duties under the Highways Act by ensuring, so far as is reasonably practical, safe passage along the highway without danger from snow or ice, fallen trees, flooding

and other hazards. Our winter and severe weather plans are therefore more about preparing for, and reacting effectively to weather conditions.

- 6.5 A Resilient Highway Network may be defined as the portion of a local authority's highway network that is absolutely vital to maintaining economic activity and access to key services during extreme weather emergencies and other major incidents. It is not designed to link every community in Kent. The purpose of defining such a network is to identify the *most* critical routes (and associated highways assets, such as bridges and drainage systems) so that planned whole asset maintenance on that part of the network may be prioritised. In doing so, we can ensure that our defined Resilient Highway Network is less prone to failure and in turn improve the county's resilience to extreme weather events, industrial action and major incidents.
- 6.6 The criteria used to specify a Resilient Highway Network will differ from authority to authority depending on the nature of their locality and respective highway networks. Officers have considered a number of options taking into account the County's needs and the approach taken by other authorities.
- 6.7 A resilient network should be a much narrower definition than that used to prioritise general network maintenance. It ought to equate to less than 10% of the overall network and ideally around 5%. Defining a Resilient Highway Network that is significantly larger than that would be unaffordable and lead to less resilience as existing resource is spread more thinly. If a greater share of existing resource is diverted to focus on a larger resilient network, it would have a detrimental effect on overall network condition. For those reasons, officers are of the view that it is not appropriate to adopt our Winter Maintenance Network, Minimum Winter Network or Severe Weather Plan as the county's definition of our Resilient Highway Network. Similarly, definitions including either all classified roads (e.g. all A, B and C roads) or all Major Strategic, Other Strategic and Locally Important roads should be discounted as these equate to 38% and 28% of our highway network respectively.
- 6.8 It is therefore necessary to create a new 'network' for highway resilience purposes. The Incentive Fund mechanism requires local authorities to define, document and publish the criteria used. Given the overall purpose of defining a resilient network, it is proposed that the overarching aims of Kent's Resilient Highway Network should be:
- to protect economic activity in and through the county;
 - to protect access to key services; and
 - to protect access to key infrastructure.
- 6.9 To achieve these overarching aims, it is proposed to use the following criteria to identify and map a network of the most critical routes and highway assets that equates to 5-10% of the overall highway network.
- Roads connecting main towns in the County of Kent with a population of 20,000 and above.
 - Roads connecting main towns with Highway England's Strategic Road Network.
 - Roads connecting main towns with main employment sites.
 - Roads connecting with key operational services requiring emergency public access, such as hospitals with Accident and Emergency facilities.

- Roads connecting with key infrastructure, such as power stations and main transport facilities.

6.10 If the above approach is adopted, in addition to mapping against these criteria, officers will need to liaise with neighbouring highway authorities to ensure that our respective resilient networks connect where this is appropriate. It will also be necessary for officers to identify critical assets on those routes. The network and any identified critical assets will then need to be incorporated into the maintenance regimes of all highway assets which may, depending on the asset, include:

- additional maintenance interventions to ensure the asset continues to function (for example, an increased drainage cleansing frequency);
- the prioritisation of existing maintenance resource to mitigate the onset of deterioration of the asset; and
- fast-tracking any works already in the programme to reduce the risk of failure of the asset.

6.11 There are no identified legal or equality implications of the suggested approach.

7. Conclusions

7.1 Kent County Council needs to define, document and publish a Resilient Highway Network, in order to achieve a Band 3 Incentive Fund rating and avoid a reduction in Capital funding provided by the Department for Transport for highway maintenance. Given the specific and narrow purpose of defining a Resilient Highway Network outlined above, and that it should to be less than 10% of the overall highway network, it would not be appropriate to adopt existing network definitions (such as our Winter Maintenance Network, Minimum Winter Network or Severe Weather Plan) or classifications (such as all classified roads or all non-Minor roads) as Kent's definition of our Resilient Highway Network.

7.2 Instead, we propose that such a network be defined around identifying a 5-10% portion of our very large highway network that is absolutely vital to maintaining economic activity and access to key services/infrastructure during extreme weather emergencies and other major incidents, using the criteria detailed in paragraph 6.9. We are therefore seeking this Cabinet Committee to consider and endorse these proposed criteria, or make recommendations prior to a Cabinet Member Key Decision following this meeting.

7.3 Once the proposed criteria have been formally agreed and adopted by KCC, officers will carry out detailed work to map this network and prioritise existing maintenance resource to maximise resilience on this most critical part of our highway network. It is expected that the mapping work will be completed by November prior to using this information to build our 2018/19 capital maintenance programmes in early 2018.

7.4 By adopting and publishing this definition of Kent's Resilient Highway Network (see Appendix B), we will also be able to evidence a Band 3 Incentive Fund rating and maximise DfT capital funding going forward.

8. Recommendation(s)

The Cabinet Member for Planning, Highways, Transport & Waste is asked to agree the proposed criteria to be used in adopting a definition for Kent's Resilient Highway Network, as part of our wider approach to Highways Asset Management and to maximise Incentive Fund resource.

9. Appendices and Background Documents

- Appendix A: Record of Decision
- Appendix B: Definition of Kent's Resilient Highway Network
- Our Approach to Asset Management in Highways.
- Implementing Our Approach to Asset Management in Highways.

Both documents available via: <http://www.kent.gov.uk/about-the-council/strategies-and-policies/transport-and-highways-policies/highways-asset-management>

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