



Environment & Infrastructure Select Committee
3 July 2017

Proposed Winter Service policy changes required to realise cost savings

Purpose of the report: Scrutiny of Services and Budgets & Policy Development and Review

The purpose of this report is:

- 1) To propose policy changes that will deliver Winter Service cost savings in 2017/18
- 2) To propose policy and process changes that will deliver Winter Service cost savings in 2018/19
- 3) To identify how compensating savings will be made in order to make the full £340,000 saving to the winter budget in 2017/18

Introduction:

1. In the Medium Term Financial Plan (MTFP) a reduction of £340,000 has been made to the Winter Service Budget. This saving could not be realised in 2016/17 and therefore compensating savings had to be made by reducing levels of service in other Highways and Transport areas. In 2017/18 there have been further budget reductions against other Highways & Transport activities, and this has resulted in reductions to levels of service.
2. Surrey Highways officers and our contractor, Kier, have considered where savings could be made. These savings recommendations are presented as either;
 - a) a policy change
 - b) a short term policy amendment or
 - c) a savings recommendation which does not require a change in policy
3. Some of the recommendations are being presented for the first time, others were presented to the Economic Prosperity Environment and Highways (EPEH) Scrutiny Board on 8th September 2016. Views of the EPEH Board have been taken into account and changes have been made where possible to the options presented in September 2016. It is indicated in the report where options have been previously presented.

4. Each recommendation is detailed in the sections below. These include a description of the recommendation and the estimated saving it would lead to. Summary tables follow the detailed options, summarising the recommendations by value and the year in which they could be realised.

Policy changes that will deliver Winter Service savings in 17/18

5. The policy changes recommended to make annual savings from 2017-18 onwards are a change in approach to winter season length, the reduction of one mini-gritter vehicle from the fleet and a review of the maintenance of farmers snow ploughs.

Policy change 1:	Reduce season length to 26 weeks (from 29 weeks currently)																																												
Details:	<p>Surrey currently has a salting response on standby for the entire length of the Winter Service season. This means that vehicles are on hire and crews are paid standby for 29 weeks from the first Friday in October until the last Friday in April each year. Flexibility exists in the contract to reduce the vehicle hire period to 26 weeks, while still being able to hire the vehicles earlier if forecast data indicates it is necessary.</p> <p>Where supported by forecast data that indicated colder weather is unlikely, the decision would be made to start the standby operation later, or to end the season earlier. Kier have confirmed that the savings passed on to Surrey would be £46,000 per week (up to a total of 3 weeks or £138,000).</p> <p>A review of winter standby times used by authorities across the country has been carried out which indicates that Surrey have a longer standby period than some other highway authorities. Some examples below;</p> <table border="1"> <thead> <tr> <th></th> <th>Start Date</th> <th>End Date</th> <th>Weeks on standby</th> </tr> </thead> <tbody> <tr> <td>Surrey County Council</td> <td>1st wk Oct</td> <td>End April</td> <td>29</td> </tr> <tr> <td>Knowsley Council</td> <td>1st wk Nov</td> <td>End March</td> <td>21</td> </tr> <tr> <td>Herefordshire Council</td> <td>3rd wk Oct</td> <td>3rd wk April</td> <td>26</td> </tr> <tr> <td>Pontypridd Council</td> <td>3rd wk Oct</td> <td>3rd wk April</td> <td>26</td> </tr> <tr> <td>East Sussex</td> <td>1st wk Oct</td> <td>End April</td> <td>29</td> </tr> <tr> <td>Perth & Kinross</td> <td>Mid Nov</td> <td>End March</td> <td>19*</td> </tr> <tr> <td>Norfolk</td> <td>3rd wk Oct</td> <td>3rd wk April</td> <td>26</td> </tr> <tr> <td>West Sussex</td> <td>1st wk Oct</td> <td>End April</td> <td>29**</td> </tr> <tr> <td>Bristol City Council</td> <td>1st wk Nov</td> <td>End March</td> <td>21**</td> </tr> <tr> <td>Hampshire County Council</td> <td>1st wk Oct</td> <td>End April</td> <td>29</td> </tr> </tbody> </table> <p>* Full cover for 19 weeks with partial cover for a further 7 weeks (26 weeks in total)</p> <p>**drivers are on standby from November to March with a call off rota operating in October and April</p> <p>An option that we would look at as part of re-optimising routes for the 2018/19 season (see paragraphs 8 and 9) would be to</p>		Start Date	End Date	Weeks on standby	Surrey County Council	1st wk Oct	End April	29	Knowsley Council	1st wk Nov	End March	21	Herefordshire Council	3rd wk Oct	3rd wk April	26	Pontypridd Council	3rd wk Oct	3rd wk April	26	East Sussex	1st wk Oct	End April	29	Perth & Kinross	Mid Nov	End March	19*	Norfolk	3rd wk Oct	3rd wk April	26	West Sussex	1st wk Oct	End April	29**	Bristol City Council	1st wk Nov	End March	21**	Hampshire County Council	1st wk Oct	End April	29
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	<p>determine if we could have 'lead in' and 'lead out' periods for the season whereby we cover 'colder routes' for the early part and later part of the season, with full coverage for the main part of the season. This decision would also be supported by forecast data and therefore could change annually as required.</p> <p>This policy change would not provide a definite budget reduction each year but rather a cost variation of £0 to at least £138,000 depending on the climatic conditions.</p> <p>To give an indication of confidence in this saving a review of treatment data from the last 6 seasons has shown that the earliest treatment was 26th October 2012. Otherwise the first treatment has always been in November. This gives high confidence in a late season start being likely most years.</p>
Cost reduction value:	<p>£0 to at least £138,000</p> <p>High confidence in the upper value based on trends from past 6 years.</p>

Policy change 2:	Discontinue hire of one mini-gritter vehicle <i>(Presented to EPEH in 2016 and not supported)</i>
Details:	<p>In 2011 the winter policy was changed to include two mini gritters in the fleet. This was in response to the preceding severe winters and provided smaller vehicles that could help treat roads leading to remote communities and streets with access restrictions.</p> <p>At present only one vehicle is required to enable treatment of routes with access restrictions. The second vehicle has not been used, and in the 6 winters following the policy change they have not been called upon for non-routine activity, which means we have spent £96,000 in the past 6 years on a vehicle that we have not required.</p>
Cost reduction value:	£16,000

Policy change 3:	Review of plough maintenance to farmers <i>(Revised recommendation to the one presented to EPEH in 2016 and not supported)</i>
Details:	<p>52 farmers and contractors provide standby ploughing capabilities throughout the winter on a call off basis. SCC provides some of the farmers with ploughs (currently there are 31 SCC owned ploughs used by 21 farmers), and pay to assess and maintain the ploughs each summer ahead of the winter season.</p> <p>In the summer of 2016 all farmers with Surrey owned ploughs were visited to have their equipment assessed, however only 9 ploughs required maintenance.</p>

	Going forwards, we recommend that all farmers are contacted during the summer and asked whether their ploughs require maintenance. Based on the historic number of ploughs that require annual maintenance we anticipate that we can reduce the spend in this area by approximately 80% without reducing the level of service.
Cost reduction value:	£4,000

Policy changes that will help deliver Winter Service cost savings in 2018/19

6. The salting route operation accounts for 72% of the Winter Service budget, with the cost of salt accounting for a further 12% of the budget. The total operating cost of each salting vehicle is approximately £48,000 per year. Surrey currently uses 39 salting vehicles at a total cost of approximately £1,870,000 per year.
7. Reducing the number of salting vehicles required to treat the network provides a favourable cost reduction opportunity as it enables the same level of service to be provided for a reduced cost by increasing the length of network each vehicle is able to treat.
8. The depot strategy (Cabinet Report title ‘Highway winter maintenance depot and salt barn replacement programme’ that can be found at; <https://mycouncil.surreycc.gov.uk/documents/s29321/item%2012%20-%20Winter%20Depot%20Part%201.pdf>) currently being delivered will enable a reduction to the length of “un-treated distance” each salting vehicle covers and a consequent increase in the length of road each vehicle can treat during each run. The reduction in un-treated distance will be achieved by introducing new depots in Beare Green and Chertsey, meaning salting vehicles can be more evenly distributed across the county, reducing necessary travel time before starting to spread salt. Ahead of the 2018-19 winter season the salting routes will be re-optimised for the whole county. Re-optimisation means that all treated roads will be put into the fewest number of routes possible.
9. Policy changes 4 and 5 will enable more efficient routes to be created during the re-optimisation process and will increase the likelihood of fewer vehicles being required. It is vital that a decision is made on these recommendations before the re-optimisation commences to ensure the most efficient routes are created.

Policy change 4:	Increase of treatment time from 2hr 30m to 3 hrs
Details:	Surrey’s policy is to treat each route within 2hr 30min from start to completion of last treated section. Benchmarking has identified that a 3 hour treatment window is used by many local authorities. Surrey are currently providing an enhanced service by having a policy of treating the network within 2.5 hours. An increased treatment window would contribute to the aim of reducing the number of salting vehicles required to treat the salting network.

	Increasing the length of time a vehicle has to treat a route by 20% will mean routes can be around 15% longer. Assuming the same level of route efficiency could be achieved, this means we could carry out salting of the current routes with 3 fewer vehicles.
Cost reduction value:	<p>£144,000</p> <p>The above cost reduction is an estimate based on reducing the number of salting vehicles required from 39 to 36. Each vehicle costs approximately £48,000.</p> <p>The exact number of vehicles that can be reduced may be greater or fewer, which will be clear once the optimisation project is underway.</p>

Policy change 5:	Enable the choice of salting treatment used on the network to be determined by the Highways & Transport Service based on national best practice
Details:	<p>The Winter Service policy currently specifies the type of treatment that will be used. This policy change recommendation will enable the Highways & Transport Service to be empowered to use alternative suitable treatments without requiring a policy change. This will allow flexibility to utilise advances in treatment technology and more easily realise their benefits. An example of an alternative treatment (Thawrox+) and its benefits to Surrey is outlined below.</p> <p>The current treatment type used across all routes is pre-wet rock salt. That is rock salt that is pre-wet with a saline or brine solution produced by diluting marine salt with water in saturators at each depot.</p> <p>An alternative treatment is Thawrox+ which has anti-icing and de-icing properties as well as reducing corrosiveness of the salt to vehicles and highway infrastructure. Thawrox+ is a treated salt which means that it does not have to be pre-wet with saline or brine. This means that it takes up a smaller volume of space in the vehicle to treat the same amount of road, so a longer length of road can be treated by the same size of vehicle. The use of treated salt is supported in Appendix H of the Code of Practice for Highway Maintenance Management.</p> <p>A further benefit of moving away from pre-wet salt is removing the need for saturators at each of the depots to produce the brine. Further to this marine salt would no longer be needed to produce the brine at a cost of about £20,000 per year.</p> <p>Moving to Thawrox+ would cost 7% more in salt usage per year. In 2015-16 this equates to £18,000. While there are cost and maintenance reductions of moving to the treated salt, the key benefit is not a direct financial saving, but rather enabling each salting vehicle to treat a longer length of carriageway with each</p>

	<p>load, maximising their ability to treat for a 3 hr period.</p> <p>The combination of an increased treatment time and increased vehicle capacity (due to decreased spread rate of Thawrox +) would lead to each vehicle being able to treat a longer length of network.</p>
Cost reduction value	<p>£0</p> <p>This policy change would facilitate longer route lengths, and a subsequent reduction of vehicles. However the cost savings are taken into account in the treatment time cost savings above.</p> <p>While there are no cost savings in terms of Winter Service, removal of the need for saturators would generate a saving in the winter maintenance depot and salt barn replacement programme. Property colleagues have advised that the cost of refurbishing each of the existing saturators would be in excess of £23,000 with the cost of installing new saturators being considerably more.</p>

Compensating savings deliverable in 2017/18 (one time only)

10. The policy changes detailed above will not enable us to make the required £340,000 savings in the cost of the Winter Service in 2017/18 therefore the following compensating savings have been identified.

Policy Amendment 1:	<p>Do not survey or fill any non-member funded grit bins</p> <p><i>(Revised recommendation to the one presented to EPEH in 2016 and not supported)</i></p>
Details:	<p>The cost of surveying and filling grit bins is approximately £40,000 per annum. It is proposed that this service does not take place in 2017/18 with the exception of the 111 grit bins which members have funded.</p> <p>As the winter of 2016/17 was reasonably mild, it is fair to assume that most grit bins will still have a reasonable level of grit in them. The provision of grit bins is considered a discretionary rather than statutory element of Winter Service provision.</p> <p>This item was presented to EPEH board in 2016 as an option to permanently reduce provision of grit bins. This proposal is to reduce the level of service provided by grit bins for one year only in order to provide compensating savings to the Winter Service budget.</p>
Cost reduction value:	£37,500

Non-Policy changes that will help deliver Winter Service cost savings in 2018/19

Saving recommendation 1:	Discontinue Kaarbontech grit bin management software
Details:	Kaarbontech software is used to manage grit bin inventory information and survey. It is anticipated that the Highways Asset Planning Team will be able to deliver an in house solution to replace this system by 2018/19.
Cost reduction value:	£6,000

Saving recommendation 2:	Identify other budgets from where the savings can be made for 2017-18 only
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11. £110,000 has been identified from member payments for grit bins which can be drawn down in 2017/18 to help reach the required £340,000 saving. The additional £34,500 needed (assuming all recommendations identified in this report are approved) will be found by reducing activities in other Highways and Transport functions.

Saving recommendation 3:	Remove lengths of network that do not meet criteria
Details:	Over 200km of network is treated which does not meet the criteria for gritting routes. This will be reviewed with area highway managers and local committees. If at least 54km of network is removed from the gritting routes using this process we can salt the network with one less gritter.
Cost reduction value:	£48,000

12. Summary of savings:

Policy Changes	Saving value estimate	Saving delivery year
1. Reduction in season length	£0 to £138,000 (further savings possible 2018/19)	2017-18
2. Discontinue hire of one mini-gritter	£16,000	2017-18
3. Review maintenance of farmers ploughs	£4,000	2017-18
4. Increase treatment time from 2hrs 30 to 3 hrs	£144,000	2018-19
5. Enable Highways & Transport to determine suitable treatment type	£0 (see details above)	2018-19

Policy amendments – for 17/18 only	Saving value estimate	Saving delivery year
1. Do not survey or fill non member funded grit bins (for one year)	£37,500	2017-18

Savings recommendations that do not require policy change	Saving value estimate	Saving delivery year
1. Discontinue use of Kaarbontech software	£6,000	2018-19
2. Drawn down member funded grit bin funds and reduce activities in other H&T areas	£144,500	2017-18
3. Review treatment lengths and remove those that do not meet criteria in consultation with local committees	£48,000	2018-19

13. Summary of savings by delivery year in context of £340,000 budget reduction

Year	Saving details	Saving value	Difference to saving requirement
2017-18	P1. Reduce season length P2. Discontinue use of 1 mini-gritter P3. Review farmer plough maintenance PA1. Don't fill non-member funded grit bins S2. Reduction in other budgets	£340,000	£0
2018-19	P1. Reduce season length P2. Discontinue use of 1 mini-gritter P3. Review farmer plough maintenance P4. Increase treatment time to 3 hours S1. Discontinue Kaarbontech software S3. Remove treatment lengths which do not meet criteria Process change to re-optimize routes	£356,000	+ £16,000

Conclusions:

14. The MTFP has identified that £340,000 of savings need to be found from the Winter Service Budget.
15. Savings were not realised in 2016/17 and compensating savings had to be found from other Highways and Transport budgets.
16. Further reductions have been identified in the MTFP for other Highways and Transport budgets in 2017/18 resulting in reductions to levels of service.
17. Changes to policy proposed in this report will provide a significant proportion of the savings required without resulting in any permanent changes to levels of service other than an increase in treatment time from 2.5hrs to 3 hrs and the reduction of 1 mini gritter from the fleet which has not been required for the past 6 years

Recommendations:

18. That the recommendations as set out in this report be endorsed and submitted to the Cabinet for approval.

Next steps:

Following consideration of the recommendations by the Select Committee, the report will be submitted to the meeting of the Cabinet to be held on the 18th July 2017.

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Sources/background papers:

Well Maintained Highways, 2013: Code of Practice for Highway Maintenance Management

Cabinet Report "Highway winter maintenance depot and salt barn replacement programme", 26/04/16

EPEH Board Report "Winter Cost Saving Recommendations", 08/09/16

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