

REPORT TO: Urban Renewal Policy and Performance Board

DATE: 17 March 2010

REPORTING OFFICER: Strategic Director Environment

SUBJECT: Winter Maintenance Service Delivery 2009/10

WARDS: All Wards

1.0 PURPOSE OF THE REPORT

1.1 This report reviews the delivery of the winter maintenance service thus far during the 2009 /2010 season and in particular, the response to the prolonged severe weather event in early January.

2.0 RECOMMENDATION: That

(1) the report be received; and

(2) a report, which reviews the benefits, logistics and cost implications in relation to the deployment of grit bins be brought to the next meeting of the Board.

3.0 BACKGROUND AND SUPPORTING INFORMATION

3.1 Introduction

3.1.1 Last winter (2008/09) was described as “the coldest winter for over a decade” with the heaviest snowfall for 18 years. In January this year, the Meteorological Office was describing the UK as having “the severest winter weather for decades” and “the most prolonged spell of freezing conditions across the UK since December 1981”. Although these harsh winters have occurred ‘back-to-back’, the Met. Office affirm that these events are part of the normal regional variations that take place and that the ‘natural variability of climate’ means that the UK will continue to see these spells of colder weather at times. These conditions have presented significant challenges to us in keeping our highway and transport networks open and safe, and in minimising disruption to business and local services.

3.1.2 In June 2009, the Board accepted a report on Halton’s 2008/09 winter maintenance activities. That report set out the requirements and operational procedures contained in the Winter Maintenance Plan, a summary of operations undertaken that season and details of national salt stock shortages. It also referred to additional funding that had been made available by the Halton & St Helens PCT and how it was

intended that this allocation would be spent. The Board also resolved to increase gritting of footpaths around schools. (Minute URB14 refers)

3.1.3 It is not intended that the information in that report is repeated here, but recent changes to the Plan and operations implemented for the current year are described below.

3.2 Revisions to National Code of Practice for Highway Maintenance – Winter Service

3.2.1 Last year, following the “worst winter for 18 years” the Department for Transport (DfT) commissioned the UK Roads Liaison Group to conduct a review of difficulties experienced in the operation of winter maintenance services. The UKRLG published its report in August, making 19 recommendations, primarily addressed to local highway authorities and salt suppliers, all of which have been accepted by DfT and incorporated into a revision of the Highway Maintenance Code of Practice.

Recommendations included:

- At least 6 days resilience during the core winter period in terms of salt stocks to deal with severe weather conditions;
- Co-ordination and collaboration with other parties in the operation of winter services and contingency planning for critical events;
- Improved procurement arrangements and communications.

Four recommendations were specifically addressed to DfT:

- Highways Agency to maintain a high reserve of salt stocks
- An exemption to the Drivers’ Hours Regulations 2007, to assist with salt delivery and gritting
- The possibility of a Government-run ‘Salt-Cell’, which allocates and controls salt deliveries, to be used “*in extremis*”
- The production of an information leaflet for highway authority elected members.

3.2.2 Halton informed Cabinet Office in November of its response to the report’s recommendations, including salt procurement and stock storage, collaboration and contingency planning.

3.3 Halton’s Winter Maintenance Plan

3.3.1 In accordance with usual practice, the Winter Maintenance Plan was reviewed during summer 2009 and was revised to meet changing circumstances in both the logistics of the service delivery and the extent of the network that can reasonably be treated within the target treatment time, and also within the available resources.

3.3.2 At the start of this season, key amendments to the Plan included the following:

- Gritting route changes to incorporate changes to the Network such as the inclusion of Upton Rocks distributor road (the completion of Queensbury Way to Cronton Road) and Astmoor Industrial Estate Roads;
- Changes to rates of spread to take account of known 'cold-spot' problem areas;
- Effects of temporary diversion routes (due to Statutory Undertakers works) added;
- Additional grit bin locations added;
- Pedestrian gritting Routes at schools added;
- Plans of footpath and car park gritting revised.

3.3.3 The Winter Maintenance Plan is geared essentially at keeping traffic moving safely both through and within the Borough during frost, snow and icy conditions. It prioritises the treatment of the classified road network, major distributor routes and bus routes, totalling 267 Km. This comprises around 45% of Halton's road network. Five gritting routes are scheduled to ensure treatment within the target time of four hours.

In terms of pedestrian routes, routine precautionary gritting of most footbridges and many strategic footpaths comprise around 12,000 sq.m of pathways at 23 separate locations. Gritting is carried out manually, by hand or using propelled salt spreaders and takes four hours to complete. It is a very labour-intensive operation and places a high demand on both labour and financial resources.

3.3.4 The Plan also provides for an escalating response to deal with severe and / or prolonged winter weather events:

- Secondary Routes – gritting to estate collector roads, access to commercial areas, schools, local centres etc. - 27 area locations;
- Major pedestrian routes in Widnes and Runcorn town centres
- Town centre car parks – 8 locations;
- Footway / Footpath gritting at 44 school locations comprising 24,000 sq.m;
- Snow & Ice clearance to pedestrian routes in and around local centres;
- Lists of schools, colleges, health centres, doctors surgeries, nursing and elderly persons homes for targeted treatment at these establishments as resources permit.

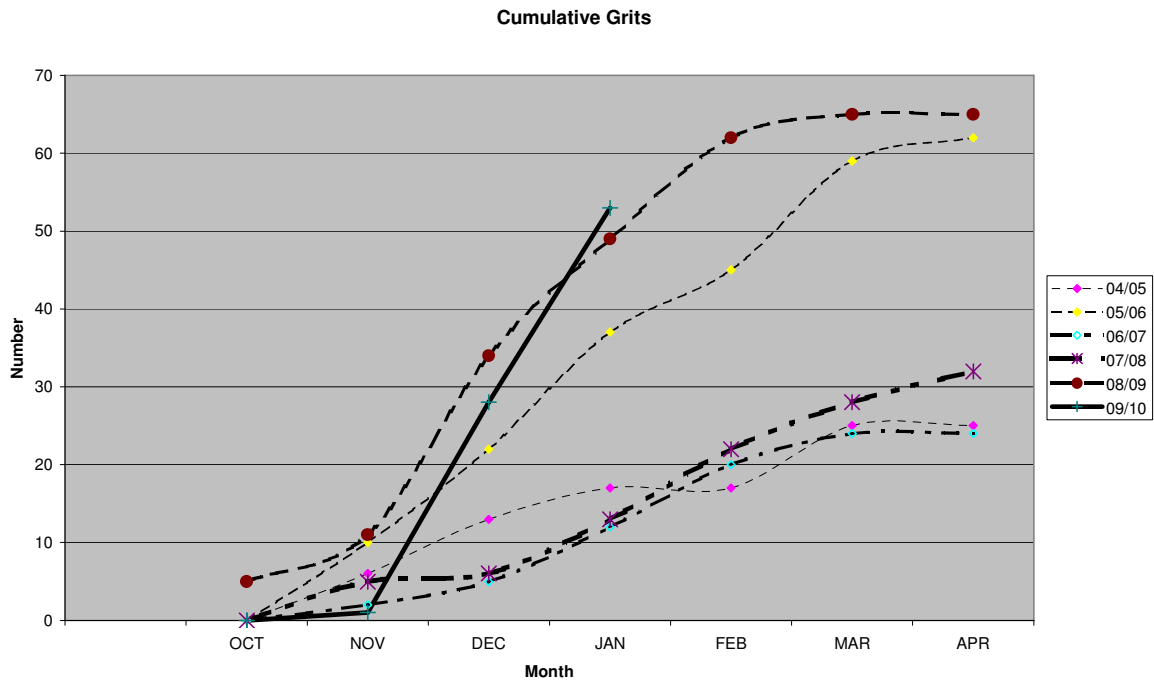
These latter two activities usually involve deployment of the Streetscene workforce, diverted from other routine duties during severe weather.

3.4 Winter Service Operations - December to January

3.4.1 The diagram below depicts the current season's gritting operations in comparison to the last 5 years. During the four-week period between

16th December and 14th January gritting was undertaken every day (bar one). Winter service operations comprised the following treatments:

- Main gritting Routes
- Secondary Gritting Routes
- Footbridge and approach footpath gritting
- Town centre pedestrian route gritting
- Footway / footpath gritting at school locations
- Replenishment of salt at 63 grit bin locations



The graph illustrates that by the end of January a total of 53 grits had been carried out, exceeding the totals over the previous five years.

3.5 Salt Supply Issues

3.5.1 Halton currently has collaborative arrangements with Cheshire and Warrington councils for the supply of salt. Salt Union are a major supplier to many highway authorities and supply salt to both Cheshire and Warrington councils. However, when the contract was awarded, Peacock Salt had submitted the most economically advantageous tender to supply Halton and they have been Halton's sole supplier for the last six years. These collaborative arrangements are due to end in April this year and Halton will need to decide how gritting salt will be procured in the future.

3.5.2 The arrangements described above, dictated how Halton responded to the UKRLG report as described in 3.3.2 above, and we informed Cabinet Office that a review of salt supply would be undertaken in April 2010.

3.5.3 Peacock Salt are salt merchants rather than producers and can import salt sourced commercially from Europe to UK ports, including Runcorn.

Peacocks have in previous years been a very reliable supplier. During the severe weather and national salt shortage in February last year, they were able to maintain supply to Halton, to the extent that we were able to provide mutual aid to a number of neighbouring authorities. This year however, the snow and icy conditions which affected much of mainland Europe, have placed extraordinary demands on salt production and consequently, the reliability of supplies from Peacocks.

- 3.5.4 In accordance with the UKRLG recommendations, Halton was stocked with around 1050 Tonnes of salt at the start of the season, more than that required to ensure 6 days winter service resilience in severe weather. Following prolonged frosts from mid December, supplies were replenished by deliveries of 650 Tonnes on 23rd December, both from Peacocks and from our term contractor Amey LG. Once again, we were in a position to assist a neighbouring council with mutual aid. Halton placed further orders with Peacock for 1000 Tonnes of salt.
- 3.5.5 However, the prolongation of the severe weather into January and significant snowfalls on 5th January, increased demand for salt supplies across Europe. Salt stock reserves at UK producers Salt Union and Cleveland Potash reached critical levels, and highway authorities' demand outstripped supply. Peacock Salt were unable to provide firm delivery dates for Halton's orders. As occurred in February last year, the Government established the 'Salt Cell' and directed UK produced supplies to those highway authorities in most need, having regard for current local stocks and forecast conditions.
- 3.5.6 The 'Salt Cell' procedures required **all** local highway authorities to report daily salt stock levels so that deliveries could be prioritised. Salt Cell procedures remained in place well into February.
- 3.5.7 In addition to controlling salt supply, Government, through the Salt Cell, required all highway authorities to make savings on the amount of salt used, through reduced rates of spread, reduced coverage and restricting treatment to priority routes only. Initially, 25% savings were requested but this was revised upwards to 40 to 50% to maintain sustainability of salt supplies and to ensure individual Councils did not run out of salt through the continuing severe weather period. Halton was able to demonstrate that routes were prioritised to a primary network and that spread rates were already minimised through the use of pre-treated salt and technologically advanced systems, controlling spread rates.
- 3.5.8 Despite careful management and control of gritting operations during this period, over the weekend of 9th and 10th January Halton's own salt stocks fell to critical levels. Through local arrangements, mutual aid was offered and received from both Cheshire East (20 Tonnes) and Cheshire West (60 Tonnes) Councils. Halton also purchased 50 Tonnes of white salt from Ineos Chlor, part of a 12,000 Tonne batch which had been destined for food and chlorine production in Germany.

However the gritting regime continued in accordance with the Winter Plan.

- 3.5.9 Representations to the North West Authorities Resilience Forum, resulted in 'Salt Cell' allocations to Halton on Tuesday 12th January. Over the course of the following week, Halton purchased 550 Tonnes from Salt Union, via our term maintenance contractor Amey LG.

3.6 Impact on Gritting operations

- 3.6.1 The snow events on 4th / 5th January were followed by prolonged freezing road temperatures which reached minus nine degree Celsius on the 8th January and registered sub-zero temperatures for at least part of the day for the next eight days, resulting in widespread difficult conditions of compacted snow and ice. During this period, with depleted salt stocks, priority was given to keeping the major highway network open to traffic. All major routes were gritted at least once per day and salt spread rates were controlled to ensure economic and efficient treatment.
- 3.6.2 Issues with salt stocks and supply, described in 3.4 above, required careful management and control of gritting operations. Salt in itself does not immediately remove snow and ice but requires the action of traffic to activate the salt and promote melting in sub-zero temperatures. However, reduced traffic volumes, coupled with the tendency for motorists to drive safely on a 'treated-track' in the period immediately following the snow event, resulted in icy conditions persisting for several days. However, no parts of the highway network were closed due to the severe weather conditions and its impacts.
- 3.6.3 In accordance with the Winter Maintenance Plan, once resources became available, secondary routes were treated. Prioritisation of the main road network, depleted salt stocks and the need to demonstrate prudence, meant that minor roads and estate roads did not get treated. To conserve salt stocks, it was not possible to replenish Halton's 63 grit bins during this period, however, manual gritting was carried out at these locations.
- 3.6.4 From the 6th January, members of Halton's 'Streetscene' workforce were deployed on snow clearance in town centres. This labour force was augmented by the highway term maintenance contractor carrying out manual gritting and by members of the waste management workforce. From Thursday 7th January priority was given to the clearance of snow and ice and gritting of access routes in and around Halton's schools. Precedence was given to Childrens' centres and High Schools to enable them to re-open as quickly as possible.
- 3.6.5 As a result of these concerted efforts, all Halton's high schools and some primary schools were open on Friday 8th January. Work continued through the weekend, so that by Monday 11th January, all

but a handful of schools were open. The Department has received several notes of thanks from school Head Teachers, and from the Principal of Riverside College acknowledging the assistance given by the Council's staff, workforce and contractors.

3.7 Winter Maintenance Budget

3.7.1 The 2009/10 budget allocation for winter maintenance is £279,943. The budget can be broken down approximately as follows:

- Plant and Vehicles (Including fuel & Maintenance) 30%
- Salt and storage 30%
- Weather forecasting and technology 10%
- Gritting operations and standby 30%

3.7.2 Current indications, based upon the operations undertaken so far this year (described in 3.4) and the continuing wintry conditions during February, are that winter budgets will overspend by around £80,000. Management of this exceptional level of expenditure within overall highway maintenance presents a significant challenge particularly when considered alongside the added implications for road repairs (see 3.10.1 below).

3.8 Halton and St Helens PCT Funding Contribution to Gritting

3.8.1 Following the icy conditions in February last year, which resulted in an increase in treatment for ice-related slipping injuries, the PCT offered Halton a contribution of £25,000 per annum over the next five years to extend gritting operations. The funding was targeted at pedestrian routes around schools and shopping areas and has been spent as described below. A letter thanking the PCT for their funding contribution was sent this January.

3.8.2 Taking advantage of the additional funding from the PCT, during the summer, the Winter Maintenance Plan was extended to include the gritting of pedestrian routes in advance of severe weather or prolonged icy conditions at 44 locations, comprising an area of approximately 24,000 sq m. The main pedestrian routes through the town centres were added to the precautionary gritting list, to be treated as forecast conditions dictate. As stated earlier, footpath gritting is a very labour-intensive operation, so additional hand-propelled mechanical salt spreaders were purchased to enable these routes to be covered more efficiently.

3.8.3 Thirty seven schools took advantage of an offer to provide bagged de-icing salt and salt storage bins to enable school pathways and grounds to be gritted. These were distributed to schools in September and stocks were replenished when salt supply deliveries returned to normal.

- 3.8.4 Bagged de-icing salt was also distributed to public buildings, community centres etc. to grit pedestrian access and surrounding areas following liaison with the Council's Property Services Department.
- 3.8.5 During the period when snow and ice was lying, the PCT also asked for gritting of car parks, footpaths etc. and the supply of salt to health centres, clinics, doctors surgeries etc. Resource issues at the time meant that these requests could not be fulfilled. It is proposed however to include these establishments in the next pre-season distribution of salt, to be funded from the PCT allocation.

3.9 Grit storage bins

- 3.9.1 Due to the severity of the last two winters, the Council has received numerous requests for additional grit storage bins. Bins are often viewed as a valuable winter service resource, providing the community with a supply of salt for local use in areas that are not currently treated on mechanical salting routes, on side roads, culs-de-sac and hard to reach areas. However, as with manual gritting of footpaths, the provision and subsequent re-filling of grit bins is a labour intensive and costly service. Depending on local usage, each re-filling can take a gang up to two days and around eight tonnes of salt.
- 3.9.2 The Council currently maintains grit storage bins at 63 sites. Locations have been determined by applying a risk assessment process that takes account of current gritting routes, road gradient and geometry, local hazards, and proximity to existing grit bin provision. As a result, the majority of bins are located in Runcorn, and in the Halton Castle and Norton wards in particular.
- 3.9.3 The actual positioning of bins also needs careful consideration. To prevent vandalism or theft, bins need to be secured or sunk into the ground; they need to be convenient and accessible both to users and for efficient re-filling; and their position must take into account any potential nuisance to residents in adjacent properties.
- 3.9.4 Both last winter and this, we have experienced problems of misuse of the salt provided – both through wastage and use on private property, and also the theft of salt and bins themselves. This has occurred at several locations this year. The problem is difficult to control, as it is a fine balance between making salt accessible to the community and preventing mis-use.
- 3.9.5 The policy for provision of grit bins has developed from established practice over a number of years. The number of bins deployed has doubled over a period of around ten years to the point where a review of the policy is opportune. As indicated above, there are a number of issues that would need to be considered in the formulation of policy and it is proposed that a separate report, setting out the benefits,

logistics and cost implications of options be brought to the Board for consideration in June.

3.10 Implications for Highway Maintenance and Repairs

3.10.1 During prolonged icy conditions, where water has penetrated the carriageway through cracks or fissures, the repeated freeze / thaw cycle causes the road surface to rupture and potholes to form. Following the period of severe weather, and once the thaw set in (from around 14th January) routine highway inspections resumed and were concentrated on locating and logging potholes. Over a four week period around 300 potholes have been logged and repaired including some 60 reports of potholes, which were registered from members of the public. In response, the Council's term maintenance contractor Amey LG was instructed to deploy a second dedicated repair gang to respond urgently to pothole repairs. This pro-active regime is estimated to cost approximately £3000 per week. Alternative methods have been trialed, including the use of hot-lay materials and proprietary cold-lay permanent asphalts, to get extended life from these instant repairs and remove the need for second visits.

3.10.2 Not all frost damage will have become immediately apparent. Frost heave and further pavement cracking and crazing are likely to have occurred during the prolonged frosts. These defects will become evident during the coming months as highway inspectors log damage during their routine inspections and we receive further reports and complaints from members of the public.

3.10.3 However, initial indications are that Halton appears to have fared relatively well in terms of avoiding winter damage compared with many local highway authorities. Investments made in recent years in highway structural maintenance, such as carriageway resurfacing and surface dressing, have paid dividends, as roads which are in good condition are less susceptible to potholes and have been better able to withstand the ravages of this severe winter. In short, our investment in carriageway maintenance is now paying dividends and emphasizes the need for this work to continue. Recent media reports include accounts of local authorities allocating extra funding, postponing other highway projects or raising council tax to tackle the repair problem, however, it is anticipated that the cost of repairs within Halton can be managed within existing budgets, but other highway maintenance activities may need to be cancelled or deferred as a result.

3.11.1 Future Winter Service Arrangements

3.11.2 The following winter service contracts are due to expire in April 2010:

- Provision of weather forecasting information (currently Met. Office),
- Provision of ice prediction software and bureau service for data analysis (Visalia)
- Maintenance of weather station and sensor sites (Vaisala)

- Supply of de-icing rock salt (Peacock Salt)

Each of these contracts is currently delivered through collaborative arrangements with the Cheshire and Warrington local authorities. Discussions have been on-going for some time with Merseyside authorities with a view to forming similar collaborative contracts for a four year term. However, the establishment of common procurement rules for these services across the seven authorities is challenging and other options have not been ruled out at this stage. Proposals will be presented to Executive Board sub committee in due course to ensure that contracts will be in place for next season's winter service.

3.12 Business Continuity - Other Council Services

3.12.1 The snow event on 4th / 5th January resulted in the closure of Halton's schools, and the immediate suspension of the waste collection service on health and safety grounds. As described in 3.6 above, waste management and Streetscene workforces were redeployed to snow clearance duties as far as resources and other service demands would allow.

3.12.2 Information about these key services was updated on a daily basis and communicated to the public via the website, Wire FM radio and through the HDL and contact centre.

3.12.3 Directorate's Business Continuity Plans were implemented to co-ordinate responses to the severe weather. Staffing levels remained at high levels throughout the period ensuring that services continued to be delivered across all of Halton's service areas. A cold weather debrief meetings was held on the 5 February 2010 involving all Directorates.

4.0 POLICY IMPLICATIONS

4.1 Legislation makes it a duty to provide a properly planned and resourced winter service. The Winter Service Plan is reviewed and revised annually to ensure local, regional and national codes of practice, guidance and recommendations are considered and incorporated as required.

4.2 Current winter service policy prioritises treatment of the key transport routes to keep traffic moving safely both through and within the Borough. Section 3 of this report describes the escalating approach implemented during prolonged severe weather conditions. This measured approach is in accordance with the recommendations of the Code of Practice for Highway Maintenance and Management taking into account the level of resources available to deliver the service.

4.3 It is recommended that a report specifically relating to the provision and maintenance of grit storage bins for the use of the community is brought to the June meeting of the Board for consideration and recommendation to the Executive Board.

5.0 OTHER IMPLICATIONS

5.1 Children and Young People in Halton

Winter Maintenance operations affected all service users alike. There are no specific issues applicable to children and young people, however, the PCT funding for additional footpath gritting specifically targets schools and walking to school.

5.2 Employment, Learning and Skills in Halton

Access to areas of employment ensures that business can function at all times. Winter maintenance is vital in ensuring that business and places of learning are not restricted by the conditions

5.3 A Safer Halton

The action by the PCT in supporting gritting operations illustrates the considerable risk to the public from icy surfaces. Whilst the Council cannot undertake to protect all road users from risk the procedures and measures in place demonstrate how careful planning can minimize risk.

5.4 Halton's Urban Renewal

There are no specific implications for Urban Renewal, however by maintaining a safe and accessible highway network, the winter service makes an important contribution to business continuity management for the whole of Halton's business community.

5.5 Sustainability

The use of more efficient plant and materials has reduced wastage and limited the levels of pollution inherent in this operation. Extended gritting treatment of footways during the winter season will promote walked journeys and reduce reliance upon motor vehicles.

5.6 Legal Implications

The development and application of the Winter Maintenance Plan ensures that Halton continues to meet its legal obligations under the Act.

5.8 Social Inclusion

Winter Maintenance operations affect all service users. Gritting during periods of severe weather is targeted to ensure as far as practicable access to schools, public buildings and health establishments are prioritised. Enhanced gritting of footways will benefit particularly those with limited access to motor vehicles.

5.9 Crime and Disorder

There are no specific implications

6.0 RISK ANALYSIS

- 6.1 Failure to meet our legal obligations would expose the Council to considerable financial risk from litigation.
- 6.2 The winter service operations ensures as far as practicable, the safety of the public and reduces potential damage to infrastructure and property.

7.0 EQUALITY AND DIVERSITY ISSUES

There are no equality and diversity implications.

8.0 LIST OF BACKGROUND PAPERS UNDER SECTION 100D OF THE LOCAL GOVERNMENT ACT 1972

Well Maintained Highways - The Code of Practice for Highway Maintenance Management 2005

Halton Borough Council Highway Maintenance Strategy Document, 1998

Halton Borough Council Winter Maintenance Plan 2008-2009

Highways Act 1980

Railways and Transport Act 2003

Place of Inspection: Rutland House

Contact Officer: C. Dutton