

# Winter maintenance:

## Facts, figures and myths

- We don't use grit, but rock salt instead which is considered to be the best practice within the industry.
- Between 1 December 2009 and 28 February 2010 we used approximately 9,500 tonnes of salt.
- In an average year we would expect to use 6,000 tonnes of salt.
- We started the winter season with 7,190 tonnes of salt in our depots, and the contractor had an additional 1000 tonnes on call from Shoreham Harbour.
- ESCC doesn't buy salt directly. It is purchased and owned by May Gurney and we pay for it to be spread on the highway. Typically, salt costs between £30 to £35 per tonne.
- There are two main suppliers of rock salt in the UK: Cleveland Potash and Salt Union, with a further supplier in Ireland.
- May Gurney buy the majority of their salt from Cleveland Potash, combining their ESCC buying with several of their major highways contracts across the UK.
- Salt is delivered to Shoreham Harbour by boat and then distributed by road to our depots.
- We operate a fleet of 25 gritters, and keep three spares in case of breakdowns or accidents.
- Each gritter operates on a pre-planned route that takes approximately two to three hours to complete.
- Generally gritters are used when the forecast or conditions dictate. This can be in the evening or early morning, avoiding peak traffic flows where possible, to try to limit the

likelihood of frost/ice forming on the road. It is for this reason that most gritting operations go largely unnoticed.

- So far this year (until the end of February) we have used our gritters 70 times.
- There are a number of fixed costs in providing the winter maintenance service, these are

Leasing of vehicles	£480k
Maintenance of vehicles (servicing etc)	£164k
Basic facility (for example standby, depot management etc)	£168k
Weather forecast/bureau/ice detection costs	£ 30k
Snow fence (A259 East Dean)	£ 10k
Total fixed costs	£852k

The winter maintenance budget for 2009-2010 was provisionally set at £1.42 million

- When we salt, we pay the contractor based on the length of road each individual gritter covers when treating a scheduled route or snow route. This has to be funded from the remaining winter maintenance budget after deducting the fixed costs.
- The gritters are driven by trained May Gurney staff.
- Gritters are specialist pieces of equipment, but for eight or nine months of the year they are largely unused.
- Our gritters operate from six depots: Ringmer, Sidley, Heathfield, Maresfield (Mill Pond), Polegate (Mile Oak) and Cripps Corner.
- Salt is stored under cover and we can store up to 15,000 tonnes at our six depots.
- Rock salt provides no friction/abrasion, it simply prevents the formation of ice on the carriageway and aids the melting of snow and ice.
- Salt alone doesn't remove/melt snow, it relies on traffic to 'churn' the snow.
- Rock salt becomes less effective at temperatures below -5 degrees C.
- Rock salt is distributed at the rate of between 10g/m<sup>2</sup> and 40g/m<sup>2</sup> (½ ounce to 2 ounces) depending on the forecast and severity of the weather conditions.
- We treat 860 miles of highway, a mixture of A, B, C and unclassified roads, amounting to 42% of the total road network. This is one of the highest percentages of treated road networks for a highway authority in the South East:

West Sussex	40%
Kent	30%
Hampshire	26%

- In addition, we treat an extra 130 miles of highway during snow, equating to a total coverage of over 49% of our road network.
- There are approximately 750 grit bins distributed across the county.
- 99% of these grit bins are owned by East Sussex County Council (ESCC). The remainder are the responsibility of parish councils.
- Eastbourne Borough Council and Hastings Borough Council are responsible for winter maintenance salting decisions in their own boroughs (on behalf of ESCC) under their Highways Agency Agreements. The decisions are taken based on ESCC policy and usually in consultation with their ESCC colleagues.
- During snow fall, snow ploughs are fitted to all gritters. However, snow ploughs don't clear all snow from the highway. Instead they operate approximately 75-100mm above the carriageway, to avoid damaging the road surface and the plough. When driven with ploughs attached, the vehicles have to be manned by two people.
- We have 30 local farmers who can be called upon to clear snow from rural roads.
- The decision to use gritters is made on the basis of detailed weather forecasts, which are formulated using data collected from our local weather stations at four locations across the county: Ashcombe (nr Lewes), Guestling, Mark Cross, and Golden Cross.
- The total estimated cost of winter maintenance for 2009/10 is £1.58 million. The current overspend will be accommodated through budget transfers from the winter maintenance reserve fund.