

**Open Report on behalf of Richard Wills, Executive Director of Environment and Economy**

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| Report to:          | <b>Councillor R G Davies, Executive Councillor for Highways, Transport and IT</b> |
| Date:               | <b>05 September 2018</b>  |
| Subject:            | <b>Awarding of the Tender for Brown Treated Salt for Winter Gritting</b>          |
| Decision Reference: | <b>I016320</b>  |
| Key decision?       | <b>Yes</b>  |

**Summary:**

Approval is sought to move from the current County Council system of pre-wetting salt before it is spread on roads to a system using brown treated salt and to award the contract for the supply of brown treated salt to the Contractor who submitted the lowest tender for the Winter gritting operations.

**Recommendation(s):**

That the Executive Councillor for Highways, Transport and IT:-

(1) approves changing the system for precautionary salting of the highway from the use of pre-wetted salt to brown treated salt; and

(2) approves the award of a contract for the supply of brown treated salt for Winter gritting operations to the lowest tenderer and delegates to the Executive Director of Environment and Economy the decision as to the contractor to be awarded the contract.

**Alternatives Considered:**

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| 1. | Not to change from pre-wetted to brown treated salt.<br><br>The pros and cons of these different systems are set out in the options appraisal in the Report   |
| 2. | Not to award a contract. This will result in there being a deficiency in stock of salt prior to the Winter season and will add to costs as we will have to source a more expensive product and replace the associated infrastructure. |

**Reasons for Recommendation:**

The reasons for the proposed change from pre-wetted to brown treated salt is set out in the body of the Report

Awarding a contract for brown treated salt will allow the Summer re-stock to occur and for the Winter service to be ready for the start of season on 1 October 2018.

**1. Background****System of Salting**

- 1.1 Lincolnshire County Council at present is using a system called pre-wetting to treat its salt before spreading it on the roads. The pre-wetting system sprays a high quality white marine salt with brine solution which facilitates the de-icing process. The brine for this process is made by brine making facilities installed in Winter maintenance depots around County. Using pre-wetted salt against the standard dry application means we can cut down on salt usage by 25% as the pre-wet salt adheres to the road which reduces losses by wind, traffic movement and "wash off".
- 1.2 Based on spread rates alone, it is economical to use pre-wet salt. However to run a pre-wet operation a number of precursors are needed. These are;
  - Brine making facilities at each Depot
  - High purity White Marine salt for brine production
  - Water source to mix with salt
  - Storage facilities for the brine
  - Pre-wet tanks and modifications on the gritting vehicles
- 1.3 Lincolnshire's brine making facilities are over 20 years old and are becoming expensive to maintain and operate and in the next 5 years they will all needed to be replaced.
- 1.4 Lincolnshire County Council has been using the pre-wet technology for 20 plus years. However the salting method used has implications not just for the facilities required to continue to use the pre-wetted solution there have been improvements in the industry in the last few years with the development of treated salt. This is a brown salt which has been treated with a natural agricultural by product such as "Safecote" which provides many of the advantages of pre-wet salt but without having to invest in Brine Facilities or modifications to gritters. It is also a cheaper product to buy than White Marine salt and is used by a number of local authorities across the country.

1.5 As a result an outline business case and options appraisal has been carried out to assess the relative merits of the following options:-

- 1 Maintain the Status Quo
- 2 Convert to dry salting operations using rock salt
- 3 Convert to dry salting using treated salt

The results of the options appraisal are summarised in the following paragraphs.

*Option 1 – Maintain the Status Quo*

1.6 This option would maintain the pre-wetting operations currently employed in Lincolnshire, using high purity marine salt which is also used to manufacture the brine.

1.7 The potential advantages of this approach are:

- No changes to tenders and management of facilities required
- Increased storage capacity at dockside

1.8 The disadvantages are:

- High material costs - £133,875 for white salt for an average year
- Increasing maintenance and replacement costs of ageing brine plant. The replacement cost for the brine facilities is estimated at £525,000 with annual maintenance costs estimated at £78,116.
- Ongoing management issues around maintenance and damage of complex pre-wetting operations
- Higher cost of gritters due to the need to fit pre-wet tanks and modifications at an estimated cost of £3,000 per gritter and the need to use 32 ton machines to carry the weight of brine equipment.
- Continuing costs associated with the storage at the dock site.

*Option 2 - Convert to dry salting operations using rock salt*

1.9 This option would see the mothballing of the brine plants across the County on a rolling programme, as well as future gritters being ordered without pre-wetting modifications. Rock salt would be ordered instead of marine salt and spread dry for Precautionary Salting Operations

1.10 The potential advantages of this approach would be:

- Cost savings of £405,060 per year compared to current pre-wet operations using marine salt
- Simplification of the operational aspects of the service when loading and preparing for runs
- Increased resilience due to the reduction in plant thus scope for breakdown

1.11 The potential disadvantages would be:

- Less adherence to the road surface (partially addressed by increase spread rates)
- Reliance on moisture in the atmosphere and traffic action to aid the reaction
- Potential reduction in the Policy starting levels of salt stock at the start of the season as the dockside at Immingham would no longer be available. This resilience issue could be addressed by raising the re-order threshold/minimum level.

*Option 3 - Convert to dry salting using treated salt*

1.12 This option would see the mothballing of the brine plants across the County on a rolling programme, as well as future gritters being ordered without pre-wetting modifications. Treated salt would be ordered instead of marine salt for Precautionary Salting Operations.

The potential advantages of this approach are:

- Cost savings of £465,441.25 per year compared to current pre-wet operations using marine salt
- Simplification of the operational aspects of the service when loading and preparing for runs
- Increased resilience due to the reduction in plant thus scope for breakdown
- Improved de-icing effect at lower temperatures than plain sodium chloride
- Reduced corrosion of vehicles leading to lower maintenance costs of gritters

1.13 The potential disadvantages are:

- Potential reduction in the Policy starting levels of salt stock at the start of the season as the dockside at Immingham would no longer be available. This resilience issue could be addressed by raising the re-order threshold/minimum level.
- More reliance on the manufacturing capability of the provider for a specialist product – less resilience nationally (could be addressed by reverting to plain rock salt and increasing spread rates)

1.14 To further test out the treated salt option (Option 3) trials were conducted with the treated salt at Horncastle and Boston Chainbridge depots to see how the treated salt reacted with the Council's gritters. In summary, the trials went very well and we can envisage no problems with the treated salt in regards to our gritter fleet. Both types of gritters produced very good spread patterns and produced comparable results to the white salt. We were impressed by the lack of encrusted salt in the hopper or the back end of the spreading machine – this showed that the salt was less prone to tunnelling,

would aid us when washing down and would reduce salt corrosion on the spreaders. Overall the treated salt is acceptable to use and should cause no problems in the Lincolnshire Fleet.

- 1.15 In addition discussions have taken place with Norfolk County Council who have been using the treated salt product for some years. The discussion was an open and honest one and from the overall impression was that Norfolk CC was pleased with the product. There had never been an issue with supply and that the Treated Salt had worked over the 8 year period that Norfolk had used it. Norfolk also reported that they believe it had brought them significant savings without a change in service.

Some officers and the support Councillor to the Executive Councillor have visited the salt mine and the operator has assured supply of over twenty years from the current mine.

- 1.16 The recommended option is to convert to dry Precautionary Salting, using treated rock salt due to the further financial and operational benefits over pre-wetted and plain rock salt.

### **Award of Contract**

- 1.17 In anticipation of the proposed change Lincolnshire County Council has tendered for this salt ready for use this year. Initially half the gritting fleet will run with the new treated brown salt, the other half will run down and use the old white salt stock we have. Once this has been achieved they will also transfer over to the new treated brown salt.

- 1.18 A new tender has been issued for the treated brown salt and it is the awarding of this tender that approval is sought.

- 1.19 The initial order will be for 12,600 tons of treated brown salt at a cost of £595,350 however more salt may be required over the Winter.

In future years the salt will be procured in accordance with the ESPO framework contract.

- 1.20 The salt will be funded from the Highway Maintenance Revenue Budget.

### **2. Legal Issues:**

#### Equality Act 2010

Under section 149 of the Equality Act 2010, the Council must, in the exercise of its functions, have due regard to the need to:

\* Eliminate discrimination, harassment, victimisation and any other conduct that is prohibited by or under the Act

\* Advance equality of opportunity between persons who share a relevant protected characteristic and persons who do not share it

\* Foster good relations between persons who share a relevant protected characteristic and persons who do not share it.

The relevant protected characteristics are age; disability; gender reassignment; pregnancy and maternity; race; religion or belief; sex; and sexual orientation

Having due regard to the need to advance equality of opportunity involves having due regard, in particular, to the need to:

\* Remove or minimise disadvantages suffered by persons who share a relevant protected characteristic that are connected to that characteristic

\* Take steps to meet the needs of persons who share a relevant protected characteristic that are different from the needs of persons who do not share it

\* Encourage persons who share a relevant protected characteristic to participate in public life or in any other activity in which participation by such persons is disproportionately low

The steps involved in meeting the needs of disabled persons that are different from the needs of persons who are not disabled include, in particular, steps to take account of disabled persons' disabilities

Having due regard to the need to foster good relations between persons who share a relevant protected characteristic and persons who do not share it involves having due regard, in particular, to the need to tackle prejudice, and promote understanding

Compliance with the duties in section 149 may involve treating some persons more favourably than others

The duty cannot be delegated and must be discharged by the decision-maker. To discharge the statutory duty the decision-maker must analyse all the relevant material with the specific statutory obligations in mind. If a risk of adverse impact is identified consideration must be given to measures to avoid that impact as part of the decision making process

An Equality Impact Analysis has not been undertaken. This work is considered neutral in its impact on protected characteristics groups.

#### Joint Strategic Needs Analysis (JSNA) and the Joint Health and Wellbeing Strategy (JHWS)

The Council must have regard to the Joint Strategic Needs Assessment (JSNA) and the Joint Health & Well Being Strategy (JHWS) in coming to a decision

Consideration has been given to the JSNA and JHWS and as can be seen from the objectives of the service set out above, the Winter gritting service has significant benefits for both the health and wellbeing of the people of Lincolnshire.

#### Crime and Disorder

Under section 17 of the Crime and Disorder Act 1998, the Council must exercise its various functions with due regard to the likely effect of the exercise of those functions on, and the need to do all that it reasonably can to prevent crime and

disorder in its area (including anti-social and other behaviour adversely affecting the local environment), the misuse of drugs, alcohol and other substances in its area and re-offending in its area

The works outlined above are not considered to have an impact on Section 17 of the Crime and Disorder Act 1998 matters.

### **3. Conclusion**

- 3.1 The Winter gritting service is well supported and this material change will ensure that it continues to provide an effective and efficient service.
- 3.2 It is recommended that the Executive Councillor for Highways, Transport and IT approves the change to the use of treated salt and the award of a contract for the provision of treated salt.

### **4. Legal Comments:**

The Council has the power to adopt the recommendations.

The decision is consistent with the Policy Framework and within the remit of the Executive Councillor.

### **5. Resource Comments:**

The costs of the contract award for brown salt as set out in this report will be met from existing approved budgets for the service. Any savings identified from accepting this recommendation will be built into future budgets set by the Council.

### **6. Consultation**

#### **a) Has Local Member Been Consulted?**

No

#### **b) Has Executive Councillor Been Consulted?**

Yes

#### **c) Scrutiny Comments**

The Highways and Transport Scrutiny Committee was informed at its meeting on 23 April 2018 that a move to treated brown salt was being considered to replace the current white salt pre-wet/dry option. It was highlighted that the results of trials undertaken were positive and that a Business Case outlining the cost-benefit analysis was currently under review.

This report on the contract award has not been considered by a scrutiny committee.

#### **d) Have Risks and Impact Analysis been carried out?**

No

**e) Risks and Impact Analysis**

Risk and impact analysis is considered to have a neutral effect.

**7. Background Papers**

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| <b>Winter Maintenance End-of-Year Report</b>   | <a href="http://lincolnshire.moderngov.co.uk/ieListDocuments.aspx?CId=492&amp;MId=5100&amp;Ver=4">http://lincolnshire.moderngov.co.uk/ieListDocuments.aspx?CId=492&amp;MId=5100&amp;Ver=4</a> |
| <b>Appendix A to Winter Maintenance End-of-Year Report</b>                           | <a href="http://lincolnshire.moderngov.co.uk/ieListDocuments.aspx?CId=492&amp;MId=5100&amp;Ver=4">http://lincolnshire.moderngov.co.uk/ieListDocuments.aspx?CId=492&amp;MId=5100&amp;Ver=4</a> |
| <b>Outline Business Case – Treated Salt for Precautionary Salting of the Highway</b> |   |

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