

# 2018 UDOT RESEARCH PROBLEM STATEMENT

\*\*\* *Problem statement deadline is Feb. 2, 2018. Submit statements to [UTRAC@utah.gov](mailto:UTRAC@utah.gov). \*\*\**

**Title:** MagChloride vs High Performance MagChloride

**No. (Office Use):** 18.02.09

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**Select ONE Subject Area**     Materials/Pavements     Maintenance     Traffic Mgmt/Safety     Structures/Geotech  
 Preconstruction     Planning     Perf Mgmt/Data Analytics     Public Transportation

**1. Describe the problem to be addressed:**

UDOT maintenance force currently use MagChloride for a road de-icing chemical but only in a limited number of areas due to the tight parameters that it has to be used under. A new high performance MagChloride has been recently brought to the market and UDOT has not tested this new product for use on our highways.

**2. Write the project objective (25 words or less):**

Evaluate the effectiveness of the new high performance MagChloride vs the current MagChloride product we currently use. Determine if the increased performance is cost effective for UDOT to use.

**3. Explain why this research is important:**

**(In response, consider addressing specific UDOT goals, applicability in Utah or other states, etc.)**

If this new product is successful it will add an additional tool for UDOT to use in our snow plowing operations.

**4. List the major tasks:**

1. Run side by side comparison of both MagChloride products
2. Analyze the effectiveness of both products and write a report with recommendations

**5. List the expected deliverables (reports, manual, specification, design method, training, etc.):**

1. Field data showing the effectiveness of each product
2. Final report with long term costs and effectiveness of both MagChloride products
- 3.

**6. Describe how the research results will be implemented:**

**(In response, consider addressing UDOT leader support, process or standard improvement, etc.)**

If the new high performance MagChloride is effective and cost effective it will be put under contract for UDOT to use

**7. Requested from UDOT:** \$10,000  
**(or UTA for Public Transportation)**

**Other/Matching Funds:** \$

**Total Cost:** \$10,000

**8. Outline the proposed schedule, including start and major event dates:**

Evaluate both products during the 2018 – 2019 snow plowing season. Have a final report and recommendation by the end of the 2019 Fiscal Year.