



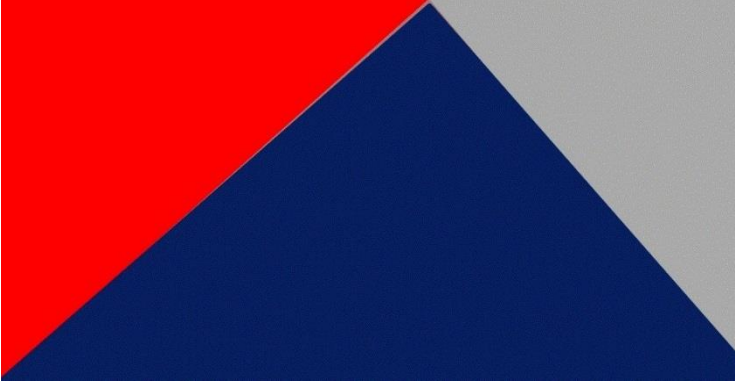
## Winter Service on Cycleways and Footpath

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Ayr Harbour, Ayr, KA88AE

- 
- 5<sup>th</sup> Generation family run business est. 1874
  - UK's largest salt importer
  - Distribute all grades of salt, import approx. 200,000Tc Salt
  - We support councils with:
    - Salt deliveries
    - Grit bins and spreaders
    - Cycle path de-icing equipment and materials



# Agenda

- Active Travel
- Impact on Winter Service
- Practical solutions...
- ... in practice



# Active Travel

- Active Travel
- DFT Government backed:
  - Health
  - Environment
  - COVID
- Increase in cyclists and cycling
- New cycling schemes...

*"What about  
National Cycling Network 17-18*  
786 Million journeys  
16,500 miles of Network  
4.4 Million people

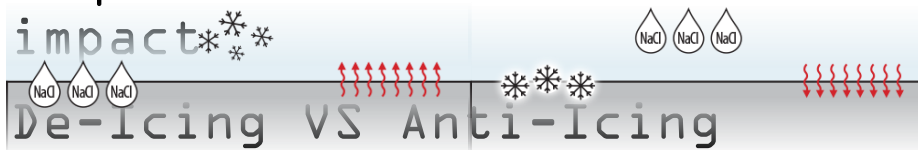


# Impact on Winter Service

## The Power of Salt

- Salt lowers the freezing point of water
- Agitation (traffic) or moisture required
- Not always guaranteed on cycleways / footpaths

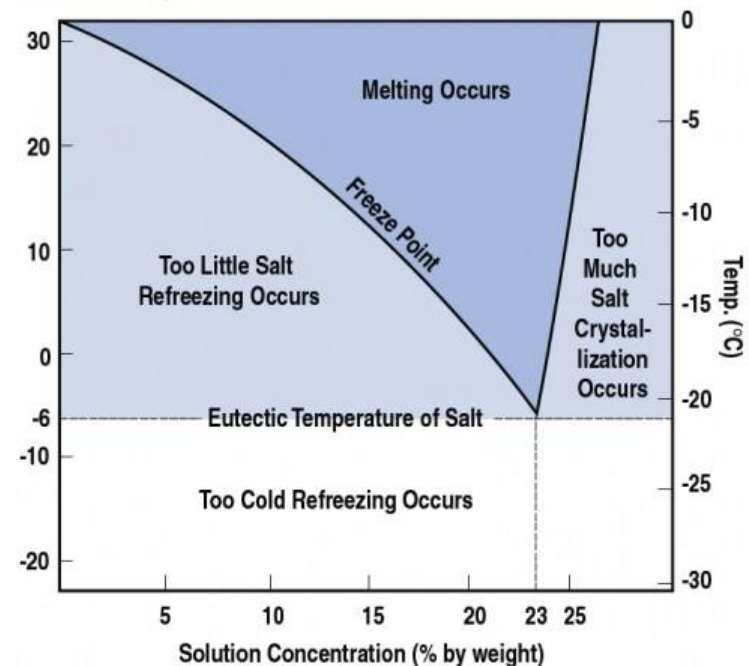
- Liquid de-icers activate on impact
- De-Icing VS Anti-Icing



- Liquid de-icers with benefits:

## Salt brine

Phase Diagram for Salt



# Practical Solutions

## Materials



## Equipment (utilising existing fleet)



# In Practice

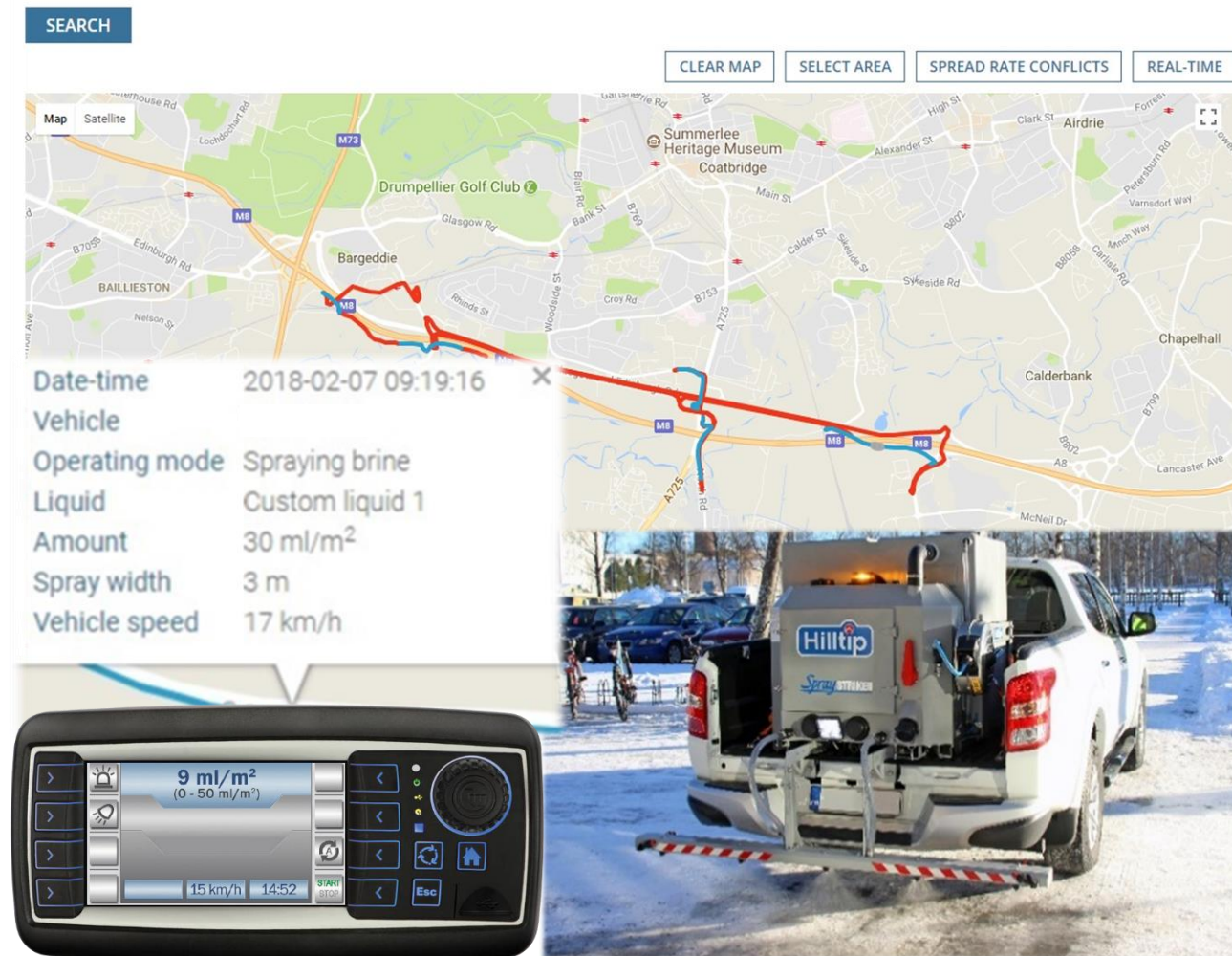
- Priority 1 segregated cycleway network treated through winter
- Using a low corrosive liquid de-icer called Pro-Brine
- Delivered in IBC and refilled on demand
- Corrosion inhibitor, available in:
  - 15L bottle
  - 1,000L IBC
  - 28Te Bulk Tanker
- Applied via sprayer:
  - Multihog – multi attachment vehicle



*Image from different contract*

# In Practice

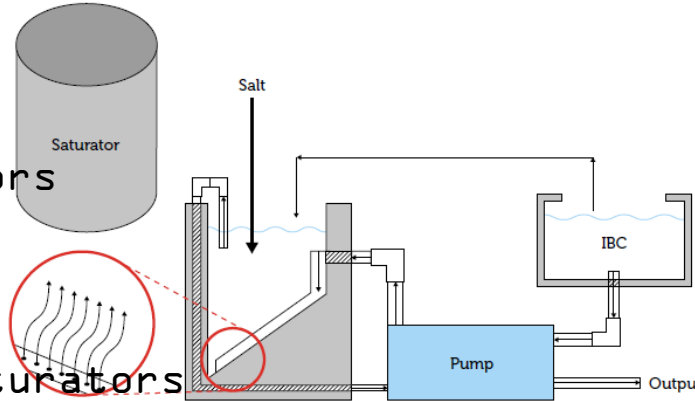
- 20km footpath
- 3-6m wide
- Treated from +1°C
- Brine manufactured on site
- Hilltip Spraystriker 500 onboard existing fleet pickup
- GPS control
- Directional Control spray
- Tracked using





# In Practice

- Brine production
- Small Scale
  - Mini Brine Saturators
- Large Scale
  - Pre-Wet Salt
  - Automated Brine Saturators
  - Producing up to 10,000L / Hr Brine
  - 2-way remote control
  - Minimal intervention



REDUCE SPEND



DE-ICE QUICKER



INCREASE RESILIENCE



LOWER ENVIRONMENTAL  
IMPACT





**NWSRG** National Winter Service  
Research Group

A NEW  
**WINTER APPROACH**  
DIGITAL SUMMIT

### Useful Resources

- NWSRG - Guidance
- Sustrans
- Gov.uk
- A New Winter Approach (Next week)
- [www.anewwinterapproach.co.uk](http://www.anewwinterapproach.co.uk)

Thank you

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