From mountain to sea

Aberdeenshire COUNCIL

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"Wx Horizon - first impressions and powering winter maintenance decision making with IoT sensing"

- What does the 'average' winter look like in Aberdeenshire?
- What do we need in order to manage winter?
- How we have used WxHorizon in Aberdeenshire
- WxHorizon – key points
- The integration of DRS611 IoT sensors

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What does the 'average' winter look like in Aberdeenshire?

- 5,581km of carriageway and 1,470km of footway in Aberdeenshire
- 32 Primary Treatment Routes - approx. 30% of total network
- Over last 5 seasons;
- Average of 44,284T of salt used each year
- Average of 47,306 man hours each year
- Average of 125 treatment days each year
- Average cost of winter is £5,815,241

What do we need in order to manage winter?

- Manpower
- Fleet
- Salt
- Budget
- Forecast data
- Actual road condition data
- A clear decision making process – flowcharts

How have we used WxHorizon?

Currently trialling alongside Vaisala Manager and MetDesk forecasting data

Team of 6 Winter Duty Officers

WxHorizon is currently an addition to our current methods

- Used to enhance and inform the decision making process

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WxHorizon

Key Points;

- Clear, visible data that is user friendly

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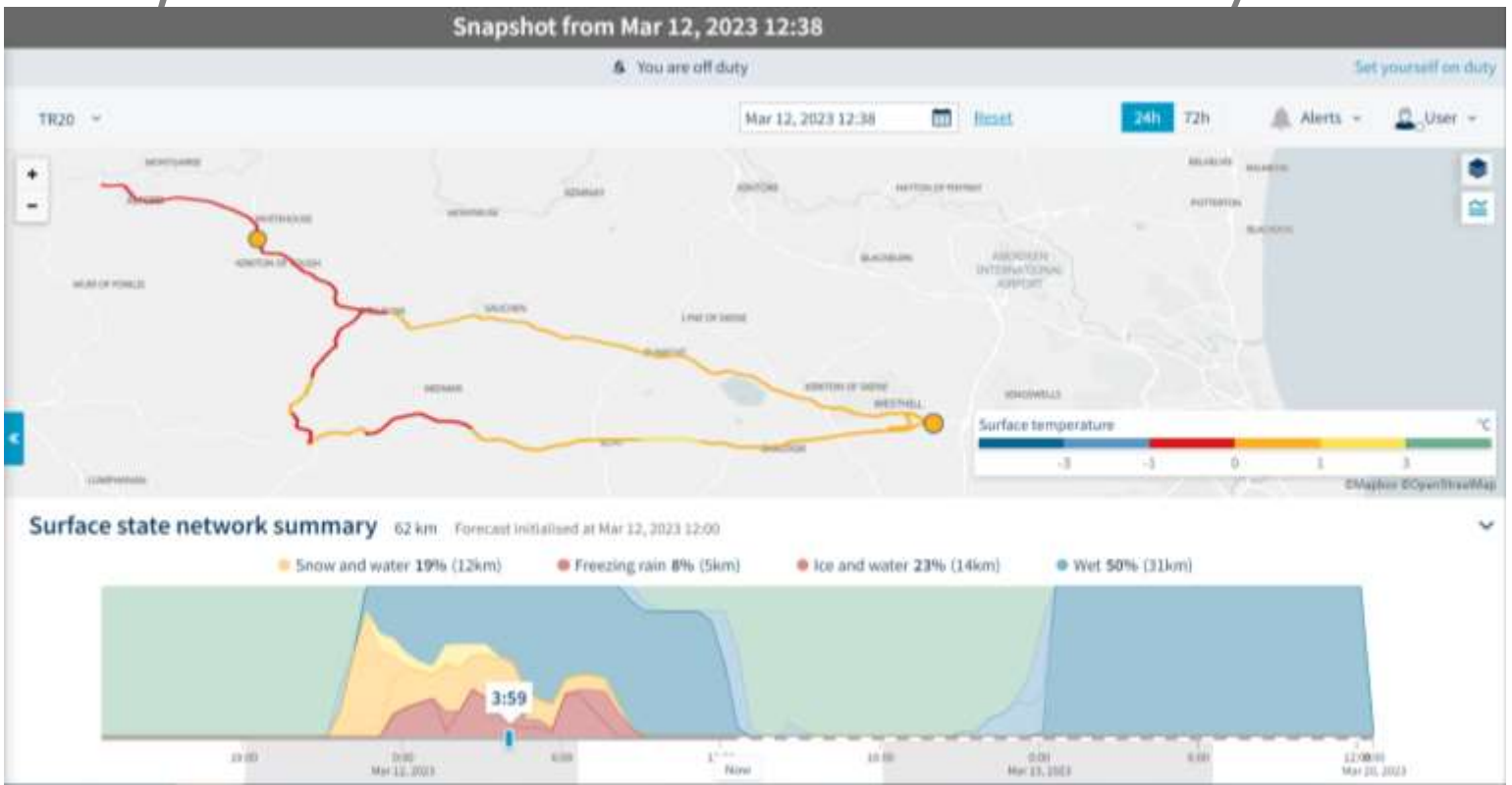
WxHorizon

Key Points;

- Clear, visible data that is user friendly



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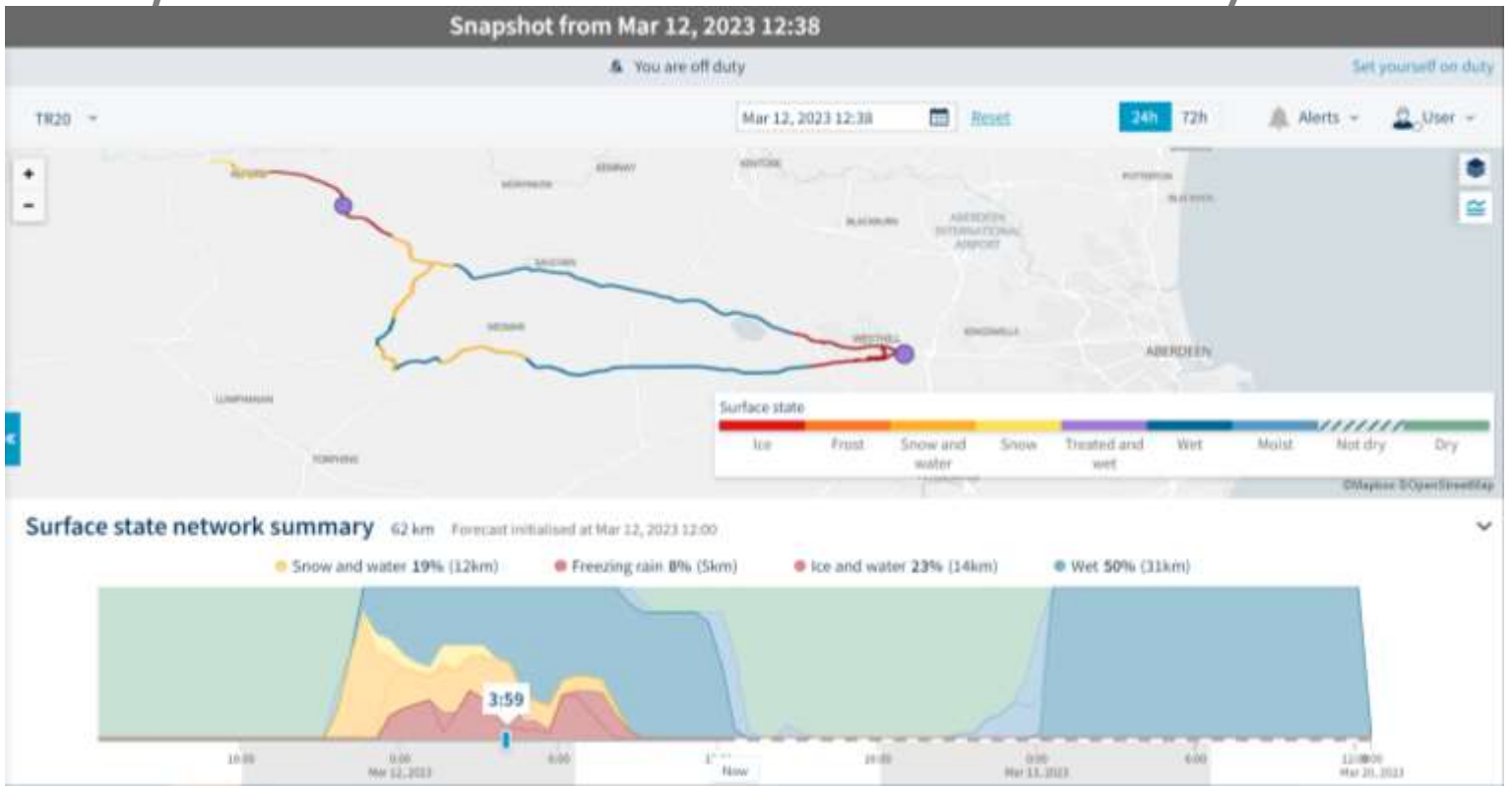
WxHorizon

Key Points;

- Clear, visible data that is user friendly



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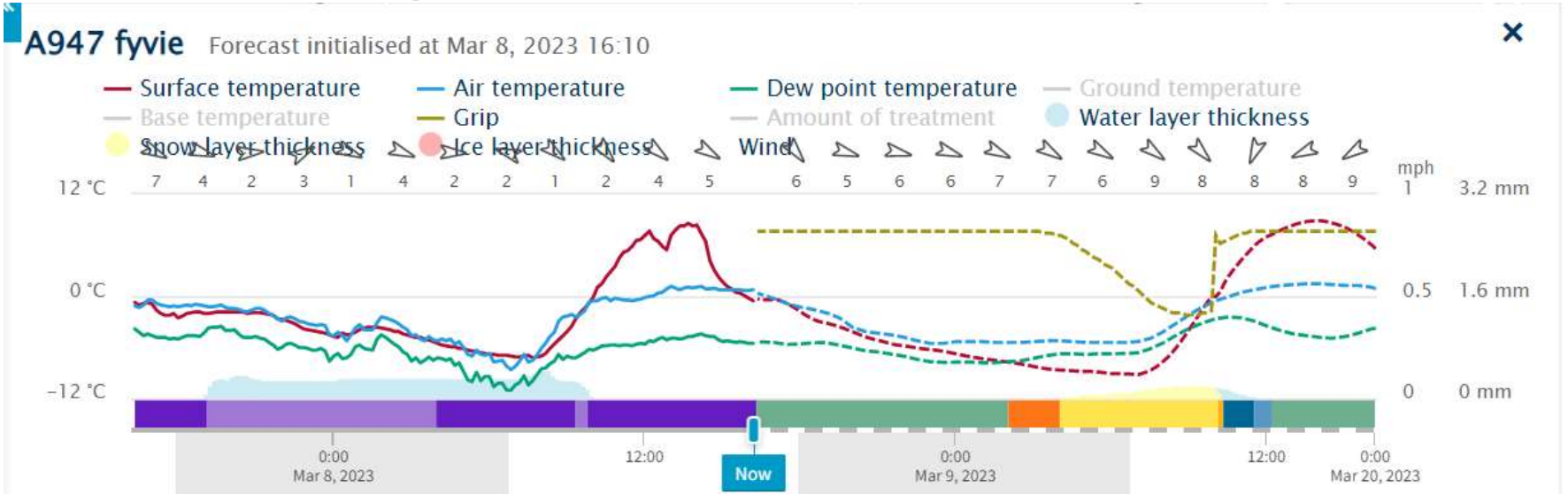
Key Points;

- Forecasting data



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WxHorizon

Key Points;

- Alert function

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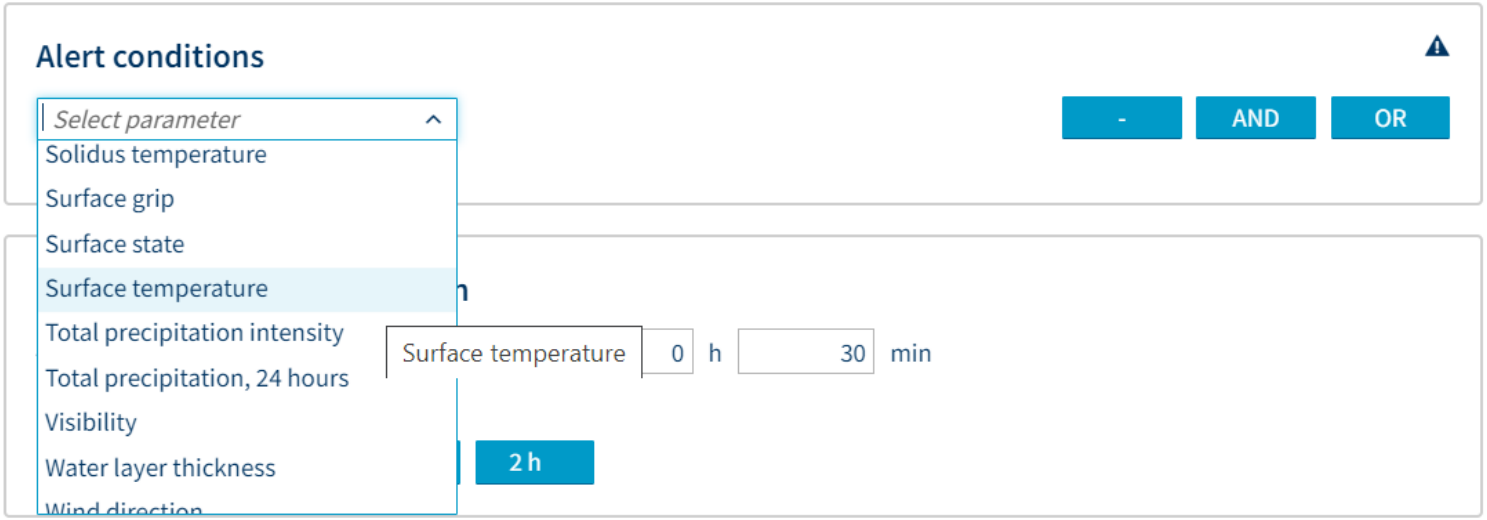
WxHorizon

Key Points;

- Alert function



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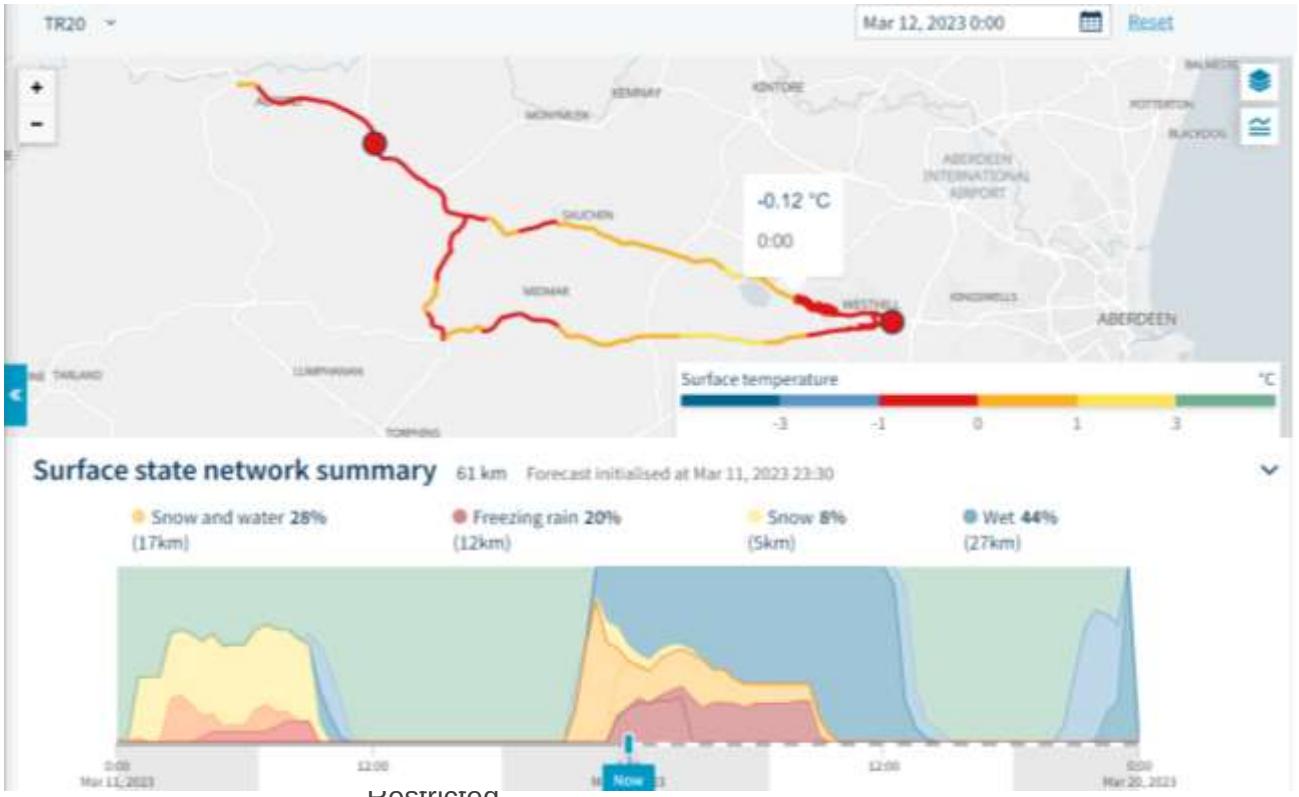
WxHorizon

Key Points;

- Network Assessment feature



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WxHorizon

Key Points;

- Network Assessment feature

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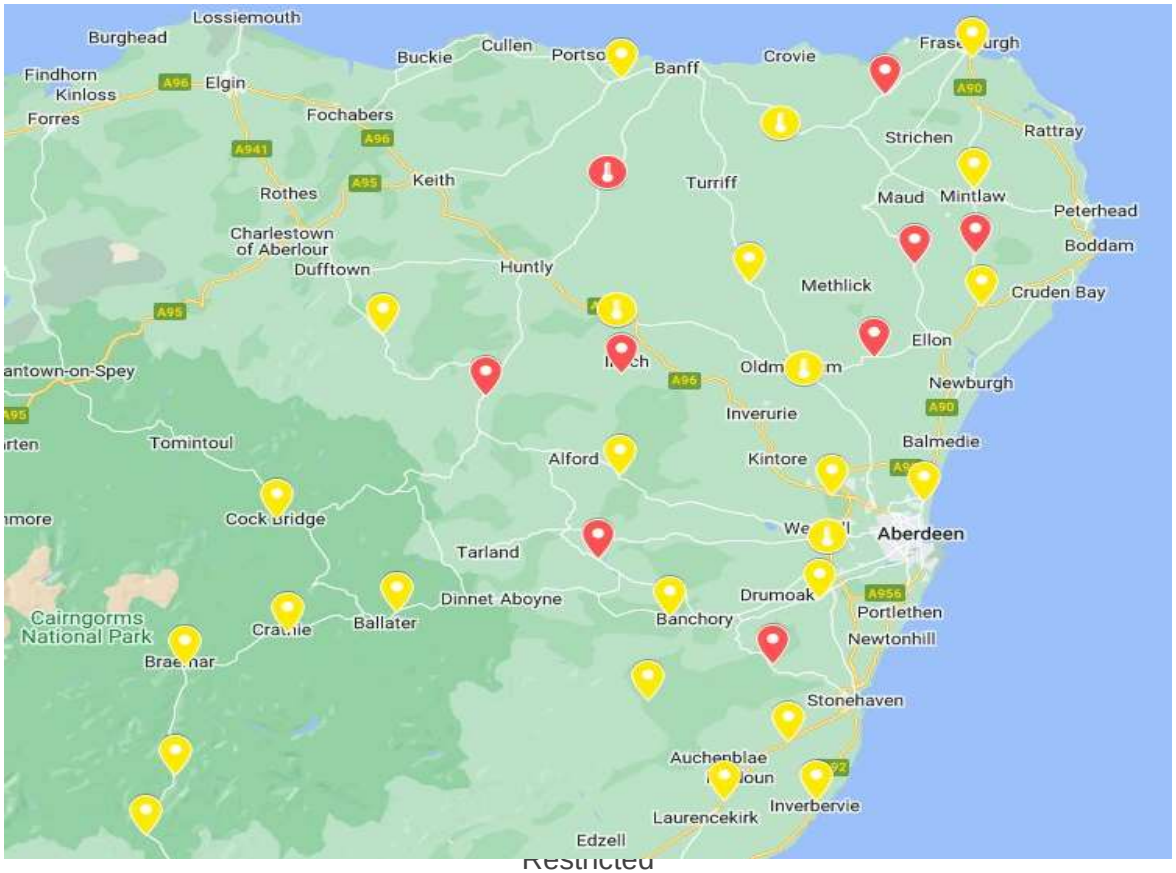
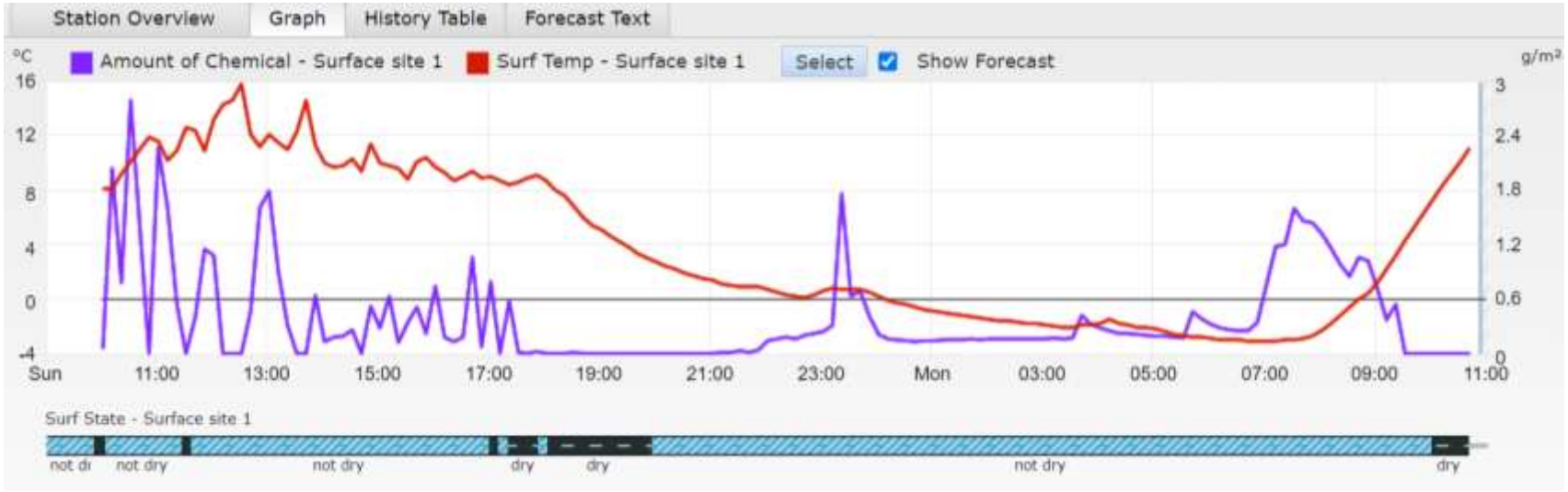
The integration of DRS611 IoT Sensors

9 DRS611 Sensors were installed throughout the network for start of 21-22 season





The integration of DRS611 IoT Sensors

More data for our decision-making process

Increased visibility throughout the network

Accuracy of readings (±0.2°C)

Efficiency of install

The integration of DRS611 IoT Sensors

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THANK YOU!

ANY QUESTIONS?