



Welcome to the latest edition of our Borderlands 5G Innovation Region newsletter, bringing you all the latest updates about the programme as well as what's coming soon.

September has been a busy month, with tangible progress made across various sites and use cases. At Stranraer, one of the permanent masts is now installed, while the civils work has completed at Destination Tweed; the cabinet is now in place, in preparation for masts to be installed.

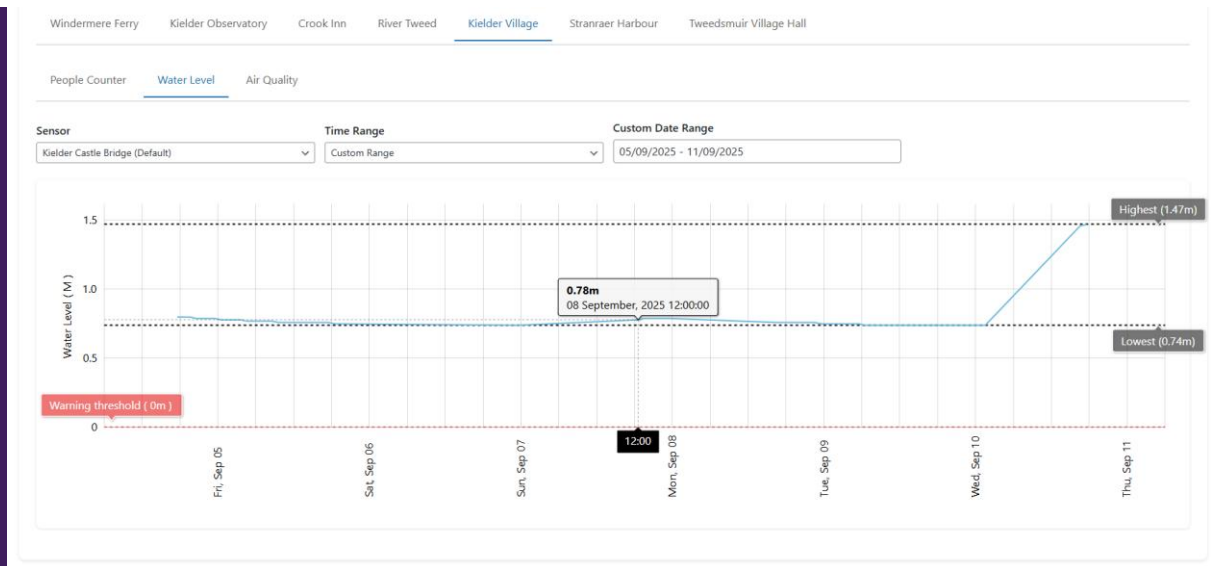
We also now have three months of people counting and water levels data, with visualisations in our data platform. These data flows will provide critical insights. In the image below you can see how water-level can shift suddenly, in this instance rising 70cm in just a few hours. This has implications for the Windermere ferry, where crews already adjust the cables in response to changing water levels. But this real-time data strengthens that local knowledge and, more broadly, gives communities, businesses and visitors at all our venues the insights they need to prepare, adapt plans and stay safe. Visitor counting and the ability to track daily variations is also incredibly valuable, providing communities, businesses and destination managers with insights to better understand seasonal patterns, plan services and enhance the visitor experience.

The data, collected from our sensors across the Borderlands network, will be available to users as soon as testing is complete.

We've also been spreading the message of our work far and wide too, with the team attending and taking part in several panel sessions at Connected Britain, as well as presenting at techUK's 5GIR lessons learned event.

Our message? Improving coverage in rural tourist locations needs a hybrid approach to ensure value for money. 5G private networks are an important option, but they're only part of the picture. In Borderlands we've combined Wi-Fi, LoRaWAN and even satellite where these are the best options economically and technically.

Jonathan Harris, Programme Director, Connecting Cumbria



Data platform showing water levels

Use Case Spotlight

This is the third in a series of deeper dives into our initial use cases, each designed to demonstrate the practical value of advanced wireless connectivity across the Borderlands region.

Stranraer Marina: monitoring water quality, protecting natural capital

One of our Stranraer use cases focuses on water quality monitoring, with 5G-enabled buoys from JET Engineering fitted with Xylem and Libelium sensors. Each sensor connects directly to the Borderlands private 5G network and streams readings into our shared data platform for real-time dashboards and alerts. Initial access will be for the environmental teams at Dumfries and Galloway Council and other public sector users, with the ability in the future to open selected views to the public through tourism channels.

The focus is both practical and local. Data will support day-to-day decisions by marina operators, give early visibility of issues, and reduce manual data collection runs on the Loch. Sensor locations are being focused on sensitive habitats, including seagrass and native oysters, and in areas of suspected nutrient pollution.

Beyond operations, the network is being extended across the southern half of Loch Ryan to serve the Marine Research Centre and nearby water sports hub. Automated data flows will feed the Solway Coast and Marine Project's research and make Stranraer a stronger destination

for environmental research and education. Over time this can be combined with people counting, car park usage and air quality data, to give a richer, evidence-based picture that supports safety, visitor experience and long-term investment in the local economy.



*Left: solar-powered people counting cameras and air quality sensor at Destination Tweed
Right: air quality sensor at Stranraer Harbour Office*

Looking Ahead

October's activities will focus on completing key planning, installation and integration milestones across our venues, in preparation for the sites to migrate to operational service later in the year.

We're also updating our [Borderlands 5GIR programme description page](#). If there are particular questions you'd like us to cover there, please do send them in to connectingcumbria@connectingcumbria.org.

In addition, we're busy making the final preparations for our Windermere 5G Innovation Region Open Day which will be taking place next Friday 10th October. We're looking forward to telling attendees more about the programme across the region and showcasing how 5G technology is benefitting the operation of the Windermere Ferry. If you've not registered, there's still a few spaces left.

You can register for Session 1 - 10:00am – 11:30am [here](#), and Session 2 - 12:30pm - 2pm [here](#).

Keep an eye out for more updates on all this (and much more) in our next newsletter.

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