

## 3. Sustainable catchment management



### Situation

Sustainable Catchment Management (SCaMP NI) has an integral part to play in NI Water's business. Through improving the quality of the raw water using nature-based solutions prior to treatment, we can save resources and extend the life of our assets. SCaMP also helps us protect and improve priority habitats alongside other benefits including recreation and access provision, aesthetic enhancement, erosion and wildfire prevention and climate change mitigation.

### Action



In recent years, The INTERREG VA Source to Tap and SCaMP Teams have piloted a number of nature-based innovations to address these issues.

Upland reservoirs adjacent to commercial conifer plantations are at risk of colour and turbidity fluctuations following felling. The recently completed Source-To-Tap Forestry Pilot implemented and monitored methods of sediment reduction at sites where harvesting was taking place. These trials measured the reductions in sediment run-off afforded by installations of 'leaky dams', settlement ponds and geotextile dams through Time Integrated Sediment Samplers (TISS) deployed upstream and downstream of the mechanisms.

The project also carried out peatland restoration work over winter 2020/21 at Tullychurry forest, Co. Fermanagh. It trialed the novel **cell bunding technique** by creating low bund walls from fresh oxidized peat, forming watertight cells to re-wet the area. By slowly recreating the anaerobic waterlogged environment, bog conditions return and Sphagnum mosses can recolonise. They are essential in the formation of bog habitat. A one hectare plot of the cell bunds was treated with sphagnum seed harvested from the site mixed with a non-toxic coloured liquid compost mix and sprayed to speed up recolonisation.

The SCaMP team directly transferred these techniques to a 27ha area around Lough Bradan. By encouraging the return of a functioning bog, water flow from the surrounding area is slower into the Lough thus improving colour and turbidity, whilst also supporting biodiversity (there is a pair of breeding Hen Harriers currently nesting) and providing carbon sequestration benefits.



### Results

The Tullychurry and Lough Bradan forest to bog restoration projects have received a Green Apple Award 2021 in the **Climate Change** category. The Lough Bradan project will appear on BBC World, Newsline and BBC Radio in November.