NI Water, RSPB and NIEA - Garron Plateau 'Sustainable Catchment Area Management Programme' (SCAMP)

12/12

Key Points

NI Water, RSPB and NIEA collaborated on a SCAMP Project to re-wet the bog, improving water quality.

Used various materials to block drains, allowing peat to re-wet.

Brought grazing on the land to a sustainable level.

Increasing drinking water quality before it gets to the treatment works is vastly more cost effective.

"The project will be used as a demonstration site to highlight the multiple benefits of blanket bog restoration and the techniques involved."

This case study details the SCAMP project run by NI Water, RSPB and NIEA on the Garron Plateau in the Antrim Hills. It sits within the Natural Environment category of the Northern Ireland Adaptation Programme.

NI Water owns 2000ha of land within the Garron Plateau Area of Special Scientific Interest (ASSI), which acts as the catchment for Dungonnell Reservoir. Garron Plateau holds the largest expanse of intact blanket bog in Northern Ireland. The 2010 ASSI condition assessment found it to be in unfavourable condition, primarily as a result of years of overgrazing. Drainage ditches have also caused damage by drying out and eroding the peat.

The result of this damage was a reduced capacity for carbon storage, decline of priority bird species, such as hen harrier or golden plover, and rare plants such as marsh saxifrage. Degradation also impacted upon the quality of drinking water, leading to discolouration and higher treatment costs. From previous examples in England it was clear that increasing water quality before it gets to the treatment works is the most cost-effective approach. Damaged peatlands are less resilient to the impacts of climate change and levels of water discolouration are steadily increasing at upland water catchments across the UK.

Overview

NI Water, RSPB and NIEA used a SCAMP approach to restore 2000ha of peat bog on the Garron Plateau in Antrim. The aim was to reduce grazing pressure and block bog drains in order to restore the former quality of the bog and filter drinking water for abstraction by NI Water.

Key Objectives

Reach favourable ASSI conservation status by 2016.

Improve water quality at source.

Make the blanket bog more resilient to climate change.

Use as a demonstration site to hone and share restoration techniques.

Use as a case study to advocate the importance and value of peatland restoration.

Provide a home for priority species.

Key Actions

The creation of a 'Dungonnell Reservoir Catchment Management Plan,' to identify catchment level issues and sustainable land management strategy.

Reduce grazing to allow re-vegetation of bare peat, which will improve carbon storage capacity.

Block drains to raise the water table and re-wet the peat, which stops peat oxidising and releasing carbon into the water and the atmosphere.

Challenges

Management plans are an integral step in catchment management. However, in the initial stages of SCAMP, NI Water could only invest funds in capital works. Therefore, the RSPB drafted the plan on their behalf, with funding from NIEA.

This was the first project of its kind in Northern Ireland for NI Water and the RSPB. Therefore, the appointed contractors (Euroservices) initially worked closely with Moors for the Future, an NGO based in the Peak District with experience of the techniques involved. This ensured that skills and knowledge were transferred to a local contractor and to the NI Water and RSPB staff involved.

NI Water leases the catchment out to a number of graziers. Blanket bogs are often used for rough grazing but they are particularly vulnerable to trampling damage if stocking density is too high. Grazing is an important management tool in the uplands so the project partners worked with the graziers to reach optimal grazing levels for blanket bog recovery (0.075 livestock units per hectare), without impacting farm livelihoods

Garron Plateau

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Successes

The project is still at an early stage but is already an example of how multiple organisations with different priorities can work effectively in partnership to reach a common goal.

The Garron project is one of a suite of projects developed by various partners under NI Water's SCAMP. These projects aim to demonstrate that a catchment approach is a more sound investment of public money.

As SCAMP has grown, NI Water has employed a full-time Catchment Manager to oversee delivery at other catchments.

NI Water is already working on catchment management plans for other priority catchments.

The Garron project is resulting in the restoration of 2000ha of blanket bog which is designated as an Area of Special Scientific Interest (ASSI), Special Area of Conservation (SAC), Special Protection Area (SPA) and a Ramsar site.

Climate Adaptation

There is certainly a strong mitigation aspect to this project. Peatlands cover 13% of the land area of Northern Ireland but store 42% of the country's soil carbon store. Around 80% of Northern Ireland's peatlands have been degraded in some way, reducing their capacity to capture and store carbon.

However peatland restoration is a vital climate adaptation tool because healthy peatlands not only capture and sequester carbon, but as functional wetlands they can alleviate flooding and provide a clean, secure and cost-efficient drinking water supply.

The bog is also more resilient to prolonged dry periods with the drain blocks in place.

Lessons learned

Collaboration is the key to success. Different partners bring different expertise to the project, which ultimately makes it more likely to succeed.

Make use of best practice developed elsewhere. United Utilities and other English water companies had already delivered projects like Garron SCAMP. By receiving advice and best practice lessons, NI Water, the RSPB and NIEA were able to ensure successful delivery of the project.

The management plan was essential as it identified the issues across the catchment and enabled the team to make appropriate land management changes.

Consultation with other land users and neighbouring landowners is an important step in ensuring that impacts of land management changes do not negatively impact others.

As the site recovers, the team should be able to value the changes to water discolouration and water treatment costs.

The project will be used as a demonstration site to highlight the multiple benefits of blanket bog restoration and the techniques involved.

Case Study

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