

NET ZERO 2040



EXPAND SUSTAINABLE LAND MANAGEMENT

We will expand our sustainable catchment area management and wider land management to increase the ability of our land to reduce our emissions.

RESTORING PEATLANDS

Decades of poor land management practices have resulted in the majority of the Northern Ireland's peatlands being unable to remove and store carbon. Peatlands cover 12% of the land area in Northern Ireland, yet 86%

are degraded and only about 1% of the peatland area has been restored over the last 30 years. Preventing further damage and restoring healthy ecosystem function can therefore play an important role in climate regulation. Conserving and restoring peatlands also prevents loss of biodiversity and helps to enhance water quality.

NI Water is progressing a project at the Garron Plateau to restore naturally degraded areas. We plan to have this work validated by the International Union for Conservation of Nature (IUCN) so that NI Water can obtain the carbon credits for the project.

CHANGING THE 'BOG STANDARD' APPROACH AT THE GARRON PLATEAU

NI Water has been a partner in a collaborative project with RSPB and the NI Environment Agency to restore 2,000 hectares of peat bog on the Garron Plateau in Antrim. This is the largest expanse of intact blanket bog in Northern Ireland. Prior to the regeneration work, this unmanaged bog was annually emitting around 17,000 tCO₂e.

Grazing densities were reduced and bog drains dug in the 1960s were blocked in order to restore the former quality of the bog, promote carbon sequestration and filter drinking water for abstraction by NI Water. From the work carried out to date, this has reduced by 10,000 tCO₂e. With



further work, it is estimated that in 2040 there is the potential to instead turn the bog to capturing around 1,000 tCO₂e each year.



Visit <https://www.niwater.com/garron-plateau-bog-restoration-project/>

PLANTING THE RIGHT TREES IN THE RIGHT PLACE

Trees also help to absorb carbon along with improving resilience to flooding and heat stress. Yet Northern Ireland is one of the least wooded regions in Europe, with just 8% woodland cover compared with 13% in Great Britain and 37% in Europe.

Our 10-year partnership with The Woodland Trust Northern Ireland and other partners has resulted in the planting of over 150,000 trees in some of NI Water's 24 drinking water catchments from Counties Antrim to

Armagh. Over the next decade we will plant one million of the right trees in the right place. We look forward to our partnership continuing to grow and flourish like the trees.





WET WOOD AT FAUGHAN RIVER

In 2020/21 NI Water partnered with the Woodland Trust and provided resources for a 'wet wood' flood alleviation project alongside the Faughan River, County Derry/Londonderry. Tree species planted together include Alder, Aspen, Sessile Oak, Downy Birch and Willows.

The planting of 2,000 trees and creation of ponds within the private land will improve water quality, remove, and store carbon, increase biodiversity by providing new havens for wildlife and have wider health and contribute towards societal well-being.



OTHER CATCHMENT AND LAND IMPROVEMENTS

There are variety of other vegetation types such as grasslands in our water catchments and wider land bank. Improvements to land management practices can help ensure that these other types of vegetation and the underlying soils can help absorb carbon and deliver wider water quality and biodiversity benefits.

PESTS, PATHOGENS AND INVASIVE SPECIES

Our changing climate can increase risk exposure associated with pests, pathogens and invasive species. These can reduce the benefits from sustainable land and catchment management by leading to a deterioration in the health of our water catchments and wider land holdings. We will ensure that our planning mitigates the risk exposure from these types of threats. This will be supported by participation in research by UKWIR and other industry research bodies.

WILDFIRES

Our changing climate also increases the risk exposure to wildfires, which can cause extensive damage to our water catchments and their ability to reduce our emissions. The erosion caused by wildfire increases carbon and other polluting chemicals in raw (untreated) water, and sediment in streams, lakes and reservoirs. This makes raw water more carbon intensive and expensive to process at our water treatment works. We partner with a range of stakeholders including the Mourne Heritage Trust, the Woodland Trust and the National Trust to develop wildfire plans, which include land management approaches such as controlled burning. We have also increased the operational resilience of our treatment works and identified remedial measures such as blocking streams to protect reservoirs.



Wildfires in the Mournes, County Down.