

Denbighshire Moorland Management and Wildfire Prevention Project

Project update February 2023

Introduction

The Denbighshire Moorland Management and Wildfire Prevention Project was established as one of the recommendations taken from the Llantysilio Mountain Fire Review in 2019. This included the appointment of a Moorland Field Officer jointly funded by DCC and NRW for a period of three years. The MFO was appointed in November 2020 and this report outlines progress and achievements against the objectives of the project.

The project started during the Covid 19 Pandemic which at the time had an impact on the ability to effectively engage with communities, landowners, farmers and partner organisations. Similarly, some capital works were disrupted & delayed during the pandemic by sickness and lock down constraints. None-the-less, the project has achieved much despite the disruption caused by the pandemic.

Project Objectives

One of the primary objectives of the project was to appoint a Moorland Field Officer (MFO) who would assist in bringing together relevant agencies, including NRW and NWFRS, to facilitate practical works, share resources and promote awareness of the link between moorland management and wildfire risk reduction. The MFO was also tasked with working with landowners and farmers to co-ordinate and support appropriate management activities and plans to improve upland habitats within the AONB and reduce the risk and impacts of wildfires.

The objectives of the Denbighshire Moorland Project / Moorland Field Officer were to:

1. Develop and deliver a programme of restoration on Llantysilio mountain ensuring appropriate action is taken to reduce soil erosion and improve the habitat recovery.
2. Work with communities within and around the AONB to improve management of upland habitat for biodiversity and to reduce the risk of wildfires.
3. Work collaboratively with stakeholders to write Fire Management Plans for moorland within the AONB.
4. Support NRW in the progress of Section 16 Management Agreements to support designated sites.
5. Maintain a partnership of the primary partners (NRW, DCC, Fire Service and other).
6. Plan and deliver a programme of management works for moorland areas in Denbighshire.

Progress against objectives

1. To develop and deliver a programme of restoration on Llantysilio mountain ensuring appropriate action is taken to reduce soil erosion and improve the habitat recovery.

A task group was established early in the project with staff from NRW and the AONB to develop a programme of works using a number of restoration techniques proposed in the NRW Evidence Report No. 372 by Penny Anderson Associates (2020).

In March 2021, heather was cut and collected from a neighbouring hillside on Llantysilio and airlifted by helicopter in dumpy bags to the wildfire site where the contents of the bags were spread out as a thin mulch.



The heather provided protection to the soil from erosion by the elements and a microclimate for heather seed to naturally colonise. An upland grass seed mix was also sown under the heather brash, to stabilise soil and act as a nursery crop for naturally colonising moorland plants.

Surveys of the plots have shown a reasonable success in establishing the grass seed mix where the heather brash was spread out thinly. A thick heather mulch was found to suppress natural regeneration and germination of grass seed.

In October 2021, a five-hectare area of Moel Y Faen, which was most severely affected by the wildfire and left as bare ground, was hydro-seeded with an upland grass seed mix. Working with a specialist contractor (CDTS) and in partnership with the North Wales Fire and Rescue Service (NWFRS) and Severn Trent Water, over 100,000L of water was pumped to the top of Moel Y faen where the hydro-seed slurry was mixed and spread. This meant that erosion to the site from machinery was kept to a minimum and provided an opportunity for NWFRS personnel to try out new techniques for getting water onto the mountain in the event of wildfire.



At the same time, a further five-hectares of accessible moorland on Moel Y Faen & Moel y Gamelin were conventionally seeded using a specialist Alpine tractor.



The outcome has been a mixed success, with areas seeded by hand in April 2021 under heather mulch responding the best. The hydro-seeding had an initial flush of germination in the autumn of 2021, however many of the grass seedlings failed over the harsh winter and during the drought in the spring summer of 2022. The most successful establishment has been on areas of bare soil where the hydro-seed has been able to establish roots into the soil.

The MFO has worked with the NRW monitoring team to establish 60 permanent monitoring points (1m² quadrats) to monitor the changes in vegetation into the future. A National Vegetation Classification (NVC) survey of the entire moorland area on Ruabon/Llantysilio Mountains & Minera SSSI is currently out to tender with NRW and scheduled to take place in the summer 2023. This will generate valuable information about the different vegetation communities on the SSSI and will inform future management priorities.

2. To work with communities within and around the AONB to improve management of upland habitat for biodiversity and to reduce the risk of wildfires.

During the project the main focus has been to engage with the farming community, learning about issues and barriers to managing the moorland and exploring solutions to their needs. The MFO has developed good working relationships with landowners and grazers on Llantysilio, Llandegla Moor, Liberty Hall (Rhug Est), Moel Y Parc and Moel Famau Country Park on the Clwydian Range. There is a need to continue this work to develop relationships and further co-operation.

The project has engaged with Llantysilio Community Council in particular in relation to restoration works on Llantysilio Mountain following the wildfire in 2018. A project newsletter has also been circulated to Community Councils in Llandegla, Bryneglwys, Llangollen and Corwen.

The MFO presented the Denbighshire Moorland Project to members of FUW and the NFU at the Royal Welsh Agricultural Show 2022 as part of an all-Wales wildfire awareness campaign “Wildfires Wales” lead by NRW and the Fire & Rescue Services. This has raised the profile of the project in Wales and has subsequently enabled networking at all-Wales level.

The project collaborated with NWFRS in the production of a public information video (in Cymraeg and English) promoting good practice in controlled / prescribed burning (YouTube: Stop Wales Burning). The film has been adopted by all Fire Services in Wales and has been positively received by Fire Services in England.

The project has used social media campaigns at key times of the year to promote wildfire awareness and responsible behaviours when in the countryside. This has included using AONB commissioned animations and the Fire Services Dawnglaw initiative.



3. To work collaboratively with stakeholders to write Fire Management Plans for moorland within the AONB.

The MFO has fed into the North Wales Resilience Forum Multi-Agency Regional Wildfire Plan coordinated by North Wales Fire and Rescue Service. This has resulted with the inclusion of a specific Partner Information Card relating to the role of AONB staff and resources which will assist in better collaboration between agencies at future wildfire incidents.

As part of the Regional Wildfire Plan, Wildfire Site Cards are to be produced for specific sites to be led by NWFRS. Wildfire Site Cards will then be available electronically on Mobile Data Terminals on all fire appliances. The MFO will play an important role supplying local information for the production of these cards.

4. To support NRW in the progress of Section 16 Management Agreements to support designated sites.

Section 16 of the Environment Act (Wales) 2016, confers a broader power for NRW to enter into land management agreements for any purpose within the remit of NRW. The agreements set out an agreed management policy to conserve the features of a SSSI and provides a mechanism to contribute to the cost of the works on an annual basis subject to funding availability.

A total of seven Section 16 Management Agreements have been established during the project covering the majority of the moorland that forms the Ruabon / Llantysilio Mountains and Minera SSSI. The agreements between the landowners and NRW were formalised during 2022 and last for five years.

DCC are signatory to one of the Section 16 Management Agreements relating to land at Moel Y Faen / Moel y Gamelin which was affected by the wildfire in 2018. This agreement enables DCC to directly undertake works to manage and restore the moorland affected by the fire, with funding through the Agreement.

The MFO played an essential role in supporting NRW in arranging the S16 management on Llantysilio for 2022/23, with liaison between the landowners, agents, graziers (with common rights) and local

contractors, co-ordinating management on the ground. Over 38 hectares of moorland has been managed at a cost of £23,310 funded through S16 MA.

While the S16 Management Agreement focus on management of the habitat for the features of the SSSI, it also helps to make the moorland more resilient to future wildfire events by reducing the fuel load of the vegetation and creating different age structures which will reduce the severity of the fire.

5. Maintain a partnership of the primary partners (NRW, DCC, Fire Service and other).

In March 2021, the Denbighshire Moorland Project Board was convened to steer and oversee the delivery of the project. The project Board has met five times and has representation from a local farmer/landowner, NGO (RSPB), NRW (a broad spectrum of officers from Conservation Officers, Upland Specialists and Area Statement staff), officers from DCC Countryside Service and North Wales Fire & Rescue Service (Wildfire Lead and Arson Reduction).

Collaborative working has been extensive outside of the Project Board. The MFO has worked closely with NWFRS facilitating training on site, inputting to the NW Multi-Agency Wildfire Response Plan and assisting at wildfire incidents along with AONB Rangers.



The partnership has remained strong during the Project, it is valued by all partners and has grown to include other organisations such as the RSPB. There is a desire from partners to establish a wider upland management partnership with a broader remit to include specific action for species of most concern in particular black grouse and curlew where the AONB is one of the last strong holds in Wales.

6. Plan and deliver a programme of management works for moorland areas in Denbighshire.

The traditional season for heather management, which includes prescribed burning, is between 1st October and 31st March. This means there have been three management seasons for the duration of the project from November 2020 to March 2023. During this time heather is either burned or mown in patches with a flail/topper to encourage fresh new growth, this is beneficial to livestock and rare upland bird species like the red grouse and black grouse.



As a result of this project, approximately 140 ha of moorland management has been delivered across sites in Denbighshire covering Ruabon/Llantysilio Mountains and Minera SSSI, Llandegla Moor SSSI and at sites on the Clwydian Range (Moel Famau Country Park). Work has been prioritised at high risk areas based on wildfire risk assessments of vegetation fuel load, aspect and likely sources of ignition.

Additional moorland areas have been actively managed by landowners such as at Ruabon moor, Vivod, Nantyr, and north Berwyn (Rhug Est).

During the project the MFO also delivered two years of capital work funded through the **National Peatland Action Programme** – a total of 50 ha of peatland on Ruabon Moor was cleared of invasive Sitka spruce and 10 ha of peat bog is under restoration at Llandegla Moor, where colonising birch trees have been removed and drainage ditches blocked (photo below) to retain water on the peat bog. This benefits the upland biodiversity, helps to store carbon, contributes to natural flood management while also making the peat bog more resilient to wildfire.



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