

Gorse Fires in Mourne Mountains

CASE STUDY

Gorse Fire in Mourne Mountains 2011



The Mourne Mountains, are a granite mountain range in County Down in the south-east of Northern Ireland, they include Northern Ireland's highest mountain Slieve Donard (850 metres/2,790 ft.). They lie within an Area of Outstanding Natural Beauty (ANOB) and contain within them an Area Special Scientific Interest (ASSI) site. The ASSI site lies inside the Mourne Wall, which was built between 1904 and 1922 by the Belfast Water Commissioners to enclose the water catchments of the Silent and Annalong Valleys.

The area is home to dragonflies, lizards and naturally-reared mountain birds such as wheatears, ravens and occasionally red grouse and falcons can be seen. The woods, lawns and ponds of the reservoir grounds contain different types of birds as well as many interesting heath and wetland plants (particularly at Sally Lough). There is a healthy badger population. Other legendary beasts are reputed to live in nearby mountain lakes – particularly Lough Shannagh.



Gorse fires can have major implications on this delicately balanced environment. It is very easy for a fire to start and become out of control in the mountain environment have serious implications. On top of the environmental damage these fires pose a threat to human life and can cause major damage to people's homes. There is danger to livestock and loss of grazing land to farmers which is essential to the health of the Mournes. Also loss of business for tourism enterprises and the cost to the public purse not only from the fire-fighting but the additional costs of water treatment in the Silent Valley Catchment that Northern Ireland Water will have to bear for months and perhaps years to come.

Background

In 2011 there was a spate of wildfires across the Mourne Area of Outstanding Natural Beauty. Mourne Heritage Trust (MHT) ranger staff liaised closely with the Fire and Rescue Service to bring these under control and witnessed the speed and ferocity of the flames in the Annalong Valley in particular.

The Mourne Mountain range is a designated special area of conservation and an important catchment area for Northern Ireland's drinking water supply. Water from the Mournes runs into Ben Crom and Silent Valley reservoirs and is transported from there to water treatment works where it is treated to drinking water standard. The Silent and Annalong Valleys provide about 400,000 people with up to 30 million gallons (130 million litres) of water a day. It has an unseen underground pipeline – the Mourne Conduit – which carries the water to Belfast (56 kilometres).

While the quality of water running into Silent Valley was affected by the fires, there was no impact on the quality of treated water coming through customers' taps. However, there was a sizeable cost implication for the extra treatment needed for the polluted water.

Many of Northern Ireland's upland areas are peat bogs due to the wet and cold prevailing conditions. However, if these peat lands dry out, due to extended dry periods, fissures open. This leads to decay, loss of structure, loss of habitat and increases their vulnerability to damage by fire. It also leaves the peat deposits more susceptible to erosion when heavy rains next occur. For example in July 2004 a fire lasting a few days occurred in an area of blanket bog above the Mournes Silent Valley Reservoir covering approx 0.8 square km. This occurred after a very dry spring, which whilst this may have been due to natural climatic variations, is a weather pattern consistent with the climate change projections for NI. This fire had a considerable effect on the raw water quality in the reservoir used to supply Drumaroad Water Treatment Works, a works which supplies drinking water to over 15% of Northern Ireland's population. There was also an immediate increase in the colour and organic content of the raw water. It took until June 2006 for the raw water quality to significantly improve. Operational changes had to be implemented to maintain the quality of the treated water, including increased use of chemicals and power. This one incident cost circa £230,000 and demonstrated that upland catchments need careful monitoring and management to protect future raw water quality so that treatment costs can be minimised.

Matthew Bushby, Countryside Services Manager with the Mourne Heritage Trust said *'While we cannot yet fully assess the implications of the recent fires they form by far the biggest single incidence in the Mournes in recent memory. Added to this is the fact that, having burned for so many days, the damage is likely to be extensive in terms of depth as well as the massive acreage covered. Where fire burns down into the peat it can destroy the seedbed which is required for the heathland plants, including the characteristic heather and unique Mourne Juniper, to recover. The deeper the burn the greater loss of other wildlife including nesting birds like curlew and grouse. We are talking about areas that in some cases are designated as among the most important of their type of habitats in Europe at a time when we have been developing a programme of measures to improve the condition of this important heathland. While the damage now done is heartbreaking it only enhances our determination to continue to work within the modest resources available, to look after this important place.'*

Recommendations

NI Water, Northern Ireland Environment Agency (NIEA) and the NI Fire and Rescue Service (NIFRS) sought to find a 'joined-up' approach to wildfire management within the Mourne Mountains. Through this, a project was initiated that would produce a 'Wildfire Management Plan' for the area.

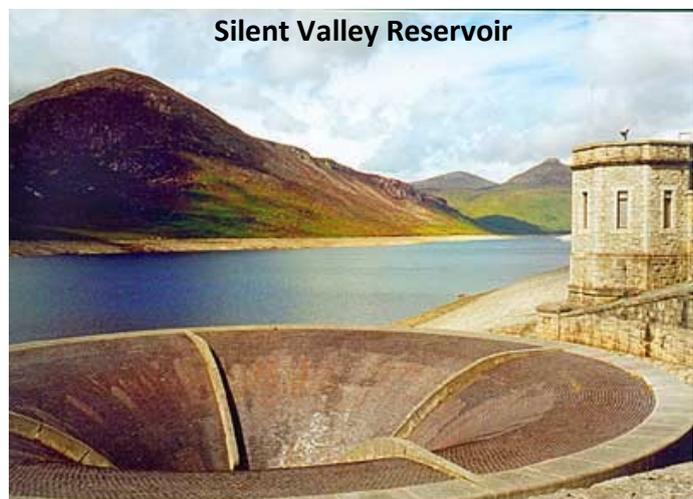
Investigations began in 2011 and involved contributions from many industry experts including representatives from:

- Mourne Heritage
- Wildfire Advisory Services
- Kings College London

The report made the following recommendations for future wildfire management in the Mourne Mountains:

1. Management of 'critical areas' should be overseen by a responsible body and it is suggested that an Eastern Mourne Fire Group be setup for this purpose.
2. Members of the Fire Group should develop the expertise, knowledge and understanding to manage the areas effectively.
3. Stakeholders should share in the responsibility of intervening at wildfires and provide both financial and practical support to the Northern Ireland Fire and Rescue Service.
4. Land managers should be trained and equipped to provide an initial response team that can assist in intervention activities.
5. Northern Ireland Fire and Rescue Service should consider creating a wildfire 'hub' at an appropriately positioned station.
6. Stakeholders should form a collaborative response to wildfire – this will address many of the long standing issues /barriers that exist , instigate meaningful change in the future and manage a long term strategy.

Wild fires being fought across the UK



Dymphna Gallagher, Head of Safety, Quality and Compliance within NI Water, said it was

"unfortunate that these fires are ruining the beautiful scenery and the quality of raw water flowing into the Silent Valley Reservoir"

"Years of work building up this area have been destroyed in a few short days," she said. "It will take a long time and a great deal of work and commitment from those involved in preserving the Mourne to return it to the condition it was in."

Key Challenges

The successes of the project include:

- The tight financial constraints on the project meant that only a limited scope could be delivered.
- The project was unnecessarily constrained by a tight timeframes, these could have been looser and perhaps more delivered within the same budget.



Key Successes

The successes of the project include:

- Bringing stakeholders together to plan a single way forward.
- Developing a network of experts that were involved in the project.
- The setting up of a Mourne Wildfire Working Group.
- Raising awareness that the fire risk in the Mourne is cyclical and can be managed.

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