

Denbighshire County Council Communities Scrutiny Committee



Llantysilio Mountain Fire Summer 2018

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Foreword

By Councillor Huw O Williams

Chair of Denbighshire County Council's Communities Scrutiny Committee



The dry, hot summer of 2018 was a welcome boost to Denbighshire's economy with thousands of visitors attracted to the area to enjoy its scenery, attractions and amenities. Whilst the majority of residents and visitors were enjoying the fine summer weather one part of the county was dealt a devastating blow when a wildfire ignited on Llantysilio Mountain, near Llangollen.

Not only is this area popular with tourists and walkers it is also home to a variety of wildlife. Due to the area's natural habitat it is designated as a Site of Special Scientific Interest (SSSI) and forms part of the Clwydian Range and Dee Valley Area of Outstanding Natural Beauty (AONB).

The fire on the mountain burnt from mid-July until late August and resulted in approximately 250 hectares (617 acres) of the mountain habitat suffering catastrophic damage. Attached at Appendix 1 is a map illustrating the approximate area of the mountain affected by the fire. The extent of the destruction is still visible today, some twelve months after the event. Not only did the fire affect the mountain and its ecology, local residents and businesses experienced disruptions to their daily lives over an extended period of time due to the restrictions placed upon them while the emergency services dealt with the fire. Furthermore, in the medium to long-term the consequences of the fire is likely to have a detrimental effect on the livelihoods of those who depend on the mountain and surrounding area for a living, and could effectively lead to a centuries old way of life disappearing from this particular part of Denbighshire.

Due to concerns raised by local residents and businesses Denbighshire County Council's Communities Scrutiny Committee decided to conduct an inquiry into the incident with a view to establishing what lessons could be learnt in order to reduce the risk of further wildfires, and how best to respond to those that do occur.

The Committee invited public bodies and other organisations involved with, or affected by, the fire to submit evidence and contribute to a public meeting in Llangollen on 20 March 2019.

On behalf of the Committee I would like to thank the agencies who tackled this difficult mountain fire and subsequently agreed to take part in the committee's venture to understand and learn from it.

Similarly, I would like to thank local residents and representatives of those who own or work on Llantysilio Mountain for their valuable contributions to the inquiry.

The Committee has now concluded its investigation and its findings, conclusions and recommendations are set out in this report. The Committee sincerely hopes that all agencies, organisations and individuals who participated in the inquiry will find the report informative and useful as a reference point for future collaborative efforts.

Executive Summary

This Scrutiny inquiry was conducted in response to concerns raised by local elected members and residents in the wake of the wildfire on Llantysilio Mountain during the summer of 2018. The Committee's objective in undertaking the review was to establish what lessons could be learnt from the response and management of the fire and what steps should be taken to avoid or reduce the risk of similar severe wildfires occurring.

The Committee was aware that the organisations involved in tackling the wildfire would be undertaking their own reviews of the incident. The Committee therefore wanted to ensure that these processes had been concluded so it could consider their findings as part of the inquiry.

This report summarises the evidence collated through the inquiry. Section 5 focusses on land management issues, whilst Section 6 summarises the information received in relation to the fire itself and the management of the incident. Section 7 details the North Wales Local Resilience Forum's assessment of what worked effectively during the response to the fire. Lessons learnt by all organisations involved with the fire and land management matters are summarised in Section 8 of the report.

The conclusions the Committee has drawn can be seen in Section 9. Based on these conclusions the Committee has made or endorsed recommendations aimed at reducing the risk of future wildfires and to coordinate the most effective response possible where they do occur. These are laid out in Section 10 of the report.

The Committee sincerely hopes that the lessons learnt from this devastating event will be applied in order to prevent and tackle similar incidents in future. The Committee hopes that all partners will be willing to work together to implement the recommendations with a view to improving multi-agency responses to similar incidents in future and to reduce the risk of wildfires.

Whilst the Llantysilio fire has badly damaged the mountain's biodiversity and had a heavy impact on local farmers, residents and businesses, the fire did not lead to the loss of lives or serious injury, nor to the loss of property in the vicinity, thanks to the determined and sustained efforts of the agencies involved in tackling the blaze.

1. Introduction

- 1.1 Within its county boundaries Denbighshire has extensive areas of moorland and forestry. To the west these include part of the Denbigh Moors (Mynydd Hiraethog) and the Clocaenog Forest, to the east the Clwydian Range and to the south parts of the Berwyn Mountain range, Llandegla Moor, Ruabon Moor and the Llantysilio Mountains. The Clwydian Range, Llandegla and Ruabon Moors along with the mountains in the Llantysilio Range also form part of the Clwydian Range and Dee Valley Area of Outstanding Natural Beauty (AONB).
- 1.2 The possible occurrence of large upland or forestry fires is therefore a significant issue for the County due to their potential impact on the local environment and on the economy of the area and the county in general.

2. Background

- 2.1 Llantysilio Mountain forms part of the Ruabon/Llantysilio Mountains and Minera Grasslands Site of Special Scientific Interest (SSSI). It has been subject to this designation since 1991. This UK wide designation recognises the upland heath and blanket bog communities found on the mountain along with the assemblage of upland breeding birds including species such as red grouse, black grouse and curlew.
- 2.2 The summer of 2018 was an exceptionally dry summer. During this prolonged period of dry weather a number of wildfires ignited in various parts of the UK. Fire ignited on an area of Llantysilio Mountain, near Llangollen, on or about 18th July 2018 and fire continued to affect the mountain until the 25th September 2018. Between approximately 19th July and 20th August 2018 the daily lives of a number of local residents were affected as were local businesses, and those who had grazing rights on the mountain. The livelihood of the latter group may be affected for a prolonged period of time. However, despite the scale, ferocity and complexities involved with this fire over an extended period of time, no-one was killed or injured and no dwellings were lost,
- 2.3 As a result the Council's Communities Scrutiny Committee decided to undertake an inquiry into the fire and its short and long term consequences on the local area. The Committee wanted to examine the fire incident and the multi-agency response to it, as well as the impact the fire had on the local area, environment and businesses. It was felt that a thorough review of the above aspects would help identify and collate any lessons learnt to enable practical solutions to be devised with a view to improving multi-agency responses to similar emergencies in future. The Committee also wanted to establish whether land management practices could be better utilised in future to mitigate against the spread of fires, or to isolate wildfires. Bearing in mind Denbighshire's

extensive areas of moorland and forestry the Committee wanted to make sure that plans were in place to effectively mobilise all partner organisations and those affected by a similar wildfire to act in a coordinated approach when dealing with an incident and its consequences, and also to work together to mitigate against the risk of wildfires occurring.

3. The review process

- 3.1 To facilitate this review the Committee invited public and private organisations who were involved with the fire incident, or affected by it, to submit information and evidence to it. Having reviewed the written and photographic information received the Committee held a meeting at Llangollen International Pavilion on 20th March 2019 to which a range of stakeholders, agencies and organisations involved with the fire incident, those affected by it and those involved with the management and grazing of the land in the area, were invited. The purpose of this meeting was to receive and exchange information and share experiences of dealing with the fire and its consequences. Committee members were able to ask questions to representatives from the various organisations in attendance. Members of the public were also given an opportunity to submit questions to the various organisations taking part in the meeting. Comprehensive replies to any questions raised at the meeting which could not be answered on the day were provided in writing later.
- 3.2 Throughout the evidence gathering exercise and at the meeting itself it was emphasised that the purpose of the review was **not** in any way to apportion blame on any individual, service, organisation or group with respect of the fire or the response to it, but to better understand and learn from the event to help improve the response and management of similar incidents in future, and to reduce the risk of similar wildfires occurring.
- 3.3 The Committee wishes to thank most sincerely those agencies, organisations, private and public bodies which contributed and engaged with the review in one way or another, namely:
- North Wales Regional Emergency Planning Service (NWREPS)
 - Natural Resources Wales (NRW)
 - North Wales Fire and Rescue Service (NWFRS)
 - North Wales Police (NWP)
 - The Horseshoe Pass Graziers Association
 - Owners of the Llantysilio Estate and their land agents
 - Dŵr Cymru Welsh Water
 - Hafren Dyfrdwy Water Company
 - Llantysilio Community Council
 - Denbighshire County Council's:
 - ❖ Countryside Services
 - ❖ Public Protection Service
 - ❖ Highways Service
 - ❖ Communication & Marketing Service

We also want to thank local residents, businesses, individuals and other interested parties who contributed written, photographic/video and verbal evidence to the Committee during the course of the review. All forms of evidence received was extremely useful to the Committee to understand the public's concerns about the fire and its consequential impact.

4. The fire incident and its management

- 4.1 Due to the unpredictable nature of moorland fires and the protracted length of this particular wildfire on Llantysilio Mountain, the response and management of the incident required a multi-agency approach over a number of weeks.
- 4.2 A detailed timeline of all organisations' involvement with the fire and related activities from the first report to the Emergency Services to it being declared extinguished can be seen at Appendix 2 of this report.
- 4.3 In their evidence North Wales Fire and Rescue Service (NWFRS) acknowledged that the fire on Llantysilio Mountain was one of the worst wildfires that it had ever dealt with.

Summary of the evidence given by the various agencies, organisations and individuals during the meeting on the 20th March or provided in written format in response to questions asked at that meeting.

5. Land management

Please note that any views expressed in this section are those of the agencies, organisations, or the individuals giving evidence, they are not necessarily those of the Committee

5.1 Natural Resources Wales (NRW)

Please note that the views expressed below are those of Natural Resources Wales, they are not necessarily those of the Committee

- 5.1.1 Llantysilio was designated as a SSSI for its heathland habitat communities and upland breeding bird assemblage including black grouse and curlew. Despite the extensive damage caused by the fire the designation was still valid, but the habitat required some extensive restoration work. 250 hectares of the total 1150 hectares of SSSI (up to the A542) had been damaged by the fire. Consequently, this would entail changes to grazing patterns on hefts in the short and medium term. Effective partnership working was now needed in order to aid the mountain's recovery.
- 5.1.2 Natural Resources Wales (NRW) cited Ruabon Moor as a local example of a moorland which is effectively managed by rotational small patch burning and mowing. On this particular moorland the main driver for management is red grouse management, whereas on Llantysilio there was no such driver and individual areas were managed by burning or mowing of larger areas to enable the overall mountain to be managed on a suitable timescale.
- 5.1.3 In a bid to try and address the immediate concerns and challenges on the mountain NRW had gone out to tender to let a contract to secure the services of experts with past experience of upland/moorland fire restoration work. It was anticipated that engaging experts in the field would help aid early recovery of the mountain's habitat.
- 5.1.4 Despite risk mitigation measures being taken on moorlands such as Llantysilio Mountain, fires were likely to continue to happen during hot weather or periods of sustained dry weather. However, effective biodiversity management should help reduce the risk of these occurring and reduce the availability of fuel for such fires. The Heather and Hillforts Project, which operated between 2005 and 2012, had been a valuable tool to this effect (information about this project can be found in paragraph 5.2.5)
- 5.1.5 NRW confirmed that the grazing of sheep, combined with managed burning and mowing were all essential elements for the maintenance of heathland. Controlling bracken and gorse growth as well as tree and scrub growth on open heathland was also important in order to support and maintain a balanced healthy habitat. NRW permitted controlled burning on SSSI land in

accordance with regulations set out in 'The Heather and Grass Burning Code for Wales 2008'¹ i.e. the provision of a 'Burning Plan'. Under Burning Plans the person responsible for burning had a legal responsibility to ensure the availability of sufficient people and resources to control the burn, notify the fire and rescue service of the details of the proposed burn, notify neighbours, adjacent land owners/occupiers etc. of the intention to undertake a 'controlled burn'. The burning season in upland areas ran annually from 1st October until 31st March, from late autumn and through the winter months.

- 5.1.6 On Llantysilio Mountain the graziers only had grazing rights, the rights to seek permission to undertake controlled burns and mowing/management work lay with the Estate and landowners. Whilst landowners were not obliged to undertake management or mitigating work on the mountain, in the past both the landowners and graziers had undertaken such work with the consent of NRW. The landowners and NRW would draw-up and agree upon a management plan which would enable the graziers to draw down money to undertake the moorland management work required. This work formed part of five year upland management agreements with the Estate. Such agreements had previously been in place, the last agreement lapsed on 1st September 2014 and included payments for burning and mowing. These management agreements related to habitat management, there had never been agreements in place relating to stocking levels. Looking ahead it was evident that more active management of the mountain was required now and into the future and NRW was keen for the graziers, Countryside Services and Llantysilio Community Council to be involved with this work.
- 5.1.7 NRW confirmed that during the period when upland management agreements were in place it granted consents for management work to be undertaken, permission to undertake management work was never refused. On Llantysilio Mountain NRW tried to ensure burns or mowing were kept under control by permitting individual areas of up to 1 hectare (2.5 acres) in size to be burned/mowed at a time. Up to 10% of the mountain was permitted to be managed in one season on a 10 year rotational basis, this included the burning of gorse although no financial recompense could be claimed towards the cost of burning gorse.
- 5.1.8 In addition, Denbighshire County Council's Countryside Service encouraged graziers on the common to carry out work, and the Service itself had been undertaking management work in the area.
- 5.1.9 Whilst 10 graziers had registered rights to turn sheep up on to Llantysilio Mountain, only 4 of the graziers regularly utilised these rights. It was widely acknowledged that the non-utilisation of grazing rights was in the main attributed to the downturn in the agricultural economy, as there had been a reduction in demand for the smaller Welsh mountain lamb, the native breed of sheep which thrived on this type of terrain. This situation was replicated across Wales. The management of the grazing and hefting flocks was, and

¹ The Heather and Grass Burning Code for Wales 2008:

<https://gov.wales/sites/default/files/publications/2018-01/heather-and-grass-burning-code.pdf>

would be, the responsibility of graziers, whilst game management on the mountain was exercised by the landowners.

- 5.1.10 NRW acknowledged that more active land management work needed to be undertaken on Llantysilio Mountain, as well as on other similar habitats across Wales, now and into the future. The organisation encouraged land management practices and would continue to encourage them in future.
- 5.1.11 Whilst NRW had powers to force landowners/graziers to comply with statutory SSSI requirements, these were very rarely used as NRW preferred to work with the landowners and graziers to encourage effective management of the land. Opportunities were available for land management plans to be drawn up and agreed by all parties, under these plans NRW could offer incentives such as payments towards the costs of undertaking land management work.
- 5.1.12 NRW could not force graziers to turn their sheep up on to the mountain it could only encourage them to utilise their full grazing rights. Unfortunately, current agricultural policies and the agri-economic situation was not favourable towards the smaller Welsh mountain sheep which would naturally graze highland areas such as Llantysilio Mountain. The demand for the smaller mountain lamb had reduced in recent years, which had resulted in the market price for such lambs reducing rendering their production economically unviable. Consequently this had a knock-on effect on the grazing of upland areas and on land management in upland areas. If the stock left the mountain it would be extremely difficult to manage the mountain and maintain its healthy biodiversity and ecosystem. Therefore regular information sharing meetings between all stakeholders would be extremely useful in order to balance conflicting views and aid the understanding of each other's priorities.
- 5.1.13 Looking to the future NRW was currently working with NWFRS to develop Operational Tactical Fire Plans for the most vulnerable upland sites, of which Llantysilio Mountain would be one. These Plans would detail facts such as landownership, access points, water supplies etc. to enable the Fire and Rescue Service to have the information it required in one place when it initially responded to a fire. NWFRS confirmed that work was underway to develop Wildfire Plans with NRW. It also advised that the Service would welcome any joint training opportunities to prepare for such incidents.
- 5.1.14 NRW wished to see a partnership between the land owners, graziers, NWFRS, Denbighshire's Countryside Service and itself to improve moorland management on all of the moors in Denbighshire and reduce the risk of catastrophic fires. In NRW's opinion the appointment of a moorland management officer would help pull such partnerships together.
- 5.1.15 On the availability of funding opportunities to help support the management of the mountain, including the remedial work required, NRW had commissioned a thorough assessment of the condition of the mountain, which would include the use of a drone to take detailed aerial footage of the area. This assessment would help the organisation to plan the short and long-term work required on the mountain to aid its recovery and to seek funding opportunities to meet the costs for this work.

5.2 Denbighshire's Countryside Services

Please note that the views expressed below are those of Denbighshire County Council's Countryside Services, they are not necessarily those of the Committee

- 5.2.1 The current problem on Llantysilio Mountain was the depth of the burn, in places it would take years to restore as the soil structure and seed stock had been destroyed. There was a risk that on certain areas of the mountain further soil would be lost through the effects of wind and water run-off. Whilst the area may seem a lot 'greener' during the course of the forthcoming year this would be as a result of bracken and gorse spreading into the burnt out areas. This had the potential to suppress the recovery of any heather or other indigenous moorland vegetation and growth. It would take some considerable length of time for them to return, if at all, as they would be competing with the bracken and gorse. This would present additional challenges in re-establishing grazing on the mountain. Therefore in the short-term the management of heather growth in flat areas of the mountain would be key. In the long-term the aim would be to get a balance of vegetation, not dominance of gorse or bracken. Whilst bracken could be effectively treated through aerial spraying this was extremely expensive to undertake, but it would be beneficial for both the sheep and grouse population in the area as areas of bracken tended to contain high numbers of 'ticks' which were problematic for sheep and grouse alike.
- 5.2.2 AONB and NRW officials had met with the graziers to discuss opportunities and challenges for management work on the mountain following the fire. NRW was working on putting a Management Agreement in place with the landowners on Llantysilio, which would provide a framework for payments to graziers for agreed management work. One immediate issue identified related to the stocking of the burned and damaged areas. NRW had agreed that it would not be looking for any reduction in stocking, but recognised that there may be issues with stock moving away from their traditional hefts in these areas in search of suitable grazing.
- 5.2.3 Another issue identified was the difficulty of dealing with gorse and scrub on steep slopes where it was not possible to gain access with a tractor and where slopes were too steep to burn safely. With areas like this in mind the AONB had secured funding through Cadwyn Clwyd to trial and demonstrate a Robo-Flail – a driverless flail mower capable of working on very steep slopes. A number of demonstration events for farmers and land managers had already been held in the area.
- 5.2.4 Where time and resources permitted the Council's Countryside Service would continue to offer support to graziers who wanted to carry out land management work on Llantysilio Mountain.
- 5.2.5 The Heather and Hillforts project, which was funded by the Heritage Lottery Fund and operated between 2005 and 2012, recognised that moorlands across the UK were in decline due to significant barriers to sustainable management. Under this project a Moorland Field Officer was appointed.

This officer worked with the farming communities to identify and overcome specific barriers to retaining these areas as part of the agricultural system, and to establish long term management programmes that would benefit upland grazing. As part of this project significant work had been undertaken to reduce the extent of bracken through aerial spraying, as well as work with landowners and graziers to improve the condition of the heathland. In addition, during the project's lifetime vegetation condition maps were produced, burning and cutting programmes were undertaken with graziers who were provided with equipment for heathland management, demonstrations and training was provided in management techniques (including work with students at Llysfasi College), and work was undertaken with the Fire and Rescue Service to promote responsible burning and management with a view to reducing fuel load and vulnerability to such fires.

- 5.2.6 The Moorland Field Officer also worked with the graziers to obtain the necessary Special Area of Conservation (SAC) consents required from NRW to undertake the work. The requirements entailed with these consents often presented significant barriers to work being undertaken, so the Officer was key in overcoming these obstacles. Sadly this funding ended and the Moorland Field Officer post no longer existed. No similar funding had been introduced to replace it. Nevertheless, the AONB had continued, where possible, to support graziers who wanted to carry out work on Llantysilio Mountain and to assist graziers with the consents process. Where possible practical support with burning and cutting was offered through Denbighshire Countryside Service's Area Ranger Team, who often worked with students from Llysfasi College.
- 5.2.7 One potential method for restoring the mountain habitat following the fire would be to transport harvested heather from a similar moorland area to Llantysilio Mountain in an attempt to seed the mountain. If this approach was agreed the heather should be baled and moved to the mountain during October, as this would enable the seeds to establish over the winter period when no livestock would be on the mountain. Countryside Service did have experience of gathering heather brash seeds for baling and re-seeding. Nevertheless, due to the terrain, access to parts of the affected area may be problematic and may even be difficult for a 4x4 to navigate. In addition the use of 4x4s also had the potential to cause further damage to the mountain's surface.
- 5.2.8 Of immediate concern was the future of the 'hefting flocks' as there would be hardly any grazing material for them to feed on the mountain this year. If they were not turned up on to the mountain they would lose their hefting abilities which would consequently lead to the loss of the flocks, and leave the mountain ungrazed. These flocks were key to the effective management of the mountain and helped maintain its biodiversity. Llantysilio Mountain, similar to other upland moors in Wales, was in the main an area of open mountain therefore it had to be grazed by 'hefting flocks' of sheep. Non-hefting flocks would roam across the mountain and would be unmanageable unless the mountain was fenced into sections, which would be an onerous and difficult task to undertake given the terrain.

- 5.2.9 Representatives from NRW and the Council's Countryside Service had met with the Graziers Association with a view to helping them access the funding available through NRW to progress the recovery work and to ensure the long-term viability of the mountain. The reduction in market demand for Welsh Mountain lambs, one of the few breeds that had the ability to thrive on this type of terrain, further compounded the problems facing those managing and grazing the mountain. Uncertainties in relation to future agricultural policy following BREXIT also added to the problem and made planning for the future extremely difficult.
- 5.2.10 Both NRW and Countryside Services were firmly of the view that continued dialogue between them, the Estate owners and the graziers were key to securing the future viability and sustainability of the mountain. It was vital that all stakeholders shared information and supported and trusted each other in order to ensure success going forward.
- 5.2.11 Payments were already available via NRW Management Agreements for land management work, but landowners and common land graziers needed to agree on management and burning plans, including Fire Management Plans, in order to access this money. If the mountain's future was to be secured it was essential that Section 16 Management Agreements were put in place.
- 5.2.12 Opportunities may also exist under the National Grid Landscape Enhancement Initiative (LEI) fund, a community recompense scheme which was available to at least one community which bordered the mountain's area, to realise some financial resources towards the recovery work. It was therefore important for all stakeholders to come together to discuss and agree a way forward in relation to the restoration work and the future management of the mountain in order for them to access appropriate funding.
- 5.2.13 Denbighshire's Countryside Services had jointly with NWFRS applied for fire risk reduction monies. Unfortunately this bid had been unsuccessful.

5.3 Landowners

Please note that the views expressed below are those of the Landowners, they are not necessarily those of the Committee

- 5.3.1 Representatives from Llantysilio Estate advised that when properties with grazing rights in the area were sold very few new owners wanted to utilise the grazing rights attached to the property.
- 5.3.2 The landowners themselves did not have the resources required to undertake controlled burning but did consent to graziers and interested parties undertaking agreed habitat management works which included heather, bracken and gorse control. The agreements that had been in place also had provision for the authorities to undertake this management work.
- 5.3.3 At present the Estate was in the advanced stages of discussions with NRW regarding management agreements for the mountain. The Estate was eager to enter into management agreements with NRW in order to help the graziers

access the land management funding available. In addition the Estate was also willing to undertake some of the management work itself. Due to the terrain, mechanical management of the mountain would prove extremely difficult in some areas. The Estate confirmed its willingness to work with the authorities in relation to future management.

5.4 Horseshoe Pass Graziers Association

Please note that the views expressed below are those of the Horseshoe Pass Graziers Association, they are not necessarily those of the Committee

- 5.4.1 According to the Horseshoe Pass Graziers Association Llantysilio Mountain was not alone with regards to current habitat status and the overall lack of management. In many areas across North Wales, and the rest of Wales, livestock numbers had reduced for several reasons, these included political policies and economic reasons. The general feeling amongst graziers was that this decline would continue. Grazier numbers were reducing, leading to reduced manpower available for routine habitat management. As the habitat was not maintained, then accessibility for grazing was limited and the general husbandry, gathering etc. became more difficult.
- 5.4.2 Due to the fact that the smaller Welsh Mountain lambs produced in these areas were currently 'out of fashion' and generating less income than the larger lowland breeds, less incentive therefore existed to maintain flocks of pure Welsh Mountain and other hill breeds of sheep.
- 5.4.3 In the Graziers Association's view a cooperative policy should be drawn up and agreed between all parties with interests in managing this and other areas, namely Natural Resources Wales, Clwydian Range and Dee Valley AONB, the landowners and graziers.
- 5.4.4 They were also firmly of the view that a change of stance was required with a relaxation of some of the rules which had constrained land management practices. On the Berwyn Mountain significant fire breaks were being put in place by NRW, these were in addition to the small blocks of land previously controlled.
- 5.4.5 The graziers would like to see the cutting or burning of firebreaks reintroduced. There was also the need to manage larger areas as in the past, this in addition to the more recent practice of managing only small blocks. Roadside verges also needed to be increased in size, being wide enough to prevent any fires caused by passing motorists.
- 5.4.6 According to the Graziers Association there were strong feelings amongst the graziers that NRW had taken the responsibility for the management of the mountain away from hill farmers, who warned them of the potential dangers of their management practices but they ignored this advice. Graziers felt that the mountain's SSSI status compounded the problem of utilising management practices, as favourable weather conditions had to be aligned to the consents given to undertake the work. There was a feeling amongst graziers that land

management payments were difficult to access and entailed a substantial amount of bureaucracy.

- 5.4.7 With respect of the reinstatement and future management of Llantysilio Mountain opinions were divided between the various stakeholders on the way forward and the mountain's future management.
- 5.4.8 Fortunately, nature had the ability to regenerate itself and there would be regrowth, however at this stage the level of success in terms of plant type etc., was unknown. The extent of long-term damage caused to the soil structure was also unknown, this leading to erosion in its differing forms with the reduction in general soil fertility to sustain the regrowth of vegetation.
- 5.4.9 Management of the common was difficult, but Llantysilio Mountain was not unique in this situation, the underlying factors affected commons throughout Wales.
- 5.4.10 There was an underlying trend in the reduction of graziers utilising their rights to graze. This had led to a reduction in sheep numbers, an invaluable asset in habitat management. In tandem with this was the reduction in the availability of labour to undertake habitat management. Currently, due to many factors, economics being one, there was no indication of a significant change to this trend.
- 5.4.11 Another detrimental factor was the perceived level of governance. Llantysilio Mountain along with many others was designated as an SSSI and a SAC and therefore fell within the responsibility of Natural Resources Wales. Any form of habitat management there had to be authorised by NRW. The window of opportunity for burning/cutting etc. was short, and there was a need to implement actions at relatively short notice when the ground and atmospheric conditions were right. There was also the concern amongst individuals, that if errors were made then they were open to the possibility of prosecution and financial penalties. Due to these constraints farmers were, to a large extent frightened to undertake land management work due to the fines and penalties that could be imposed if anything went wrong. In general they were frightened of NRW, which they perceived as an extremely powerful body. If an individual received a warning letter from the authorities for something that had accidentally happened, they would be extremely wary of undertaking any other work in case anything went wrong.
- 5.4.12 In order to improve the level of habitat management and help reduce the potential for fire outbreaks in future and to lead to more effective land management there had to be greater cohesion between all parties, an awareness of each other's requirements and a common goal. A change of attitude was needed by farmers, landowners, graziers and agencies alike.
- 5.4.13 The ideal situation would be the appointment of a coordinator person to develop a cohesive plan, endorsed by all the interested parties. This coordinator would subsequently put the proposals into effect, and monitor their delivery.

5.5 General public/residents comments at the meeting:

Please note that the views expressed below are those of individuals, they are not necessarily those of the Committee

5.5.1 On land management matters, in addition to the points raised by those giving evidence at the meeting, the following observations were received from residents and the general public - the need to:

- draw-up a pre-determined list of firebreaks; and
- effectively manage the land for the benefit of all

5.6 Additional information submitted by a member of the public following the meeting

Please note that the views expressed below are those of the individual, they are not necessarily those of the Committee

5.6.1 A member of the public who witnessed last year's fire and who visits the Llangollen area on a regular basis advised that he had seen the severe degradation that had taken place. He was of the view that the fire-damaged area was central to the attraction of the area for walkers. As he lived in the Derbyshire/Yorkshire area he has provided information on extensive efforts in that area of the UK in a bid to reverse the degradation of moorland landscapes (e.g. Bleaklow and Kinder). He suggested that it may be worthwhile to contact Chatsworth Estates who had been re-planting heathers and other threatened species, as they may be in a position to offer help or advice on remedial action. He also suggested that Coleg Llysfasi could be invited to be involved with the remedial work and that consideration could be given to involving volunteers to help with the work.

Summary of the evidence given by the various agencies, organisations and individuals during the meeting on the 20th March or provided in written format in response to questions asked at that meeting.

6. Fire incident

Please note that any views expressed in this section are those of the agencies, organisations, or the individuals giving evidence, they are not necessarily those of the Committee

6.1 North Wales Fire and Rescue Service

Please note that the views expressed below are those of the North Wales Fire and Rescue Service, they are not necessarily those of the Committee

- 6.1.1 North Wales Fire and Rescue Service officers confirmed that the 999 call relating to the main wildfire on Llantysilio Mountain was received at the Service's Control Centre in St. Asaph at 2.20pm on 19th July 2018. This call reported a fire burning on the mountain. As a result of this call the Fire and Rescue Service dealt with this incident from then until it was officially closed at 1:45pm on 25th September 2018. During this period fire appliances and officers were on the scene continuously from 19th July 2018 until 13th September 2018.
- 6.1.2 Regarding the fire on the mountain the previous day, 18th July, which the Fire and Rescue Service confirmed they attended, the Service advised that this was a separate incident and unrelated to the one they were called out to at 2.20pm on 19th July. NWFRS is confident that the fire on 18th July was extinguished and that the fire on 19th July was not a re-ignition of the earlier fire as had been suggested by some. They strongly refuted this suggestion as the fire on 19th July started some 361 metres, approximately a quarter of a mile, away from the location of the previous evening's fire. This second fire was the one that would eventually continue to burn and smoulder for over six weeks. In the Fire and Rescue Service's professional opinion it was very clearly not a re-ignition of the earlier fire.
- 6.1.3 According to NWFRS in the case of this particular wildfire the conditions on the ground and atmospherically had created a 'perfect storm' – a combination of difficult terrain, very dry ground, tinder dry growth and the existence of peat meant the fire could continue to burn below ground for an extensive period of time, hence the reason that the Fire and Rescue Service did not declare it extinguished until September.
- 6.1.4 NWFRS confirmed that the cause of the fire had never been established.
- 6.1.5 From a logistical perspective access to the mountain had not posed the Fire and Rescue Service any major problems as the Service had the means to transport personnel to large, geographical remote areas. Nevertheless, the unpredictable nature of the terrain and the existence of crumbling tracks had

caused the Service some problems in getting vehicles to the far extremities of the mountain. This had resulted in the Service suffering damage to a number of vehicles whilst attempting to fight the fire. The topography of the area, lack of robust land management resulting in the existence of limited firebreaks, dense vegetation and the existence of dry decomposed undergrowth, which obscured voids had been both a challenge and a problem. The density of the vegetation and the undergrowth acted as added 'fuel' for the fire, whilst the terrain and the existence of voids posed a health and safety threat to Fire and Rescue personnel attempting to navigate the mountain to extinguish the fire, be that on foot or in vehicles.

- 6.1.6 The entire fire operation on the mountain was conducted in accordance with recognised Incident Command procedures. Upon arrival Fire and Rescue Service personnel would report to the Incident Command Unit (ICU) where they would be briefed on the incident up to that point, prior to a shift change taking place and the new shift assuming responsibility for dealing with the incident. As NWFRS was in overall command of the incident, all agencies and organisations involved with the fire incident had a responsibility to report to the ICU.
- 6.1.7 All properties in the vicinity were visited by personnel from either the Fire and Rescue Service or the Police and given appropriate safety and welfare advice. The need to evacuate did not arise.
- 6.1.8 Fire and Rescue Service personnel confirmed that the Service had been approached with offers of assistance from local farmers and residents. Whilst such offers were appreciated and well-intended, decisions in relation to whether to accept or decline these offers had to be taken by the duty Incident Commander based on their professional training and judgement having regard to the risks prevalent at the time. In taking such decisions the Incident Commander would consider factors such as predicted wind direction and validated data and information from other recognised agencies, such as the Meteorological Office and National Resources Wales (NRW). The decision to restrict access for non-Service vehicles and personnel onto the burning mountainside was taken entirely on the basis of the risk involved to anyone undertaking such action, combined with no guarantee that cutting a swathe of vegetation would actually stop the fire in its tracks. Nevertheless, the advice and information received from farmers and residents in relation to the local area had been very useful to the Service. NWFRS was also grateful to local residents and businesses for the offers of food and drink they received, these were not accepted as the Service had procedures in place to meet personnel's welfare needs.
- 6.1.9 Some local farmers had kindly offered to provide water and to transport it to Service personnel to help fight the fire, but this was not required as the Service had access to a sufficient supply of water from the public water system to meet its needs. All NWFRS fire appliances are fitted with mobile data units, these show the latest information on the location of fire hydrants in the local area to enable firefighters to quickly locate and access them. The area in and around Llantysilio Mountain is serviced by two water companies, Dŵr Cymru Welsh Water and Hafren Dyfrdwy. The Service had a good

working relationship and effective liaison channels with both companies.

- 6.1.10 All decisions relating to the cutting of firebreaks etc. were taken following discussions with partner organisations, as the Fire and Rescue Service does not possess the appropriate equipment or vehicles to undertake this type of work.
- 6.1.11 NWFRS confirmed that during the course of the fire consideration was given to the benefits of using aircraft for firefighting purposes, but the costs of using this approach were prohibitive. With respect of accessing Civil Aid to help with the costs of dealing with the fire NWFRS confirmed that Civil Aid was a statutory process authorised by Central Government. This was granted to deal with wildfires in areas such as Saddleworth Moor. However, it is only granted when sufficient resources are not available to deal with a situation. This was not the case in relation to the fire on Llantysilio Mountain as NWFRS had sufficient resources at its disposal to meet its needs to deal with the incident.
- 6.1.12 Under the Civil Contingencies Act 2004 any partner organisation involved with the Local Resilience Forum (LRF) can designate an incident a 'major/emergency incident'. The LRF is a forum established in a police area by key emergency responders and specific supporting agencies. A LRF is a requirement of the Civil Contingencies Act 2004. The purpose of the LRF process is to ensure effective delivery of duties under the Act that need to be developed in a multi-agency environment and individually as a Category 1 responder. However, the term 'major/emergency incident' means different things to different agencies within the LRF. The Fire and Rescue Service deals with 'emergency' situations as part of its day to day business. From its perspective the fire incident on Llantysilio Mountain did not meet with its definition of a 'major incident' as in Fire and Rescue Services terminology a 'major incident' is an incident which the Service does not have sufficient resources to respond to and deal with. The Service had sufficient resources to deal with this incident despite its duration.
- 6.1.13 NWFRS had a Communications Plan to deal with the Llantysilio Mountain fire incident and this plan was implemented. The Service's Control Room now actively used social media as part of its communication when dealing with incidents, in an attempt to inform and reassure the public about what was happening.
- 6.1.14 Following its review of the Llantysilio Wildfire the Local Resilience Forum (LRF) was of the view that partner organisations had worked consistently well with each other over a protracted period of time in relation to this incident. However, it had recommended that future incidents would benefit from the establishment of a Tactical Coordination Group (TCG) for the purpose of providing consistent, proactive and agreed messages to the public. Nonetheless, it was acknowledged that it would be very difficult, if not impossible, to prevent the circulation by members of the public of inaccurate information on social media.
- 6.1.15 NWFRS stated that the Service was extremely proud of all staff who had been involved with responding and dealing with the fire over an extended period of

time, under what were extremely difficult and challenging conditions. With the Service being reliant on a high number of retained firefighters it was indebted to primary employers across North Wales who had released staff from their primary employment for extended periods of time to attend the incident and relieve other staff. Whilst the incident was local to the Llangollen area it had impacted from the Fire and Rescue Service's staffing perspective on the entire North Wales area, as at one time or another all of its 44 fire stations had been mobilised to help keep the fire under control. Following the incident the Service had received a total of 104 communications from members of the public registering their appreciation of the Service's work and efforts in tackling the fire.

6.2 Natural Resources Wales (NRW)

Please note that the views expressed below are those of Natural Resources Wales, they are not necessarily those of the Committee

- 6.2.1 Llantysilio Mountain is a series of contiguous registered Common Land Units. The freehold is owned by four main landowners with a series of smaller landowners around the periphery of the mountain. The majority of the SSSI is also part of the Berwyn and South Clwyd Mountains Special Area of Conservation (SAC). This European designation highlights the continental importance of the heathland habitats found on Llantysilio Mountain. All of this land is within the Area of Outstanding Natural Beauty (AONB).
- 6.2.2 As the land affected by the fire was in private ownership the role of NRW in the fire was as a Category 1 responder under the Civil Contingencies Act 2004. It also had a role to fulfil as the Nature Conservation Authority in Wales in relation to SSSIs. As a Category 1 responder NRW had an important legal responsibility to respond directly to the incident and to support the incident management roles of other public organisations i.e. NWFRS, Police and Denbighshire County Council through the provision of advice and information.
- 6.2.3 From the outset of the incident NRW provided information and advice to NWFRS and worked closely with the Council's Countryside Service who were out on site. It also provided equipment and skilled operators upon request. This equipment was usually used on the Berwyn National Nature Reserve (NNR) which is owned and managed by NRW. When utilising the equipment on Llantysilio Mountain this was done under the direction of NWFRS, as the incident lead.
- 6.2.4 NRW confirmed that they had not been approached by any individual, contractor or company/business seeking permission to cut firebreaks, neither had they declined the use of mowing or other machinery by anyone else. Decisions on who undertook any such work, and the timings of that work, rested with NWFRS as the incident lead.
- 6.2.5 NRW emphasised that in an emergency such as this one operational decisions i.e. granting permission to dig trenches or to cut firebreaks would not entail a bureaucratic form filling exercise. They would be taken on the

ground by the Duty Technical Manager (DTM) having undertaken a risk assessment on matters such as potential impact on watercourses and water supplies etc.

- 6.2.6 Following its experiences of being involved with the Llantysilio Mountain fire NRW felt that communication channels between the various agencies and organisations involved in similar incidents in future need to be co-ordinated more effectively, in order facilitate the provision of practical and timely messages to residents and affected parties.

6.3 North Wales Police (NWP)

Please note that the views expressed below are those of North Wales Police, they are not necessarily those of the Committee

- 6.3.1 The Police's involvement with the fire was primarily around emergency road closures. North Wales Police expressed their gratitude to NWFRS personnel for their efforts in tackling the fire, and the general public who had generously offered refreshments to those in attendance at the scene. NWP personnel who had assisted with the emergency situation at the time had already been formally recognised by the Police Service for their involvement with the incident.
- 6.3.2 NWP emphasised that whilst powers in relation to emergency road closures lie with the Police Service, all road closures were undertaken in liaison with NWFRS and Denbighshire County Council's Highways Department.
- 6.3.3 Confirmation was received from the Police that no evidence had been found to suggest that the fire was the result of a criminal offence.

6.4 Denbighshire County Council's Countryside Service

Please note that the views expressed below are those of Denbighshire County Council's Countryside Service, they are not necessarily those of the Committee

- 6.4.1 Denbighshire County Council's Countryside Service owns two 'fire foggers', these are highly effective specialist fire-fighting equipment specifically designed for heathland fires. They work through high pressure hose systems that emit a fine mist over the fire to starve it of oxygen. They are highly effective and use relatively low volumes of water, so are ideal for working in remote areas. Fire foggers are mounted in the back of an ordinary pickup truck so are highly mobile. The Council made both of these available to NWFRS for their use, whilst Countryside Service officers worked alongside Fire and Rescue Service personnel under the auspices of the Incident Command Unit during the fire.
- 6.4.2 Countryside Service officers were well acquainted with both NRW staff and the local graziers as they had worked with them on land management matters

for a number of years. During the fire Countryside Service officers and the graziers were able to provide advice to the NWFRS about the area, the terrain and guide Fire and Rescue Service personnel on how to access the mountain.

- 6.4.3 It was confirmed that during the fire Countryside Service officers worked under the directive of NWFRS, hence the reason firebreaks were not cut any earlier than 27th July 2018, the date the Fire and Rescue Service first requested Countryside Service to cut them. Similar to NRW, Countryside Service was not approached by a third party with a request to cut firebreaks. Countryside Service personnel were of the view that whilst cutting firebreaks may seem like the best solution to stop the advancement of a fire, they were not always an effective solution as the fire could continue to burn underground, particularly in areas where there were high levels of peat, as was the case on Llantysilio Mountain. The existence of too many precautionary firebreaks on upland grazing areas also had a tendency to confuse hefting flocks.
- 6.4.4 Officers from the Countryside Service confirmed that a good working relationship existed between officers of the Service and those from NWFRS and NRW throughout the entire fire incident. They also confirmed that NWFRS was in overall control of the response and management of the fire incident throughout its duration.

6.5 Denbighshire County Council's Highways Service

Please note that the views expressed below are those of Denbighshire County Council's Highways Service, they are not necessarily those of the Committee

- 6.5.1 The County's Highway Service's first input into the fire and its associated issues came late in the afternoon of Friday 27th July 2018. This was via a request from colleagues in the Council's Countryside Service who requested the service of a flail mower to cut back bracken at the edge of the carriageway on the Horseshoe Pass.
- 6.5.2 Overnight and into the Saturday conditions worsened as the fire (and associated smoke) advanced closer to the main road. At this point the Service was requested to put in place a road closure, so cones were put out and some basic 'Road Closed' signs with no diversion route signposted were put in place. This request also came via the Council's Countryside Service staff who were the Highways Service's only liaison point with the Fire and Rescue Service. Unfortunately, these signs were ignored by drivers and caused problems in terms of ensuring the road could not be accessed.
- 6.5.3 During the day, and more especially into the evening, conditions worsened as the fire approached the Ponderosa Café and the Highways Service was asked to 'beef up' the closure by putting in staffed control points, as people were still choosing to drive through the area. Considerable effort was put into making these arrangements but by the time the Highways Service had operatives in place the Service was informed that North Wales Police had found the

resources to be able to staff the closure themselves so the Highways Service stood down its crews.

- 6.5.4 On the Sunday conditions had eased a little but the Fire and Rescue Service still wanted a closure in place and staffing it in the longer term was going to be unfeasible for the Highways Service. With just a few cones in place it was clear that road users would continue to abuse this and try to use the road thus putting themselves and fire service personnel in jeopardy as they were working off the carriageway in what were sometimes almost zero visibility due to the smoke. As a result the Highways Service opted to collect water filled barriers from their depot and deploy these to give a robust, physical deterrent with better defined signing too. These substantially beefed up the closure – something the Highways Service could have done earlier if it had access to guidance.
- 6.5.5 In subsequent days, and depending on conditions, the Highways Service deployed a combination of this physical barrier arrangement or single lane traffic control – which was mainly there to give a protection zone to fire personnel who were still having to work off the carriageway.
- 6.5.6 Over time, pressure grew from businesses in the vicinity and in Llangollen itself to open the road and it was difficult for the Highways Service to communicate, via its normal processes, what was happening. Normally the Highways Service would liaise with the Council's Streetworks team who had a well-established method of disseminating road closure information out to those who needed to know about it. The lack of information available made this extremely difficult if not impossible.
- 6.5.7 Finally, around the 20th August the area was declared safe and the Highways Service was able to remove all restrictions.
- 6.5.8 Having reviewed the fire incident the Highways Service highlighted a number of issues and difficulties it encountered during the course of the incident. The Highways Service was used to both dealing with and managing emergency incidents involving the highway. In the past, during large scale events, the Service's response had been in conjunction with North Wales Police (NWP) and invariably this had included on site liaison between officers from both the Highways Service and NWP. On other occasions, such as widespread snow conditions the Highways Service took control and followed set procedures and guidelines. In the case of the fire this proved almost impossible to achieve.
- 6.5.9 During the first few days of the Llantysilio Mountain fire incident there was almost no direct contact between the lead officer from the Highways Service and the Fire and Rescue Service Incident Control Officer. On occasion the Highways Service would phone the main Fire and Rescue Control Centre and be told who the on-site Officer was and their contact number would be provided.
- 6.5.10 About a week after the start of the fire a Command Post was set up in a layby and more formal meetings began to take place which enabled better planning, co-ordination and communication but until then the Highways Service experienced communication as being very disjointed making it difficult for them to engage properly.

- 6.5.11 The Highways Service identified a number of lessons learnt from this incident. As stated the Highways Service is regularly used to dealing with incidents involving the highway and the need for managing traffic, but this incident was different, possibly because a formal Tactical Coordinating Group (TCG) was not established which would have aided communication and insight.
- 6.5.12 At the multi-agency de-brief that followed the incident the Highways Service explained what resources they had at their disposal and NWFRS were genuinely surprised how limited these were. The reason for their surprise was that they had seen what the Highways Service was able to do in other circumstances such as flooding, so they were under the impression that the Service could draw on a lot of help. This was not the case. In the winter the Highways Service is geared up for long periods of bad weather and a substantial on-call system with additional back up is put in place. During the summer months this does not exist, but if there was a forecast of bad weather such as thunderstorms and potential flooding then the Service would make ad-hoc short term arrangements. Normally there are only two out of hours operatives available to assist with small scale incidents. The crux of this is that these events can be forecast – the fire was completely different.
- 6.5.13 A positive outcome from this incident was that there was now a greater understanding of mutual capability, and of what was and was not achievable.
- 6.5.14 The Highways Service is constantly aware that it is duty bound to re-open roads as soon as possible. Pressure builds on the Service when roads remain closed for longer than the general public perceive as necessary, irrespective of the underlying reason for the closure. The need to either open the road or explain the reasons for its ongoing closure builds. In this particular case there was a balance to be struck between ensuring the safety of Fire and Rescue Service personnel whilst also trying to keep traffic flowing – not least because in this geographical area the alternative routes for some vehicles were excessively long. At times this responsibility on the Highway Authority seemed to be missed by other agencies, there were frustrations due to the Service not knowing and therefore not being able to communicate what was going on or was foreseeably going to happen.
- 6.5.15 Communication was not at all times as clear as it could have been, this aspect required addressing for any future incident of this kind.

6.6 Denbighshire's Public Protection Service

Please note that the views expressed below are those of Denbighshire County Council's Public Protection Service, they are not necessarily those of the Committee

- 6.6.1 Three specific areas associated with the fire lie within the responsibility of the Council's Public Protection Service, these being air quality, private water supplies and mains water supplies.

Air quality: Strategic responsibility for air pollution matters lie with NRW. However, the Public Protection Service does have fixed air quality monitoring

devices located across Denbighshire which undertake routine air quality monitoring. A number of these devices are located around Llangollen town centre. These devices did not record any changes in air quality during the course of the fire that could be attributed to the fire itself. The Service does not have mobile monitoring devices, but NRW does and it did have access to them during the period of the fire. No air quality complaints were received by the Council throughout the duration of the fire

Water supplies: the public water supply to the area is the responsibility of Dŵr Cymru Welsh Water, and in part of the area Hafren Dyfrdwy Water Company. These companies would have been responsible for supplying drinking water etc. to any affected households. Neither of these companies raised any concerns with the Council's Public Protection Service in relation to supplies during the period in question.

Private water supplies: the Council's Public Protection Service does hold responsibilities in relation to the quality and availability of private water supplies. During the period of the fire no contact or complaints were received from private water supply users relating to contamination issues. A few queries were received in relation to dry weather problems, but none relating to the fire. During this time the Council's Customers, Communication and Marketing Service communicated with residents via social media asking those who were experiencing problems with their private water supplies to contact the Council for help and advice on securing alternative supplies.

6.6.2 The Public Protection Service had less concerns about contamination issues in relation to this fire than it would have had it been an industrial fire.

6.6.3 Routine water sampling in the area in the wake of the fire was not prioritised or planned but could be considered for similar incidents in future.

6.7 Denbighshire County Council's Customers, Communication and Marketing Service

Please note that the views expressed below are those of Denbighshire County Council's Customers, Communication and Marketing Service, they are not necessarily those of the Committee

6.7.1 In the case of the Llantysilio fire, NWFRS was considered the 'Lead Organisation', therefore Denbighshire County Council's Communications Team kept in close contact with the Fire and Rescue Service's Press Team throughout the period, as well as with North Wales Police (NWP).

6.7.2 The Council's main communications activity throughout the period was largely limited to sharing updates from the emergency services about the need for people to keep away from the mountainside, as well as communicating details of road closures as and when they happened. Denbighshire's Communications Team liaised as normal with the County's Highways Team to publish information about road closures.

- 6.7.3 In addition the Communications team was on-standby to deal with the potential of a rest centre being activated, and had a press statement prepared for that eventuality.
- 6.7.4 The Team also issued a number of updates to county councillors, as well as councillors representing Llangollen during the main period of activity.
- 6.7.5 Having reviewed the incident the Council's Customers, Communications and Marketing Service concluded that communication could have been better, as was highlighted in the North Wales Local Resilience Forum's de-brief report. From the Council's perspective it was important for it to maintain the consistency, quality and accuracy of the information it broadcast. It was acknowledged that more effective use could have been made of local councillors as information conduits between the Council and its partner organisations, with residents and businesses, and vice-versa.
- 6.7.6 Messages conveying official, factual information struggled to compete for prominence with 'gossip'-type posts on social media.
- 6.7.7 The Council did not have a dedicated team of staff in place to communicate with the public or to send social media messages out throughout the duration of the fire. Communication was facilitated by the Customers, Communication and Marketing Service staff as part of their daily routine on a priority basis. Due to the pressures caused by the incident and still having to undertake their daily work no one person had time available to them to trawl social media sites for inaccurate information or any misrepresentation of the situation. Out of normal office hours communication work was undertaken by the Out of Hours team on a goodwill basis.
- 6.7.8 The Council's website was updated regularly with information about the incident etc. This was visible as a banner along the top of the Council's front webpage, with a link in order to receive further information.
- 6.7.9 North Wales Police would have taken the lead with respect of any evacuation to a rest centre if that had been required. The Council had made provision for Cysgod y Gaer, Corwen to be available as an evacuation centre if required. County councillors were made aware of this decision, but it was not widely publicised as the need to evacuate had not been confirmed. Local councillors were kept informed of the situation and of the centre's availability if required, they were also informed when the arrangements were stepped down.
- 6.7.10 'Communication is an art rather than a science.' Councillors are important in the type of situation presented by the fire as they are well-placed to share messages amongst the communities they represent. One method for doing this would be for councillors to copy and paste the link on the Council's webpage to the social media accounts they use to communicate with their residents.

6.8 Dŵr Cymru Welsh Water

Please note that the views expressed below are those of Dŵr Cymru Welsh Water, they are not necessarily those of the Committee

- 6.8.1 During the summer of 2018 Dŵr Cymru Welsh Water (DCWW) faced a sustained period of hot weather with very little rain. To respond to this it set up a Gold and Silver response to the weather incident which ran from the 27th June until the 22nd August. This response was required due to multiple water supply issues across Wales and Herefordshire.
- 6.8.2 The two main areas of concern for DCWW in North Wales arising from the dry period were Cwellyn Water Treatment Works in Waunfawr, Caernarfon and Glascoed Water Treatment Works, near Bodelwyddan. These two areas required continued tanker support by the company's Emergency Planning Logistics Team twenty four hours a day throughout this period to maintain supply for customers.
- 6.8.3 No customers lost their water supply in the DCWW area over this time period. Due to this unprecedented support required over such a long period DCWW employed several contractors to assist with logistics.
- 6.8.4 As a result of this exceptional dry weather a series of fires broke out across Wales. DCWW was therefore also providing support to North Wales Fire and Rescue Service (NWFRS) in several other locations including the Bethesda and Llŷn Peninsula areas.
- 6.8.5 With respect of the fire on Llantysilio Mountain the company was initially asked for support with the water supply in the area on the 8th August 2018. This involved support from DCWW's North East Distribution Team in Kinmel Park Bodelwyddan with the provision of a tanker filling point in Llandegla. Early on this fill point was determined to be ineffective at filling the fire tenders in an appropriate time. DCWW therefore provided assistance with three articulated tankers over a twenty four hour period which held 25,000 litres each. These were used to fill fire tenders on site which allowed for a faster fill time for NWFRS.
- 6.8.6 The tankers were situated on site in Llandegla for approximately four to five days and nights. Due to the volume of water being held on site in these tankers not all of the water was used so DCWW reduced the number of tankers to two per day. The articulated tankers were dispatched at 6am and returned to the DCWW depot at 10pm and were supplied by the company's contractor. These tankers held 30,000 litres each.
- 6.8.7 This support continued until they were no longer required by NWFRS on or around the 20th Aug 2018.
- 6.8.8 It was confirmed by DCWW that a problem was encountered with the hydrant that was initially used by NWFRS. The fault caused the automatic trigger mechanism to suspect a leak when the hydrant was in use, triggering the cut off valve to stop the water supply being pumped to houses at Tai Newyddion. The alarm was raised at Cardiff who mobilised an inspector to the area to

reset the pumps, this took approximately 45 minutes. In the meantime DCWW directed the Fire and Rescue Service to use another hydrant nearby. In the wake of this incident DCWW has removed the hydrant to prevent a reoccurrence of a loss of water to the properties at Tai Newyddion and informed NWFRS of the alternative available hydrants in the area. Work was currently underway to install an auto reset mechanism at the Water Pumping Station by 2020. The company was working with NWFRS to decommission the faulty fire hydrant and use it only as a 'wash out hydrant'. Another hydrant approximately 20m away had been identified for designation as a 'fire hydrant'.

- 6.8.9 Local residents affected by the loss of pressure were contacted by telephone to advise them of the problem and every effort was made to reset the pumps as soon as possible. The loss of pressure whilst water was being drawn to fight the fire was for an hour or so at the time, but the water quality in the area was satisfactory. To safeguard residents' welfare and ensure that adequate drinking water was available to all, DCWW purchased 260 pallets of mineral water which was made available for distribution in the area. The company also commissioned articulated tankers to carry water to the area.

6.9 Hafren Dyfrdwy Water Company

Please note that the views expressed below are those of the Hafren Dyfrdwy Water Company, they are not necessarily those of the Committee

- 6.9.1 Hafren Dyfrdwy Water Company did not attend the inquiry meeting as it had little involvement with the fire incident on Llantysilio Mountain, but the company was happy to share with the Committee experiences from Severn Trent Water (with whom they have a working relationship) of assisting with similar fires on Staffordshire Moorland. They identified the following key learning points from their experience there, and felt that the information may be useful to the inquiry:

- As it was a hot and dry summer there was exceptionally high demand for water in significant parts of the network. If the Fire and Rescue Service had taken water from their normal locations it would have meant customers going off supply. It was therefore always best if the Fire and Rescue Service contacted the water company before drawing water from the network.
- In Staffordshire good liaison existed between the water company and the Fire and Rescue Service about which parts of the treated water network had a reliable supply.
- Arrangements were made for the Fire and Rescue Service to draw water from the company's raw water sources rather than treated, as that did not put customer supplies at risk.
- The company was able to provide the Fire and Rescue Service with access to their reservoirs and the company also took water to their location for local storage in ponds and tanks.

- Using raw water also meant that the water company did not have to use portable water tankers, keeping them free for the water company to use to support customer supply issues.
- Water company managers attended the field command positions to liaise with the Fire and Rescue Service commander during the most sensitive periods of the response.
- Early engagement was key to help the water company plan.

6.10 Horseshoe Pass Graziers Association

Please note that the views expressed below are those of the Horseshoe Pass Graziers Association, they are not necessarily those of the Committee

- 6.10.1 It was the view of the Horseshoe Pass Graziers Association that there was a deficiency during the early stages of the fire. They feel that if the fire had been controlled at that early stage the secondary fire would not have taken hold. Association members advised that controlled burns were not undertaken at this particular time of year, neither were they undertaken at night. They were of the view that had NWFRS taken sufficient care to ensure that the initial fire had been extinguished the secondary fire would not have ignited.
- 6.10.2 In their written and verbal evidence the Horseshoe Pass Graziers Association raised concerns that very little discussion had taken place with the graziers, apart from initial contact in order to establish access points to the mountain and also directions to the fire position during the original outbreak. In the graziers' view the Fire and Rescue Service was reluctant to involve graziers in any way, despite the graziers having useful knowledge of the area, quite possibly better than anyone else. This point was also made by the owners of the land, Llantysilio Estate. In addition, little or no discussions at all were held with the graziers who had stock on the mountain at the time of the fire.
- 6.10.3 Local graziers offered various types of assistance to the Fire and Rescue Service i.e. a local water supply from a borehole (possibly insufficient in the long term), to transport water in agricultural tankers, cutting of fire breaks using their own machinery etc. The graziers reported that all offers of assistance were declined, and advice given as to the unsuitability of certain areas for small appliance use was ignored. Consequently, there were incidences of Fire and Rescue Service vehicles overturning.
- 6.10.4 As regards the Fire and Rescue Service's role, the graziers felt that there was a lack of continuity. Shift changes resulted in supervisors applying different ideas and policies, with no one person in control of work on the ground. It was also perceived that many had little or no experience of dealing with such incidents and insufficient care was taken to ensure that the initial outbreak, which was quickly brought under control, was completely extinguished before leaving the site. The Graziers' view was that the fire reignited resulting in the subsequent major incident.

6.11 Landowners

Please note that the views expressed below are those of the Landowners, they are not necessarily those of the Committee

- 6.11.1 The landowners, Llantysilio Estate, stated that in their view had the small fire that ignited on the 19th July been “hit hard” at the outset it would not have spread. They felt that the Fire and Rescue Service left the site too early, had they stayed on site until the fire was properly contained it would not have ignited the bracken debris which enabled it to take hold rapidly from then on.
- 6.11.2 In their opinion there appeared to be a lack of communication between fire commanders during their change-overs on site, many of whom were attending from far afield. The Estate understood that a local farmer was on site for a substantial amount of time at the beginning of the fire and had to inform each commander of how and where to access the mountain and explain the routes for water carriers etc. The Estate was of the view that there was no continuity in the application of ideas and tactics to fight the fire, with different shifts of personnel applying different tactics, with no one person in control of the work on the ground.
- 6.11.3 The Estate questioned the decision to refuse offers of assistance by local farmers who had offered toppers to cut fire breaks. In their view the cutting of firebreaks ahead of the fire front could have substantially mitigated the losses that actually occurred. The Estate suspected that such offers may have possibly been refused on the grounds that they might cause damage to the SSSI status.
- 6.11.4 To Estate personnel it appeared that many of the fire fighters had little or no experience in dealing with mountain and heather fires. Consequently, fire-fighter training should be extended to include recognition of the different types of ground vegetation including bracken (green bracken did not indicate that it was wet) as instructions were given by the fire and rescue service not to damp down areas of green bracken on the grounds that they were “wet”. The Estate feels that this evidently highlighted a lack of understanding that there was always a substantial amount of dry bracken debris at ground level.
- 6.11.5 The Estate felt that all offers of assistance were declined and advice given as to the unsuitability of certain areas for small appliance use was ignored. This led to incidences of vehicles overturning. Fire and Rescue Service training should therefore also extend to the use of the all-terrain vehicles in fully laden conditions to avoid the roll-overs that occurred. In order to support and facilitate the development of these skills Llantysilio Estate would be agreeable to granting access to the land for training purposes.

6.12 Llantysilio Community Council

Please note that the views expressed below are those of Llantysilio Community Council, they are not necessarily those of the Committee

- 6.12.1 Llantysilio Community Council raised concerns that no organisation or individual had made any contact with the clerk of the Community Council throughout the fire incident, despite its impact on the local community. The Community Council had serious concerns about the intermittent road closures, which took place over the course of a month, and how they had impacted on local businesses, particularly tourist related business during one of the best summer seasons for a number of years. The Community Council was firmly of the view that communication by all agencies dealing with similar incidents needed to improve.
- 6.12.2 In its capacity as the 'go to point' for local people the Community Council would be more than willing to assist in communicating messages to residents and businesses etc. in the event of a similar incident happening in future. It was therefore imperative that the local community council was included as a key partner/stakeholder in any future communication strategy for dealing with similar incidents.
- 6.12.3 The Community Council felt that the County Council should be in a position to help support local businesses when a protracted incident like this happens in future.

6.13 North Wales Regional Emergency Planning Service (NWREPS)

Please note that the views expressed below are those of the North Wales Regional Emergency Planning Service, they are not necessarily those of the Committee

- 6.13.1 The regional Emergency Planning Service's first involvement with the fire incident was on 26th July 2018 when it received an e-mail notification from Denbighshire County Council's Duty Gold officer requesting operational support in the form of a mechanical digger. At this point there was no specific action required from the NWREPS. At 8pm on 27th July notification was received from North Wales Police's Duty Emergency Planning Officer that the fire was advancing towards properties. NWREPS through its representative organisations co-ordinated safety and welfare checks on residents, instigated work to prepare evacuation plans and arranged a rest centre for residents which may have needed to be evacuated at short notice. NWREPS continued to co-ordinate all potential evacuation and stand-by arrangements until 1st August when NWFRS, during a telephone conversation, stated that they were considering the establishment of a Tactical Co-ordinating Group (TCG) in order to update all partners. This group was never formally established. During the fire incident a great deal of the liaison and information sharing between NWREPS and NWFRS took place over the telephone.

- 6.13.2 Following the conclusion of this incident, Denbighshire County Council held an internal debrief, attended by the Duty Emergency Planning Officer, to ensure any issues encountered during the response were identified and could be used to contribute to organisational learning. This took place on 5th September 2018. Amongst the points raised at Denbighshire's internal de-brief were the advantages of developing and adopting a forest fire/moorland plan that would be in place and available to call upon in the event of a similar occurrence happening in future. The benefits of sharing details of the Emergency Planning (Gold Rota) more widely within the organisation was also identified as a possible measure to improve communication and co-ordination for similar events in future.
- 6.13.3 By October 2018, no arrangements for a multi-agency debrief on this incident were in place. Due to the multi-agency issues that had been raised in the internal Denbighshire County Council debrief, NWREPS submitted a request to the North Wales Local Resilience Forum for a multi-agency debrief to be held. The request was submitted on 10 October and officers of the Council attended a multi-agency debrief on 14 November 2018.
- 6.13.4 NWREPS concluded that Denbighshire County Council's response to this incident was timely, appropriate and proportionate. Several staff from a range of departments and roles were involved over several days by linking-in with professional partners to support their requests in managing the fire event and its impact on the local area and its residents. Appropriate post-incident activities were undertaken in the form of an internal debrief and contributing to the Local Resilience Forum's multi-agency debrief.
- 6.13.5 The Regional Emergency Planning Service also concluded that all agencies had worked well together and had been proactive in their approach to the situation. As this incident was never formally designated as a Major Incident formal tactical coordination procedures were not instigated. Whilst communications officers from each agency did link together well, in hindsight and due to the protracted nature of the event, communication would have benefited if a TCG had been established.
- 6.13.6 NWREPS was of the view that having a readily available 'template' action plan for dealing with this type of incident in future would be worthwhile. The North Wales Local Resilience Forum (NWLRF) was willing to consider and progress this suggestion. To facilitate this the Local Resilience Forum's Environment Group had included in its business plan an action to complete the development of a Wildfire Plan by April 2020. NWREPS, on behalf of all local authorities in North Wales would assist with the Plan's development.

6.14 General public/residents

Please note that the views expressed below are those of individuals, they are not necessarily those of the Committee

- 6.14.1 At the meeting in Llangollen on 20th March 2019 local residents shared their experiences and concerns in relation to the fire. In addition to points already

raised by the various agencies and organisations local residents raised the following concerns:

- at times, due to the density of the smoke coming off the mountain visibility in the area was down to 0.5km to 1km. Constant inhalation of the smoke was very hazardous for those in good health let alone those in poor health, yet no health related bodies or organisations made contact with them to check on their welfare
- consideration should be given to the installation of temporary air quality monitors to safeguard that there are no risks to the public's health during these type of incidents
- communication about the developing situation with residents was poor, non-existent even, throughout the duration of the incident
- whilst NRW's own guidelines stated that no permission was required in an emergency situation such as a flood, storm etc. to dig trenches, cut firebreaks etc. one individual stated that he was denied permission to cut firebreaks by the Fire and Rescue Service, despite having had personal contact with three fire commanders
- a list of local contractors to assist with the cutting of firebreaks etc. (similar to the winter maintenance contractor list) should be compiled and updated on a regular basis. During emergencies these contractors could be called upon at short notice

6.15 Additional information received following the meeting

Please note that the views expressed below are those of individuals, they are not necessarily those of the Committee

6.15.1 Denbighshire's Area of Outstanding Natural Beauty (AONB) staff who responded to the fire have advised that they did not have suitable resources available to them at present to undertake similar roles on a more frequent basis, for example, as a consequence of climate change. They have identified the following areas as ones that merit further investment in order to prepare AONB staff to respond to similar incidents in future. However they were currently beyond the Service's available budget:

- Joint Training
- Joint Exercises
- Specialist Firefighting Personal Protective Equipment (PPE)
- Firefighting equipment and transport

6.15.2 Telecommunications: whilst no telecommunications/TV/Radio masts in the area were affected by this particular fire consideration should be given when developing wildfire plans on how to deal with the potential loss of any masts and technology links and their immediate effect on emergency services' response to incidents, local businesses, tourism and other industries and possibly local and national security.

6.16 Differing opinions

Two separate fires

6.16.1 There were differing opinions on whether the fires on 18th and 19th of July were one and the same, or two different fires.

6.16.2 A county councillor for the Llangollen area and member of the Scrutiny committee disputes the Fire and Rescue Service's conclusion that the fire on the 18th and 19th July were two separate incidents, advising that:

“...I was there at the time when the fire reignited just after 2pm on 19th July. I was standing next to the [local member of the public]² when he/she phoned for [assistance]

I arrived on the scene just before 2pm as I returned from observing the Performance Scrutiny Committee. I stood chatting to the local farmer and a former game keeper about the fire and other incidents over the last few years. The game keeper was going around the edges of the fire trying to extinguish the place where it had just begun to reignite in very small areas. Shortly after 2pm the fire reignited in a serious way at the highest part, suddenly reigniting a large area covered in gorse. Within about 5 minutes it became obvious that the fire needed the professional support of the fire brigade and a call was made by the [member of the public]³.

The fire brigade say that the fire reported on 19th July at 2.20pm was a different fire. This is not true as I was there with two other local residents. It was the same fire that reignited the gorse at the top edge of the original fire. The fire burnt very fiercely with huge flames appearing within two or three minutes.

This is a crucial part of the evidence that supports the fact that the fire was deemed to be out and the fire brigade had been returned to base when the fire reignited. On the day of the Llangollen meeting a number of people commented that they thought more could have been done at the initial stage of the fire and that the fire brigade went back to base too quickly.”

6.16.3 Responding to the above viewpoint North Wales Fire and Rescue Service subsequently re-affirmed its position in writing that the fire did not re-ignite as it was never declared as extinguished, this was the fire that ignited on 19th July. The fire on 18th July was viewed by NWFRS as a separate fire. NWFRS also advised that:

“Contrary to what was claimed at the meeting, North Wales Fire and Rescue Service ensured that fire appliances and officers were on scene continuously from 19th July 2018 until 13th September 2018.

During the hours of darkness, when firefighting on the mountainside would have been unacceptably hazardous for firefighters, crews continued to watch over the area for signs of any sudden flare-ups or of the fire spreading.”

² North Wales Fire and Rescue Service refer to this member of the public as “a local contact person”

³ This was the same member of the public as referred to in footnote ³ – “a local contact person”

7. What worked well?

7.1 The North Wales Local Resilience Forum (NWLRF) concluded following its post incident de-brief that:

- the collaboration between all agencies at the scene was successful, with three organisations working together over a protracted period. These organisations also stated that a good working relationship and a mutual level of trust existed between all the Category 1 responders (the main agencies)
- once the agencies were in touch with the Incident Commander and other staff, updates were usually comprehensive, helpful and assisted the local authority response
- Denbighshire County Council's welfare and humanitarian team, responded quickly to mobilise a rest centre and have staff on standby in case they were needed
- at an operational level regular Joint Emergency Services Interoperability Principles (JESIP) meetings between key partners achieved an agreement on actions and a shared awareness of the developing situation
- the use of North Wales Police's drone to gather information and understanding of the incident scale and progress of operations was invaluable
- the provision of water supplies in water bowsers by the water utility companies in response to the automatic emergency cut-off system operating was successful, and provided a sufficient supply of water to the incident ground for the duration of the cut-off
- firefighters worked tirelessly in very difficult terrain and conditions for a prolonged period of time. There was substantial impact on NWFRS and its staff, a mixture of full-time and retained personnel, who did their utmost to control and extinguish the fire in challenging and exhausting conditions
- there was good communication between NWFRS and Denbighshire County Council's Highways Service to open roads when possible to help with traffic management, with the Police providing personnel to assist.

8. Stakeholders: Lessons Learnt and Suggestions for Improvement

8.1 Each organisation, agency, individual or affected party have identified **their own** learning points as a result of the fire incident and its consequences (*the views listed in this section are those of the individuals and bodies listed and not necessarily those of the Committee*):

8.1.1 **Land Management:**

With respect of land management practices the following aspects have been identified as lessons learnt or areas for improvement by the various agencies and those affected by the fire:

North Wales Fire and Rescue Service (NWFRS)

- the lack of robust land management activity in recent years meant that firebreaks on the mountain were limited and increased the amount of combustible material available to fuel the fire. Effective and robust land management of upland areas would be key to reducing the risks associated with wildfires

Natural Resources Wales (NRW):

- future management of the mountain would benefit from NRW and partners (including Llantysilio Community Council) looking at a range of management techniques i.e. burning, mowing, roboflail etc.
- the historical non-availability of payments for gorse management may have compounded the fire problem, due to increasing the amount of vegetation available to fuel the fire. It was now acknowledged that this should be looked at as part of the site management package for the area. Monitoring of any agreed works would also be important i.e. field visits to agree works, identify the age of the heather, etc. Large upland sites could be monitored by using aerial photography. Therefore, in the short-term, it would be beneficial to renew current land management agreements between NRW and Llantysilio Estate and to review the payment levels for the carrying out of works on the mountain
- in the longer term NRW hoped to have Management Agreements in place with the 4 major landowners within the SSSI and also any other landowners who would wish to undertake positive management of their land. Through these agreements NRW hoped to work with the landowners and the common land graziers to actively manage the heathland on the mountain through mowing and controlled burning
- a need to urgently engage experts with past experience of remediation of upland moorland damaged by fire
- looking ahead at changes to agricultural subsidies in Wales and the effects of BREXIT, both of which would have a significant impact on the agricultural industry and on land management practices in upland areas - the Welsh Government (WG) was currently proposing a change to a payment system for public goods rather than agricultural production. It would therefore be vitally important for NRW to work with WG to develop new policies that would

support the WG's vision whilst safeguarding upland areas, their habitat and the livelihoods of those who were dependent on them for their living

Denbighshire County Council's Countryside Services

- the need for regular and effective land management work in moorland areas to mitigate against the risk of wildfires spreading
- the benefits of having a dedicated resource, such as the former Moorland Field Officer post, to work with landowners and graziers to obtain the necessary consents to undertake land management work and to support them with developing the associated plans to enable them to access payments available for undertaking the work
- the need to find a solution on how to deal with gorse and scrub on steep slopes where it was not possible to gain access with a tractor and where slopes were too steep to burn safely

Landowners

- effective and robust land management was key to reducing the risk and impact of such fires on the mountain in future. Whilst the landowners did not have the resources required to undertake the required habitat management work they were eager to enter into management agreements with NRW to enable the graziers to access the funding available. In addition the Estate would also undertake some management work itself, and would be willing to work with the authorities in relation to future management.
- The vegetation on the area opposite the Ponderosa Café had become denatured through intense vehicle use and parking and some control or restriction of this may be beneficial to the management of the mountain

Horseshoe Pass Graziers Association:

- a need for NRW to work closer with the landowners and the graziers in respect of managing the mountain. The farmers had warned NRW of the potential dangers of their management of the mountain, but this advice was ignored
- current agricultural policies were contributing towards the decline in management of upland areas. Fewer graziers and reduced manpower to undertake routine habitat management work led to upland moorland areas being more difficult to access for grazing and undertaking general husbandry work. This coupled with the fall in demand for Welsh Mountain lambs produced in these types of areas meant that there was less incentive to maintain flocks on the mountain, as it was not economically viable to do so.
- the cutting or burning of firebreaks should be reintroduced and the size of roadside verges should be increased, being wide enough to prevent any fires caused by passing motorists.
- the mountain's SSSI status and the perceived governance arrangements associated with it compounded the problem of utilising management practices. The process for applying for land management payments should

also be simplified in order to aid better engagement with the process. For farmers/graziers to feel confident to apply for the payments and undertake the work a mutual level of trust and confidence had to be built between them and NRW. At present they were fearful of the repercussions of accidentally, or due to adverse weather conditions, being unable to comply with NRW's strict rules

- all parties with interests in managing this and other areas, i.e. Natural Resources Wales, Clwydian Range and Dee Valley AONB, the landowners and graziers should work together to draw up and agree a cooperative policy to ensure the area's future viability
- with current indications being that future agricultural policy would be aimed towards paying farmers for delivering public goods, there was an urgent need for somebody to take the lead to drive projects forward and deliver them. Ideally one individual should be appointed to develop a cohesive plan that would be endorsed by all interested parties. This officer could subsequently be charged with co-ordinating the delivery of the plan
- In order to improve the level of habitat management and help reduce the potential for fire outbreaks in future, and lead to more effective control there needed to be greater cohesion between all parties, an awareness of each other's requirements and a commitment towards working for a common goal. A change of attitude was needed by farmers, landowners, graziers and agencies alike.

8.2 Each of the Category 1 responders have identified **their own** learning points as a result of responding to and managing the fire incident (*the views listed in this section are those of the individual bodies listed and not necessarily those of the Committee*):

8.2.1 **Fire incident and response to it:**

North Wales Fire and Rescue Service (NWFRS):

Following a review of all the wildfire incidents it attended during the summer of 2018 NWFRS identified six main areas of internal learning and improvement. These being:

- Incident command and control and the need for a consistent approach across all levels of command
- command support and the need for systems to be standardised in order to better support the decision-making of the Incident Commander
- resources, in particular vehicles, and the need to review their capability/capacity to support and enable the effective resolution of wildfires
- the need to provide suitable and sufficient welfare facilities for staff during protracted incidents
- the benefits of joint-working and the application of the Joint Emergency Service Interoperability Principles (JESIP);
- the benefits of the proactive management of staff availability and how this impacted on the operational response and resolution of fires, staff, their families; and, in the case of retained members of staff, their employers; and

- the insistence on safety despite opposition from various individuals or groups contributed to there being no serious injury or loss of human life during a large, protracted fire

Natural Resources Wales (NRW):

- a need for the Fire Severity Index (FSI) on Access Land to be reviewed (NRW was already taking part in a UK wide review of the Fire Severity Index)
- NRW as a Category 1 responder under the Civil Contingencies Act (CCA) 2004 could have called for the Tactical Command Group (Silver) to be established to aid co-ordination and sharing of information with common land graziers, local residents and the public
- the holding joint familiarisation sessions between NWFRS, NRW and local authorities periodically would be useful in order to improve understanding of equipment and expertise availability within partner organisations
- the importance of working closely with NWFRS and local authorities to develop fire plans for high risk sites.

Denbighshire County Council:

Countryside Service:

- the need to designate similar incidents as an 'major/emergency incident', under the provisions of the Civil Contingencies Act 2004, in order to invoke the establishment of a Tactical Command Group to formalise direct communication channels between all Category 1 responders to support prompt and effective information sharing between all involved and to maintain continuity during shift changes.
- a need for better information sharing between all Category 1 responders on the type of equipment, knowledge, experience, and level of resources they had available to respond and manage similar incidents

Highways Service:

- the need to establish a formal Tactical Coordinating Group in order to aid communication and insight
- all agencies should share information and intelligence on each other's mutual capability to respond to such incidents
- all agencies need to raise awareness of each other's duties in relation to such incidents and the public's expectations on them to 'resume normal service' (an effective communication strategy may aid the latter point).

Public Protection Service:

- consideration should be given to undertaking routine drinking water quality sampling during such incidents to ensure that there are no risks to people's health

Customers, Communication and Marketing:

- communication could have been better. From the Council's perspective it was important for it to maintain the consistency, quality and accuracy of the information it broadcast. The establishment of a Tactical Co-ordinating Group would have ensured open communication channels between all agencies and facilitated effective joint information sharing between incident responders the public and affected parties

North Wales Police:

- the need to establish a Tactical Co-ordination Group to support effective communication and regular targeted information sharing to ensure that all agencies were fully informed
- the need for a proactive media strategy in order to inform residents etc. on developments and reduce the risk of misinformation being distributed on social media

Areas of learning identified by other parties affected by the fire

Horseshoe Pass Graziers Association

- the need for improved and continual communication with graziers and landowners in relation to the fire incident and the safety of stock etc.
- utilisation of graziers, landowners and local residents' knowledge of the area and terrain to mitigate against the risk of personal or vehicle accidents occurring
- Fire and Rescue Service personnel should on a regular basis be provided with practical training on how to deal with wildfires and how to navigate difficult terrain on foot and in appropriately loaded all-terrain vehicles.

Landowners

- Improved communication required between Fire and Rescue Service personnel when changing shifts along with continuity of approach to tackling the fire
- Greater utilisation of advice and knowledge of local people, graziers, farmers and landowners with respect of the local area and terrain would have avoided unnecessary accidents occurring
- provision of further training to Fire and Rescue Service personnel to enhance their knowledge of the nature of wildfires and their unpredictability
- Llantysilio Estate was willing to allow the Fire and Rescue Service access to the mountain for the purpose of training and developing personnel to gain the necessary skills to navigate difficult terrain to deal with wildfires

Llantysilio Community Council

- better communication required by all agencies with local residents and businesses to keep them informed about what was happening – the

community council could be utilised for the purpose of informing local residents

- more assistance should be available from the County Council to local businesses when protracted incidents similar to this one happen

North Wales Regional Emergency Planning Service (NWREPS)

- better communication by all agencies through the provision of regular and consistent messages. The establishment of a Tactical Co-ordinating Group at the earliest possible opportunity would support this as would designating the incident as an 'Emergency Incident' in order to instigate formal Emergency Planning procedures
- as early as possible following the conclusion of the incident a multi-agency de-brief should be convened for the purpose of sharing experiences and identifying any lessons learnt from it
- information on the Emergency Planning (Gold Rota) should be shared more widely amongst Category 1 responders
- the development of a template Forest and Moorland Fire Plan for use by all agencies when responding to similar incidents in future

9. Summary and Conclusions of the Scrutiny Committee

9.1 Land management

- 9.1.1 Having reviewed the evidence submitted to it the Committee concludes that the lack of robust land management on Llantysilio Mountain contributed towards the length of the fire incident and its devastating effects.
- 9.1.2 The Fire and Rescue Service stated that the lack of robust land management in recent years and the nature of terrain in the area had made it difficult at times for it to deal with the fire.
- 9.1.3 The Committee agrees with the view of the Graziers Association that Llantysilio Mountain is not alone with regards to current habitat status and the overall lack of land management. The situation is replicated in a number of upland areas across Wales due to the agricultural and environmental policies of central government, coupled with economic factors and the reduction in livestock numbers in recent years. In addition, the number of graziers are reducing, leading to reduced manpower available for routine habitat management. When the habitat is not maintained, then accessibility for grazing is limited and the general husbandry, gathering etc. becomes more difficult. It is widely acknowledged by graziers, farmers and Natural Resources Wales that the grazing of sheep, combined with managed burning and mowing are all essential elements of the maintenance of healthy, manageable and productive heathland.
- 9.1.4 Of immediate concern in relation to Llantysilio Mountain is the future of the 'hefting flocks' due to the fact that there will be very little grazing material for them to feed on the mountain following the fire. If they are not turned up on to the mountain they will lose their hefting abilities which will consequently lead to the loss of the entire flocks, and leave the mountain ungrazed. These flocks are key to the effective management of the mountain and help maintain its biodiversity. Llantysilio Mountain is in the main an open mountain therefore it has to be grazed by 'hefting flocks, as non-hefting flocks would roam across the mountain and would be unmanageable unless the mountain was fenced into sections. This would be an onerous and difficult task to undertake given the terrain and would in some measure change the nature of the landscape. Consequently, if the 'hefting flocks' were 'lost' the mountain would become extremely difficult to manage, and its healthy biodiversity and ecosystems would be at risk.
- 9.1.5 Whilst management agreements with NRW were not available for funding habitat management work on Llantysilio Mountain since 2014, Consents (permissions) were granted for work to take place. Works were undertaken on the western side of the mountain, but little vegetation management took place on the eastern side during this time.
- 9.1.6 It is therefore crucial that more active land management of the mountain takes place immediately and in future. The Committee was encouraged to understand that NRW is keen for the landowners, graziers, Denbighshire County Council's Countryside Service and Llantysilio Community Council to be involved with this work. It is also encouraging that NRW wishes to see a partnership between the land owners, graziers, NWFRS, Denbighshire's

Countryside Service and itself to improve moorland management on all moors in Denbighshire to reduce the risk of catastrophic fires.

- 9.1.7 However, for this to be successful some longstanding barriers and levels of mistrust between the landowners, graziers, farmers and NRW need to be overcome. There are strong feelings amongst the graziers that NRW has taken the responsibility for the management of the mountain away from hill farmers. It was reported to the Committee that farmers had warned NRW of the potential dangers of their management practices but felt that the organisation had ignored this advice. They also feel that the mountain's SSSI status was problematic in respect of undertaking effective land management practices because of the levels of governance and bureaucracy entailed with seeking consents and executing the work. In their view stringent rules relating to undertaking land management practices and for drawing down monies for the work were onerous and time consuming. NRW's enforcement role was perceived as a powerful factor in the unwillingness to undertake land management work in case errors were made which carried the risk of prosecution and/or financial penalties. A change in attitudes which have constrained land management work from being undertaken is required. Consideration should be given to reintroducing regular cutting or burning of firebreaks and to increasing the width of roadside verges to prevent the risk of fires caused by passing motorists.
- 9.1.8 To safeguard Llantysilio Mountain's future it is essential that all stakeholders meet regularly to discuss and agree a way forward in relation to the restoration work and the future management of the mountain, and to help access any available funding. Such meetings would be extremely useful in order to balance conflicting views, aid the understanding of each other's priorities, help build relationships and increase levels of mutual trust. The Graziers Association's suggestion of developing a cooperative policy between all parties with interests in managing the mountain i.e. Natural Resources Wales, Clwydian Range and Dee Valley AONB, the landowners, graziers, Llantysilio Community Council etc. may be a worthwhile one to pursue.
- 9.1.9 The appointment of a moorland management officer, similar to the one which had been in existence during the Heather and Hillforts Project could help to draw such a partnership together. This coordinator could work with all parties to identify and overcome specific barriers to retaining and managing moorland areas as part of the agricultural system and to establish long term management programmes to benefit upland grazing and the natural environment. However, we do realise that funding for such a post will undoubtedly be limited.
- 9.1.10 The Committee acknowledges that uncertainties in relation to future agricultural policies further compounds the problem of planning for the future.
- 9.1.11 Nevertheless, it is pleasing to learn that Llantysilio Estate is willing to work with the authorities in relation to future land management work and that it is in discussion with NRW regarding management agreements with a view to assisting the graziers to access the land management funding available. In addition, the Estate is also willing to undertake some of the land management work itself.

9.1.12 Confirmation that NRW and NWFRS are working together to develop Operational Tactical Fire Plans for the most vulnerable upland areas in North Wales is welcomed, as is the fact that all major agencies are open and willing to participate in joint training opportunities to prepare for such incidents.

9.1.13 In order to improve the level of habitat management, reduce the potential for fire outbreaks in future and to lead to effective responses to wildfires there must be greater cohesion between all parties and an awareness of each other's roles, capabilities and requirements in working towards a common goal.

9.2 The fire incident and the management of it

9.2.1 Having reviewed the evidence submitted to it the Committee concludes that there was no evidence upon which to determine whether the fire on Llantysilio Mountain during the summer of 2018 was accidental or deliberately ignited. Its effect was devastating due to what could be described as a 'perfect storm' - a combination of atmospheric and ground conditions that assisted the fire to burn above and below ground for an extensive period of time. Despite this public safety was paramount and maintained throughout the incident and no dwellings were lost to the fire.

9.2.2 The lack of robust land management resulting in the existence of limited firebreaks, dense vegetation and the presence of dry decomposed undergrowth provided the fire with added 'fuel'. Difficult terrain and the existence of voids posed problems to Fire and Rescue Service personnel attempting to navigate the mountain to extinguish the fire. Whilst local farmers had generously offered to provide water to the Fire and Rescue Service to help fight the fire, this was not required as the Service, via its liaison with the water companies had access to a sufficient supply of water from the public water system to meet its needs.

9.2.3 Under the Civil Contingencies Act 2004 any Category 1 organisation involved with an incident similar to this one can designate the incident as 'major/emergency incident'. However, the term 'major/emergency incident' means different things to different agencies. As the Fire and Rescue Service had been mobilised to deal with the fire it took the role of the 'lead organisation' from the outset. From the Fire and Rescue Service's perspective the fire incident on Llantysilio Mountain did not meet its definition of a 'major incident'. In Fire and Rescue Service terminology a 'major incident' is an incident which the Service does not have sufficient resources to respond to and deal with it. The Service considered that it had sufficient resources to deal with this incident despite its duration, hence the reason it was never designated as a 'major incident'.

Communication

9.2.4 With the benefit of hindsight the Committee agrees with the view expressed by a number of the agencies, other stakeholders and the North Wales Local Resilience Forum, that the management of the fire incident would have benefited from it being designated as a 'major/emergency incident'. If this had

happened Emergency Planning procedures would have been instigated, including the establishment of a Tactical Coordination Group (TCG). This would have facilitated the opening of communication channels between all agencies and affected parties and would have assisted with the provision of clear, agreed, consistent and proactive messages to the public. Communication, or the lack of clear, regular and consistent information to those affected by the fire was a recurring theme in the evidence submitted to the Committee. Whilst the Committee acknowledges that it would be impossible to control social media and the public's use, or misuse, of it, the existence of a TCG may have proved useful to respond to messages posted on social media through the provision of clear, accurate and timely information from those dealing with the incident. The TCG could also have been used to provide the public with information from the various agencies on matters such as rights to cut firebreaks, road closures, air and water quality etc. The Committee is therefore firmly of the view that a TCG should be established as early as possible during a response to an incident, such as a hill or mountain fire, floods etc., regardless of whether the incident is likely to be designated an 'major/emergency incident' under the provisions of the Civil Contingencies Act 2004. The TCG could be stood down later if it became evident that it was not needed.

- 9.2.5 In addition the establishment of a formal TCG would have facilitated an open communication channel between all agencies which would have ensured that each Category 1 responder had direct contact with each other, and were regularly updated on the situation as it developed. It would also have enabled each agency to have a greater understanding of their mutual capability and the resources available to them. Existence of a TCG would have assisted with the dissemination of information to local councillors, residents and the general public on a regular basis. It would have also provided those affected by the incident with an accessible contact point for validated information.

Fire or fires and how to deal with them in future?

- 9.2.6 From the evidence submitted there is a difference of opinion on whether this fire was actually one fire or two separate fires. In the professional opinion of North Wales Fire and Rescue Service, the fires on Llantysilio Mountain on 18th July and 19th July 2018 were two separate and unrelated incidents. The Fire and Rescue Service is firmly of the view that the fire on the 19th July was "clearly not a re-ignition of the earlier fire" as it was located "some 361 metres, almost a quarter of a mile away from the location of the previous evening's fire." Local residents and some other groups disagree with the Fire and Rescue's opinion on this, as does one local county councillor who was present when the fire re-ignited.
- 9.2.7 The Horseshoe Pass Graziers Association, landowners and residents expressed the view that there were deficiencies during the early stages of the fire. They felt that if the fire had been controlled at that early stage the secondary fire would not have got hold as it did. All these stakeholders were in agreement that had the fire been "hit hard" at the outset it would not have spread as it did.

- 9.2.8 Graziers and landowners expressed concerns that very little contact or discussion took place with them, apart from initial contact in order to establish access points to the mountain and gain directions to the fire position during the original outbreak. They felt that the Fire and Rescue Service was reluctant to involve them in any way, despite the fact that they had useful knowledge of the area and had stock grazing on the mountain at the time. In their view had their advice been heeded and their knowledge been sought the incidences of Fire and Rescue Service vehicles overturning may well have been avoided.
- 9.2.9 Both graziers and landowners felt that there was a lack of continuity following shift changes which resulted in different ideas and approaches to dealing with the fire being applied. They were left with the impression that no one person was in control of work on the ground, nor the same tactics applied, and that many of the Fire and Rescue Service personnel had little or no experience of dealing with mountain and heather fires. Consequently, they were of the view that fire-fighter training should be extended to include recognition of the different types of ground vegetation including bracken, and the use of the all-terrain vehicles in fully laden conditions to avoid the roll-overs that occurred. To facilitate the development of these skills Llantysilio Estate has offered to grant access to its land for training purposes.
- 9.2.10 By their very nature wildfires such as this one are extremely unpredictable. The Committee agrees with the suggestion made at Denbighshire County Council's internal de-brief on the advantages of developing and adopting a forest fire/moorland plan that would be in place and readily available for all agencies to call upon in the event of a similar occurrence happening in future.
- 9.2.11 It is felt that the availability of a standard guide for all agencies would aid the response to similar incidents and facilitate open and effective communication between all involved (including local town and community councils). The Committee is of the view that it would be useful if this plan included:
1. a list of local contractors and resources to assist during emergencies with the cutting of firebreaks etc. (similar to the winter maintenance contractor list)
 2. information on how to deal with the potential loss of any telecommunications/TV/Radio masts and other crucial technology links and their immediate effect on the emergency services' response to incidents, local businesses, tourism and other industries and possibly local and national security
 3. a requirement to liaise with the local Health Board and Public Health Wales where the welfare of sick and vulnerable residents is in question; and
 4. consideration of the installation of temporary air/water quality monitors to safeguard the public's health during the duration of incidents;
- 9.2.12 The Committee acknowledges that generally all agencies worked hard together and in good faith under what were extremely difficult conditions over a prolonged period of time, and had been proactive in their approach to the situation.

10. Recommendations of the Scrutiny Committee

- 10.1 Following its joint review of the fire on Llantysilio Mountain incident the North Wales Local Resilience Forum (NWLRF) has already agreed its recommendations for implementation at future mountain fire incidents. The Communities Scrutiny Committee endorses those recommendations, namely:

| | Responsible agency/organisation(s) |
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| <p>(i) Convening of a physical or virtual Tactical Co-ordinating Group (TCG) to promote:</p> <ul style="list-style-type: none"> • Multi agency interoperability • Consistent, proactive and agreed messages to public • Daily updates from agencies • Consideration of recovery issues earlier in response phase • Better understanding of the technical and equipment resources for firefighting across different organisations. • Understand the stresses and impacts on personnel in the primary (NWFRS) and supporting agencies | All Category 1 responders |
| <p>(ii) To arrange and hold a joint familiarisation session to share knowledge and experience of heathland and grassland fires. This will also gain awareness of available resources and equipment of agencies across North Wales.</p> | <ul style="list-style-type: none"> • Denbighshire County Council • Natural Resources Wales • North Wales Fire and Rescue Service |
| <p>(iii) More structured engagement with graziers and landowners would assist in encouraging active land management. Consider using the National</p> | <ul style="list-style-type: none"> • Denbighshire County Council • Natural Resources Wales • North Wales Fire and Rescue Service • Conservation Land Managers |

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| | Strategic Arson Reduction Board (SARB) as a method of achieving wider support and buy in for reduction of wildfire risk. | <ul style="list-style-type: none"> • Farmers • Graziers |
| (iv) | All agencies to review NWFRS gateway control procedures to ensure safety and for the incident command unit to be informed who is present at the scene | <ul style="list-style-type: none"> • All agencies |
| v) | NRW to review Fire Risk Index and assess the information being fed into it. Once the index has been reviewed to share with other agencies | <ul style="list-style-type: none"> • Natural Resources Wales |
| (vi) | Develop a regional wildfire plan for North Wales | <ul style="list-style-type: none"> • Natural Resources Wales • North Wales Fire and Rescue Service • North Wales Local Authorities |
| (vii) | DCC and NRW to consider what further engagement is required to address concerns of local councillors and business interests that were affected during the response phase. | <ul style="list-style-type: none"> • Denbighshire County Council • Natural Resources Wales |

10.2 In addition Communities Scrutiny Committee, proposes the following recommendations in relation to dealing with major/emergency incidents and requests that they be included in the Regional Wildfire Plan:

| | Responsible agency/organisation(s) |
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| (i) that a Tactical Co-ordinating Group should be established during the early stages of responding to a major/emergency incident, such as a wildfire, in order to facilitate a single-point of contact for all agencies, those affected, press/media and public to ensure that all involved are fully briefed on the | <ul style="list-style-type: none"> • all Category 1 responders |

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| <p>developing situation on a regular basis. The existence of this Group would aid effective handover of incident management responsibilities during shift changes. The TCG could be stood down if it became clear that it was no longer needed;</p> | |
| <p>(ii) the development of a list of local contractors and resources to assist during emergencies with the cutting of firebreaks etc. (similar to the winter maintenance contractor list which local authorities compile on a regular basis).</p> | <ul style="list-style-type: none"> • Denbighshire County Council • North Wales Regional Emergency Planning Service • Natural Resources Wales |
| <p>(iii) information on how to deal with the potential loss of any telecommunications/TV/Radio masts and other crucial technology links and their immediate effect on the emergency services' response to incidents, local businesses, tourism and other industries and possibly local and national security;</p> | <ul style="list-style-type: none"> • Denbighshire County Council • North Wales Fire and Rescue Service • North Wales Regional Emergency Planning Service • North Wales Local Resilience Forum |
| <p>(iv) a requirement to liaise with the local Health Board and Public Health Wales where the welfare of sick and vulnerable residents is in question; and</p> | <ul style="list-style-type: none"> • Denbighshire County Council • North Wales Fire and Rescue Service • Natural Resources Wales • North Wales Regional Emergency Planning Service • North Wales Local Resilience Forum |
| <p>(v) consideration of the installation of temporary air/water quality monitors to safeguard the public's health during the duration of this type of incident;</p> | <ul style="list-style-type: none"> • Denbighshire County Council • Natural Resources Wales • North Wales Regional Emergency Planning Service |

10.3 The Communities Scrutiny Committee recommends that an Upland/Moorland Management Officer post be established. The Committee sees the benefits of this post to include leading on the effective co-ordination with the various agencies, landowners, farmers, graziers and local communities on land management activities and plans, with a view to supporting the habitat, ecosystems and economies of upland areas and reducing the risk of wildfires. Relevant agencies are recommended to agree on how this key post can be financed and supported.

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| Responsible agency/organisation(s) | <ul style="list-style-type: none"> • Denbighshire County Council • Natural Resources Wales • North Wales Fire and Rescue Service |
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10.4 The Committee recommends that correspondence be sent to the Welsh Government seeking it to:

- (i) act **urgently** to make sure that future Agricultural Policies are aimed at securing the economic and environmental sustainability of upland and moorland areas across Wales by ensuring that sheep farming practices and production, essential components for effective and sustainable land management in these areas, is economically viable and maintained for the future; and
- (ii) to seek financial assistance for the restoration work on Llantysilio Mountain

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| Responsible agency/organisation(s) | <ul style="list-style-type: none"> • Denbighshire County Council • Natural Resources Wales • North Wales Fire and Rescue Service |
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11. Acknowledgements

The Committee wishes to thank all services, agencies, organisations, businesses and individuals for their co-operation and assistance in undertaking this review. All contributions, be they written, verbal, photographic or video footage have been extremely useful to the Committee in its work, and have helped ensure that the review's findings are based on a broad cross-section of experiences and professional opinions. The production of this report would not have been possible without everybody's willingness to contribute and engage with the review.

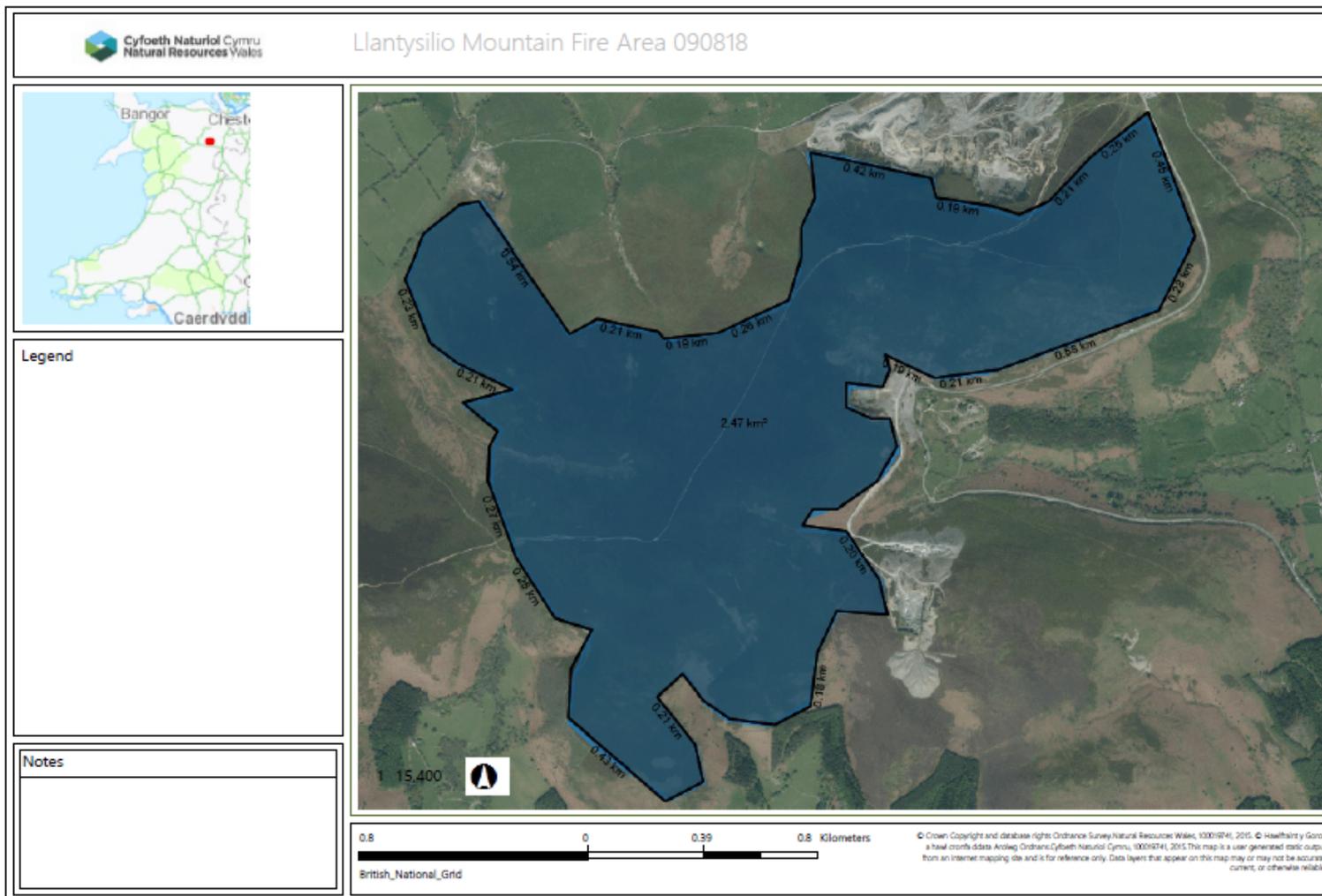
We are confident that all involved or affected by the fire will give due consideration to our recommendations and will endeavour to work effectively together with a view to averting a similar incident occurring in future. If, another wildfire ignited or a similar emergency incident did occur, we hope that the lessons learnt from this particular fire will result in any multi-agency response being effectively co-ordinated, with all partners and stakeholders being kept abreast of developments on a regular basis.

As a Committee we sincerely hope that given time and the appropriate support the habitat on Llantysilio Mountain will recover and that the local economy and communities will benefit as a consequence. We genuinely hope that the lasting legacy of the environmental tragedy that happened on this particular mountain will be that the lessons learnt will have a positive effect on land management, the prevention of fires or the subsequent response to moorland fires wherever or whenever they occur, in Denbighshire, across Wales and further afield.

12. Glossary of Terminology

| Abbreviation | Full title or name |
|-----------------------------|--|
| AONB | Area of Outstanding Natural Beauty |
| Category 1 Responder | An agency which is designated under the Civil Contingencies Act 2004 as a Category 1 responder – in the case of those involved with this particular fire they were North Wales Police, North Wales Fire and Rescue Service, Natural Resources Wales and Denbighshire County Council |
| CCA 2004 | Civil Contingencies Act 2004 |
| CRoW 2000 | Countryside Rights of Way Act 2000 |
| DCC | Denbighshire County Council |
| DTM | Duty Technical Manager |
| DCWW | Dŵr Cymru Welsh Water |
| FSI | Fire Severity Index |
| FRS | Fire and Rescue Service |
| ICU | Incident Command Unit |
| JESIP | Joint Emergency Service Interoperability Procedures |
| LEI | Landscape Enhancement Initiative |
| LRF | Local Resilience Forum |
| NNR | National Nature Reserve |
| NRW | Natural Resources Wales |
| NWLRF | North Wales Local Resilience Forum |
| NWFRS | North Wales Fire and Rescue Service |
| NWP | North Wales Police |
| NWREPS | North Wales Regional Emergency Planning Service |
| PCSO | Police Community Support Officer(s) |
| PPE | Personal Protective Equipment |
| SAC | Special Area of Conservation |
| SARB | Strategic Arson Reduction Board |
| SSSI | Site of Special Scientific Interest |
| TCG | Tactical Co-ordination Group |
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| Hefting | (the Welsh term is ' <i>cynefin</i> ') is a traditional method of managing flocks of sheep on large areas of common land and communal grazing, it allows different farmers or graziers in an extensive landscape such as moorland to graze different areas without the need for fences, each ewe keeps to her particular flock's area of the mountain/common. Hefting flocks have been bred over a number of generations. Initially, sheep had to be kept in an unfenced area of land by constant shepherding. Over time their territory has become learned behaviour, passed from ewe to lamb over succeeding generations. These flocks therefore have an instinctive ability to keep to a certain <i>heft</i> / <i>cynefin</i> (a small local area) throughout their lives and as a result the lambs learn their heft from their mothers |

Map showing approximate area of Llantysilio Mountain affected by the fire (copyright of Natural Resources Wales)



Timeline of the fire incident and its management

Timeline of all organisations' involvement with the fire and related activities from the first report to the Emergency Services to it being declared extinguished

| Date | Activity |
|----------------------------|---|
| 18 th July 2018 | At 11pm North Wales Fire and Rescue Service (NWFRS) responded to a 999 call reporting a fire “behind the Conquering Hero...just above Maengoron Isaf, Rhewl”. Fire personnel were actively involved in bringing this fire under control until the morning of 19 th July. (see section 6.16 of the report on ‘Differing Opinions’) |
| 19 th July | NWFRS stated that from 1:49am on the morning of the 19 th July resources were scaled down incrementally as the fire was gradually brought under control. A crew of 4 firefighters remained on fire watch and located and dealt with a single area of re-ignition shortly after 3.30am. More resources were brought back to the area and proceeded to damp down hot spots for the next 2 hours before it was determined that no further action would be needed. As a precaution, a re-inspection of the area was programmed for 7am that day. By 7:40am the re-inspection had confirmed that the fire was out, although smoke could still be seen issuing from the burnt ground. A member of the public was in attendance at the time, and confirmed that he/she would be monitoring the area throughout the day. A message received from the scene at 8:21am confirmed that the site would probably continue to smoulder for another 48 hours, which might prompt further 999 calls from members of the public. This did occur, 2 calls were received at 11:39am & 12:02pm reporting smoke rising, but no flames. A call was made by NWFRS to a local member of the public who was in contact with the Fire and Rescue Service at approximately 11:50am who confirmed that although there were occasional flare-ups they were dying down and in his/her opinion NWFRS attendance was not required. |

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| | <p>2.20pm: a 999 call was received at the Fire and Rescue Service's Control Centre in St. Asaph reporting a fire burning on the mountain. This fire was approximately 361 meters (quarter of a mile) away from the location of the fire of the previous evening, and was therefore in the professional opinion of NWFRS not a re-ignition. NWFRS dealt with this incident from then until it was officially declared closed at 1:45pm on 25th September 2018.</p> <p>North Wales Police (NWP) received a report from NWFRS stating there was a fire on Llantysilio Mountain and asking if NWP could assist. The request was for officers to attend and speak with occupants of houses in the area to make them aware of the fire. There was no requirement to evacuate at this time. Within a short period of time, and without any officers having to attend, NWFRS called the Police back cancelling the request as they had matters in hand.</p> <p>Fire reported to Denbighshire's Countryside Services by a local resident. Fire and Rescue Service were already in attendance when Countryside Services arrived. Countryside Services made available both its 'Fire Foggers' and staff, who worked alongside NWFRS staff in a bid to bring the fire under control, staff continued to work alongside the NWFRS throughout the week.</p> <p>News of the fire reported to Natural Resources Wales (NRW) via Denbighshire County Council's Countryside Services – Countryside Services and NWFRS staff in attendance. NRW do not attend fires on private land unless a request for assistance is received from the Fire and Rescue Service</p> |
| 20 th July | NRW discussed the equipment they had available with NWFRS & the Council's Countryside Service and offered the use of off road vehicles. Tracked vehicle not required at that time |
| 24 th July | According to Countryside Services the fire appeared to be out on this date |
| 25 th July | NRW considered the fire to be extinguished, but it re-ignited and a change in wind direction moved the fire south towards a forest plantation. |

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| | <p>The Council's Countryside Services also stated that by this date the fire appeared to have re-ignited and was burning out of control</p> |
| 26 th July | <p>NWFRS asked if the Police could determine the availability of a drone and pilot in order to assist them to check the extent of the fire on the mountain. Police drone pilot and spotter made available and both attended at the Ponderosa at 2:30pm.</p> <p>NRW agreed with NWFRS that a trench could be dug within the SSSI on the edge of a block of woodland to protect forestry and adjacent properties. Due to a change in wind direction the fire did not approach the woodland.</p> |
| 27 th July | <p>Denbighshire County Council's Highways Service's first involvement with the fire was during the late afternoon of 27th July when Countryside Services requested a flail mower to cut back bracken at the edge of the carriageway on the Horseshoe Pass.</p> <p>Overnight and into Saturday the conditions worsened as the fire approached the main road. A request was received, from NWFRS via Countryside Services, to put in place a road closure. During the day, and more especially into the evening, conditions worsened as the fire approached the Ponderosa and the Highways Service was asked to 'beef up' the closure by putting in staffed control points as people were still choosing to drive through the area.</p> <p>The Highways staff were stood down and replaced by the Police on the staffed control points.</p> <p>The Council's Highways Service closed the road on safety grounds (due to smoke affecting visibility). Police media team engaged. It was confirmed by the Police that NWFRS had not declared this a 'Major/Emergency' Incident. Police Drone and two operators at the scene. Additional Police resources attended as the fire was spreading. Sufficient staff were available should the requirement to evacuate be made. The majority of Police staff were Police Community Support Officers (PCSOs) assisting at the road closure points with the Council's Highways Service staff.</p> |

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| | <p>The Police made contact with six nearby properties to ensure they were aware of the situation and assess options should the need to evacuate arise. According to the Police this was a resource intensive day, with officers on site all day and night.</p> <p>The Council established a rest centre in readiness for an evacuation of properties following liaison between the Council, NWFRS, NWP & North Wales Regional Emergency Planning Service (NWREPS). Of 12 local residents that may have to be evacuated 6 would require accommodation, the remainder had access to alternative provision. Evacuation not eventually required.</p> <p>NWFRS requested firebreaks be cut in order to slow down the fire which had reached the slopes of Moel y Faen, above the Horseshoe Pass. The Council's Countryside Services and Area of Outstanding Natural Beauty (AONB) officers arranged for NRW to undertake the work. NRW provided machinery and expertise to undertake the mowing of fire breaks (2 men and machinery deployed and remained on site for 6 days). This work was undertaken under the direction of the Fire and Rescue Service</p> <p>During the evening the fire advanced towards the Horseshoe Pass road and NWFRS requested that breaks be cut alongside the road – this required a tractor with a side-mounted flail which DCC's Highways Service provided. Countryside Service Rangers continued to work alongside NWFRS staff to bring the fire under control</p> |
| 28 th July | 10 properties potentially at risk from the fire, but weather conditions, and the road forming a firebreak, were favourable. Rest Centre retained, but not used. Ponderosa Café evacuated overnight |
| 29 th July | Conditions had eased a little and no properties were now under threat, but NWFRS still wanted a road closure in place, staffing it in the longer term was going to be unfeasible for the County's Highways Service. With just a few cones in place it was clear that some road users would ignore the unstaffed road closure point and try to use the road thus putting themselves and fire service |

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| | <p>personnel in jeopardy as they were working off the carriageway in what was sometimes almost zero visibility due to the smoke. As a result the Highways Service opted to collect water filled barriers from its depot and deploy these to give a robust, physical deterrent accompanied by better defined signing. During subsequent days, and depending on the conditions, the Highways Service deployed a combination of this physical barrier arrangement or single lane traffic control – which was mainly there to give a protection zone to fire personnel who were still having to work off the carriageway below the top layby.</p> <p>Rest Centre stood down, but state of alert maintained.</p> <p>Large areas of the fire continued to smoulder underground therefore Countryside Services personnel continued to work with NWFRS staff to dampen down these areas. This work continued until 1st August.</p> |
| 30 th July | <p>Further NRW tractor and hedge flail deployed at the NWFRS's request. Local NRW staff visit the Incident Command Unit (ICU) everyday up until the 17th August</p> |
| 1 st August | <p>During the morning all NRW off road vehicles were withdrawn from the site.</p> <p>During the afternoon/evening a meeting of all agencies was held at the ICU (NWFRS, County Council's Countryside & Highways Services, Police, NRW Operational and Local Teams, and local County Councillor).</p> <p>NRW was requested to withdraw public access to the Access Land on Llantysilio Mountain once the road was re-opened. (Relevant authorities have powers under the Countryside and Rights of Way (CRoW) Act 2000 to restrict access for the purposes of fire prevention, but <u>only</u> when exceptional conditions exist – NRW was the 'relevant authority' in this case). Relevant authorities use the Fire Severity Index (FSI)⁴ provided by the UK Meteorological Office to assess whether conditions are exceptional).</p> |

⁴ The Fire Severity Index (FSI) is provided by the Meteorological Office and is used by relevant authorities in England and Wales to assess whether conditions are exceptional.

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| | <p>NWREPS log indicated that NWFRS was considering the establishment of a Tactical Co-ordinating Group (TCG) in order to update all partners – a TCG was never formally established. At this point NWREPS involvement with the incident ceased.</p> <p>This was the last date that the Council's Countryside Service received a formal request for operational support from NWFRS, although the Service kept in contact with the Fire and Rescue Service throughout August.</p> |
| 2 nd August | Main road (A542) re-opened but NRW was unable to support the suspension of public access as per the request the previous day as “the Fire Severity Index (FSI) ⁵ had not reached the exceptional level for the area which would suspend the right of access for fire prevention.” |
| 4 th August | Ten reports of re-ignition were received by the Police therefore the road remained closed. The Police's involvement with the incidents was mainly around emergency road closures. |
| 6 th August | Fire smouldering in the area of the road in the Horseshoe Pass itself. NRW advised that it had no objection to home owners cutting vegetation in this area, but safety concerns raised by Fire and Rescue Service. |
| 7 th August | A meeting took place between NRW, the agent for the Llantysilio Estate, the County Council's Countryside Services and NWFRS to discuss whether any further mowing was required. |
| 8 th August | Dŵr Cymru Welsh Water (DCWW) received an initial request for support in the Llantysilio Mountain area with the water supply. This involved the provision of a tanker filling point in Llandegla. It became apparent early on that this fill point was ineffective in filling the fire tenders in an appropriate time. Therefore DCWW provided assistance in the form of 3 articulated tankers over a 24 hour period, each holding 25,000 litres of water – these were used to fill fire tenders – and were located on site in Llandegla for approximately 4 to 5 days and nights. Due to the volume of water held in the tankers on site not all of the water was used, consequently a decision was taken to reduce the number of tankers to two per day. These tankers were supplied by |

⁵. The FSI provides a trigger for fire prevention restrictions on access land mapped under the Countryside and Rights of Way Act (2000). Fire prevention restrictions aim to minimise accidental fires on access land vulnerable to wildfires by suspending open access rights when conditions become exceptional (FSI level 5).

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| | DCWW's haulage contractor and held 30,000 litres of water each and were despatched from the depot at 6am and returned at 10pm. This support continued until they were no longer required by NWFRS, on or around the 20 th August. |
| 10 th August | NWFRS requested assistance from NRW with further fire break creation or flailing, but NRW's equipment was not available due to annual servicing and main operator being on annual leave. |
| 14 th August | Contractor for the Llantysilio Estate met NWFRS and NRW on site. NWFRS advised the contractor where mowing would be beneficial. Contractor decided which locations were suitable for mowing based on previous experience and the available equipment. This was agreed on site and mowing carried out that evening. |
| 17 th August | BBC Wales News reports 'Llantysilio mountain fire 'out' after burning for 40 days' as NWFRS had said that staff should finally leave the scene: https://www.bbc.co.uk/news/uk-wales-45218857 |
| circa 20 th August | Area declared safe to enable all highways restrictions to be removed. |
| 5 th September | NRW informed by NWFRS that the ICU had been removed from the site. |
| 13 th September | NWFRS withdraw from site. |
| 25 th September | NWFRS formally close down the incident at 1:45pm. |