

Environment (Wales) Act 2016: Part 1 – Section 6

The Biodiversity and Resilience of Ecosystems Duty

Biodiversity Report and Plan

November 2022

Mae'r ddogfen yma ar gael yn y Gymraeg
This document is also available in Welsh

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1.0 BACKGROUND

- 1.0.1 Biodiversity (or biological diversity) is the variety of life found on earth. It includes all species of plants and animals, their abundance and genetic diversity; it underpins our lives and livelihoods and supports the functioning and resilience of ecosystems in oceans, wetlands, lakes, rivers, mountains, forests and agricultural landscapes. Our economy, health and well-being depend on healthy, resilient ecosystems, which provide us with our food, clean water and air, raw materials and energy and to protect us against hazards, such as flooding and climate change. It is vital to connect people with nature and the contribution its wildlife and habitats bring towards society's well-being, sense of place and cultural identity.
- 1.0.2 It is widely recognised that biodiversity is under pressure from a range of influences and that habitats and species continue to decline, therefore, it is vital that we maintain and enhance our biodiversity to ensure it remains healthy, resilient and capable of adapting to change. The effect of climate change on biodiversity over the coming decades is likely to be significant, including a further loss of habitat and a potential increase in invasive species.
- 1.0.3 Biodiversity management within NWFRS is an integral part of improving its overall environmental performance and the Service has previously addressed biodiversity issues on its estate through its Sustainable Development Action Plan, which covered the period 1st April 2007 to 31st March 2020. The Biodiversity Duty through the Natural Environment and Rural Communities Act (NERC) 2006 required all public authorities, including the Fire Services, to pay regard to the conservation of biodiversity in exercising their functions. This subject area is now reportable under the requirements of the Well-being of Future Generations (Wales) Act 2015 and the Environment (Wales) Act 2016, Part 1, Section 6 – The Biodiversity and Resilience of Ecosystems Duty.
- 1.0.4 The Well-being of Future Generations (Wales) Act 2015 recognises the importance that the Welsh Government places on nature and its biodiversity; along with six other goals for a sustainable Wales, the Act puts in place the 'Resilient Wales' goal (a nation which maintains and enhances a biodiverse natural environment with healthy functioning ecosystems that support social, economic and ecological resilience and the capacity to adapt to change).
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- 1.0.5 The Environment (Wales) Act 2016 enshrines the principles of the UN's Convention on Biological Diversity in law by adopting an ecosystems approach to how Wales manages its natural resources in the future. The Act introduces an enhanced biodiversity and resilience of ecosystems duty (the section 6 duty) for public authorities (this includes Fire Services) in the exercise of functions in relation to Wales. The s6 duty requires that authorities 'must seek to maintain and enhance biodiversity so far as consist with the proper exercise of their functions and in so doing promote the resilience of ecosystems'.
 - 1.0.6 To comply with the s6 duty public authorities should embed the consideration of biodiversity and ecosystems into their early thinking and business planning, including any policies, plans, programmes and projects, as well as their day to day activities.
 - 1.0.7 Under the Act, all public authorities must, before the end of 2019 and before the end of every third year after 2019, publish a report on what they have done to comply with the s6 duty. The reporting duty should not be burdensome, and should be proportionate to the size and type of organisation, with regard to the action for biodiversity they can carry out. NWFRS published its first Biodiversity Report and Action Plan in November 2019.
 - 1.0.8 Whilst protected sites and species are important, the s6 duty is also about taking steps to protect nature in our towns, cities, public places and wider landscape, both through practical action on the ground, and in the way all public functions are carried out. It is not just the large, landscape initiatives that are important, but also the smaller, every day, local scale actions that can make a difference and can contribute to helping biodiversity.
 - 1.0.9 In addition to the legislation, the Welsh Government has produced a Nature Recovery Plan, which consists of the Strategy for Nature and the commitment to biodiversity in Wales, the issues needed to be addressed and the objectives for action; an Action Plan to meet the objectives to reverse the decline of biodiversity; and the governance structure, roles and responsibilities of everybody involved in the delivery of action for biodiversity in Wales.
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1.0.10 Through the Nature Recovery Action Plan, a number of objectives have been identified to address issues that are driving the decline in biodiversity, and to support recovery:

- Objective 1:** Engage and support participation and understanding to embed biodiversity throughout decision making at all levels.
- Objective 2:** Safeguard species and habitats of principal importance and improve their management.
- Objective 3:** Increase the resilience of our natural environment by restoring degraded habitats and habitat creation.
- Objective 4:** Tackle key pressures on species and habitats.
- Objective 5:** Improve evidence, understanding and monitoring.
- Objective 6:** Put in place a framework of governance and support delivery.

1.0.11 The Welsh Government has produced Reporting Guidance for the section 6 duty, and this document has been used in the formation of this report.

2.0 INTRODUCTION AND CONTEXT

- 2.0.1 North Wales Fire and Rescue Service provide fire protection and prevention services to around 687,000 people over a geographical area of 2,400 square miles, as well as hundreds of thousands of tourists and visitors who come to North Wales every year. There are around 328,742 domestic properties and 33,820 non-domestic properties under NWFRS' protection and the Service employs almost 1,000 staff in operational and support roles.
- 2.0.2 The Service covers three geographical areas, Gwynedd and Anglesey, Conwy and Denbighshire and Wrexham and Flintshire, with an estate of 47 buildings, ranging from whole-time, day-crewed, retained and community fire stations, administration offices, a garage workshop to sharing premises with North Wales Police and the Welsh Ambulance Service Trust. Each area has a community safety office and a designated community safety manager; annually NWFRS attend around 1,879 fires, 958 Special Service Incidents, and around 2,517 false alarms of various kinds every year.
- 2.0.3 There is a large transport fleet including 54 fire appliances, one incident command unit and 31 'special' vehicles - such as all-terrain vehicles and foam carriers; there are also three aerial ladder platforms, portable power tools, lifting and winching and other specialist equipment to enable us to respond to many different types of incidents.
- 2.0.4 The Service carries out extensive work with schools, businesses and local communities to promote fire safety and prevention. The potential for serious damage to our environment, often in sensitive areas, by the impact of countryside fires is a serious concern, the impact of deliberate fire setting undermines social and economic confidence and draws on resources which could be utilised more effectively elsewhere.
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- 2.0.5 In addition to the Operational response to attending fires or incidents in areas where biodiversity may be affected, the Arson Reduction Team (partnership between NWFRS and North Wales Police) helps to tackle the problem of deliberate fire setting so that people, communities, businesses, the environment and the area's heritage are not put at risk. The Team aims to reduce the number of countryside fires which are deliberately set; change the attitude of the community towards the deliberate setting of fires; take a multi-agency partnership approach to address this issue; ensure a consistent message is delivered to communities on countryside fires and to support the delivery of diversionary activities for both adult and young people, deter potential offenders and intervene early when anti-social behaviour begins.
- 2.0.6 Therefore, North Wales Fire & Rescue Service can be considered as a Group 2 Organisation in the s6 guidance with respect to the description of organisation relative to biodiversity. That being NWFRS are an organisation which (1) own, occupy or manage land at their own premises and (2) whose functions are connected with biodiversity and/or land management or that can influence those who own or manage land.
- 2.0.7 North Wales Fire & Rescue Service is subject to the Well-being of Future Generations Act and the production of well-being plans and is a member of the Gwynedd and Anglesey, Conwy and Denbighshire and Flintshire Public Service Boards in relation to biodiversity, climate change and environmental agenda working groups.

3.0 ACTIONS TAKEN

- 3.0.1 The Facilities Management Department are responsible for the delivery of biodiversity projects and the grounds maintenance contract at Service premises, following approval by the Assistant Chief Fire Officer (Finance & Resources).
- 3.0.2 The former grounds maintenance contract expired on 31st March 2020 and in developing the specification for the new contract (which is now in effect), biodiversity enhancement actions to be taken at sites, have being included.
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3.0.3 The grounds maintenance contract involves a regime, whereby, between April and November each year, all grassed areas at sites are cut every two weeks; shrubs, hedges and trees trimmed as required; herbicide applied to control weeds to paved areas, kerbs and the base of buildings; and hard standings (car park, paths etc.) cleared of litter and all waste arising (grass, leaves, dead shrubs etc.) being removed off site. The control and management of invasive non-native species is included in the grounds maintenance contract, Japanese Knotweed is under strict management at 3 sites.

3.0.4 In addition to the three habitat creation schemes reported in 2019, the Service has undertaken four biodiversity protection or enhancement projects within the current reporting period:

Project 1: Dolgellau: Environmental action day

Project 2: Llantysilio and Ruabon Mountains: arson prevention campaign and hydroseeding

Project 3: Abergele, Chirk, Conwy, Flint, Harlech, Llanfairfechan, Prestatyn and Rhosneigr Fire Stations: Grass cutting regime reduction

Project 4: Harlech Fire Station: Swift box installation

These projects will be discussed below in the case studies.

3.0.5 The NWFRS estate can be grouped into 3 types of site:

Group 1: Grounds to site contain hard standings + grassed areas + shrubs, hedges, trees

Group 2: Grounds to site contain hard standings + grassed areas

Group 3: Grounds to site contain hard standings only

Each premise and their geographical location are summarised in Table 1: Site types and locations.

Table 1: Site Types and Locations

County Area	Group 1 sites with hard standings + grassed areas + shrubs, hedges, trees B = biodiversity project site JK = Japanese Knotweed control	Group 2 sites with hard standings + grassed areas	Group 3 sites with hard standings only
Conwy	Colwyn Bay FS Conwy FS Llanfairfechan FS Llanrwst FS Fleet & Stores ICT – Unit 8	Abergele FS Cerrigydrudion FS	Llandudno FS Betws y Coed FS
Denbighshire	Rhyl complex Corwen FS (JK) Ruthin FS Fire Service Headquarters (B)	Llangollen FS Prestatyn FS St Asaph FS	Denbigh FS
Flintshire	Deeside FS	Buckley FS Flint FS Mold FS	Holywell FS
Wrexham	Chirk FS Wrexham FS [Wrexham Ambulance & Fire Services Resource Centre] – grounds managed by Welsh Ambulance Service Trust	Johnstown FS	

Anglesey	Menai Bridge FS Rhosneigr FS	Holyhead FS Benllech FS Llangefni FS (JK)	Amlwch FS Beaumaris FS
Gwynedd	Caernarfon FS Bangor FS Abersoch FS Nefyn FS & PS (B) Pwllheli FS (JK) Porthmadog FS Tywyn FS & PS (B)	Llanberis FS Dolgellau FS Bala FS Blaenau Ffestiniog FS Harlech FS	Aberdyfi FS Barmouth FS
Total	21 (22 if Wrexham included)	17	8

4.0 HIGHLIGHTS, KEY OUTCOMES AND ISSUES

4.0.1 The potential to address biodiversity considerations within the NWFRS estate is high, with 83% of sites having areas of soft landscaping (grassed areas) and 46% of those sites having additional areas within the grounds containing shrubs, hedges or trees; only 17% of sites are devoid of any vegetation.

4.0.2 Observations from previous site visits:

- Some grassed areas are too small to sustain a 'no-cutting April to August' regime.
- Some hedges source from neighbours' land, but form part of the NWFRS site's perimeter; where there are gaps in the hedge (preventing wildlife corridors and inter-connectivity), the area at ground level on the Service's side may be hard standings.
- Sites containing mature trees, tend to have Horse Chestnuts present and during the Autumn members of the public come into the grounds to collect conkers, therefore these sites already enable a means for the Service to contribute towards community engagement with nature. This behaviour was witnessed at the Porthmadog and Conwy fire station site visits.

4.1 Biodiversity Projects (Case Studies)

Project 1

4.1.1 In partnership with Adra and Gwynedd Council, Service Personnel participated in an Environmental Action Day in September 2021 in Dolgellau, within the Snowdonia National Park. This involved engagement with the public around the importance of protecting the local environment, and removal of litter.

Project 2

4.1.2 In partnership with Natural Resources Wales and North Wales Police, the Service undertook an arson prevention campaign in August 2022 at Llantysilio and Ruabon Mountains, following a wildfire at Llantysilio in 2018 which engulfed over 250ha within a designated Site of Special Scientific Interest (SSSI). In October 2021, following this fire, the Service provided logistical assistance to Natural Resources Wales to undertake a hydroseeding scheme in the area of the fire.

- 4.1.3 The arson prevention campaign involved public engagement and education around avoidance of high-risk activities such as discarding of cigarettes and/or glassware and the use and disposal of barbeques.

Project 3

- 4.1.4 In accordance with the Grounds Maintenance and Enhanced Biodiversity Contract, which came into force in April 2020, the grass cutting regime has been reduced to Spring and Autumn cutting only at Abergele, Chirk, Conwy, Flint, Harlech, Llanfairfechan, Prestatyn and Rhosneigr Fire Stations.
- 4.1.5 This has been undertaken with the aim of allowing the growth of a habitat for pollinators and herbivore insects.

Project 4

- 4.1.6 As part of a planned demolition and replacement of the training tower at Harlech Fire Station, located within Snowdonia National Park and the Coed Llechwedd SSSI, the Service has agreed to install a sparrow terrace nest box at the station.
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5.0 ACTION PLAN

5.0.1 The following provides information on what actions North Wales Fire and Rescue Service are taking to meet the Nature Recovery Action Plan for Wales (NRAP) objectives, with regards to the management of their grounds and the maintenance and enhancement of biodiversity at their premises.

5.1 NRAP Objective 1

“Engage and support participation and understanding to embed biodiversity through decision making at all levels”

5.1.1 NWFRS is committed to addressing biodiversity on its estate, and is currently developing policy to replace the Sustainable Development Action Plan (SDAP), which covered the period 1st April 2007 to 31st March 2020.

5.1.2 Data, information and reports relating to subject areas relating to biodiversity are provided to Senior Officers and the Fire Authority, as required or requested.

5.1.3 To date, raising awareness on biodiversity issues has been mainly project-site based, for example the Fire Headquarters biodiversity project informed staff of the works being undertaken and why. There has been good engagement with the scheme, with staff photographing species (butterflies and other insects) and providing feedback on any issues to the Facilities Department.

5.2 NRAP Objective 2

“Safeguard species and habitats of principal importance and improve their management”

5.2.1 The Service does not have any protected sites within its estate.

5.2.2 The Fire Headquarters is located on the St Asaph Business Park, which contains Greater Crested Newt, any grounds disturbance works take into consideration the legislative requirements pertaining to the newts.

5.2.3 Where new-build development or major refurbishment work is undertaken by the Service, schemes are subject to BREEAM certification where feasible to do so. BREEAM is the world's longest established method of assessing, rating, and certifying the sustainability of buildings. Principles under which development work takes place include:

- Ensuring, where possible, that any construction takes place in sites defined as land of low ecological value
- Ensuring, where possible, that development work protects existing ecological features from substantial damage arising from its preparation or completion.
- To recognise and encourage actions taken to enhance the ecological value of development sites as a result of the development.

5.3 NRAP Objective 3

“Increase the resilience of our natural environment by restoring degraded habitat and habitat creation”

5.3.1 This objective is met through the implementation of the Grounds Maintenance and Biodiversity Enhancement Contract, which commenced 1st April 2020.

5.3.2 Each site under the control of the Service was assessed for its grounds maintenance requirements and habitat creation potential, with a site specific regime being written for each site, including site plans and measurements of vegetated areas.

5.3.3 Please refer above to Table 1: NWFRS Site types and locations.

5.3.4 The potential to address biodiversity considerations within the NWFRS estate is high, with 83% of sites having areas of soft landscaping (grassed areas) and 46% of those sites having additional areas within the grounds containing shrubs, hedges or trees; only 17% of sites are devoid of any vegetation.

5.3.5 The regimes put in place under the Grounds Maintenance and Biodiversity Enhancement Contract are:

Grassed Areas

- 5.3.6 Unless the grassed area needs to be maintained as a formal feature (i.e. front of Headquarters) or the area of grass is too small, the cutting regime has been reduced from every two weeks between April and August to one cut in the spring and one in the autumn; thus, allowing the grass to grow between April and August each year to increase the habitat area available to pollinators and other species.
- 5.3.7 Where grassed areas are left to grow between April and August, a strip along the edge of the grass next to hard standings will be cut regularly, to demarcate the biodiversity area, indicate the area is being managed and allow for any health and safety considerations for personnel using the site.
- 5.3.8 For areas of grass that are too small to leave to grow, these have been individually assessed for alternative 'pollinator friendly' habitats, such as flower-beds or planters.

Shrubs and Trees

- 5.3.9 All trees will be recorded in a Tree Inventory (ongoing), stating location, any tree protection orders, species, approximate age, condition (the health of the tree and risk assessments [to the tree from disease such as Ash die-back and the risk from the tree, such as the removal of dead branches which may fall on property or people]).
- 5.3.10 Where trees need to be removed, they will be replaced with suitable native species.
- 5.3.11 Where trees have been removed in the past and gaps in the habitat exist, where viable these gaps will be closed by planting new trees.
- 5.3.12 Hedges and shrubs will be trimmed at the appropriate time of year and take into consideration species that may be using them, such as nesting birds.
- 5.3.13 Where shrubs or hedges need to be renewed or repaired, flowering species (such as hawthorn) will be used as a feed stock for pollinators.
- 5.3.14 Log piles, bat, bird and insect boxes are to be installed at sites where viable.
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Awareness Raising of Biodiversity

- 5.3.15 NWFRS personnel have been informed of the change of grounds maintenance regime and why.
- 5.3.16 Public explanation boards are displayed at sites where the front is subject to a specific biodiversity project, outlining what specific biodiversity measures have been taken and the reasons for doing so. At the locations of more significant projects (e.g. the rear garden at Headquarters in St. Asaph), a photographic log showing 'before' and 'after' is typically included.

5.4 NRAP Objective 4

"Tackle key pressures on species and habitats"

- 5.4.1 Japanese Knotweed Control is in place at 3 sites and is subject to ongoing status monitored.
- 5.4.2 A risk assessment to the Service's Ash Trees from Ash die-back disease was postponed due to the pandemic, and is now planned to take place by the end of 2023.
- 5.4.3 Where additional tree planting is undertaken, the biogenic sequestration value to the Service's carbon footprint as a result of tree carbon sequestration within the estate is reported as part of the annual carbon accounting report.
- 5.4.4 Where a green space for staff, visitors or community groups is created, seating will be sourced from sustainable and social sources.
- 5.4.5 The use of pesticides and herbicides; the Service already specifies to contractors to ensure the use of these substances is proportionate, they are not applied to wet foliage or when rain is expected, that all litter and arising are removed prior to spraying and that their equipment is fitted with approved guards to prevent spray drift.
- 5.4.6 Due to their bioaccumulative nature and high degree of ecotoxicity, the Service will end the use of long-chain (C6 and C8) fluorosurfactant firefighting foams and dispose of its existing stocks in accordance with manufacturer guidelines. These foams are to be replaced with fluorine-free alternatives.
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- 5.4.7 The Service has a dedicated Wildfires lead officer, who provides consultation with landowners including farmers and local authorities, and partner authorities such as Natural Resources Wales and North Wales Police to help reduce the number and scale of wildfires within the Service area, thus protecting large and valuable habitats. Partnership work undertaken with farmers is of particular value as many wildfires requiring attendance by the Service begin as controlled burns undertaken by landowners. This work involves education around the requirements of The Heather and Grass Burning Code for Wales 2008, including the requirement to prepare a Burn Plan and provide sufficient notification to the Service.
- 5.4.8 The Service will continue its ongoing work around Arson Prevention, to help protect natural habitats.

5.5 NRAP Objective 5

“Improve our evidence, understanding and monitoring”

- 5.5.1 A Biodiversity Inventory of the NWFRS estate has been produced, containing site plans, measurements of grassed areas and habitats on site. A photographic log of all biodiversity areas within the estate was prepared in 2021.
- 5.5.2 The baseline year for the Inventory is the 2019-20 financial year, where sites have been subject to the former grounds maintenance regime, prior to the aforementioned changes to reflect the Service’s biodiversity commitments.
- 5.5.3 The Inventory is updated each year, reflecting projects undertaken at each site and further works required.
- 5.5.4 All Inventories, data and information is accessible to the Local Environment Records Centre (COFNOD), the Wales Biodiversity Partnership, local Biodiversity Officers, Public Service Board partner organisations, North Wales Wildlife Trust and any other interested parties.
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5.6 NRAP Objective 6

“Put in place a framework of governance and support for delivery”

- 5.6.1 The day to day delivery of biodiversity action at NWFRS sites is administered through the Environmental and Energy Conservation Section of the Facilities Management Department, in conjunction with the Environment and Climate Change Manager, reporting to the Head of Operations and the Assistant Chief Fire Officer responsible for Environment. The ‘Biodiversity Report and Plan’ reports prepared under the Environment (Wales) Act 2016: Part 1 – Section 6 every three years are presented to the North Wales Fire and Rescue Authority for approval prior to publication.
- 5.6.2 The Service seeks, on an ongoing basis, support from PSB partner organisations and local wildlife groups for the species identification at sites; for example, in conjunction with the Wildlife Trust, opening the grounds for the day to members of the public and ecological experts to help assess and record species found on site; with the results being recorded with COFNOD.
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