To: The Climate Change, Environment and Infrastructure Committee, The Senedd

Gilestone Farm

The Usk Valley Conservation Group has pleasure in sending you a copy of a report published today, that it has commissioned from an independent ecologist. You are reminded also that the special video which supports this report is available at

https://eur02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.youtube.com%2Fwatch%3Fv%3DKZjJgqd4xUc&data=05%7C01%7CSeneddClimate%40senedd.wales%7Ce0dbe3a9b5ed442c695308daa3d26066%7C38dc5129340c45148a044e8ef2771564%7C0%7C0%7C638002421216524473%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=F2wz8jdOPLvJX9xwLRcHQi%2Far4ZKwaoZpxUHXh%2F7gDw%3D&reserved=0

The sheer number and variety of wildlife and plants recorded on and around Gilestone farm is an important reminder of how special this part of the Usk Valley really is.

The fact that Welsh Government itself has designated 44 of these species as being of "Principal Importance" for the purpose of maintaining and enhancing biodiversity is further evidence of the value and sensitivity of the farm and its environs. In particular, the Environment (Wales) Act requires Ministers to take 'all reasonable steps to maintain and enhance these species and to encourage others to take such steps'.

However, we should not focus only on those species that are most protected or most at risk and the farm is important for many animals and birds loved by the public, such as otter, hedgehog, kingfisher, curlew, red kite and cuckoo, to name but a few.

The Upper Usk Valley at Talybont is a destination for nature lovers seeking quiet enjoyment of the countryside. This low impact tourism with low intensity farming practice has created a wildlife haven in which many rare and sensitive plants and creatures thrive. It is up to us all, Welsh Government Ministers, the local community, and visitors, to ensure our local environment continues to be protected and that Talybont remains an attractive destination for quiet enjoyment of the countryside.

We are at loss to understand why the Welsh Government chose this particular farm when the mounting evidence including now irrefutable evidence of the richness of its wildlife, demonstrates its unsuitability as a 'permanent home' for the Green Man festival.

Yours sincerely,
Peter Seaman and Phil Darbyshire
Co-chairs
Usk Valley Conservation Group
Registered charity number 1199730

Gilestone Farm - A Review of Biodiversity

Report prepared by the Usk Valley Conservation Group
Charity number: 1199730
October 2022

More information about the work of the Usk Valley Conservation Group can be found at www.uvcg.org, including a link to a short video highlighting some of the local wildlife.

Cover images

A	B
C	D

A Otter – hard to spot, but one of the most significant species on the farm
B Osprey – a spectacular bird of prey frequently recorded in the area in recent years
C Curlew – a rapidly declining species much loved for its haunting call
D Lesser Horseshoe Bat – the area is one of the last strongholds in Europe for this sensitive species

Introduction

Nature is in crisis. Species and habitat are being lost daily and with it our own survival is at risk. In 2021 the Welsh Government declared a Climate and Nature Emergency and committed to increase protection of 30% of Welsh land for nature by 2030. In 2022 the Welsh Government purchased Gilestone Farm to ensure the Green Man art and music festival has a permanent home in Wales.

The Usk Valley Conservation Group commissioned a Consultant Ecologist to review existing biodiversity data to alert the Government to the fact that Gilestone Farm is sited in a biodiverse valley supporting many legally protected, rare, scarce, or locally important species.

The review draws on authoritative national and local datasets including those held by the Biodiversity Information Service (BIS), the National Biodiversity Network (NBN) and Natural Resources Wales (NRW). The key findings are summarised below, and the consultant's report is presented as an Appendix.

What did the review find?

The Upper Usk 'Site of Special Scientific Interest' and 'Special Area of Conservation' form the eastern boundary of the farm. The valley setting hosts 5 roosts of the internationally important lesser horseshoe bat and is included in one of the 'Important Curlew Areas' listed in the Wales Action Plan for the Recovery of the Curlew.

Records of some 1,341 different species were located. Of these, 154 are identified as legally protected, rare, scarce or locally important and are found on or in the vicinity of the farm. All 154 are covered by some form of conservation legislation or assigned a conservation status as summarised in Figure 1.

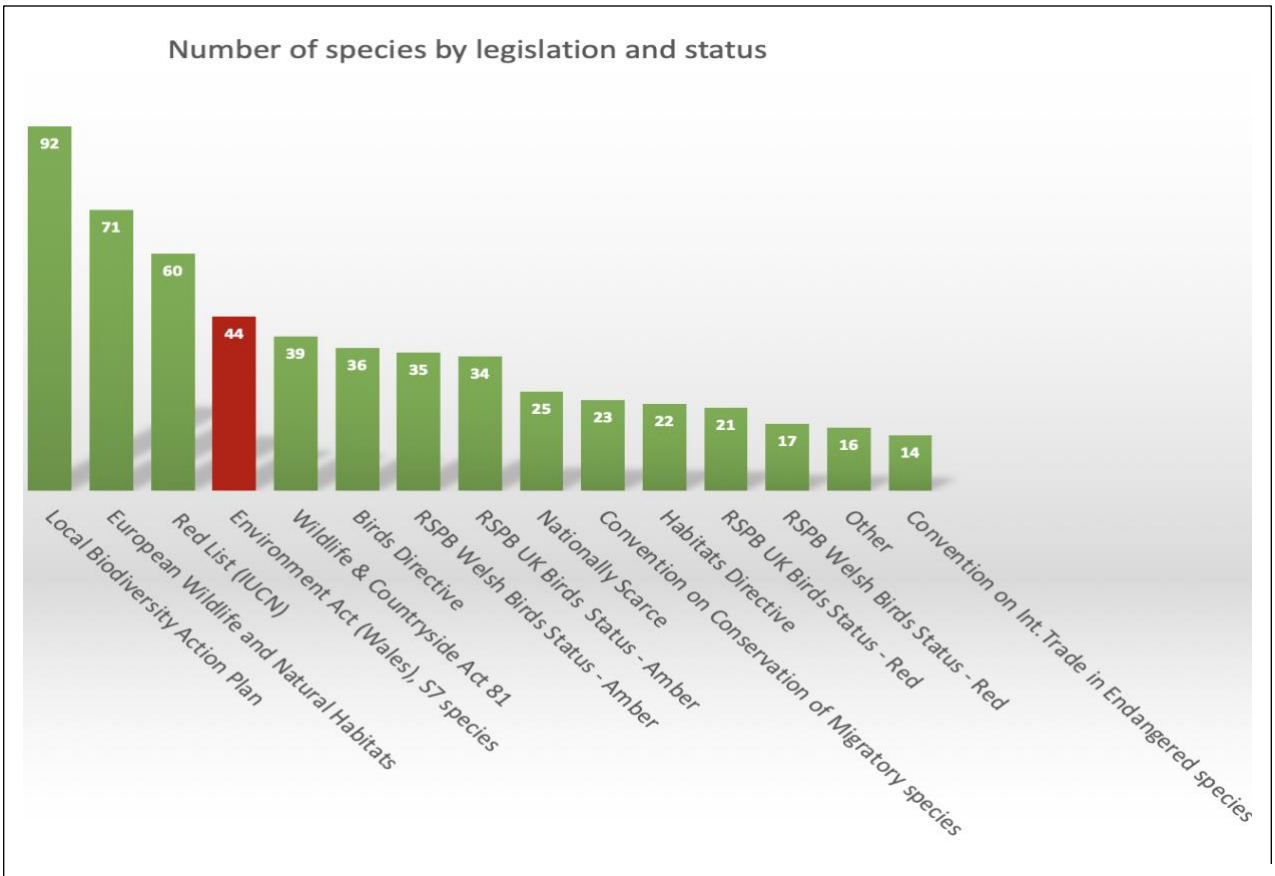

Figure 1. Legislation and status covering the species on and around Gilestone Farm
(Some species are covered by multiple status and legislative protections, so the total is more than 154.)

Forty-four of the most important and legally protected species are listed in Section 7 of the Environment (Wales) Act (2016). This means they have been defined by Welsh Government, as being of "Principal Importance" for the purpose of maintaining and enhancing biodiversity in Wales. Table 1 illustrates the breadth and variety of these species.

Group	Number of protected species	Species
Bats	5	Brown Long-eared, Common Pipistrelle, Lesser Horseshoe, Noctule, Soprano Pipistrelle,
Other mammals	5	Brown Hare, European Otter, European Water Vole, Polecat, West European Hedgehog
Birds	21	Common Reed Bunting, Cuckoo, Curlew, Dunnock, Eurasian Bullfinch, Eurasian Skylark, Grasshopper Warbler, Grey Partridge, House Sparrow. Kestrel, Lapwing, Lesser Redpoll, Linnet, Long-tailed Tit, Marsh Tit, Nightjar, Song Thrush, Western Yellow Wagtail, Willow Tit, Wood Warbler, Yellowhammer
Aquatic	6	Atlantic Salmon, Brown/Sea Trout, European Eel, River Lamprey, Freshwater Pearl Mussel, White-clawed Crayfish
Reptiles and amphibians	3	Common Toad, Grass Snake, Slow-worm
Insects	3	Rosy Rustic Moth, Southern Silver Stiletto-fly, Southern Yellow Splinter
Plants	1	Large-flowered Hemp-nettle
Total	**44**	

Table 1. Welsh Government's section 7 species of 'Principal Importance' supported by the farm.

In addition to the 'Section 7' listed birds, Osprey are frequently recorded using the farm and feeding in the river. The farm and its environs support at least three nationally rare species and 25 nationally scarce species.

What do we think?

The sheer number and variety of wildlife and plants recorded on and around the farm is an important reminder of how special this part of the Usk Valley really is.

The fact that Welsh Government itself has designated 44 of these species as being of "*Principal Importance*" for the purpose of maintaining and enhancing biodiversity is further evidence of the value and sensitivity of the farm and its environs. In particular, the Environment (Wales) Act requires Ministers to take 'all reasonable steps to maintain and enhance these species and to encourage others to take such steps'.

However, we should not focus only on those species that are most protected or most at risk and the farm is important for many animals and birds loved by the public, such as otter, hedgehog, kingfisher, curlew, red kite and cuckoo, to name but a few.

The Upper Usk Valley at Talybont is a destination for nature lovers seeking quiet enjoyment of the countryside. This low impact tourism with low intensity farming practice has created a wildlife haven in

which many rare and sensitive plants and creatures thrive. It is up to us all, Welsh Government Ministers, the local community, and visitors, to ensure our local environment continues to be protected and that Talybont remains an attractive destination for quiet enjoyment of the countryside.

Further work is clearly needed, and we suggest that a detailed (phase 1) survey is undertaken to update existing habitat data and an environmental impact assessment is needed to ensure the overall impact of any changes are properly considered.

We hope this report will encourage the new owners of the farm to value the natural capital in the valley and ensure that protections are put in place to prevent species loss and to realise the potential of this site to make a valuable contribution to increasing biodiversity in Wales.

Appendix

Biodiversity Data for Gilestone Farm
An assessment of available biodiversity data

Mike Lush, 21 September 2022
Consultant Ecologist

Introduction

The Usk Valley Conservation Group commissioned the author to undertake an assessment of the existing biodiversity data associated with Gilestone Farm, Talybont-on-Usk. This report documents the approach used and results this assessment, with technical details as appendices. It is intended as an initial assessment, as it is clear from the volume of data obtained and the clear biodiversity interest that a more detailed account is needed.

Methodology

A range of biodiversity data from the following sources were collated, reviewed and analysed in this assessment:

- Biodiversity Information Service for Powys & Brecon Beacons National Park (BIS)
- National Biodiversity Network (NBN) Atlas
- Natural Resources Wales
- Vincent Wildlife Trust
- Data extracted from Sinnadurai, Jones and Ormerod (2016)

BIS undertook a data search based upon the boundary of Gilestone Farm, plus a 1,000 m buffer. The search identified designated sites, habitats and species occurring within the search area. Only priority species, species of conservation concern, including invasive non-native species, and species that are locally important were included in the results. Some records from outside the buffer were included in the results due to a separate taxon related buffer applied to these records by BIS. A total of 2,290 records of 333 species were included in the results. Twenty-five invasive non-native species were excluded from further analysis.
Species records were also obtained from the National Biodiversity Network (NBN) Atlas for the same search area. Unconfirmed, absence and records licenced for non-commercial use only were excluded, resulting in 6,766 records of 1,341 species. The names of the original source organisations are provided in

Annex 1: Providers of the NBN Atlas data used.
Further information was sought from other sources. The Vincent Wildlife Trust provided a report on a bat survey they had undertaken on Gilestone Farm in 2012 (Sedgeley, 2014), the records from which were also included in the BIS data search. Information on beetle assemblages was extracted from Sinnadurai, Jones and Ormerod (2016). Electrofishing data was requested from the Wye & Usk Foundation but had not been received at the time of writing.
Many species are very mobile, whilst others are more sedentary. The distance between Gilestone Farm and the closest record of each species was therefore determined. The mobility and proximity of each species was then considered to determine the likelihood that it occurred on Gilestone Farm or adjacent habitats.
Pantheon (Webb *et al.*, 2022) was used to analyse the many invertebrate species included in the results. This is a standard online tool developed by Natural England and the Centre for Ecology & Hydrology to analyse invertebrate sample data. The primary aim was to identify important invertebrate assemblages that may be relevant to Gilestone Farm or adjacent habitats.
Protected sites data were obtained from Natural Resources Wales to assist interpretation.

Results

Sites

Two Sites of Special Scientific Interest (SSSI) were located within the search area:

- The river Usk (Upper Usk)/Afon Wysg (Afon Wysg Uchaf) SSSI forms the eastern boundary of Gilestone Farm. It was designated primarily for its aquatic vegetation, Otters, fish and rare craneflies. The SSSI has numerous other features that add to its conservation importance.
- Part of the Afon Wysg (Isafonydd) / River Usk (Tributaries) SSSI occurs immediately to the south of Gilestone Farm. It was designated primarily for otters and fish.

Both SSSIs form part of the River Usk/ Afon Wysg Special Area of Conservation (SAC). SACs are protected under the Conservation of Habitats and Species Regulations 2017 in Wales and fall within the highest tier of sites designated for nature conservation. Primary reasons for designation are the fish Sea Lamprey, Brook Lamprey, River Lamprey, Twaite Shad, Atlantic Salmon and Bullhead, and Otters. Further qualifying features are Water-crowfoot dominated aquatic vegetation and Allis Shad.
Gilestone Farm is also largely contained within a B-lines area. These are non-statutory, landscape scale designations developed by Buglife used to identify opportunities for the creation and restoration of a national network of wildflower-rich wildlife habitats, with a view to reversing pollinator decline.

Habitats

Few habitats of interest were identified by the BIS data search. Gilestone Farm appears to be largely arable and improved grassland from the aerial photography, with limited semi-natural habitat area.
The BIS data search and aerial photography identified a small area of Ancient Semi-Natural Woodland between the farmhouse and the canal. Ancient Woodland is considered irreplaceable, due to the centuries that it would take to re-establish the full woodland ecosystem if it were damaged or destroyed.
Several invertebrate species recorded in the area (see below) are regarded as saproxylics, or associated with decaying wood, but the extent to which these will occur within the Ancient Woodland is unclear. The presence of this assemblage is more likely to relate to the presence of decaying wood in the landscape, rather than at Gilestone Farm specifically. Many will relate to the presence of veteran trees, which are here regarded as a distinct habitat.
The only veteran or ancient trees in the Ancient Tree Inventory (ATI) within the vicinity of Gilestone Farm are several along the canal and one beside the river, but others may be unrecorded due to lack of access rather than absence of veteran trees within the site. There are many trees within the field boundaries within the site, some of which may be veteran.
Other than woodland habitats, there is a small area of semi-improved grassland that was reported by the BIS data search and is visible on aerial photography. The BIS data search also reported an area of marshy grassland, though this appears to have been lost to succession to scrub and conversion to arable. Part may also have been converted to a pond, though the map data are not accurate enough to determine whether the marshy grassland was at this location. A survey would be required to determine whether any marshy grassland remains and the conservation importance of this area.

Species

In total, 311 legally protected, rare, scarce or locally important species had been recorded within the search area. A shortlist of the 154 species that were considered most likely to relevant to Gilestone Farm are presented in Table 1. These include those species that had been recorded within or on the boundaries of Gilestone Farm, and those species that are mobile and are likely to utilise habitats on and adjacent to Gilestone Farm**.**

Note that Black Poplar has been recorded from Gilestone Farm but has been removed from the list. It was regarded as Least Concern in the last Red List but remains a rare species.

Table 1. Selected species of conservation concern recorded on or in the vicinity of Gilestone Farm, excluding invasive non- native species. Red = species recorded within Gilestone Farm; orange = Species recorded on the boundaries of and likely to be affected by activities on Gilestone Farm; white = species recorded in the local area that are likely to utilise Gilestone Farm and bordering habitats. Sources: BIS = Biodiversity Information Service for Powys & Brecon Beacons National Park; NBN = National Biodiversity Network Atlas; SJO = Sinnadurai, Jones and Ormerod (2016). Statuses: CITES = Convention on International Trade in Endangered Species of Wild Fauna and Flora; HDir = Habitats Directive ; Bern = Convention on the Conservation of European Wildlife and Natural Habitats (the Bern Convention); BDir = Birds Directive; CMS = Convention on the Conservation of Migratory Species of Wild Animals; OSPAR = Convention for the Protection of the Marine Environment of the North-East Atlantic (the 'OSPAR Convention'); WCA = Wildlife and Countryside Act 1981; S7 = Environment Act (Wales) Section 7 Species; NRWP = Natural Resources Wales Priority Species; LBAP = Local Biodiversity Action Plan Species; RL = Red listing based on 2001 IUCN guidelines; NR = Nationally Rare; NS = Nationally Scarce; BirdR = UK Bird Population Status – Red; BirdA = UK Bird Population Status – Amber; WBR = RSPB Welsh Red listed birds; WBA = RSPB Welsh Amber listed birds; LI = Locally Important Species (as identified by local specialists)

Latin name	English name	Year last recorded	Source	Status
Bembidion lunatum		2011	SJO	NS
Bembidion monticola		2011	SJO	NS
Bembidion prasinum		2011	SJO	NS
Bracteon litorale		2011	SJO	NS
Riolus subviolaceus		2014	BIS, NBN	NS
Hilara albiventris		1997	BIS, NBN	NS
Lipsothrix nervosa	Southern Yellow Splinter	1997	BIS, NBN	S7, LBAP
Oxycera terminata	Yellow-tipped Soldier	1997	NBN	RL, NR
Cliorismia rustica	Southern Silver Stiletto-fly	2020	BIS, NBN	S7, LBAP, NS
Spiriverpa lunulata	Northern Silver-stiletto	2005	BIS, NBN	LBAP, NS
Hydraecia micacea	Rosy Rustic	2020	BIS	S7
Calopteryx splendens	Banded Demoiselle	2020	BIS, NBN	LI
Calopteryx virgo	Beautiful Demoiselle	2020	BIS, NBN	LI
Potamophylax rotundipennis		2017	NBN	RL, NS
Austropotamobius pallipes	White-clawed Crayfish	No date	BIS, NBN	HDir, Bern, WCA, S7, LBAP, RL
Anguilla anguilla	European Eel	2009	BIS, NBN	OSPAR, S7, RL
Salmo salar	Atlantic Salmon	2009	BIS, NBN	HDir, Bern, OSPAR, S7, LBAP, NS

Salmo trutta	Brown/Sea Trout	2009	BIS, NBN	S7, LI
Salmo trutta subsp. fario	Brown Trout	1998	BIS, NBN	LI
Cottus gobio	Bullhead	2017	BIS, NBN	HDir, LBAP
Bufo bufo	Common Toad	2020	BIS	Bern, WCA, S7, LBAP
Rana temporaria	Common Frog	2012	BIS	HDir, Bern, WCA, LBAP
Accipiter gentilis	Goshawk	2020	BIS, NBN	CITES, CMS, WCA, LBAP, RL
Accipiter nisus	Sparrowhawk	2020	BIS, NBN	CITES, CMS, LBAP, RL, BirdA
Buteo buteo	Buzzard	2022	BIS, NBN	CITES, CMS, LBAP
Pandion haliaetus	Western Osprey	2022	BIS, NBN	CITES, BDir, CMS, WCA, RL, BirdA, WBA
Anas acuta	Pintail	2000	BIS	CITES, BDir, WCA, RL, BirdA, WBA
Anas crecca	Teal	2019	BIS, NBN	CITES, BDir, CMS, RL, BirdA, WBA
Anas platyrhynchos	Mallard	2022	BIS, NBN	BDir, CMS, RL, BirdA, WBA
Anser anser	Greylag Goose	2019	NBN	BDir, CMS, WCA, RL, BirdA
Aythya fuligula	Tufted Duck	2018	BIS	BDir, LBAP, RL, WBA
Bucephala clangula	Goldeneye	2019	BIS	BDir, WCA, LBAP, RL, BirdA
Cygnus olor	Mute Swan	2022	BIS, NBN	BDir, CMS, LBAP, RL, BirdA
Mergus merganser	Goosander	2021	BIS, NBN	BDir, CMS, LBAP, RL
Spatula clypeata	Shoveler	2007	BIS	CITES, BDir, LBAP, RL, BirdA, WBA
Apus apus	Swift	2021	BIS, NBN	RL, BirdR, BirdA, WBA
Caprimulgus europaeus	Nightjar	2000	BIS	Bern, BDir, S7, LBAP, RL, WBA
Charadrius dubius	Little Ringed Plover	2019	BIS, NBN	Bern, CMS, WCA, LBAP
Vanellus vanellus	Lapwing	2014	BIS, NBN	BDir, CMS, S7, LBAP, RL, BirdR, WBR
Actitis hypoleucos	Common Sandpiper	2020	BIS, NBN	CMS, RL, BirdA, WBR
Gallinago gallinago	Snipe	2019	BIS	BDir, LBAP, RL, BirdA, WBA
Lymnocryptes minimus	Jack Snipe	2019	BIS	BDir, LBAP, RL, WBA
Numenius arquata	Curlew	2022	BIS, NBN	BDir, CMS, S7, LBAP, RL, BirdR, WBR
Tringa totanus	Redshank	2000	BIS	BDir, LBAP, RL, BirdA, WBA
Ardea alba	Great White Egret	2020	BIS	CITES, Bern, LI
Ardea cinerea	Grey Heron	2021	BIS, NBN	CMS, RL, WBA

Columba oenas	Stock Dove	2019	NBN	BDir, RL, BirdA
Columba palumbus	Woodpigeon	2019	NBN	BDir, RL, BirdA
Streptopelia decaocto	Collared Dove	2016	NBN	BDir, RL
Alcedo atthis	Kingfisher	2021	BIS, NBN	Bern, BDir, WCA, LBAP, RL, BirdA, WBA
Cuculus canorus	Cuckoo	2018	BIS, NBN	S7, RL, BirdR, WBR
Milvus milvus	Red Kite	2022	BIS	CITES, BDir, WCA, LBAP, RL, WBA
Falco subbuteo	Hobby	2019	BIS, NBN	CITES, Bern, CMS, WCA, LBAP
Falco tinnunculus	Kestrel	2013	BIS, NBN	CITES, Bern, CMS, S7, LBAP, RL, BirdA, WBR
Perdix perdix	Grey Partridge	1995	BIS	BDir, S7, LBAP, RL, WBR
Fulica atra	Eurasian Coot	2018	BIS	BDir, RL, WBA
Gallinula chloropus	Moorhen	2018	NBN	BDir, CMS, RL, BirdA
Acrocephalus schoenobaenus	Sedge Warbler	2019	BIS, NBN	BirdA, LI
Acrocephalus scirpaceus	Reed Warbler	2014	BIS, NBN	LBAP
Aegithalos caudatus	Long-tailed Tit	2020	BIS, NBN	WBA
Alauda arvensis	Eurasian Skylark	2010	BIS, NBN	BDir, S7, LBAP, RL, BirdR, WBA
Certhia familiaris	Treecreeper	2020	BIS, NBN	Bern, LBAP
Cinclus cinclus	Dipper	2019	BIS, NBN	Bern, LBAP, RL, BirdA, WBA
Coloeus monedula	Jackdaw	2019	NBN	BDir, RL
Corvus corax	Northern Raven	2020	BIS, NBN	LI
Corvus corone	Carrion Crow	2019	NBN	BDir, RL
Corvus frugilegus	Rook	2019	NBN	BDir, RL, BirdA
Garrulus glandarius	Jay	2019	NBN	BDir, RL
Pica pica	Magpie	2019	NBN	BDir, RL
Emberiza citrinella	Yellowhammer	2020	BIS, NBN	Bern, S7, LBAP, BirdR, WBR
Emberiza schoeniclus	Common Reed Bunting	2019	BIS, NBN	Bern, S7, LBAP, BirdA, WBA
Acanthis cabaret	Lesser Redpoll	2018	BIS, NBN	S7, LBAP, BirdR, WBA
Carduelis carduelis	Goldfinch	2021	BIS, NBN	Bern, LBAP
Chloris chloris	Greenfinch	2021	BIS, NBN	Bern, LBAP, RL, BirdR, WBA

Fringilla montifringilla	Brambling	2013	BIS, NBN	WCA, WBA
Linaria cannabina	Linnet	2020	BIS, NBN	Bern, S7, LBAP, RL, BirdR, WBR
Loxia curvirostra	Red Crossbill	2019	BIS	Bern, WCA, LBAP
Pyrrhula pyrrhula	Eurasian Bullfinch	2021	BIS, NBN	S7, LBAP, BirdA, WBR
Spinus spinus	Siskin	2021	BIS, NBN	Bern, LBAP
Delichon urbicum	Common House Martin	2020	BIS, NBN	Bern, LBAP, RL, BirdR, BirdA
Hirundo rustica	Swallow	2020	BIS, NBN	Bern, LBAP, WBA
Riparia riparia	Sand Martin	2021	BIS, NBN	Bern, LBAP, WBA
Locustella naevia	Grasshopper Warbler	2019	BIS, NBN	S7, LBAP, BirdR, WBR
Anthus pratensis	Meadow Pipit	2020	BIS, NBN	Bern, BirdA, WBA
Motacilla alba	Pied Wagtail	2022	BIS, NBN	Bern, LBAP
Motacilla cinerea	Grey Wagtail	2022	BIS, NBN	Bern, LBAP, RL, BirdR, BirdA, WBA
Motacilla flava	Western Yellow Wagtail	2008	BIS, NBN	Bern, S7, LBAP, RL, BirdR, WBR
Erithacus rubecula	Robin	2019	NBN	Bern
Phoenicurus phoenicurus	Redstart	2021	BIS, NBN	Bern, LBAP, BirdA, WBA
Cyanistes caeruleus	Eurasian Blue Tit	2021	BIS, NBN	Bern, LBAP
Parus major	Great Tit	2021	BIS, NBN	Bern, LBAP
Periparus ater	Coal Tit	2020	BIS, NBN	Bern, LBAP
Poecile montanus	Willow Tit	2020	BIS	Bern, S7, LBAP, BirdR, WBR
Poecile palustris	Marsh Tit	2019	BIS, NBN	Bern, S7, LBAP, RL, BirdR, WBR
Passer domesticus	House Sparrow	2021	BIS, NBN	S7, BirdR, WBA
Phylloscopus collybita	Chiffchaff	2021	BIS, NBN	LBAP
Phylloscopus sibilatrix	Wood Warbler	2019	BIS	S7, BirdR, WBR
Phylloscopus trochilus	Willow Warbler	2020	BIS, NBN	BirdA, WBR
Prunella modularis	Dunnock	2020	BIS, NBN	Bern, S7, LBAP, BirdA
Regulus regulus	Goldcrest	2022	BIS, NBN	Bern, LBAP, WBA
Sitta europaea	Eurasian Nuthatch	2021	BIS, NBN	Bern, LBAP
Sturnus vulgaris	Starling	2019	BIS, NBN	Bern, BDir, S7, LBAP, RL, BirdR, WBR
Curruca communis	Whitethroat	2020	BIS, NBN	LBAP, BirdA, WBR

Sylvia atricapilla	Eurasian Blackcap	2020	BIS, NBN	LBAP
Sylvia borin	Garden Warbler	2020	BIS, NBN	LBAP
Troglodytes troglodytes	Wren	2019	NBN	Bern, BirdA
Turdus iliacus	Redwing	2021	BIS	BDir, WCA, LBAP, RL, BirdR, WBA
Turdus merula	Blackbird	2019	NBN	BDir, RL
Turdus philomelos	Song Thrush	2020	BIS, NBN	Bern, BDir, S7, LBAP, RL, BirdA, WBA
Turdus pilaris	Fieldfare	2020	BIS	BDir, WCA, LBAP, RL, BirdR, WBA
Turdus viscivorus	Mistle Thrush	2019	BIS, NBN	Bern, BDir, RL, BirdR, WBA
Dendrocopos major	Great Spotted Woodpecker	2021	BIS, NBN	Bern, LBAP
Picus viridis	European Green Woodpecker	2021	BIS, NBN	Bern, LBAP, WBA
Tachybaptus ruficollis	Little Grebe	2020	BIS	LI
Strix aluco	Tawny Owl	2021	BIS, NBN	CITES, Bern, LBAP, RL, BirdA
Tyto alba	Western Barn Owl	2020	BIS, NBN	CITES, Bern, WCA, LBAP
Lampetra fluviatilis	River Lamprey	2003	BIS, NBN	HDir, Bern, S7, LBAP, NS
Lampetra planeri	Brook Lamprey	2003	NBN	HDir, Bern
Dama dama	Fallow Deer	2020	BIS	Bern, LBAP
Lutra lutra	European Otter	2022	BIS, NBN	CITES, HDir, Bern, WCA, S7, LBAP, NS
Meles meles	Eurasian Badger	2022	BIS, NBN	Bern, LBAP
Mustela erminea	Stoat	2021	BIS	Bern, NRWP, LBAP, NR
Mustela nivalis	Weasel	2014	BIS, NBN	Bern, NRWP, LBAP, NR
Mustela putorius	Polecat	2016	BIS, NBN	HDir, Bern, S7, LBAP, NS
Rhinolophus hipposideros	Lesser Horseshoe Bat	2021	BIS, NBN	HDir, Bern, CMS, WCA, S7, LBAP, NS
Myotis	Myotis Bat species	1986	BIS, NBN	HDir, Bern, WCA
Myotis brandtii	Brandt's Bat	1997	BIS, NBN	HDir, Bern, CMS, WCA, LBAP, RL, NS
Myotis daubentonii	Daubenton's Bat	2019	BIS, NBN	HDir, Bern, CMS, WCA, LBAP, NS
Myotis mystacinus	Whiskered Bat	2015	BIS	HDir, Bern, WCA, LBAP, NS
Myotis mystacinus/brandtii	Whiskered/Brandt's Bat	1986	BIS, NBN	HDir, Bern, WCA
Myotis nattereri	Natterer's Bat	2019	BIS	HDir, Bern, WCA, LBAP, NS
Nyctalus noctula	Noctule Bat	2021	BIS, NBN	HDir, Bern, CMS, WCA, S7, LBAP, NS

Pipistrellus	Pipistrelle	2016	BIS, NBN	WCA
Pipistrellus nathusii	Nathusius's Pipistrelle	2020	BIS	HDir, Bern, WCA, NS
Pipistrellus pipistrellus	Common Pipistrelle	2021	BIS, NBN	HDir, Bern, CMS, WCA, S7, LBAP, NS
Pipistrellus pygmaeus	Soprano Pipistrelle	2021	BIS	HDir, Bern, WCA, S7, LBAP, NS
Plecotus	Long-eared Bat species	1986	BIS, NBN	HDir, Bern, WCA
Plecotus auritus	Brown Long-eared Bat	2019	BIS, NBN	HDir, Bern, CMS, WCA, S7, LBAP, NS
Chiroptera	Bats	2020	BIS, NBN	WCA
Erinaceus europaeus	West European Hedgehog	2021	BIS, NBN	Bern, S7, LBAP, RL
Sorex minutus	Eurasian Pygmy Shrew	1973	BIS, NBN	Bern, LBAP
Lepus europaeus	Brown Hare	2022	BIS	S7, LBAP
Oryctolagus cuniculus	European Rabbit	2017	NBN	RL
Arvicola amphibius	European Water Vole	1999	BIS	WCA, S7, LBAP
Anguis fragilis	Slow-worm	2021	BIS	Bern, WCA, S7, LBAP
Natrix helvetica	Grass Snake	2013	BIS	Bern, WCA, S7, LBAP
Margaritifera (Margaritifera) margaritifera	Freshwater Pearl Mussel	1992	BIS	HDir, Bern, WCA, S7, LBAP, NS
Physcia tribacia		1983	BIS, NBN	LI
Caloplaca aurantia		1983	BIS, NBN	LI
Xanthoria ucrainica		1983	NBN	NS
Hyacinthoides non-scripta	Bluebell	2021	BIS, NBN	WCA
Sinapis arvensis	Charlock	2004	BIS	RL
Galeopsis speciosa	Large-flowered Hemp-nettle	1997	BIS	S7, RL
Meconopsis cambrica	Welsh Poppy	2020	BIS	NS

Note that Black Poplar (Populus nigra) has been removed from the list, as it was regarded as Least Concern in the last Red List but remains a rare species.

Bats

Seven species of bat had been recorded from Gilestone Farm: Lesser Horseshoe, Natterers, Brown long-eared, Noctule, Nathusius' Pipistrelle, Common Pipistrelle and Soprano Pipistrelle. A further three species were recorded in the surrounding areas and may also utilise Gilestone Farm to varying degrees: Brandt's, Whiskered and Daubenton's, with the latter likely to forage over the river. All are protected under the Wildlife and Countryside Act 1981 and are listed in article 4 of the Habitats Directive. Unidentified *Myotis* and *Eptesicus*/*Nyctalus* species were also widely recorded site by the Vincent Wildlife Trust (Sedgeley, 2014). Five of these are listed on Section 7 of the Environment (Wales) Act 2016.

Other mammals

One of the most significant species recorded on the boundary of Gilestone Farm is the European Otter, which is listed on Article 2 of the Habitats Directive, Wildlife and Countryside Act 1981, Section 7 of the Environment (Wales) Act 2016 and the Brecon Beacons National Park LBAP. As stated in the SSSI citations, it utilises the river Usk and its tributaries, with individuals ranging widely through the catchment.
One further species listed in Article 2 of the Habitats Directive and Section 7 of the Environment (Wales) Act 2016*, the* European Polecat*, was also recorded in the vicinity in 2016. Polecats range widely and are likely to utilise the Gilestone Farm.*
European Hedgehog have been recently recorded from Gilestone Farm and are listed on Section 7 of the Environment (Wales) Act 2016.
Brown Hare and Water Vole have been recorded in the vicinity and are listed in Section 7 of the Environment (Wales) Act 2016. Water Voles are also listed in the Wildlife and Countryside Act 1981 and may use the part of the river that forms the eastern boundary of Gilestone Farm.

Reptiles and amphibians

The Barred Grass-snake *has been recorded from Gilestone Farm and is listed on* Section 7 of the Environment (Wales) Act 2016 *and* in the Wildlife and Countryside Act 1981*.*
Slow-worm, Viviparous Lizard and Common Toad have all been recorded from the vicinity of Gilestone Farm and are listed in Section 7 of the Environment (Wales) Act 2016 and in the Wildlife and Countryside Act 1981. There are reports of Slow-worm in gardens close to the boundary of the farm, so it is likely that they also utilise the farm. Common Toad range widely and are also likely to utilise Gilestone Farm.

Fish

Fish account for many of the most important species recorded on the boundaries of Gilestone Farm, all within the river Usk. Several are listed in the Habitats Directive: River Lamprey*,* Brook Lamprey*, Salmon* and European Bullhead*. These are all primary reasons for designation for the river Usk SAC.*
European Eel and Brown trout have also been recorded on the river nearby. Both are listed in Section 7 of the Environment (Wales) Act 2016

Birds

Many important birds have been recorded from Gilestone Farm or are likely to utilise habitat on or adjacent to the farm. Seven of those recorded form the site are listed on Section 7 of the Environment (Wales) Act 2016: European Nightjar, Grey Partridge, Curlew, Lapwing, Common Grasshopper Warbler, Common Linnet and Yellowhammer. An important site for Curlew occurs close to Gilestone Farm, which has led to them being recorded from the site.
Osprey *Pandion haliaetus* have also been frequently recorded in the area in 2021 and 2022, including records that demonstrate use of Gilestone Farm.
A further seven Section 7 birds have been recorded on the boundaries of Gilestone Farm and are likely to utilise the site. *These include Skylark, which may have been resident at or near to Gilestone Farm when it was recorded in 2010. Twenty-two more Section 7 birds have been recorded from the surrounding landscape, some of which may utilise Gilestone Farm to varying degrees.*
Nineteen birds that are listed in the Wildlife and Countryside Act 1981 have been recorded in the surrounding area, some of which are likely to utilise Gilestone Farm.

Crayfish

An undated record of White-clawed Crayfish was included in the results. This species is listed in the Habitats Directive and the Wildlife and Countryside Act 1981 and *will have utilised the river.*

Butterflies and moths

The Rosy Rustic moth is common but has declined enough to be regarded as a 'research only' Priority Species in Section 7 of the Environment (Wales) Act 2016. It feeds on docks *Rumex* spp. and members of the daisy family, which will likely to grow on site. It was last recorded from Gilestone Farm in 2020 and is therefore likely to be extant on site.

Twenty-six species of butterfly and moth that are listed in Section 7 of the Environment (Wales) Act 2016 have been recorded in the surrounding area. These include the White-letter Hairstreak, which is also listed in the Wildlife and Countryside Act 1981. The extent to which these are likely to utilise Gilestone Farm needs to be reviewed.

Flies

Two flies listed in Section 7 of the Environment (Wales) Act 2016 have been recorded on shingle on the river Usk nearby: the Northern Silver-stiletto and Southern Silver-stiletto. These are included in an important assemblage of species associated with Exposed Riverine Sediments, detailed in the Invertebrate assemblages section.

The Brecon Beacons National Park LBAP species the Southern Yellow-splinter Cranefly has been recorded on the river Usk nearby. This species breeds in partially submerged coarse woody debris and may occur on the river adjacent to Gilestone Farm.

Molluscs

Included in results was a tantalising record of the Freshwater Pearl Mussel in the River Usk near to Gilestone Farm in 1992. This species is listed in the Habitats Directive, Section 7 of the Environment (Wales) Act 2016 and in the Wildlife and Countryside Act 1981.

Plants

The other Section 7 species are one plant and one moth. Large-flowered Hemp-nettle is an arable weed that has declined markedly due to modern methods of cultivation. It is listed on Section 7 of the Environment (Wales) Act 2016 and as Vulnerable in the latest plant red data list for Wales (Dines, 2008). It was last recorded on the site in 1997, so may no longer be present.

Bluebell has been recorded from the boundaries of Gilestone Farm and is listed in the Wildlife and Countryside Act 1981. There is a good chance that this extant within the site, in the Ancient Woodland.

The Brecon Beacons National Park LBAP species Spruce's Bristle-moss has been recorded in the surrounding area.

Invertebrate assemblages

Very few invertebrate species had been recorded specifically from the site, so the 585 species that had been recorded from the site and entirely within the 1,000 m buffer were analysed, including those recorded by Sinnadurai, Jones and Ormerod (2016).

Species of tall sward and scrub had the highest representation among the records available (117 taxa), but the Species Quality Score was relatively low at 105 (100 represents only common species). Significant scores were obtained for species of decaying wood (69 taxa; SQI 146) and running water (100 species; SQI: 135).

Saproxylic invertebrates, those associated with decaying wood, are of high conservation importance due to the increasing scarcity of suitable habitat. It is likely that the saproxylic assemblage recorded is present in the landscape, rather than Gilestone Farm itself. The absence of ancient or veteran trees recorded from the site in the Ancient Tree Inventory, except for the one on the riverbank, suggests that Gilestone Farm provides limited habitat for saproxylic species, though this may be due to an absence of survey data rather than a lack of decaying wood. Numerous trees are visible along the field boundaries and within the small woodland, some of which may provide valuable habitat.

The assemblage associated with running water clearly relates to the designated river system. Many of these are aquatic species occurring within the river itself, but riverside habitats are also important. Key among these is Exposed Riverine Sediments (ERS), which is an ephemeral habitat that has become increasingly rare due to river canalisation, water abstraction and other river modifications. Twelve beetles and eleven flies recorded within 1,000 m of the site are considered to have an affinity with ERS (Table 2), including two flagship priority species for the habitat: the Northern Silver-stiletto *Spiriverpa lunulata* and Southern Silver-stiletto *Cliorismia rustica*, as well as the

near threatened Yellow-tipped Soldierfly *Oxycera terminata*. ERS occurs along the site boundary, though largely on the opposite riverbank

Table 2. Species recorded within 1,000 m of Gilestone Farm that have an affinity with Exposed Riverine Sediments. The affinities given are those for beetles (dependent/associated; Bates, 2006) and flies (total, strong and moderate fidelity; Drake et al*., 2007). The main conservation statuses are shown.*

Taxon	Status	Affinity
Bembidion atrocaeruleum		Dependent
Bembidion decorum		Dependent
Bembidion monticola	Nationally Scarce	Dependent
Bembidion prasinum	Nationally Scarce	Dependent
Bembidion punctulatum		Dependent
Bembidion tibiale		Dependent
Bracteon litorale	Nationally Scarce	Dependent
Hydraena gracilis		Dependent
Bembidion dentellum		Associated
Bembidion lunatum	Nationally Scarce	Associated
Chlaenius vestitus		Associated
Clivina collaris		Associated
Oxycera terminata	Nationally Scarce; Near Threatened	Total fidelity
Spiriverpa lunulata	Nationally Scarce; Priority Species	Total fidelity
Athyroglossa glabra		Strong fidelity
Rhabdomastix edwardsi		Strong fidelity
Cliorismia rustica	Nationally Scarce; Priority Species	Strong fidelity
Dixa puberula		Moderate fidelity
Hemerodromia unilineata		Moderate fidelity
Hilara albiventris	Nationally Scarce	Moderate fidelity
Antocha vitripennis		Moderate fidelity
Limnophora riparia		Moderate fidelity
Nephrotoma guestfalica		Moderate fidelity

Discussion

The results demonstrate the high nature conservation importance of the river Usk and its tributaries. This high importance extends to the surrounding habitats, including those within Gilestone Farm.

The river Usk is best considered as a whole catchment. This means that operations occurring outside of the designated area but inside the catchment have the potential to impact the whole river. Many of the activities affecting the River Usk at Gilestone Farm will have occurred much further upstream and will relate to anything from diffuse pollution to abstraction of water. Nevertheless, activities on Gilestone Farm should avoid negatively impacting the river.

As well as being important for aquatic biodiversity, including fish, Otter, White-clawed Crayfish, Water Vole and aquatic vegetation, the river more broadly is clearly of importance for its Exposed Riverine Sediments (ERS) invertebrate assemblages. ERS is a unique, rare and often overlooked habitat for which the river Usk is well-known. The biggest threats to ERS are changes to the wider river, including canalisation, over-abstraction, damming, engineering, etc. It is an early successional habitat that relies upon frequent disturbance, so limited footfall is unlikely to present an issue, though heavy recreational use of the habitat should be avoided. As a general rule, changes on or adjacent to ERS should be avoided, as many ERS specialists are relatively fussy, and changes may result in the removal of the precise conditions they need to survive. For example, tree planting adjacent to ERS should be avoided, as many ERS specialists, including the two stiletto-flies, require direct sunlight and bare sediment for basking. Equally, removal of trees adjacent to ERS should be avoided, since some ERS specialists, such as Yellow-tipped Soldierfly, require shade.

The use of Gilestone Farm by Osprey, which will be feeding on fish from the river, is significant and likely since the site is relatively undisturbed. Large numbers of people and noise are likely to disturb the Osprey, which could result in them moving away from the site and possibly also the area.

The other significant habitat is the presence of Ancient Semi-natural Woodland. As an irreplaceable habitat, it should not be damaged or destroyed, either whole or in part.
The landscape is clearly also important for veteran trees, decaying wood and associated fauna. The importance of Gilestone Farm for this is unclear, so a veteran tree survey is recommended to determine the extent of its contribution to this valuable landscape. This could also assess the level of decaying wood in the woodland areas and field boundaries.
Gilestone is an important site for bats, with seven clearly recorded within and a further three in the surrounding area. Whilst the Lesser Horseshoe Bats are most likely to be commuting and foraging over the site from nearby roosts, other species may roost on site. Bats will be negatively affected by any changes that increase disturbance, including noise and lighting, or decrease the availability of habitat over which to forage.
Birds are highly mobile and well recorded, so it is difficult to relate the numerous records of important birds to residence or use of the site. However, it seems likely that those species of farmland will have utilised the site when the records were made. Common Linnet and Yellowhammer were both recorded in 2020, so are likely to still be resident on site. Lapwing and Grey Partridge may no longer be present, having last been recorded in 2014 and 1995 respectively. European Nightjar may also utilise the small woodland areas within and adjacent to the site.

Recommendations for further survey

Key survey recommendations are as follows:

1. Phase 1 survey of the site. This would update the existing habitat data, which appears to be out of date.
2. Veteran tree survey of Gilestone Farm to determine whether any unrecorded veteran trees are present. Ideally, this will be undertaken by an entomologist that can also assess the general saproxylic potential of the site, encompassing fallen and standing deadwood not associated with veteran trees. This could be undertaken as part of the Phase 1 survey.

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Annex 1: Providers of the NBN Atlas data used

The following organisations provided data that was included in the NBN Atlas data used for this work.

- Aquatic Heteroptera Recording Scheme
- Balfour-Browne Club
- Bat Conservation Trust
- Biological Records Centre
- BIS for Powys & Brecon Beacons National Park
- Botanical Society of Britain & Ireland
- British Bryological Society
- British Dragonfly Society Recording Scheme
- British Lichen Society
- British Trust for Ornithology
- Cofnod – North Wales Environmental Information Service
- Dipterists Forum
- Environment Agency
- Grasshopper Recording Scheme
- Joint Nature Conservation Committee
- Natural Resources Wales
- Royal Society for the Protection of Birds
- Soldierflies and Allies Recording Scheme
- South East Wales Biodiversity Records Centre
- Tachinid Recording Scheme
- Terrestrial Heteroptera Recording Scheme (Shieldbugs & allied species)
- The National Longhorn Beetle Recording Scheme
- UK Butterfly Monitoring Scheme
- UK Cranefly Recording Scheme

Annex 2: Analysis of species records

The species records were combined, ensuring that the source was retained, and analysed to determine for each species:

- The year of the latest record.
- The maximum percentage of the area represented by the record that intersected with the digitised Gilestone Farm site boundary. This provided an indication of the likelihood that the record related to the site (100% = wholly within the site boundary, 0% -= not within the site boundary).
- The maximum percentage of the area represented by the record that intersected with the digitised Gilestone Farm site boundary plus a 1,000 m buffer. This provided an indication of the likelihood that the record related to the buffered area (100% = wholly within the buffer, 0% -= not within the buffer).
- Species status. This was included in the BIS data, but not in the NBN Atlas data where the JNCC taxon designations spreadsheet was used. BIS data also indicated local status that was not included in the JNCC spreadsheet. This indicates the conservation importance of each taxon, though note that not all statuses confer conservation importance, and some do not apply to Wales.

Species that occurred more than once under different names were manually identified and removed. This process meant that duplicate records had no impact on the results.

Gilestone Farm flooding - Suitability of Gilestone Farm in terms of flood risk

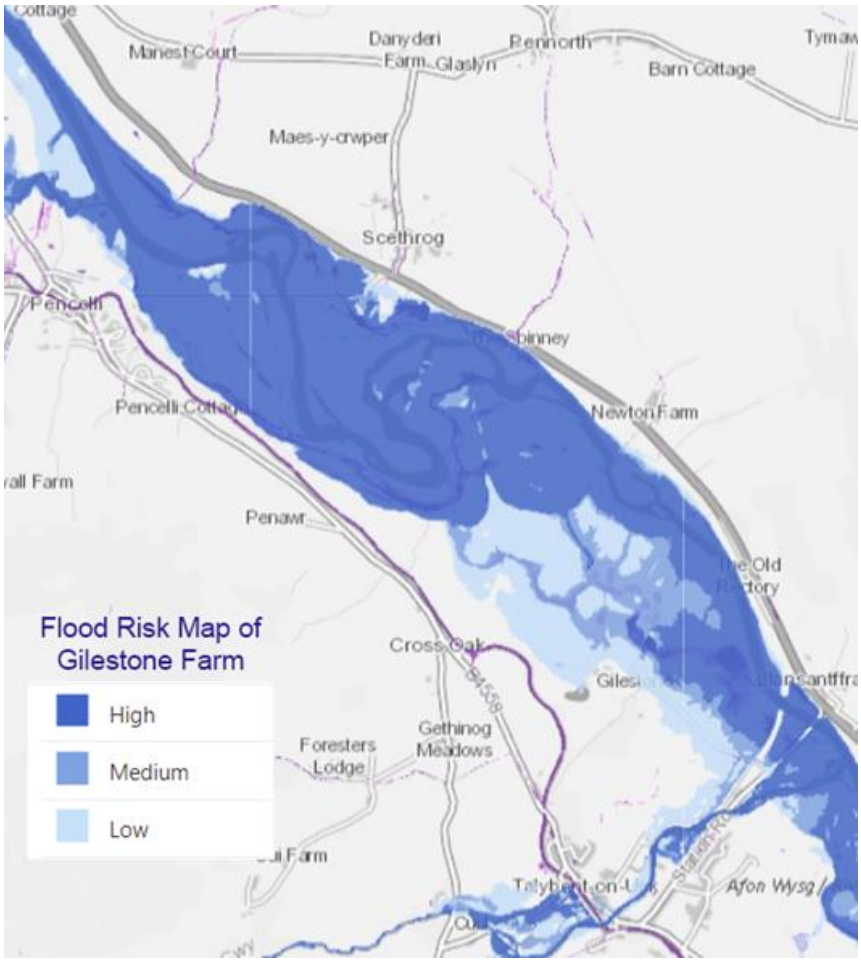
Gilestone Farm is situated on a floodplain and most of it is identified by Natural Resources Wales (NRW) as being at medium or high flood risk. Realistically, the only significant field on the farm that is level and not built on is the glamping site. This is less than 1 hectare in extent.

From observation we know of certain dates when the farm was subject to flooding. By correlating these with data on river flow rates we estimate that a 2-day average flow rate of 197 m^3/sec or more leads to serious flooding. Based on NRW flow rate data for the Usk near Gilestone, we note these conditions were met on 6 occasions in the 21 years from January 2000. This gives a mean time between serious flood events of c.3.5 years, although as some years are wetter than others it may be more realistic to say that we estimate that the farm experienced serious flooding in at least 5 of those 21 years, or approximately 1 out of every 4 years.

The term 'serious flooding' is used here to mean times when both the high and medium flood risk areas (as delineated in the NRW flood risk map) are inundated. Together these represent about 85% of the farm. Lesser degrees of flooding occur very much more frequently and the impacts of climate change should be expected to increase the frequency and severity of flooding in coming years.

This approach to estimating the frequency of flooding is pragmatic, but not scientifically rigorous - although the results do seem to be in line with local experience. It is noted that the actual frequency of flooding is very much greater than that predicted by the NRW flood risk maps. This may be because the model operates at a national level and makes assumptions about channel capacities rather than using site specific conditions. In particular, it is likely that the road bridge and railway embankment are significant features in terms of local flooding. There is also a possibility of inundation caused by over-bank flows from the Caerfanell, immediately to the south of the farm.

Given that flooding should be a key determinant in assessing the suitability of the farm for festivals and potentially other developments, a better understanding of the actual frequency of flooding is urgently needed. This requires hydrological modelling but that is currently beyond the resources of the UVCG.



The photograph below records a particular incident of flooding during September 2008 when the then (unauthorised) caravan site was present on the farm.

The 1980's and 2019 records flooding of the public highway near the entrance to Gilestone Farm, and on a field adjacent to the farm

1980s

2019

Usk bridge impassable due to flooding

Police said a bridge over the River Usk at Talybont-on-Usk is impassable.

Officers have warned drivers to "stay away".

Breconshire Police
@DPPBrecon · **Follow**

8058 The bridge over the Usk at Talybont-on-Usk is impassable local farmer just pulled this delivery van out #staysafe stay away

4:06 PM · Oct 26, 2019