
PROOF OF EVIDENCE

Richard Bakere

ON BEHALF OF

GWENT WILDLIFE TRUST

In the matter of:

Public Local Inquiry into the M4 relief road around Newport: The effects of the proposed M4 extension across the Gwent Levels

February 2017

a) The effects of the proposed M4 extension on Magor Marsh Nature Reserve and Sites of Special Scientific Interest(s),

b) Objection to the Compulsory Purchase,

Witness introduction

1. I am a Senior Reserves Officer for Gwent Wildlife Trust. I have been responsible for the management and maintenance of many of Gwent Wildlife Trust's nature reserves since 2006, and in addition the Magor Marsh Nature reserve since 2010.
2. In addition to more than a decade's experience in managing nature reserves, I have a master's degree in Mechanical engineering and a passion for working to try to reconnect people with nature.

EVIDENCE

History of the Magor Marsh Nature Reserve

3. The Gwent Levels has slowly evolved in parallel with people over the last 2000 years. Consistency in agriculture and management of the drainage structures produced a stable environment where wildlife and farming flourished. This is not a simple habitat that can be recreated just by digging a new reen, ditch or grip.
4. In response to the threats of development and changing agriculture, the Magor Marsh Nature Reserve¹ was established in 1963 by what later became the Gwent Wildlife Trust. Over the years the reserve has grown in size when funding has allowed additional ground to be purchased, since then both the reserve and surrounding area has received legal protection in the form of multiple Sites of Special Scientific Interest (SSSI) designations established in 1982 and 1989.
5. These designations reflect only the best examples of a habitat type within a given area, and SSSI areas do not and cannot function in isolation. It is only with resilient habitat in the wider context that these areas can support viable long term meta-populations (in essence a group of individual populations made robust by mutual support from adjacent populations). The nature reserve is now covered by the:
 - Magor and Undy SSSI²
 - the Magor Marsh SSSI³
 - the Redwick and Llandeenny SSSI⁴

¹ See [Magor Marsh Nature Reserve](#) webpage

² See Appendix 1

³ See [Magor Marsh SSSI](#) citation on Persona Associates core document pages, under Ecology and Nature Conservation

⁴ See [Redwick and Llandeenny](#) SSSI citation on Persona Associates core document pages, under Ecology and Nature Conservation

6. The part of Magor Marsh Nature Reserve which lies on Barecroft Common was purchased by Gwent Wildlife Trust in 2012. The particular interest of this ground is its peatland composition and unlike so much of the Gwent Levels, this fragment has avoided both development and intensive agriculture. This is clearly expressed in the lowland peatland survey of 2009 conducted by the Countryside Council for Wales (subsequently referred to as CCW) **“The Barecroft Common area has, along with Magor Marsh, escaped the large scale habitat loss that has affected the Gwent Levels”**. In addition the definitive work the **Flora of Monmouthshire** by Vice county recorder Trevor Evans also singles out the species rich nature of the Barecroft Common fields which support plant communities of SINC quality (site of importance for nature conservation).
7. The purchase of Barecroft Common, a unique piece of ground, was funded by an appeal to the members of Gwent Wildlife Trust, and other likeminded individuals and organisations including the Gwent Ornithological Society, who appreciated the value of this ground. In recognition of the wildlife value of the ground the money raised for the land purchase was matched by the CCW⁵ (now Natural Resources Wales). Since then the ground has been managed for the benefit of wildlife by the collaborative work of a local grazier and volunteers from Gwent Wildlife Trust.
8. It must be reiterated that Barecroft Common is of particular note due to the combination of its low lying geography and deep peat makeup.

IMPACT OF M4 PROPOSAL ON MAGOR MARSH NATURE RESERVE.

Direct Loss to the habitat of the Nature Reserve

9. The two fields that are part of the Magor Marsh Nature Reserve which would be lost or partially lost to the motorway together are home to a rare habitat (both rare on the Gwent Levels and rare in the UK) which includes the terrestrial habitats of Fen meadow, Marshy grassland and Rush pasture (section 7 habitats of principal importance for the purpose of maintaining and enhancing biodiversity in relation to Wales). This area is special because of the peat rich ground, high water table and history of sympathetic management without agricultural improvement. These fields are home to, meadow thistle (*Cirsium dissectum*) and meadow rue (*Thalictrum flavum*) both these plants are listed on the Vascular Plant Red Data List for Great Britain - 2006). These two plant species are particularly rare on the Gwent Levels being found in fewer than a handful of sites.

⁵Gwent Wildlife Trust buys marshland for £124,000 next to Magor Marsh reserve <http://www.bbc.co.uk/news/uk-wales-south-east-wales-17896501>

10. The reens, and field ditches bounding these fields form part of the Redwick and Llandeenny SSSI.

As well as the **European protected species** otter (*Lutra lutra*) and **nationally protected** water vole (*Arvicola amphibious*) (**protected on Schedule 5 of the Wildlife and Countryside Act 1981 (as amended)**), the reens also provides habitat for the SSSI citation species including.

- the aquatic plant whorled water milfoil (*Myriophyllum verticillatum*) as listed on Vascular Plant Red Data List for Great Britain - 2006
- the great silver water beetle (*Hydrophilus piceus*) Red listing based on 2001 IUCN guidelines)

11. A section of Stutwall reen runs through this section of the reserve and would be lost beneath the motorway embankment. Stutwall reen flows from East to West in this section, and is a particularly good example of a sensitively managed water course. Water vole activity is present along this section. A diverse range of marginal vegetation exists alongside a more open central channel. Records which have both been noted on the **Gwent Rare Plants Register** as well as the as listed on Vascular Plant Red Data List for Great Britain – 2006 are;

- Rootless duckweed (*Wolffia arrhiza*)
- Hairlike pondweed (*Potamogeton trichoides*)

12. Many harvest mice (*Micromys minutus*) nests have been found in these fields. The harvest mouse is protected by the **Section 7 of the Environment (Wales) Act 2016 which states**

“Welsh Ministers must— (a) take all reasonable steps to maintain and enhance the living organisms and types of habitat included in any list published under this section”.

INDIRECT LOSS TO THE ADJACENT HABITAT ON THE NATURE RESERVE.

13. The undisturbed habitat in this part of the reserve contains one of the greatest known abundances of meadow thistle and meadow rue of any site on the Gwent levels as well as an unusually high density of harvest mouse nests. As one of the last fragments of unimproved peatland on the Gwent Levels any loss of this ground is irreplaceable.

14. Disturbance to wildlife in the reens, ditches and fields would be both severe and long lasting. It has taken centuries of consistent management for the current wildlife balance to become established.

15. We have significant concerns that the following negative impacts would affect the reserve;

- This proposal risks the very essence of the Nature Reserve at Magor Marsh by threatening the water that creates the wetland habitat in the reserve.
- Disruption of ground water flow to the spring in the nature reserve which is vital to maintaining the high water levels on the whole nature reserve. The spring is at risk of being permanently lost.
- Reduced water levels and reduced water quality would lead to a loss of biodiversity and localised extinctions of sensitive species across the whole reserve. With over 800 invertebrate species (as recorded by Peter Kirbys invertebrate survey of part of Magor Marsh in 2010 see appendix 3) including the red listed water beetles, *Agabus uliginosus* and *Dytiscus dimidiatus*, there is a grave risk to the truly unique wildlife assemblage on the reserve.
- The quality and stability of this water not only protects the wildlife of the levels, but preserves the archaeology both that we know of and that which we have yet to find (the Romano- Celtic boat found 1km west of the reserve and adjacent to the line of the proposed route being one such example.)
- Polluted water from the carriageway would be likely to pass into the reed and ditch system.
- Silt flow into the historic SSSI ditch network during the build process caused both by the creation of new water courses and from direct run off from the construction site.
- Run off from the carriageway, carrying additional pollutants including increased oil levels, and catalytic converter particulates.
- The wildlife isolated on the northern side of the road would no longer be able to effectively link with that to the south, decreasing the robustness of populations on both sides of the divide.
- Noise, which would be carried from the elevated level on the prevailing wind over the nature reserve, adversely affecting both people and any wildlife that relies on calls, whether for establishing territories (such as cuckoos)or for warning of the approach of predators (water voles).
- Contamination of watercourses from motorway embankment construction (including leaching from the use of contaminated material in embankment construction).
- Increased flood risk from disturbance to the drainage system.
- Increased drought risk caused by disturbance to the drainage system.
- It is likely that bats would suffer under the increased risk of collision with vehicles.
- Otter casualties are likely to increase.

16. I have great concerns regarding the inadequacy of the proposed reed and ditch mitigation. In particular with reference to:

- the timescales for equivalent habitat to become established on new watercourses.
- the mitigation ratio of 1:1.
- the sites of proposed mitigation within existing SSSIs.

17. I am also aware that other witness's share my grave concerns over the impacts of the proposed scheme and the limitations of the proposed mitigation/ compensation and I ask you to refer to their submissions.

IMPACT ON THE PEOPLE THAT USE THE NATURE RESERVE.

18. As the oldest and most visited of all of Gwent Wildlife Trusts Nature Reserves, Magor Marsh is a cherished place. Each year:

- 3000 visits by school children are made to the education centre on the reserve. Some of these children are from disadvantaged areas and will have had little or no exposure to wildlife and the natural world.
- 10,000 people visit the nature reserve.
- The infrastructure and wildlife is supported by an outstanding army of volunteers who contribute in the order of 1000 man days per annum.
- Regular Recording Walks for both Bumblebees and Butterflies pass through the fields earmarked for loss. These both contribute to national recording schemes.
- Guided walks which encourage people to learn and appreciate more about wildlife visit these fields.
- Visitors to the nature reserve would be affected by the noise from the motorway on its raised embankment, which would readily carry across all of the nature reserve.

19. It is not just Gwent Wildlife Trust and a large proportion of their ten thousand members that share our concerns.

Natural Resources Wales and their predecessor CCW have completed a character assessment for all of Wales using "LANDMAP⁶". This approach identifies and evaluates landscapes from a cultural, geological, historic, habitat and visual & sensory perspective.

⁶ LANDMAP - the Welsh landscape baseline <https://naturalresources.wales/planning-and-development/landmap/?lang=en>

“It’s a tool to help sustainable decision-making and natural resource planning at a range of levels from local to national whilst ensuring transparency in decision-making.”⁷

20. The landscape within which Magor Marsh lies has been assessed within the LANDMAP characterisation as follows;

- **“Outstanding habitat significance”**
- **“Outstanding as an evolved reclaimed landscape dating back 2 millennia”**
- **“A cultural resource of exceptional importance”**
- **“Outstanding rarity from a visual and sensory point of view”**

21. The relevant LANDMAP assessments can be found in **Appendix 2**.

22. Gwent Wildlife Trust has been the custodian of the Magor Marsh nature reserve for more than 50 years, but the wildlife we are fortunate to still have in this area is the legacy of the work that has taken place over the proceeding millennia. The evidence for this lies in both the archaeology of the landscape and the wildlife it supports. We believe this proposal would be hugely detrimental to both features of this fantastic landscape.

23. The people, wildlife and geography of the Gwent Levels have evolved together over millennia. Woven together by these three cords this precious inheritance is now threatened like never before. Clearly a home to a host of wildlife and appreciated by a huge number of people and organisations, it is my hope that the area will be protected in the manner that its designations warrant and so clearly deserves.

⁷ ibid

CYNGOR CEFN GWLAD CYMRU

COUNTRYSIDE COUNCIL FOR WALES

SITE OF SPECIAL SCIENTIFIC INTEREST CITATION

MONMOUTHSHIRE GWENT LEVELS – MAGOR AND UNDY

Date of Notification: 1989

National Grid Reference: ST 440860

O.S. Maps: 1:50,000 Sheet number: 171

1:25,000 Sheet number: ST 48/58

Site Area: 586.6 ha

Description:

The Gwent Levels constitute the lowlands between Cardiff and Chepstow and are drained by an ordered network of drainage ditches. They are an example of one of the most extensive areas of reclaimed wet pasture in Great Britain which includes the Somerset Levels, Romney Marsh and the Pevensy Levels, and is the largest area of its kind in Wales. Together these Levels systems constitute a national series of sites each with its own special features.

The Gwent Levels reens are rich in plant species and communities, many of which are rare or absent in other Levels systems. This is due to the variety of reen types and their management regimes and the timing of the management which results in a staggered programme across the Levels. The regular maintenance of some reens provides conditions for submerged plant species such as hairlike pondweed *Potamogeton trichoides* and openwater emergents such as arrowhead *Sagittaria sagittifolia* an opportunity to flourish. Others are less intensively managed and some have become completely overgrown by weeds and hedges.

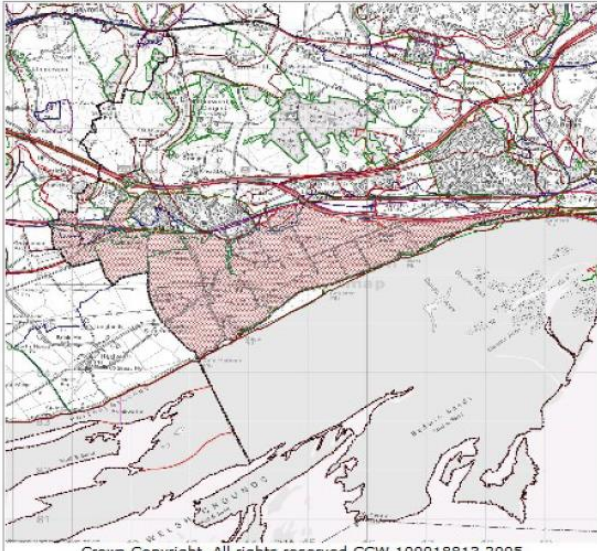
The aquatic invertebrate fauna is very diverse and the Gwent Levels compares well with similar areas in Britain. Many nationally rare or notable species are present such as *Haliphus mucronatus* and *Hydrophilus piceus*. The area is important in the Welsh context for its snails and dragonflies and includes the species *Physa heterostropha* and *Brachytron pratense* respectively. The large number of hedgerows add to the diversity of the area and, together with the main reen banks, provide a habitat for nationally important assemblages of terrestrial invertebrates such as *Pipunculus fonscai* and *Tomosvaryella minima*.

The Magor and Undy area is the most easterly of the Gwent Levels sites supporting a total of 43 nationally rare and notable invertebrate species such as the soldier fly *Stratiomys furcata*, the snail killing fly *Pherbellia brunnipes* and the water beetle *Halipus mucronatus*. This area also supports a number of rare and notable aquatic plant species including the pondweed *Potamogeton trichoides* and *P. berchtoldii* and the narrow-leaved water plantain *Alisma lanceolatum*.

The boundary of this site has been drawn to include the sea wall back ditch which contains brackish water fauna and flora such as the water beetle *Agabus conspersus* and the nationally rare brackish water crowfoot *Ranunculus baudotii*.

Appendix 2

Supporting Landmap documents. -2a Visual and Sensory

Visual and Sensory	
Aspect Area Name	Western coastal grasslands
Aspect Area Classification	Lowland/Flat Lowland/Levels/Flat Open Lowland Farmland (Level 3)
Aspect Area Code	MNMTHVS053
Date Of Survey : 30/01/2007	
	

Evaluation	
Value:	High (The area has long views framed by attractive pollarded willows lining the reens with a coastal edge character. The reens, hedgerows and tree lines including pollarded willows are mostly intact although the area is spoilt to an extent by the powerlines. A unique landscape defined by its flat levels, historical character and fragile grasslands/reen system. The area is part of the Gwent levels which is the largest levels systems in the UK and a rare landscape.)
Condition:	Fair (n/a)
Trend:	Declining (n/a)
Recommendations	
Define the key qualities that should be conserved:	Openness
Define the key qualities that should be enhanced:	Tranquillity
Define the key qualities that should be changed:	
Define the key elements that should be conserved:	Reens, hedgerows and tree-lines.
Define the key elements that should be enhanced:	Hedgerows, wetlands, permanent pasture
Define the key elements that should be changed:	Pylons and inappropriate modern development
Principal management recommendation:	maintain open and natural character of the levels landscape
Tolerance To Change	
Are there any significant threats to the current integrity and condition of the visual & sensory features of the area?	Not known
Aspect Area Boundary	
To what level was this information site-surveyed?	Level 3
At 1:10,000, how much of the Aspect Area boundary is precise?	All
What baseline information source was used for Aspect Area boundary mapping?	OS Raster
If OS Data was used, what was the scale?	1:10,000 and 1:25,000
What is the justification for the Aspect Area boundaries?	County boundary to the west, coast to the south, settlement and M4 to the north.
Bibliography	
List the key sources used for this assessment	
Assessment	
Additional Assessments	
Additional Comments	

Description	
Physical Form And Elements: Topographic Form?	Levels
Physical Form And Elements: Landcover Pattern?	Open Land
Aesthetic Qualities: Scale?	Large
Aesthetic Qualities: Sense of Enclosure?	Open
Aesthetic Qualities: Diversity?	Simple
Aesthetic Qualities: Texture?	Medium
Aesthetic Qualities: Lines?	Straight
Aesthetic Qualities: Colour?	Muted
Aesthetic Qualities: Balance?	Balanced
Aesthetic Qualities: Unity?	Unity
Aesthetic Qualities: Pattern?	Regular
Aesthetic Qualities: Seasonal Interest?	Autumn (n/a)
Other Factors: Level of Human Access?	Infrequent
Other Factors: Night Time Light Pollution?	Slight (Rural settlement)
Other Factors: Use of Construction Materials?	Generally Appropriate
What materials? Give Details:	stone and slate, render - though some new houses jar eg brightly coloured brick
There are attractive views...	...both in and out (to backcloth of hills and into area from M4 and edge of Severn estuary)
There are detractive views...out (Undy and to pylons)
Perceptual and Other Sensory Qualities	Attractive (-)
What is the sense of place/local distinctiveness	Strong (The flatness of the area with a lack of field boundaries and distinctive open ditch / reen system and long views)

Evaluation Matrix

Evaluation Criteria: Overall Evaluation	High (The area has long views framed by attractive pollarded willows lining the reens with a coastal edge character. The reens, hedgerows and tree lines including pollarded willows are mostly intact although the area is spoilt to an extent by the powerlines. A unique landscape defined by its flat levels, historical character and fragile grasslands/reen system. The area is part of the Gwent levels which is the largest levels systems in the UK and a rare landscape.)
Justification of overall evaluation	One outstanding, one high and two moderates equals high because of the area is strong sense of place, reens and historic character.
Evaluation Criteria: Scenic quality	Moderate (The area has long views framed by attractive pollarded willows lining the reens with a coastal edge character.)
Evaluation Criteria: Integrity	Moderate (The reens, hedgerows and tree lines including pollarded willows are mostly intact although the area is spoilt to an extent by the powerlines.)
Evaluation Criteria: Character	High (A unique landscape defined by its flat levels, historical character and fragile grasslands/reen system.)
Evaluation Criteria: Rarity	Outstanding (The area is part of the Gwent levels which is the largest levels systems in the UK and a rare landscape.)

Description

Summary Description	Bounded to the west by Cold Harbour Pill and Sudbrook to the east, this landscape is open and exposed with long views across the Severn Estuary, whilst overlooked by the Second Severn Crossing and the settlements of Magor and Caldicot to the north. Forming part of the Caldicot Levels it is a historic landscape of reclaimed pasture, with a variety of regular and irregular field patterns, and drainage channels. Caldicot Moor, Banecroft, Whitewall, and Undy Common are reflective of the enclosure of this common land, a unique landscape of neat and clean appearance, these fields of mainly improved grassland have retained their integrity, although Caldicot Moor has been degraded somewhat by the Second Severn Crossing and the intrusive lines of pylons. In contrast the irregular piecemeal enclosures of the land immediately south of Undy through to Magor Pill have a mixture of mature overgrown treelines and low intensively trimmed hedges, creating a wilder more unkempt appearance. However in
Physical form and elements: Settlement pattern	Scattered Rural/Farm
Physical form and elements: Boundary type	Mixture

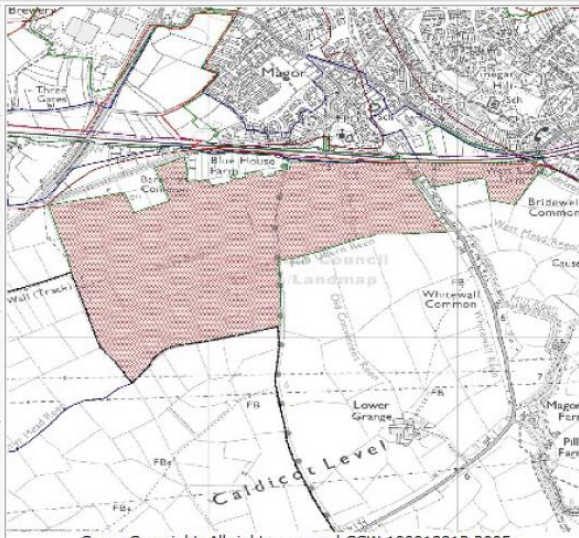
Recommendations

Guideline	Immediate (discourage development which will intrude upon the open character) Medium Term (encourage species diversity of wetland habitats) Medium Term (discourage improvement of permanent pastures)
Existing management	Generally Inappropriate
Existing management remarks:	over- intensive improvement permanent pasture

Monitoring

Has the information ever been verified in the field?	Yes (1:10,000)
Does this area have a special or functional link with an adjacent area?	Yes (Part of the Gwent levels)
Date of monitoring?	2015-02-06
Monitoring undertaken by	Stages 1, 2 and 3 change detection, field verification and amendment completed by Bronwen Thomas, in conjunction with the planning authority. Quality Assurance completed by White Consultants.
Has this record has been updated following monitoring work?	

Landscape Habitats	
Aspect Area Name	Magor Marsh and surrounds
Aspect Area Classification	Dry (Relatively) Terrestrial Habitats/Grassland & Marsh/Mosaic (Level 3)
Aspect Area Code	MNMTHLH048
Date Of Survey : 20/03/2007	



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Monitoring

Does this area have a special or functional link with an adjacent area?	Yes (It is linked hydrologically to the adjacent 'levels'...)
What is the total land area within the boundary (in hectares)?	94 hectares
Description	
What are the dominant soil types? (specify up to 3 types)	Ground-water gley soils Peat soils
What Phase 1 habitat types are present? Only select the five most dominant types and, for each of these, specify below what percentage of the Aspect Area is made up of these.	Semi-natural Broadleaved Woodland (11%) Dense Scrub (3%) Semi-improved Neutral Grassland (48%) Improved Grassland (11%) Marshy Grassland (26%)
Does the area contain habitats of international importance?	Yes
Does the area contain BAP habitats?	Yes
Does the area contain protected sites?	Yes
If yes, which ones?	SSSI (Gwent Levels - Redwick & Llandeenny, Gwent Levels - Magor & Undy and Magor Marsh...)
Approximately what proportion of the Aspect Area is within the protected site?	91-100%
Does the area support important species?	Yes
Are there any significant threat species present in abundance? (Field visit required)	Not known
What other features significantly influence the biodiversity in this area?	Ponds Wet Ditches
Are any of these features in a very good condition? (Field visit required)	Some (The main pond at Magor Marsh is a valuable ecological resource...)
Are any of these features in a poor condition? (Field visit required)	None
What are the main land management activities taking place in the area? (Field visit required)	Stock grazing Mowing
Do any of the above appear to have an appreciable positive impact on biodiversity? (Field visit required)	Some (The mowing and grazing regime at Magor Marsh is designed to be by traditional methods to create valuable hay meadows...)
Do any of the above appear to have an appreciable negative impact on biodiversity? (Field visit required)	None
Is the biodiversity in the area in any way threatened?	Yes (In the long term global warming could impact on these wetland habitats... The proposed M4 relief road is likely to pass very close to this area if it goes ahead ...)
Are there clear opportunities to improve the biodiversity aspect of this area?	No
Summarise the key features that define this area's biodiversity character	The area is a mosaic of wood/scrub, grassland and tall herb vegetation with an underlying wet nature to the area...
Evaluation	
Value	High
Condition	Good (The area is managed for the benefit of wildlife...)
Trend	Unassessed

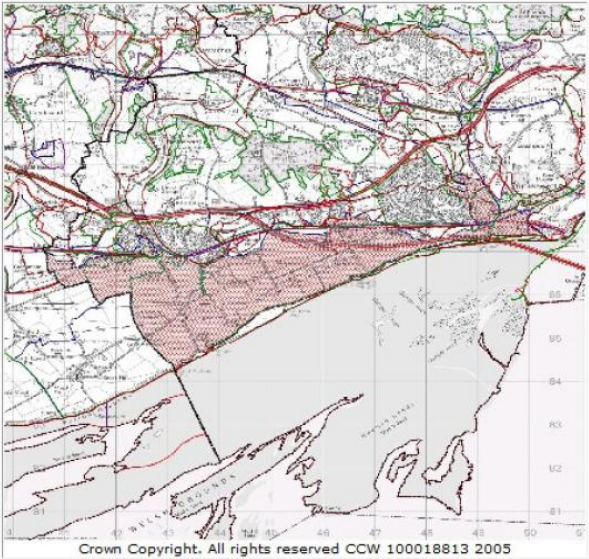
Description	
If yes, which habitats of international importance?	Lowland hay meadows
If yes, which BAP habitats?	Wet Woodland Lowland Meadows Fens Reedbeds Coastal & Floodplain Grazing Marsh
Recommendations	
Existing management	Generally Appropriate
Principal management recommendations	Maintain a good balance between preserving biodiversity and allowing public access and educating the public...
Guideline	Long Term (Continue management of the area as it is at present...) Long Term (Ensure that areas of open water are maintained by preventing too much reed encroachment...) Long Term (Ensure that this wet habitat is not polluted or eutrophied...)
Monitoring	
Has the information ever been verified in the field?	Yes (The site has been visited and walked around via the boardwalks that pass through the site...)

Aspect Area Boundary	
To what level was this information site-surveyed?	Level 3
At 1:10,000, how much of the Aspect Area boundary is precise?	All
What baseline information source was used for Aspect Area boundary mapping?	Other (Phase 1 habitat, OS Raster, Aerial photographs...)
If OS Data was used, what was the scale?	1:10,000
What is the justification for the Aspect Area boundaries?	The Aspect Area boundaries encompass Magor Marsh but also include the surrounding more semi-natural habitats as these are distinct from the arable and improved grassland farmland in the wider area...
Bibliography	
List the key sources used for this assessment	CCW Phase 1 data (digitised), Aerial photographs (digitised), OS Raster (1:10,000), Protected species information from SEWBRcC, Protected sites information from CCW (digitised), SINC sites provided by SEWBRcC (digitised), Invasive plant mapping provided by SEWBRcC (digitised), Monmouthshire LBAP, Monmouthshire Unitary Development Plan, Protected Sites citations from CCW website (www.ccw.gov.uk), Protected Sites citations from the JNCC website (www.jncc.gov.uk), Soils of England and Wales 1:250,000 (Sheet 2 Wales)...
Assessment	
Additional Assessments	N/A
Additional Comments	N/A

Evaluation Matrix	
Evaluation Criteria: Priority Habitats	High (Much Priority habitat is present of a number of different types...)
Evaluation Criteria: Significance	Outstanding (The 'levels' habitat type is a unique habitat type and within the context of the 'levels' this area is unique as it is the last remaining area of fen over peat soils remaining...)
Evaluation Criteria: Opportunity	Low (The area is already well managed for wildlife...)
Evaluation Criteria: Expansion rates	Unassessed
Evaluation Criteria: Sensitivity	High (The area could be very vulnerable to a pollution incident or in the longer term the effects of global warming...)
Evaluation Criteria: Connectivity/Cohesion	Moderate (The area of Magor Marsh is an isolated fragment of a once much larger habitat area, it does however have good connectivity with the 'levels' area to the south through the network of reens...)
Evaluation Criteria: Habitat Evaluation	High (A number of valuable, quite scarce Priority BAP habitats are present...)
Evaluation Criteria: Importance for key species	High (A good number and variety of key species are present...)
Evaluation Criteria: Overall Evaluation Habitat and Species	High (Evaluated as outstanding for habitats and high for species; considered to be outstanding overall...)

Description	
If yes, which species? (for each of the species, also note the source of information)	Eel, Hairlike Pondweed, Blunt Flowered Rush, Black Poplar, Marestail, Round-leaved Cranesbill, Common Shrew, Hairy Dragonfly (all LBAP)... Rootless Duckweed, 6 banded Nomad Bee, Gracilia minuta (beetle) (all Red Data Book 1)... Lapwing (Section 74 of the CROW Act 2000)... Brown Hare (BAP... All records SEWBRcC... Reed Bunting (BAP) Kingfisher and Bittern (WCA1) (these three records from Gwent Wildlife website)...

Evaluation Matrix	
Justification of overall evaluation	The area contains a mixture of valuable habitats that support a good number of key species and the area is worthy of SSSI designation... Most significantly this area is part of the 'Levels' area which is a unique and highly valuable example of this type of habitat with the mosaic of reens...
Recommendations	
Existing management remarks:	The area is managed for the benefit of wildlife...
Monitoring	
Date of monitoring?	2016-01-15
Monitoring undertaken by	Stages 1, 2 and 3 change detection, field verification and amendment completed by Environment Systems in conjunction with the local planning authority. Quality Assurance completed by TACP.
Has this record has been updated following monitoring work?	

Historic Landscape	
Aspect Area Name	Caldicot Level
Aspect Area Classification	Rural environment/Non agricultural/Reclaimed land (Level 3)
Aspect Area Code	MNMTHHL001
Date Of Survey : 28/09/2007	
	
Description	
If working at level 3, the classification describes the dominant historic pattern, but which other patterns are important to the historical pattern of this area? (Tick all that apply)	<input type="checkbox"/> Irregular Fieldscapes <input type="checkbox"/> Regular Fieldscapes <input type="checkbox"/> Reclaimed land <input type="checkbox"/> Water & Wetland
Monitoring	
Has the information ever been verified in the field?	No
Does this area have a special or functional link with an adjacent area?	Yes (Reclaimed landscape similar to H7 Mathern Level... Exploited for farmland from adjoining Aspect Areas H2 (Magor), H4 (Rogiet Fen Edge) and H5 (Caldicot))
Description	
Which traditional boundary types prevail in the area? (Tick all that apply)	<input checked="" type="checkbox"/> Cut Drainage
What is the nature of any significant archaeological interest in the area? (Tick all that apply)	<input checked="" type="checkbox"/> Buried-Waterlogged <input checked="" type="checkbox"/> Relict-Earthworks <input checked="" type="checkbox"/> Documentary
Which chronological period is dominant in the area?	<input checked="" type="checkbox"/> Medieval (to 1536) <input checked="" type="checkbox"/> Post Medieval (1536+)
Has a Historic Landscape Characterisation been undertaken here?	Yes (Rippon, S... 1995, The Gwent Levels Historic Landscape Study: Characterisation and Assessment of the Landscape... Cardiff: CADW/CCW)
Are there SMR sites here?	Yes
Are there SAMs here?	No
Are there Listed Buildings here?	Yes
Are there Registered Historic Parks and Gardens here?	No
Are there Conservation Areas here?	No
Are there World Heritage Sites here?	No
Is the area within a Registered Landscape of Historic Interest?	Yes
Aspect Area Boundary	
To what level was this information site-surveyed?	Level 3
At 1:10,000, how much of the Aspect Area boundary is precise?	All
What baseline information source was used for Aspect Area boundary mapping?	OS Raster
If OS Data was used, what was the scale?	1:10,000
What is the justification for the Aspect Area boundaries?	This is one of two major landscape components of the Gwent Levels and as such forms part of the most significant example in Wales of a "hand-crafted" landscape resulting from gradual enclosure and reclamation since the Roman period... The Area Boundary reflects the physical extent of the Level except where it is bisected by the political boundary with Newport County Borough Council to the W...

Bibliography

List the key sources used for this assessment

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Assessment

Additional Assessments

Additional Comments

Evaluation Matrix

Evaluation Criteria: Overall Evaluation

Outstanding

Caldicot Level is a major component of the Gwent Levels coastal plain located on the N side of the Severn

Justification of overall evaluation

Caldicot Level is a major component of the Gwent Levels coastal plain located on the N side of the Severn Estuary. This area of reclaimed estuarine alluvium is regarded as a cultural resource of exceptional importance.

Evaluation

Condition:

Value:

Outstanding (Caldicot Level is a major component of the Gwent Levels coastal plain located on the N side of the Severn Estuary. This area of reclaimed estuarine alluvium is regarded as a cultural resource of exceptional importance.)

Trend:

Recommendations

Existing management

Existing management remarks:

Principal management recommendations

Guideline

Description

Summary Description / Key Patterns and Elements

Site Location This Aspect Area forms part of the extensive alluvial wetlands and inter-tidal mudflats known as the Gwent Levels, extending along the N side of the Severn Estuary between Chepstow in the E and Cardiff in the W. Caldicot Level is one of two major components of this important estuarine landscape, the other being Wentlooge Level lying to the W of Newport. The study area comprises that part of the Caldicot Level extending E from the political boundary with Newport County Borough Council to the promontory of Sudbrook. The Character Area continues into the area of Newport County Borough Council. Its northern extent follows the 10m-contour line representing the interface between alluvium and solid geology and to the S the area is demarcated by the sea wall dividing the land from the Severn Estuary. Evidence of human activity found outside the sea wall and thus technically not within the Aspect Area includes a group of three Palaeolithic hand-axes and a blade representing the earliest evidence for human activity in the current county, which was found during construction of the Second Severn Crossing, and a considerable amount of Roman, medieval and post-medieval pottery found off Magor Pill. The wreck of a 13th century clinker-built cargo ship was also recovered in this area. Historical Overview The Gwent Levels have formed over the last 10000 years as rising post-glacial sea levels laid down sediment on the banks of the Severn. Humans have exploited this estuarine environment more or less intensively throughout the post-glacial period in response to fluctuations in the heights and range of tides; however, significant attempts to modify the landscape were not undertaken until the Roman period, when the construction of sea walls and drainage ditches began to transform the character of the Levels, a process that continued, following a period of extensive post-Roman flooding, into the medieval and post-medieval periods. Sea level rose rapidly

If Classification is "Other", specify here

Evaluation Matrix

Evaluation Criteria: Integrity

High (Caldicot Level is regarded as a well-preserved example of a 'hand crafted landscape' and the distinctive pattern of irregular, intermediate and planned landscape has generally survived; however, some loss of integrity has occurred as a result of agricultural improvement and development (Rippon 1996).)
High (Caldicot Level is regarded as a well-preserved example of a 'hand crafted landscape' and the distinctive pattern of irregular, intermediate and planned landscape has generally survived; however, some loss of integrity has occurred as a result of agricultural improvement and development (Rippon 1996).)

Evaluation Criteria: Potential

Outstanding (The results of archaeological investigation to date indicate that people have utilised the Levels since the Mesolithic period and suggest that the area contains a wealth of buried archaeological and environmental deposits.)

Evaluation Criteria: Rarity

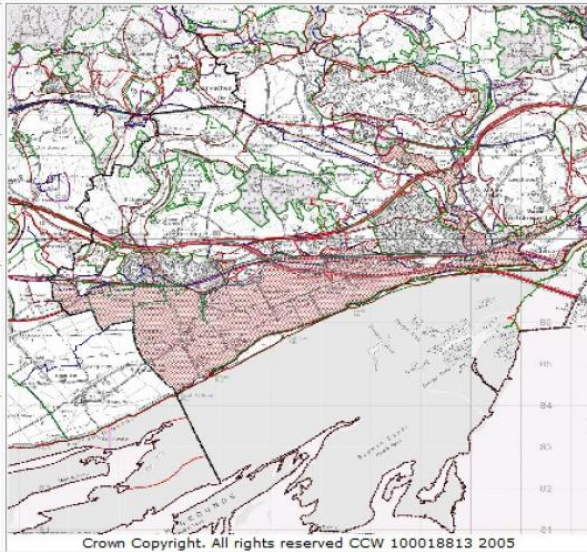
Outstanding (Caldicot Level forms a major component of the Gwent Levels, which are regarded as an exceptional example of a hand-crafted landscape. In addition to the observable historic aspects of this landscape, the Levels are also rich in buried archaeology)

Evaluation Criteria: Survival

N/A (Caldicot Moor has witnessed the loss of a significant number of field boundaries, up to 40 per cent, to agricultural improvement and the creation of the second Severn crossing. Further E, the pattern of small irregular fields and droveways has also suffered with, for example, areas of ridge and furrow having been destroyed, although a well documented area of reclaimed meadow, Temple Mead, does survive. To the W of Caldicot Moor, a well-preserved irregular pattern of small fields and drainage features survives, which includes the 13th century landscape around Lower Grange Magor.)

Evaluation Criteria: Condition

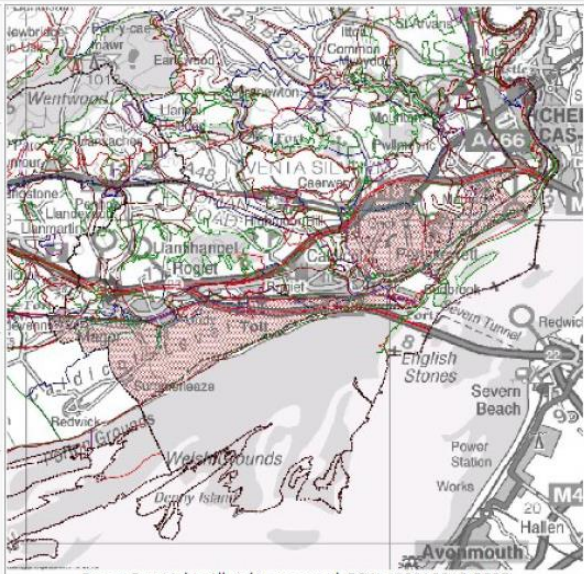
Geological Landscape	
Aspect Area Name	Caldicot Moor
Aspect Area Classification	Coastal/Estuary/Other (Level 3)
Aspect Area Code	MNMTHGL086
Date Of Survey : 24/11/2006	



Description	
What is the geographical and topographical character of this area?	Broad coastal flat representing reclaimed former saltmarsh adjacent to Severn estuary from which it is separated by a flood defence bank. Includes lowest part of the Nedern Brook valley at Caldicot and the St Bride's Brook valley at Magor. Stream course canalised with banks and network of drainage ditches present. Typically less than 5 m above current sea level. (Quaternary: Holocene).
What is the characteristic Level 3 component of the area?	Other (Reclaimed saltmarsh/mudflat)
Which of the following is a significant contributor to the geological character of the area?	Superficial deposits (Estuarine alluvium/saltmarsh deposits (Quaternary: Holocene).) Active processes (Stream.) Past processes (Estuarine/saltmarsh.)
What additional subsidiary Level 3 components are notable?	Coastal flat
What Level 4 components are notable in this area?	River channel / canal (artificial) Urban / industrial development
What active geological and geomorphological processes are significant in this area?	Stream.
Are there components of significant hydrological importance?	Yes (Stream, drainage ditches.)
Are there any pedological processes that are significant in the area or have had a landscape forming effect?	Yes (Saltmarsh.)
Is there current mineral extraction?	No
Has there been mineral extraction in the past?	Not known
Are there SSSI/GCR sites here?	No
Are there geological SINIC, 2nd tier, or RIGS sites in the area?	No
Evaluation	
Value	Moderate (Reclaimed saltmarsh but not sterilised by industrial development so deposits may retain some scientific value.)
Condition	Fair (Reclaimed saltmarsh but not sterilised by industrial development so deposits may retain some scientific value.)
Trend	Constant (Reclaimed saltmarsh but not sterilised by industrial development so deposits may retain some scientific value.)
Recommendations	
Existing management	Generally Inappropriate
Principal management recommendations	Ensure that no significant geological or geomorphological features are lost or sterilised (e.g. due to development).
Guideline	Long Term (Ensure that no significant geological or geomorphological features are lost or sterilised (e.g. due to development).)
Tolerance To Change	
Are there any significant threats to the current integrity and condition of the Earth Heritage features of the area?	Not known

Aspect Area Boundary	
To what level was this information site-surveyed?	Level 3
At 1:10,000, how much of the Aspect Area boundary is precise?	Most (Aspect Area boundaries surveyed at 1:10,000, mapped at 1:25,000.)
What baseline information source was used for Aspect Area boundary mapping?	Other (1:50,000 British Geological Survey maps, aerial photographs, OS 1:25,000 Landranger topographical map.)
If OS Data was used, what was the scale?	1:25,000
What is the justification for the Aspect Area boundaries?	Margins of coastal flat area including outer side of seawall.
Evaluation Matrix	
Evaluation Criteria: Research Value	Moderate (Reclaimed saltmarsh but not sterilised by industrial development so deposits may retain some scientific value.)
Evaluation Criteria: Educational Value	Moderate (Reclaimed saltmarsh but not sterilised by industrial development so deposits may retain some scientific value.)
Evaluation Criteria: Historical Value	Low (Reclaimed saltmarsh but not sterilised by industrial development so deposits may retain some scientific value.)
Evaluation Criteria: Rarity / Uniqueness	Low (Reclaimed saltmarsh but not sterilised by industrial development so deposits may retain some scientific value.)
Evaluation Criteria: Classic Example	Low (Reclaimed saltmarsh but not sterilised by industrial development so deposits may retain some scientific value.)
Evaluation Criteria: Overall Evaluation	Moderate (Reclaimed saltmarsh but not sterilised by industrial development so deposits may retain some scientific value.)
Justification of overall evaluation	Reclaimed saltmarsh but not sterilised by industrial development so deposits may retain some scientific value.
Bibliography	
List the key sources used for this assessment	INSTITUTE OF GEOLOGICAL SCIENCES 1972, Chepstow, Sheet 250 (1:50,000), NERC; ORDNANCE SURVEY 2005d, OS Explorer Map 154 (1:25,000); WELCH, F.B.A. and TROTTER, F.M. 1961, Memoir of the Geological Survey, England and Wales, Sheets 233 and 250.
Assessment	
Additional Assessments	Gwent Geodiversity Audit (Davies 2006): no sites recorded (to 12/06).
Additional Comments	Additional Level 4 features include: Stream; Flood defence bank/works.
Monitoring	
Has the information ever been verified in the field?	No
Does this area have a special or functional link with an adjacent area?	Yes (Part of former saltmarsh system bordering the Severn estuary (including MNMTHGL 71, 74, 87, 92, 99).)
Description	
If Classification is "Other", specify here	Reclaimed saltmarsh/mudflat
Recommendations	
Existing management remarks:	Reclaimed saltmarsh but not sterilised by industrial development so deposits may retain some scientific value.
Description	
Where drift dominated, what is the dominant drift deposit?	Coastal
Where drift dominated, what is the major sediment that characterises the area?	

Cultural Landscape	
Aspect Area Name	Gwent Levels
Aspect Area Classification	Influences/Material expressions/Rural/Agricultural (Level 4)
Aspect Area Code	MNMTCL001
Date Of Survey : 29/01/2007	



Monitoring	
Has the information ever been verified in the field?	Yes (Site visits and 1:10000)
Does this area have a special or functional link with an adjacent area?	Yes (M4/M48 Motorways (002); Cardiff-London Railway (003); Caldicot, Rogiet etc (004); Magor with Undy (006); Mather Palace (011); Moynes Court (012); Celtic Trail (052))

Description	
The classification at level 3 describes the dominant cultural context, but which other contexts are important to the cultural landscape of this area?	Rural Urban Infrastructure Places Customs Artistic Oral
Which level 4 classes are particularly significant to the cultural landscape character of this area - Influences?	Agricultural Rural Crafts Fishing/ hunting Rural Settlement Communications & Transport Tourism
To what extent do the context and level 4 details selected contribute to the cultural identity, local distinctiveness or sense of place of the area?	Very Strong (Level 4 details underline the richness of the cultural associations on and adjacent to the Levels)
To what extent is the cultural information widely recognised or appreciated?	Regionally (This landscape, unique in Wales, is not widely known of or appreciated except by specialists, residents and the increasing numbers of birdwatchers, cyclists and walkers)
Are there any artistic expressions that are particularly famous or associated with the Aspect Area?	Not known
Are there any people / movements / institutions that are particularly famous or associated with the Aspect Area?	Yes (The Romans and Cistercian monks who both influenced the draining of the Levels before more methodical and concentrated efforts in the 18th and 19th centuries)
Is there any folklore or are there legends that are particularly famous or associated with the Aspect Area?	Not known
Are there any events/traditions that are particularly famous or associated with the Aspect Area?	Yes (The flood in 1606 when the seawalls were breached, causing many deaths. Could this have been an example of a tsunami?)
Are there any technical / scientific discoveries that are particularly famous or associated with the Aspect Area?	No
What are the attributes of the cultural elements in the Aspect Area?	Evolved
What chronological periods are culturally dominant in the area?	Post 1950 Inter War Victorian & Edwardian Georgian Late Medieval Medieval Early Christian Roman
Are there certain place-names in the area that are particularly significant?	Yes

Summary Description: (no more than 150 words)	The Gwent Levels (in this instance, the Caldicot Level portion) represent an evolved landscape of exceptional integrity dating back at least to Roman period, and containing vestigial evidence of Cistercian monastic land holdings. They are principally a reclaimed, man-made landscape protected for most of its area by sea walls and criss-crossed with a subtle but practical system of drainage - reens, grips, putchers and stanks. Field patterns vary widely, at times the product of cultural evolution, at others to meet prevailing systems of agriculture or to respond to topographical features. Beneath the accumulated silt is buried a large number of archaeological features in the form of Mesolithic footprints, Bronze Age huts, trackways, paleo-channels, Roman wharves. The Middle Ages are represented by a large numbers of Norman sites, including castles, moated sites, churches, mills, manor houses and court houses. There remain some ancient farmhouses. Part of the Levels adjacent to Newport are to be severely compromised by the building of the Newport Relief Road off the M4. An even more damaging threat is the long-mooted (but so far discounted) Severnside Airport. The landtake for both projects would almost certainly mean the wholesale destruction of an unique cultural landscape. The Levels contain a number of SSSI and adjacent to the RAMSAR site of the Severn Estuary.
Tolerance To Change	
Are there any significant threats to the current integrity and condition of the Cultural Landscape features of the area?	Yes (Newport Relief Road; the mooted Severnside Airport; "creep" of residential housing)
Description	
If yes, give examples of the place-names and their significance	Monks Ditch and Lower Grange - both signifying former monastic holdings Reens, grips, ditches, stanks - nomenclature for elements in the system of drainage
Aspect Area Boundary	
To what level was this information site-surveyed?	Level 4
At 1:10,000, how much of the Aspect Area boundary is precise?	
What baseline information source was used for Aspect Area boundary mapping?	OS Raster
If OS Data was used, what was the scale?	1:10,000
What is the justification for the Aspect Area boundaries?	Boundaries are drawn from illustrations in expert research papers
Bibliography	
List the key sources used for this assessment	Rippon, Stephen: The Gwent Levels Historic Landscape Study; Whittle, Elisabeth: A Guide to Ancient and Historic Wales: Glamorgan and Gwent (series ed. Rees, Sian); Monmouthshire County Council: Unitary Development Plan, June 2006; Locock, Martin: Monmouthshire Historic Settlements; Part 3: The Hundreds of Caldicot and Raglan (GGAT); Locock, Martin: Coastal Archaeology Survey (Glamorgan-Gwent Archaeological Trust); Evans, E.M: Welsh Historic Churches Project: Gwent Historic Churches Survey (Glamorgan-Gwent Archaeological Trust); Rees, William: South Wales and The Border in the 14th Century; Ordnance Survey: Map of Monmouthshire (1:50,000); Register of Landscapes, Parks and Gardens, Part 2.1: Landscapes of Outstanding Historic Interest in Wales
Assessment	
Additional Assessments	none
Additional Comments	none
Evaluation Matrix	
Evaluation Criteria: Overall Evaluation	Outstanding (Outstanding as an evolved reclaimed landscape dating back for two millennia)
Justification of overall evaluation	see Q40
Evaluation Criteria: Recognition/transparency	Local recognition (Unfortunately the historic and cultural importance of the Levels is not widely recognised)
Evaluation Criteria: Period	Strongly apparent (Outstanding example of the evolution of a reclaimed landscape over two millennia)
Evaluation Criteria: Rarity (Culture)	Very rare (A landscape unique in Wales)
Evaluation Criteria: Documentation	Substantial (There are many academic research papers)
Evaluation Criteria: Group Value	Exceptional (As a group of evolved landscapes showing different period influences)
Evaluation Criteria: Survival	N/A (The Levels are under further threat. They have been gradually eroded - particularly in the second half of the 20th century - and are still declining)
Evaluation Criteria: Vulnerability	Highly tolerant (Exceptionally vulnerable to large-scale engineering works - e.g. the Newport Relief Road)
Evaluation Criteria: Diversity	Complex (There is a fascinating and subtle variation in the types of landscape on the various parts of the Levels)
Evaluation Criteria: Potential (Culture)	Considerable (There is high potential for the Levels to be safeguarded and (what is left) returned to their traditional form. There is also potential for the re-introduction of traditional crafts - such as pollarding, basket weaving)
Description	
Which level 4 classes are particularly significant to the cultural landscape character of this area - Associations?	Places & Place Names Sense of Place Land Holdings Land Divisions Leisure/Recreation
Evaluation	
Condition:	Poor (The landscape has been severely compromised by inappropriate development, ravaged by modern communications systems and suffering from land-husbandry neglect - e.g. cessation of the practice of pollarding reen-side willows)
Value:	Outstanding (Outstanding as a reclaimed landscape unique in Wales dating back at least two millennia)
Trend:	Declining (Declining as more large tracts are threatened by modern development - e.g. the Newport Relief Road)
Recommendations	
Existing management:	Generally Inappropriate
Existing management remarks:	Land holders are neglecting basic landscape and ecological management
Principal management recommendations	Return to the practice of pollarding reen-side willows; through the use of planning restrictions, deny inappropriate road and housing development
Guideline	Long Term (Strictly enforce planning controls on inappropriate development)
Description	
If Classification is "Other", specify here	

Appendix 3

List of invertebrate records taken from the 2010 Invertebrate survey conducted on part of the Magor Marsh reserve by Peter Kirby.

Taxon	Status	04/05	active	traps	pond-net
Tricladida					
Planariidae					
<i>Polycelis</i> sp.					+
Mollusca					
Agriolimacidae					
<i>Deroceras laeve</i>	c	+			
Arionidae					
<i>Arion ater</i>	c		+		
Bithyniidae					
<i>Bithynia tentaculata</i>	c	+			+
Carychiidae					
<i>Carychium minimum</i>	c			9	
Cochlicopidae					
<i>Cochlicopa lubrica</i>	c			11	
Discidae					
<i>Discus rotundatus</i>	c		+	5	
Euconulidae					
<i>Euconulus</i> sp.				6,10	
Gastrodontidae					
<i>Zonitoides nitidus</i>	c			6,10	
Helicidae					
<i>Arianta arbustorum</i>	c			6	
<i>Cepaea hortensis</i>	c		+		
<i>Cepaea nemoralis</i>	c	+	+		
Hygromiidae					
<i>Trochulus striolatus</i>	c			6	
Limacidae					
<i>Limax maximus</i>	c		+		
Lymnaeidae					
<i>Lymnaea palustris</i> agg.	c	+			+
<i>Lymnaea stagnalis</i>	c	+			+
<i>Radix balthica</i>	c	+			+
Oxychilidae					
<i>Oxychilus alliarius</i>	c			10,11	
Physidae					
<i>Aplexa hypnorum</i>	l	+			
<i>Physa fontinalis</i>	c	+			
Planorbidae					
<i>Anisus leucostoma</i>	c	+			
<i>Anisus vortex</i>	c	+			+
<i>Bathyomphalus contortus</i>	c	+			+
<i>Hippeutis complanatus</i>	c	+			
<i>Planorbarius corneus</i>	c				+
<i>Planorbis carinatus</i>	c	+			
<i>Planorbis planorbis</i>	c	+			+
Sphaeriidae					
<i>Musculium lacustre</i>	c	+			
<i>Pisidium</i> sp.					+
<i>Sphaerium corneum</i>	c	+			+
Succineidae					
<i>Succinea putris</i>	c		+		

Taxon	Status	04/05	active	traps	pond-net
Valvatidae					
<i>Valvata cristata</i>	1	+			
Vertiginidae					
<i>Vertigo antvertigo</i>	1	+			
Hirudinea					
Erpobdellidae					
<i>Erpobdella octoculata</i>	c	+			+
Glossiphoniidae					
<i>Glossiphonia complanata</i>	c	+			+
<i>Helobdella stagnalis</i>	c	+			+
<i>Theromyzon tessulatum</i>	c	+			+
Hirudidae					
<i>Haemopsis sanguisuga</i>	c	+			
Crustacea					
Asellidae					
<i>Asellus aquaticus</i>	c	+			+
Crangonyctidae					
<i>Crangonyx pseudogracilis</i>	c	+			+
Oniscidae					
<i>Oniscus asellus</i>	c			5,11	
Araneae					
Araneidae					
<i>Araneus diadematus</i>	c		+		
<i>Araneus marmoreus</i>	c		+		
<i>Araneus sturmi</i>	1		+		
<i>Larinioides cornutus</i>	c	+	+		
<i>Nuctenea umbratica</i>	c	+	+		
Clubionidae					
<i>Clubiona phragmitis</i>	c	+	+	3	
<i>Clubiona stagnatilis</i>	1	+	+		
Cybaeidae					
<i>Argyroneta aquatica</i>	1	+			
Hahniidae					
<i>Antistea elegans</i>	1			6,7,9,10,11	
Linyphiidae					
<i>Allomengea vidua</i>	1	+		7,10	
<i>Bathyphantes approximatus</i>	1	+			
<i>Bathyphantes gracilis</i>	c	+		1,6	
<i>Bathyphantes parvulus</i>	c	+			
<i>Diplocephalus permixtus</i>	c	+			
<i>Erigone atra</i>	c	+		7	
<i>Erigone dentipalpis</i>	c	+		7	
<i>Erigone vagans</i>	1			7	
<i>Gnathonarium dentatum</i>	c	+			+
<i>Gongylidiellum vivum</i>	c	+			
<i>Lepthyphantes flavipes</i>	c	+			
<i>Lepthyphantes tenuis</i>	c	+			
<i>Leptorhoptrum robustum</i>	1	+		6,10	
<i>Lophomma punctatum</i>	1			6	
<i>Microlinyphia impigra</i>	1	+			
<i>Microneta viaria</i>	c			11	
<i>Oedothorax fuscus</i>	c	+		1,7	
<i>Oedothorax retusus</i>	c	+		7	
<i>Porhomma pygmaeum</i>	c			11	
<i>Tmeticus affinis</i>	c			7	
Lycosidae					
<i>Arctosa leopardus</i>	1	+			
<i>Pardosa amentata</i>	c			3	
<i>Pardosa prativaga</i>	c	+			
<i>Pirata hygrophilus</i>	c	+			
<i>Pirata latitans</i>	1	+			
<i>Pirata piraticus</i>	c	+			+

Taxon	Status	04/05	active	traps	pond-net
<i>Trochosa rusricola</i>	c			5	
<i>Trochosa terricola</i>	c	+			
Pisauridae					
<i>Pisaura mirabilis</i>	c		+		
Tetragnathidae					
<i>Metellina segmentata</i>	c		+		
<i>Pachygnatha clercki</i>	c	+	+	3,5,6,8,11	+
<i>Pachygnatha degeeri</i>	c	+	+		
Theridiidae					
<i>Enoplognatha ovata</i>	c	+			
Theridiosomatidae					
<i>Theridiosoma gemmosum</i>	Nb	+			
Thomisidae					
<i>Ozyptila brevipes</i>	l	+			
<i>Xysticus ulmi</i>	c		+		
Hydracarina					+
Coleoptera					
Anthicidae					
<i>Anticus antherinus</i>	c			2	
Apionidae					
<i>Apion frumentarium</i>	c		+		
<i>Ceratapion gibbirostre</i>	c	+			
<i>Oxystoma cerdo</i>	Nb	+			
<i>Perapion curtirostre</i>	c	+			
<i>Perapion violaceum</i>	c	+	+		
<i>Protapion fulvipes</i>	c		+		
Cantharidae					
<i>Cantharis lateralis</i>	c	+			
<i>Cantharis nigra</i>	c	+			
<i>Cantharis thoracica</i>	l	+			
<i>Rhagonycha fulva</i>	c	+			
<i>Silis ruficollis</i>	Nb	+			
Carabidae					
<i>Acupalpus dubius</i>	c	+		8	
<i>Agonum afrum</i>	c	+			
<i>Agonum fuliginosum</i>	c	+	+	1,3,7,8,11	
<i>Agonum thoreyi</i>	c	+			+
<i>Agonum viduum</i>	c	+			
<i>Amara plebeja</i>	c			11	
<i>Badister dilatatus</i>	Nb	+			
<i>Bembidion aeneum</i>	c			3	
<i>Bembidion articulatum</i>	c	+			
<i>Bembidion assimile</i>	c	+			
<i>Bembidion biguttatum</i>	c	+			
<i>Bembidion guttula</i>	c	+	+	3	
<i>Bembidion lunulatum</i>	c			5	
<i>Bembidion mannerheimii</i>	c	+			
<i>Bembidion quadrimaculatum</i>	c			8	
<i>Calodromius spilotus</i>	c		+		
<i>Carabus granulatus</i>	l	+		2,5,7	
<i>Chlaenius nigricornis</i>	Nb	+		9	
<i>Clivina fossor</i>	c	+			
<i>Demetrias atricapillus</i>	c	+	+		
<i>Demetrias imperialis</i>	Nb	+	+		
<i>Dromius linearis</i>	c	+	+		
<i>Dromius quadrimaculatus</i>	c			6	
<i>Dyschirius globosus</i>	c	+		2,3	
<i>Elaphrus cupreus</i>	c	+			
<i>Leistus ferrugineus</i>	c			9	
<i>Leistus rufescens</i>	c			5	
<i>Leistus terminatus</i>	c	+			
<i>Loricera pilicornis</i>	c	+	+	7	

Taxon	Status	04/05	active	traps	pond-net
<i>Nebria brevicollis</i>	c			3,5	
<i>Ocys harpaloides</i>	c	+	+		
<i>Odacantha melanura</i>	Nb	+			
<i>Oodes helopoides</i>	Nb	+		3,10	
<i>Oxypselaphus obscurus</i>	c	+		8,11	
<i>Poecilus cupreus</i>	c			2,3	
<i>Pterostichus anthracinus</i>	Nb	+		2,3,5,8	
<i>Pterostichus diligens</i>	c	+	+	5,7,10,11	
<i>Pterostichus madidus</i>	c		+		
<i>Pterostichus melanarius</i>	c	+		3	
<i>Pterostichus minor</i>	l	+		5,11	
<i>Pterostichus niger</i>	c			3	
<i>Pterostichus nigrita</i>	c	+	+	2,3,4,5	
<i>Pterostichus strenuus</i>	c	+	+	1,5,7,11	
<i>Pterostichus vernalis</i>	c	+		1,2,3,10	
<i>Stenolophus mixtus</i>	c	+			
<i>Stomis pumicatus</i>	c	+			
Cerambycidae					
<i>Aromia moschata</i>	Nb	+			
<i>Clytus arietis</i>	c	+			
<i>Grammoptera ruficornis</i>	c	+			
<i>Pseudovadonia livida</i>	l	+			
<i>Rutpela maculata</i>	c	+			
Chrysomelidae					
<i>Aphthona lutescens</i>	c	+	+		
<i>Aphthona nonstriata</i>	c	+	+		
<i>Bruchus rufimanus</i>	c		+		
<i>Cassida flaveola</i>	l	+			
<i>Cassida rubiginosa</i>	c	+	+		
<i>Cassida viridis</i>	l		+		
<i>Cassida vibex</i>	l	+			
<i>Chaetocnema arida</i>	l		+		
<i>Chaetocnema concinna</i>	c	+	+		
<i>Chaetocnema confusa</i>	c	+			
<i>Chaetocnema hortensis</i>	c		+		
<i>Chrysolina polita</i>	c	+		6	
<i>Crepidodera aurata</i>	c	+	+		
<i>Crepidodera fulvicornis</i>	c	+	+		
<i>Crepidodera plutus</i>	l	+	+		
<i>Cryptocephalus pusillus</i>	c	+			
<i>Donacia clavipes</i>	Nb	+			
<i>Donacia marginata</i>	l	+	+		
<i>Donacia semicuprea</i>	l	+			
<i>Epitrix pubescens</i>	l	+			
<i>Galerucella lineola</i>	c	+			
<i>Galerucella pusilla</i>	c		+		
<i>Galerucella sagittariae</i>	c	+	+		
<i>Gastrophysa viridula</i>	c	+	+		
<i>Longitarsus luridus</i>	c		+		
<i>Longitarsus melanocephalus</i>	c		+		
<i>Neocrepidodera transversa</i>	c	+	+		
<i>Oulema melanopa</i> agg.	c	+	+		
<i>Phaedon armoraciae</i>	c		+		
<i>Phratora vulgatissima</i>	c	+	+		
<i>Phyllobrotica quadrimaculata</i>	l	+			
<i>Phyllotreta exclamationis</i>	l		+	10	
<i>Phyllotreta flexuosa</i>	c			10	
<i>Phyllotreta nigripes</i>	c	+			
<i>Phyllotreta undulata</i>	c	+	+	7	
<i>Plagioderma versicoloreum</i>	l	+	+		
<i>Prasocuris junci</i>	l	+			
<i>Prasocuris phellandrii</i>	l	+			

Taxon	Status	04/05	active	traps	pond-net
<i>Psylliodes affinis</i>	c		+		
<i>Psylliodes chrysocephala</i>	c	+			
<i>Psylliodes dulcamarae</i>	c	+			
<i>Sphaeroderma testacea</i>	c			5	
Ciidae					
<i>Cis bilamellatus</i>	c	+			
Coccinellidae					
<i>Adalia bipunctata</i>	c	+	+		
<i>Adalia 10-punctata</i>	c	+	+		
<i>Anisosticta 19-punctata</i>	l	+	+		
<i>Calvia 14-guttata</i>	c	+			
<i>Chilocorus renipustulatus</i>	c		+		
<i>Coccidula rufa</i>	c	+	+		
<i>Coccinella 7-punctata</i>	c	+	+		
<i>Exochomus quadripustulatus</i>	c	+			
<i>Harmonia axyridis</i>	c		+		
<i>Propylea 14-punctata</i>	c	+	+		
<i>Psyllobora 22-punctata</i>	c		+		
<i>Rhyzobius litura</i>	c	+			
Cryptophagidae					
<i>Ephistemus globulus</i>	c	+			
Curculionidae					
<i>Archarias salicivorus</i>	c	+			
<i>Bagous alismatis</i>	Nb	+			
<i>Bagous lutulentus</i>	Nb	+			
<i>Ceutorhynchus assimilis</i>	c	+			
<i>Ceutorhynchus erysimi</i>	c	+			
<i>Ceutorhynchus pallidactylus</i>	c		+		
<i>Ceutorhynchus typhae</i>	c		+		
<i>Datonychus melanostictus</i>	l	+	+		
<i>Dorytomus taeniatus</i>	c		+		
<i>Hypera pollux</i>	c	+	+		
<i>Hypera punctata</i>	c		+		
<i>Hypera rumicis</i>	c		+		
<i>Limnobaris pilistriata</i>	l	+			
<i>Nedys quadrimaculatus</i>	c	+	+		
<i>Parethelcus pollinarius</i>	c	+	+		
<i>Rhamphus pulicarius</i>	c		+		
<i>Rhinoncus bruchoides</i>	l		+		
<i>Rhinoncus incompactus</i>	c	+	+		
<i>Rhinoncus pericarpus</i>	c	+	+		
<i>Rhinoncus perpendicularis</i>	c		+	3	
<i>Sitona cambricus</i>	l		+		
<i>Sitona hispidulus</i>	c		+	3	
<i>Sitona lepidus</i>	c		+		
<i>Sitona lineatus</i>	c		+		
<i>Tachyerges salicis</i>	l	+			
<i>Tanysphyrus lemnae</i>	c	+			+
Dryopidae					
<i>Dryops luridus</i>	c	+			+
Dytiscidae					
<i>Acilius sulcatus</i>	l	+			
<i>Agabus bipustulatus</i>	c	+		1,3	+
<i>Agabus nebulosus</i>	c	+			
<i>Agabus sturmii</i>	c	+			+
<i>Colymbetes fuscus</i>	c	+			+
<i>Dytiscus dimidiatus</i>	NT				+
<i>Dytiscus marginalis</i>	c	+			+
<i>Graptodytes pictus</i>	l	+			+
<i>Hydaticus transversalis</i>	NS	+			+
<i>Hydroglyphus geminus</i>	l				+
<i>Hydroporus angustatus</i>	c	+			+

Taxon	Status	04/05	active	traps	pond-net
<i>Hydroporus erythrocephalus</i>	c	+			
<i>Hydroporus incognitus</i>	l	+			+
<i>Hydroporus memnonius</i>	c				+
<i>Hydroporus palustris</i>	c	+			+
<i>Hydroporus planus</i>	c	+			+
<i>Hydroporus pubescens</i>	c	+			+
<i>Hydroporus striola</i>	l	+			+
<i>Hydroporus tessellatus</i>	c	+			+
<i>Hygrotus impressopunctatus</i>	c				+
<i>Hygrotus inaequalis</i>	c	+			+
<i>Hyphyrus ovatus</i>	c	+			+
<i>Ilybius ater</i>	l	+		7	+
<i>Ilybius guttiger</i>	l	+			
<i>Ilybius montanus</i>	l	+		2	+
<i>Ilybius quadriguttatus</i>	c	+			+
<i>Laccophilus minutus</i>	c				+
<i>Liopterus haemorrhoidalis</i>	c	+			+
<i>Porhydrus lineatus</i>	l	+			+
<i>Rhantus grapii</i>	l	+		2	+
<i>Rhantus suturalis</i>	c				+
<i>Suphrodytes dorsalis</i>	l				+
Elateridae					
<i>Athous bicolor</i>	c	+			
<i>Hemicrepidius hirtus</i>	c	+			
Erirrhinidae					
<i>Notaris acridulus</i>	c	+		3	
<i>Notaris scirpi</i>	Nb	+			
<i>Stenopelmus rufinasus</i>	c	+			
<i>Thryogenes nereis</i>	l	+			+
Gyrinidae					
<i>Gyrinus substriatus</i>	c	+			+
Haliplidae					
<i>Haliplus confinis</i>	c	+			
<i>Haliplus flavicollis</i>	c				+
<i>Haliplus heydeni</i>	l	+			+
<i>Haliplus immaculatus</i>	c	+			+
<i>Haliplus lineatocollis</i>	c	+			+
<i>Haliplus ruficollis</i>	c	+			+
<i>Haliplus sibiricus</i>	c	+			+
<i>Peltodytes caesus</i>	NS				+
Helophoridae					
<i>Helophorus aequalis</i>	c	+			+
<i>Helophorus brevipalpis</i>	c	+			+
<i>Helophorus grandis</i>	c	+			
<i>Helophorus granularis</i>	l	+			
<i>Helophorus minutus</i>	c	+	+		+
Hydraenidae					
<i>Hydraena riparia</i>	l	+			
<i>Hydraena testacea</i>	l	+			
<i>Ochthebius minimus</i>	c	+			+
Hydrophilidae					
<i>Anacaena globulus</i>	c	+		5,6,8,11	
<i>Anacaena limbata</i>	c	+	+		+
<i>Anacaena lutescens</i>	c	+			+
<i>Berosus affinis</i>	l	+			
<i>Cercyon convexiusculus</i>	l	+		8	+
<i>Cercyon melanocephalus</i>	c	+			
<i>Cercyon pygmaeus</i>	c	+			
<i>Cercyon sternalis</i>	l	+			+
<i>Cercyon tristis</i>	l	+			
<i>Cercyon ustulatus</i>	l	+		3,9	
<i>Coelostoma orbiculare</i>	l	+		3,9	+

Taxon	Status	04/05	active	traps	pond-net
<i>Cryptopleurum minutum</i>	c	+			
<i>Cymbiodyta marginella</i>	l	+			+
<i>Enochrus coarctatus</i>	l	+			+
<i>Enochrus ochropterus</i>	l	+			+
<i>Enochrus testaceus</i>	c	+			+
<i>Helochares lividus</i>	l	+			+
<i>Helophorus obscurus</i>	c	+			+
<i>Hydrobius fuscipes</i>	c	+			+
<i>Hydrophilus piceus</i>	NT	+			+
<i>Laccobius bipunctatus</i>	c	+			+
<i>Laccobius minutus</i>	c	+			+
<i>Megasternum concinnum</i>	c			1,4,5,7,10	
<i>Sphaeridium scarabaeoides</i>	c	+			
Kateretidae					
<i>Brachypterus urticae</i>	c	+			
<i>Kateretes pusillus</i>	l	+			
<i>Kateretes rufilabris</i>	c	+			
Latridiidae					
<i>Aridius bifasciatus</i>	c		+		
Leiodidae					
<i>Catops morio</i>	l	+		5,7	
<i>Sciodrepoides watsoni</i>	c	+		5	
Melyridae					
<i>Anthocomus rufus</i>	l	+	+		
Mycetophagidae					
<i>Mycetophagus multipunctatus</i>	l	+			
Nanophyidae					
<i>Nanophyes marmoratus</i>	c	+	+		
Nitidulidae					
<i>Meligethes aeneus</i>	c	+			
<i>Pria dulcamarae</i>	l		+		
Noteridae					
<i>Noterus clavicornis</i>	l	+			+
Oedemeridae					
<i>Oedemera lurida</i>	c	+			
<i>Oedemera nobilis</i>	c	+			
Phalacridae					
<i>Olibrus aeneus</i>	c		+		
<i>Stilbus oblongus</i>	l	+			
Scarabaeidae					
<i>Aphodius ater</i>	c	+			
<i>Aphodius erraticus</i>	c	+			
<i>Aphodius fimetarius</i>	c	+			
<i>Aphodius haemorrhoidalis</i>	c	+			
<i>Aphodius rufipes</i>	c	+			
Scirtidae					
<i>Cyphon coarctatum</i>	c	+			
<i>Cyphon hilaris</i>	c	+			
<i>Cyphon padi</i>	l	+	+		
<i>Cyphon laevipennis</i>	c		+		
<i>Cyphon palustris</i>	c	+			
<i>Cyphon</i> sp. larvae					+
<i>Microcara testacea</i>	c	+			
<i>Scirtes hemisphaericus</i>	l	+			
<i>Scirtes orbicularis</i>	Na	+			
Scraptiidae					
<i>Anaspis maculata</i>	c	+			
Scydmaenidae					
<i>Euconnus hirticollis</i>	l	+			
Silphidae					
<i>Nicrophorus vespillo</i>	c			1,7	
<i>Silpha atrata</i>	c	+	+		

Taxon	Status	04/05	active	traps	pond-net
<i>Thanatophiilus sinuatus</i>	c			7	
Silvanidae					
<i>Psammoecus bipunctatus</i>	l	+	+	8	+
Staphylinidae					
<i>Anotylus rugosus</i>	c	+		3,5,7,8,9,10	
<i>Anotylus sculpturatus</i>	c	+			
<i>Astenus lyonesius</i>	c				+
<i>Bryaxis bulbifer</i>	c	+	+		
<i>Erichsonius cinerascens</i>	c	+			
<i>Gabrius breviventer</i>	l	+	+	8,11	
<i>Gabrius keysianus</i>	Nb		+		
<i>Gabrius trossulus</i>	l	+			
<i>Lathrobium brunnipes</i>	c	+		2,6,7,8,10,11	
<i>Lathrobium geminum</i>	c			2,7,9	
<i>Ocypus olens</i>	c			7	
<i>Oxytelus fulvipes</i>	Nb	+		5,6	
<i>Oxytelus laqueatus</i>	c		+		
<i>Paederus fuscipes</i>	Nb	+	+	1	
<i>Paederus riparius</i>	l	+	+		
<i>Philonthus micans</i>	c	+			
<i>Philonthus quisquiliarius</i>	l	+			
<i>Platystethus alutaceus</i>	l	+			
<i>Platystethus cornutus</i>	c		+		
<i>Platystethus nitens</i>	l	+			
<i>Quedius fuliginosus</i>	c	+			
<i>Quedius maurorufus</i>	l		+	2,3,7,11	
<i>Quedius mesomelinus</i>	c			8	
<i>Quedius molochinus</i>	c			2	
<i>Quedius tristis</i>	c			8	
<i>Rugilus rufipes</i>	c	+			
<i>Rybaxis longicornis</i>	c		+		
<i>Stenus bifoveolatus</i>	c	+	+		
<i>Stenus bimaculatus</i>	c	+	+	10	+
<i>Stenus boops</i>	c	+			
<i>Stenus brunnipes</i>	c		+	7	
<i>Stenus cicindeloides</i>	c	+	+		
<i>Stenus flavipes</i>	c	+			
<i>Stenus fulvipes</i>	c		+		
<i>Stenus junco</i>	c	+	+	7	+
<i>Stenus picipes</i>	l		+		
<i>Stenus providus</i>	c	+			
<i>Stenus solutus</i>	l	+			
<i>Stenus tarsalis</i>	c		+		
<i>Tachinus signatus</i>	c	+		3	
<i>Tachyporus chrysomelinus</i>	c		+		
<i>Tachyporus hypnorum</i>	c		+		
<i>Tachyporus nitidulus</i>	c	+	+		
<i>Tachyporus obtusus</i>	c		+		
<i>Xantholinus linearis</i>	c	+		10	
<i>Xantholinus longiventris</i>	c		+		
Tenebrionidae					
<i>Lagria hirta</i>	c	+			
Dermaptera					
Forficulidae					
<i>Forficula auricularia</i>	c	+	+		
Diptera					
Asilidae					
<i>Leptogaster cylindrica</i>	c	+			
Bibionidae					
<i>Dilophus febrilis</i>	c		+		
Campichoetidae					
<i>Campichoeta punctum</i>	c		+		

Taxon	Status	04/05	active	traps	pond-net
Chironomidae					+
Clusiidae					
<i>Clusiodes albimana</i>	c	+			
Culicidae					
<i>Anopheles</i> sp.					+
Dixidae					
<i>Dixella autumnalis</i>	c		+		+
Dolichopodidae					
<i>Achalcus cinereus</i>	c	+			
<i>Achalcus flavicollis</i>	c	+			
<i>Anepsiomyia flaviventris</i>	c	+			
<i>Argyra leucocephala</i>	c		+		
<i>Bathycranium bicolorellum</i>	l		+		
<i>Campsicnemus curvipes</i>	c		+		
<i>Campsicnemus scambus</i>	c	+			
<i>Chrysotus cilipes</i>	c	+	+		
<i>Chrysotus gramineus</i>	c		+		
<i>Dolichopus campestris</i>	l	+			
<i>Dolichopus griseipennis</i>	c	+	+		
<i>Dolichopus linearis</i>	l		+		
<i>Dolichopus pennatus</i>	c	+			
<i>Dolichopus plumipes</i>	c	+	+		
<i>Dolichopus popularis</i>	c	+			
<i>Dolichopus simplex</i>	c	+	+		
<i>Dolichopus unguatus</i>	c	+			
<i>Hercostomus aerosus</i>	c	+			
<i>Hercostomus chalybaeus</i>	l	+			
<i>Hercostomus metallicus</i>	c	+			
<i>Lamprochromus bifasciatus</i>	l	+			
<i>Micromorphus albipes</i>	l	+			
<i>Poecilobothrus nobilitatus</i>	c	+			
<i>Rhaphium caliginosum</i>	c	+			
<i>Rhaphium fasciatum</i>	l	+			
<i>Scellus notatus</i>	c	+			
<i>Sciapus platypterus</i>	c	+		6	
<i>Sybistroma obscurellum</i>	c	+	+		
<i>Sympycnus desoutteri</i>	c	+	+		
<i>Syntormon pallipes</i>	c	+	+		
<i>Teucophorus spinigerellus</i>	l	+			
Empididae					
<i>Empis livida</i>	c	+			
Heleomyzidae					
<i>Suillia atricornis</i>	c		+		
<i>Suillia variegata</i>	c		+		
Hybotidae					
<i>Bicellaria vana</i>	c		+		
<i>Drapetis ephippiata</i>	l	+			
<i>Drapetis parilis</i>	l	+			
<i>Hybos femoratus</i>	c	+			
<i>Ocydromia glabricula</i>	c		+		
<i>Oropezella sphenoptera</i>	l	+			
<i>Platypalpus minutus</i>	c	+			
<i>Platypalpus pallidiventris</i>	c	+			
<i>Platypalpus stabilis</i>	l	+			
<i>Stilpon graminum</i>	l	+			
<i>Trichina clavipes</i>	c	+			
Keroplattidae					
<i>Macrocera lutea</i>	c	+			
<i>Macrocera maculata</i>	c	+			
<i>Macrocera vittata</i>	c		+		
Lauxaniidae					
<i>Homoneura subnotata</i>	c	+	+		

Taxon	Status	04/05	active	traps	pond-net
<i>Tricholauxania praeusta</i>	c	+			
<i>Trigonometopus frontalis</i>	l	+	+		
Limoniidae					
<i>Antocha vitripennis</i>	c		+		
<i>Austrolimnophila ochracea</i>	c	+			
<i>Dicranomyia modesta</i>	c	+	+		
<i>Dicranomyia morio</i>	l	+	+		
<i>Erioptera fuscipennis</i>	c	+			
<i>Erioptera fusculeta</i>	l	+			
<i>Erioptera lutea</i>	c	+			
<i>Euphyllidorea lineoila</i>	c		+		
<i>Helius flavus</i>	l	+			
<i>Helius longirostris</i>	l	+			
<i>Limonia macrostigma</i>	c		+		
<i>Limonia nubeculosa</i>	c		+		
<i>Limonia trivittata</i>	N	+			
<i>Molophilus medius</i>	c	+			
<i>Molophilus obscurus</i>	c		+		
<i>Neolimnophila batava</i>	l	+			
<i>Neolimnophila nemoralis</i>	c		+		
<i>Phyllidorea fulvonervosa</i>	c	+			
<i>Pilaria discicollis</i>	c	+			
<i>Rhipidia maculata</i>	c	+			
Indet. larvae					+
Lonchopteridae					
<i>Lonchoptera lutea</i>	c	+	+		
Megamerinidae					
<i>Megamerina dolium</i>	N	+			
Micropezidae					
<i>Neria commutata</i>	c	+			
Muscidae					
<i>Mesembrina meridiana</i>	c	+			
Mycetophilidae					
<i>Mycomya flava</i>	c		+		
Opomyzidae					
<i>Geomyza apicalis</i>	N		+		
<i>Geomyza tripunctata</i>	c	+	+		
<i>Opomyza florum</i>	c	+	+		
<i>Opomyza germinationis</i>	c	+	+		
Pallopidae					
<i>Pallopia trimacula</i>	c	+	+		
Pipunculidae					
<i>Dorylomorpha haemorrhoidalis</i>	c	+			
Platystomatidae					
<i>Rivellia syngenesiae</i>	l	+			
Psilidae					
<i>Loxocera albiseta</i>	c	+			
Ptychopteridae					
<i>Ptychoptera contaminata</i>	c	+			
<i>Ptychoptera albimana</i>	c			10	
<i>Ptychoptera</i> sp. larva					+
Rhagionidae					
<i>Chrysopilus asiliformis</i>	c	+			
<i>Chrysopilus cristatus</i>	c	+			
<i>Rhagio lineola</i>	c	+			
<i>Rhagio scolopacea</i>	c	+			
<i>Rhagio tringarius</i>	c	+			
Scathophagidae					
<i>Cleigastra apicalis</i>	c	+	+		
<i>Cordilura ciliata</i>	c	+	+		
<i>Cordilura impudica</i>	c	+	+		
<i>Norellisoma spinimanum</i>	c	+	+		

Taxon	Status	04/05	active	traps	pond-net
<i>Scathophaga stercoraria</i>	c	+	+		
Scatopsidae					
<i>Rhegmoclema verralli</i>	c		+		
Sciomyzidae					
<i>Antichaeta brevipennis</i>	RDB2	+	+		
<i>Dichetophora obliterata</i>	l	+			
<i>Elgiva sollicita</i>	l		+		
<i>Hydromya dorsalis</i>	c	+			
<i>Ilione albiseta</i>	c	+	+	2,7	
<i>Limnia paludicola</i>	c	+			
<i>Pherbellia schoenherri</i>	l	+			
<i>Pherbina coryleti</i>	c	+	+	1,3,6,7	
<i>Psacadina verbeckei</i>	N	+	+		
<i>Pteromicra angustipennis</i>	l	+	+		
<i>Pteromicra leucopeza</i>	RDB2			1	
<i>Renocera pallida</i>	c	+			
<i>Sepedon sphegea</i>	l	+	+		
<i>Sepedon spinipes</i>	l	+	+		
<i>Tetanocera arrogans</i>	l	+	+		
<i>Tetanocera elata</i>	c		+	7	
<i>Tetanocera ferruginea</i>	c	+	+	1,3,7,11	
<i>Tetanocera hyalipennis</i>	c	+	+	6,11	
<i>Tetanocera robusta</i>	l	+			
<i>Tetanura pallidiventris</i>	l	+			
<i>Trypetoptera punctulata</i>	c	+			
Sepsidae					
<i>Sepsis cynipsea</i>	c	+			
<i>Sepsis punctum</i>	c		+		
<i>Themira annulipes</i>	c	+			
Sphaeroceridae					
<i>Gonioneura spinipennis</i>	c	+			
Stratiomyidae					
<i>Beris morrisii</i>	c		+		
<i>Beris vallata</i>	c	+		6,8	
<i>Chloromyia formosa</i>	c	+			
<i>Chorisops nagatomii</i>	N	+			
<i>Chorisops tibialis</i>	c	+			
<i>Microchrysa flavicornis</i>	c	+			
<i>Microchrysa polita</i>	c	+	+		
<i>Nemotelus nigrinus</i>	l	+			
<i>Nemotelus pantherinus</i>	l	+			
<i>Odontomyia ornata</i>	RDB2				+
<i>Odontomyia tigrina</i>	N	+			
<i>Oplodontha viridula</i>	l	+			
<i>Oxycera nigricornis</i>	l	+			
<i>Pachygaster atra</i>	c	+		4	
<i>Pachygaster leachii</i>	c	+			
<i>Stratiomys potamida</i>	N	+			+
Syrphidae					
<i>Anasimyia lineata</i>	l		+		
<i>Cheilosia impressa</i>	l	+			
<i>Cheilosia pagana</i>	c		+		
<i>Episyrphus balteatus</i>	c	+	+		
<i>Eristalis arbustorum</i>	c		+		
<i>Eristalis interruptus</i>	c	+	+		
<i>Eristalis intricarius</i>	c	+			
<i>Eristalis tenax</i>	c	+	+		
<i>Eupeodes corollae</i>	c	+			
<i>Eupeodes latifasciatus</i>	l		+		
<i>Eupeodes luniger</i>	c	+	+		
<i>Helophilus pendulus</i>	c	+	+	1,2,5,7,8,10,11	
<i>Helophilus trivittatus</i>	l		+		

Taxon	Status	04/05	active	traps	pond-net
<i>Heringia senilis</i>	?	+			
<i>Lejogaster metallina</i>	c	+	+		
<i>Melangyna compositarum</i>	c		+		
<i>Melanostoma mellinum</i>	c	+	+		
<i>Neoascia podagrica</i>	c	+			
<i>Neoascia tenur</i>	c	+	+		
<i>Parhelophilus frutetorum</i>	l	+			
<i>Platycheirus albimanus</i>	c		+	6	
<i>Platycheirus clypeatus</i>	c		+		
<i>Platycheirus granditarsis</i>	c		+		
<i>Platycheirus occultus</i>	c	+			
<i>Platycheirus peltatus</i>	c	+			
<i>Platycheirus rosarum</i>	l	+	+		
<i>Rhingia campestris</i>	c		+	5	
<i>Scaeva pyrastris</i>	c	+	+		
<i>Sericomyia silentis</i>	l			7,8,10	
<i>Sphaerophoria interrupta</i>	c		+		
<i>Sphaerophoria scripta</i>	c	+	+		
<i>Sphaerophoris taeniata</i>	l		+		
<i>Syritta pipiens</i>	c	+	+		
<i>Tropidia scita</i>	l	+			
<i>Volucella pellucens</i>	c	+			
<i>Xylota segnis</i>	c	+	+		
Tabanidae					
<i>Chrysops relictus</i>	c	+			
<i>Chrysops viduatus</i>	l	+			
<i>Chrysops</i> sp. larva					+
<i>Haematopota crassicornis</i>	c	+			
<i>Haematopota pluvialis</i>	c	+			
<i>Tabanus autumnalis</i>	l	+			
Tachinidae					
<i>Eriothrix rufomaculatus</i>	c	+			
<i>Tachina fera</i>	c		+		
Tephritidae					
<i>Chaetostomella cylindrica</i>	c	+			
<i>Dioxya bidentis</i>	N		+		
<i>Sphenella marginata</i>	l		+		
<i>Tephritis formosa</i>	c		+		
<i>Urophora cardui</i>	c	+			
Tipulidae					
<i>Nephrotoma appendiculata</i>	c	+			
<i>Nigrotipula nigra</i>	l	+			
<i>Tipula lateralis</i>	c	+			
<i>Tipula paludosa</i>	c		+		
Ulidiidae					
<i>Melieria crassipennis</i>	l	+			
Ephemeroptera					
Baetidae					
<i>Cloeon dipterum</i>	c	+			+
Caenidae					
<i>Caenis luctuosa</i>	c				+
Hemiptera-Auchenorrhyncha					
Cercopidae					
<i>Aphrophora alni</i>	c	+	+		
<i>Aphrophora pectoralis</i>	l		+		
<i>Aphrophora salicina</i>	c	+	+		
<i>Neophilaenus lineatus</i>	c	+	+		
<i>Philaenus spumarius</i>	c	+	+		
Cicadellidae					
<i>Alnetoidea alneti</i>	c		+		
<i>Aphrodes albifrons</i>	c	+			
<i>Aphrodes albiger</i>	Nb	+		2,3,7	

Taxon	Status	04/05	active	traps	pond-net
<i>Aphrodes flavostriatus</i>	c	+	+		
<i>Aphrodes makarovi</i>	c	+	+		
<i>Arthaldeus pascuellus</i>	c	+	+		
<i>Balclutha punctata</i>	c		+		
<i>Cicadella viridis</i>	c	+	+	1	
<i>Cicadula aurantipes</i>	l	+	+		
<i>Cicadula frontalis</i>	c	+	+	9	
<i>Cicadula quadrinotata</i>	c	+	+		
<i>Conosanus obsoletus</i>	c	+	+	1,2,3,7,8	
<i>Empoasca decipiens</i>	c		+		
<i>Empoasca vitis</i>	c		+		
<i>Eupteryx aurata</i>	c		+		
<i>Eupteryx cyclops</i>	c	+			
<i>Eupteryx florida</i>	c		+		
<i>Eupteryx melissae</i>	c		+		
<i>Eupteryx urticae</i>	c	+	+		
<i>Eupteryx vittata</i>	c	+			
<i>Euscelis incisus</i>	c	+	+		
<i>Evacanthus acuminatus</i>	c		+		
<i>Evacanthus interruptus</i>	c	+			
<i>Iassus lanio</i>	c	+			
<i>Idiocerus confusus</i>	c	+	+		
<i>Idiocerus herrichii</i>	l	+	+		
<i>Idiocerus rutilans</i>	l	+	+		
<i>Linnavuoriana sexmaculata</i>	c		+		
<i>Macropsis albae</i>	l	+			
<i>Macropsis prasina</i>	c	+	+		
<i>Macrosteles larvis</i>	c		+		
<i>Macrosteles sexnotatus</i>	c	+	+		
<i>Macrosteles viridigriseus</i>	c	+	+		
<i>Mocydia crocea</i>	c		+		
<i>Notus flavipennis</i>	c	+	+		
<i>Psammotettix confinis</i>	c		+		
<i>Streptanus sordidus</i>	c		+		
<i>Stroggylocephalus agrestis</i>	l	+			
<i>Zyginidia scutellaris</i>	c	+	+		
Cixiidae					
<i>Cixius nervosus</i>	c	+	+		
<i>Cixius simplex</i>	l		+		
Delphacidae					
<i>Anakelisia fasciata</i>	l	+	+		
<i>Chloriona smaragdula</i>	c	+			
<i>Chloriona unicolor</i>	c	+			
<i>Chloriona vasconica</i>	Nb	+			
<i>Conomelus anceps</i>	c	+	+	1,2,10	
<i>Criomorphus albomarginatus</i>	c	+			
<i>Delphax pulchellus</i>	l	+	+		
<i>Dicranotropis hamata</i>	c		+		
<i>Euides speciosa</i>	l	+	+		
<i>Florodelphax leptosoma</i>	c	+	+		
<i>Kelisia punctulum</i>	l	+	+		
<i>Javesella obscurella</i>	c		+		
<i>Javesella pellucida</i>	c		+		
<i>Megamelodes quadrimaculatus</i>	l	+	+	8	
<i>Megamelus notula</i>	l	+	+	5,7,8	
<i>Muellerianella brevipennis</i>	c		+		
<i>Stenocranus major</i>	c		+		
<i>Stenocranus minutus</i>	c		+		
<i>Struebingianella lugubrina</i>	l			10	
Hemiptera-Heteroptera					
Acanthosomatidae					
<i>Acanthosoma haemorrhoidale</i>	c		+		

Taxon	Status	04/05	active	traps	pond-net
Anthocoridae					
<i>Anthocoris nemoralis</i>	c	+	+		
<i>Anthocoris nemorum</i>	c	+	+		
<i>Orius majusculus</i>	c	+			
<i>Orius niger</i>	c	+	+		
<i>Orius vicinus</i>	c	+	+		
Aradidae					
<i>Aneurus avenius</i>	l	+			
Coreidae					
<i>Coreus marginatus</i>	c		+		
Corixidae					
<i>Callicorixa praeusta</i>	c				+
<i>Corixa punctata</i>	c	+			+
<i>Hesperocorixa linnei</i>	c	+			+
<i>Hesperocorixa sahlbergi</i>	c	+			+
<i>Sigara dorsalis</i>	c	+			+
Gerridae					
<i>Gerris lacustris</i>	c	+			+
<i>Gerris odontogaster</i>	c	+			+
<i>Gerris thoracicus</i>	c	+			
Hydrometridae					
<i>Hydrometra stagnorum</i>	c	+			+
Lygaeidae					
<i>Cymus glandicolor</i>	c	+			
<i>Cymus melanocephalus</i>	c	+	+		
<i>Drymus brunneus</i>	c	+			
<i>Drymus sylvaticus</i>	c	+	+		
<i>Heterogaster urticae</i>	c	+			
<i>Ischnodemus sabuleti</i>	c	+	+		
<i>Kleidocerys resedae</i>	c	+			
<i>Scolopostethus puberulus</i>	l	+	+		
<i>Scolopostethus thomsoni</i>	c	+	+		
Mesoveliidae					
<i>Mesovelia furcata</i>	l				+
Microphysidae					
<i>Loricula elegantula</i>	c	+			
<i>Myrmedobia distinguenda</i>	l	+			
Miridae					
<i>Bryocoris pteridis</i>	c	+	+		
<i>Capsus ater</i>	c	+			
<i>Closterotomus norwegicus</i>	c	+			
<i>Coniortodes salicellus</i>	c		+		
<i>Cyrtorhinus caricis</i>	c	+			
<i>Dicyphus epilobii</i>	c	+	+		
<i>Fieberocapsus flaveolus</i>	l	+			
<i>Grypocoris stysi</i>	c	+			
<i>Leptopterna dolabrata</i>	c	+			
<i>Liocoris tripustulatus</i>	c	+	+		
<i>Lygocoris lucorum</i>	c	+			
<i>Lygocoris pabulinus</i>	c	+	+		
<i>Lygus pratensis</i>	RDB3		+		
<i>Lygus rugulipennis</i>	c	+	+		
<i>Megaloceroea recticornis</i>	c	+			
<i>Miridius quadrivirgatus</i>	l	+			
<i>Notostira elongata</i>	c	+	+		
<i>Orthops campestris</i>	c		+		
<i>Orthotylus marginalis</i>	c	+			
<i>Phytocoris longipennis</i>	c		+		
<i>Phytocoris ulmi</i>	c		+		
<i>Pinalitus cervinus</i>	c		+		
<i>Pinalitus viscicola</i>	l		+		
<i>Plagiognathus arbustorum</i>	c	+	+		

Taxon	Status	04/05	active	traps	pond-net
<i>Plagiognathus chrysanthemi</i>	c	+			
<i>Polymerus nigrinus</i>	c	+			
<i>Polymerus palustris</i>	l	+			
<i>Psallus haematodes</i>	c	+	+		
<i>Psallus varians</i>	c	+			
<i>Salicarus roseri</i>	c	+			
<i>Stenodema calcarata</i>	c	+	+		
<i>Stenodema laevigata</i>	c	+	+		
<i>Stenotus binotatus</i>	c	+			
<i>Teratocoris antennatus</i>	l	+	+		
<i>Trigonotylus caelestialium</i>	c	+			
<i>Tytthus pygmaeus</i>	l	+			
Nabidae					
<i>Himacerus apterus</i>	c		+		
<i>Nabis ferus</i>	c	+	+		
<i>Nabis flavomarginatus</i>	c		+		
<i>Nabis limbatus</i>	c	+	+	8,10	
<i>Nabis rugosus</i>	c	+	+		
Naucoridae					
<i>Ilyocoris cimicoides</i>	c	+			+
Nepidae					
<i>Nepa cinerea</i>	c	+		3	+
<i>Ranatra linearis</i>	l				+
Notonectidae					
<i>Notonecta glauca</i>	c	+			+
Pentatomidae					
<i>Palomena prasina</i>	c	+	+		
<i>Pentatoma rufipes</i>	c		+		
<i>Picromerus bidens</i>	l	+	+		
<i>Zicrona caerulea</i>	l	+	+		
Pleidae					
<i>Plea minutissima</i>	c	+			+
Reduviidae					
<i>Empicoris vagabundus</i>	c		+		
Rhopalidae					
<i>Corizus hyoscyami</i>	l	+			
Saldidae					
<i>Chartoscirta cincta</i>	c	+			+
<i>Saldula saltatoria</i>	c	+		8	
Tingidae					
<i>Dictyla convergens</i>	l	+			
<i>Tingis ampliata</i>	c	+			
<i>Tingis cardui</i>	c	+			
Veliidae					
<i>Microvelia reticulata</i>	c	+			+
Hemiptera-Sternorhyncha					
Psyllidae					
<i>Psylla visicicola</i>	l		+		
Hymenoptera					
Apidae					
<i>Apis mellifera</i>	c		+		
<i>Bombus lucorum</i>	c		+		
<i>Bombus pascuorum</i>	c		+		
<i>Megachile ligniseca</i>	l		+		
Formicidae					
<i>Lasius niger agg.</i>	c		+		
<i>Myrmica ruginodis</i>	c			7,9	
<i>Myrmica scabrinodis</i>	c	+	+		
Sphecidae					
<i>Crossocerus annulipes</i>	c	+			
<i>Crossocerus podagricus</i>	c	+	+		
<i>Ectemnius continuus</i>	c	+			

Taxon	Status	04/05	active	traps	pond-net
<i>Pemphredon lugubris</i>	c	+			
<i>Trypoxylon attenuatum</i>	c	+			
Vespidae					
<i>Symmorphus gracilis</i>	c	+			
<i>Vespula rufa</i>	c		+		
<i>Vespula vulgaris</i>	c		+		
Lepidoptera					
Arctiidae					
<i>Callimorpha dominula</i>	l	+			
<i>Spilosoma lubricipeda</i>	c			6	
<i>Thumatha senex</i>	l	+			
Lasiocampidae					
<i>Philudoria potatoria</i>	c		+	6	
Lycaenidae					
<i>Celastrina argiolus</i>	c	+			
<i>Lycaena phlaeas</i>	c		+		
Lymantriidae					
<i>Euproctis similis</i>	c		+		
Noctuidae					
<i>Acronicta rumicis</i>	c		+		
<i>Lacanobia oleracea</i>	c			7	
<i>Mythimna pallens</i>	c			10	
Nymphalidae					
<i>Aglais urticae</i>	c	+			
<i>Maniola jurtina</i>	c	+			
<i>Pararge aegeria</i>	c	+	+		
<i>Pyronia tithonus</i>	c	+			
<i>Vanessa atalanta</i>	c	+			
Pieridae					
<i>Pieris napi</i>	c		+		
<i>Pieris rapae</i>	c	+	+		
Pyralidae					
<i>Cataclysta lemnata</i>	c	+			+
Sesiidae					
<i>Synanthedon formicaeformis</i>	Na	+			
Sphingidae					
<i>Deilephila elpenor</i>	c		+	6,7	
Mecoptera					
Panorpidae					
<i>Panorpa communis</i>	c	+			
<i>Panorpa germanica</i>	c		+		
Megaloptera					
Sialidae					
<i>Sialis lutaria</i>	c				+
Neuroptera					
Chrysopidae					
<i>Chrysopa perla</i>	c	+			
<i>Chrysoperla carnea</i> agg.	c	+	+		
Hemerobiidae					
<i>Hemerobius humulinus</i>	c	+	+		
<i>Micromus variegatus</i>	c	+	+		
Odonata					
Aeshnidae					
<i>Aeshna cyanea</i>	c	+	+		
<i>Aeshna mixta</i>	c		+		
<i>Anax imperator</i>	l	+			+
Coenagriidae					
<i>Coenagrion puella</i>	c	+			
<i>Coenagrion</i> sp. nymph					+
<i>Enallagma cyathigerum</i>	c	+			
<i>Ischnura elegans</i>	c	+			+
Lestidae					

Taxon	Status	04/05	active	traps	pond-net
<i>Lestes sponsa</i>	l	+			
Libellulidae					
<i>Orthetrum cancellatum</i>	l	+			
<i>Sympetrum sanguineum</i>	l	+	+		
<i>Sympetrum striolatum</i>	c	+	+		
<i>Sympetrum</i> sp nymph					+
Orthoptera					
Acrididae					
<i>Chorthippus albomarginatus</i>	c		+	2	
<i>Chorthippus parallelus</i>	c	+	+	2,3	
Tetrigidae					
<i>Tetrix subulata</i>	c	+		2,10	
<i>Tetrix undulata</i>	c	+		2	
Tettigoniidae					
<i>Conocephalus dorsalis</i>	l	+	+	1,2,3	
<i>Leptophyes punctatissima</i>	c	+	+		
<i>Meconema thalassinum</i>	c	+	+		
<i>Pholidoptera griseoaptera</i>	c		+		
Trichoptera					
Leptoceridae					
<i>Oecetis furva</i>	c				+
<i>Triaenodes bicolor</i>	c				+