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Landscapes Working For Bridgend County Borough

Technical Annex

Volume 4

4

January 1997

WDA

GUIDE TO STRATEGY DOCUMENT

Each Volume of the Strategy has a specific function relevant to different people and organisations and all are interrelated

Volume 1
Main Strategy

Contains:
Key Issues relating to Bridgend County Borough's landscape resource
A Vision for the County borough's landscape
Strategy Themes and Recommendations
A Strategy for each Landscape Character area
Mechanisms for implementing the Strategy
Bibliography

Volume 2
Design Guidelines

Contains:
A Checklist for Developers
Overall Design Themes for the County Borough
Design Palette for each Character Area
Design Guidance for specific sites
Design Briefs for key development sites

Volume 3
Action Programme

Contains:
83 Landscape Schemes for implementation in a prioritised and costed list

Volume 4
Technical Annex

Contains:
Background Information for the Strategy including Appraisals of Landscape, Ecology, and issues relating to the local Economy, Planning, Tourism, Sustainable Development and Community Consultation
An Action Plan for activities to implement the Strategy

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Figures

1.0 INTRODUCTION

This document is Volume 4 of a series of four documents which together make up the Landscape Strategy entitled 'Landscapes Working for Bridgend County Borough'. The Guide to the Strategy document at the front of this report explains the titles and contents of the other three volumes.

The intention of this volume is provide background information primarily for the Main Strategy Document. It consists of separate appraisals of the main subject areas involved in preparing the strategy and background information. These are:

- Landscape
- Ecology
- Economic Planning
- Planning
- Tourism
- Sustainable Development
- Community Issues
- Action Plan

A bibliography is located within the Ecology section. The appraisals are not cross-referenced to the other documents as they are source material in themselves.

The extent of the study area and it's location are shown in Figure TA1.

Landscape Appraisal

SECTION 2.0

2.0 LANDSCAPE APPRAISAL SUMMARY

1.0 INTRODUCTION

The appraisal has involved desk studies, field appraisals and consultations with both public and community bodies.

2.0 DESK STUDY

In order to build up a picture of the landscape characteristics of the borough, the following subject areas have been analysed and mapped:

Geology
Topography
Drainage
Soils
Agricultural Land Classification
Landscape Designations
Countryside Access
Recreation and Amenity
Heritage Interest

A summary of the key points relating to each is set out below:

Geology:

The area is divided geologically into three areas:

Carboniferous Upper and Middle Coal Measures of upland plateau overlain by glacial and alluvial deposits in north/south aligned valleys.

Narrow east/west aligned Carboniferous Millstone Grit ridge terminating above pattern.

Carboniferous Dolomitic and Oolitic Limestone on gentle plateau to the south with Mesozoic Lias and Mercian Mudstone fringes. Glacial and alluvial deposits on valley floors.

See Figure TA2.

Topography:

The topography follows the geology closely.

Upland plateau to the north, with broad tops in places such as Mynydd Llangeinor, reaches 550m AOD at Werfa. Cut through by steep sided north/south aligned valleys with re-entrant incised side valleys.

North /south grain of topography interrupted by east/west ridges of Mynydd Baeden and Y Gaer [290mAOD] and lower parallel ridges to south of Cefn Cribwr and Cefn Hirgoed [134m AOD] These push rivers to a confluence and confine the southern exit to one narrow gap at Sarn.

The gently undulating plateau landscape to the south rises from either side of the broad River Ogmore and Ewenny Valleys. More pronounced rolling landscape is apparent around Coity.

The coast consists of stabilised dunes, some running up south facing slopes as at Merthyr Mawr, and superb cliffs, wave cut platforms and beaches.

See Figure TA3

Drainage:

Most of borough is within the Ogmore catchment area with the following principal tributaries; the Llynfi, Garw, Ogwr Fawr, Ogwr Fach to the north and the Ewenny further south. The catchment of the Afan and Kenfig to the west drains the rest of the area. The River Kenfig forms the western boundary of the borough for part of it's length.

Catchment Management plans have been prepared by the NRA for both catchment areas [see Bibliography]

See Figure TA4

Soils:

Podzolic soils dominate the upland areas with surface water Gley soils on poorly drained slopes. Disturbed soils are apparent on Hirwaun Common and

in the open cast area at Park Slip The lowland areas are dominated by Brown soils with Lithomorphic sands in the dunes. Throughout, alluvial brown soils occur in the valley bottoms.

See Figure TA5

Agricultural Land Quality:

The highest grade land is Grade 2 which occurs between Porthcawl and Pyle and runs as a broad, discontinuous band through the limestone and lias plateaux and up to Pencoed. This is interspersed with the more widespread Grade 3 land and patches of Grade 4 on downs. The southern uplands are generally Grade 4 with isolated patches of Grade 5 while to the north the pattern is reversed.

See Figure TA6

Landscape Designations:

There are two important landscape designations: the Glamorgan Heritage Coast and Merthyr Mawr and Kenfig Burrows Landscapes of Exceptional Historic Interest. The Glamorgan Heritage Coast runs from Merthyr Mawr dunes eastwards along the superb coastline of cliffs, wavecut platforms and beaches. Merthyr Mawr and Kenfig Burrows have been designated by Cadw/ICOMOS/CCW as grade 1 Landscapes of Exceptional Historic Interest [see Heritage section].

Ogwr borough have defined Landscape Conservation Areas which are landscapes of value. The authority has also defined Green Wedges whose purpose is to separate settlements.

See Figure TA7

Countryside Access:

The existing strategic routes are the Ogwr Ridgeway and the Heritage Coast path. The proposed Sustrans National Cycle route linking Cardiff and Swansea, passes to the north of the borough in the Afan Valley. An

alternative southerly lowland route, as part of a braided network, is being investigated at present.

The borough has defined Community routes with Groundwork Ogwr which link the north of the borough with Bridgend, mainly along dismantled railways. These are to be completed as part of a Millennium funded project by Groundwork Ogwr.
These tie in with the borough's overall 'Strategy Promoting Countryside Access'.

Areas of access deficiency are on the eastern and vale limestone plateaux coinciding generally with estate owned land.

See Figure TA8.

Recreation and Amenity:

Bryngarw is the key Country Park located centrally in the borough. It has a low key visitor centre with facilities, play areas, nature trails and will be tied into the community route network. The coast is the focus of most recreational activity either side of the tourist resort of Porthcawl. Visitor centres are located at Kenfig and Southerndown.

See Figure TA9.

Heritage Interest:

Evidence of changes to the landscape through history and remnants of successive human use of the land is patchy. As is often the case, evidence of earlier times are primarily found in relatively undisturbed uplands, the lowland remnants having been erased by subsequent generations.

The main items of historic interest are described as follows:

Prehistoric sites occur on mainly on the uplands. Bronze Age remnants include Mynydd Caerau round cairns and the Bridgend Standing Stone. Iron Age features include Y Bwlwarcau, an extensive earthwork probably related to stock raising on the ridge west of Llangynwyd, Mynydd y Caer Hillfort and Dunraven Hillfort on the coast. Much evidence of the Iron Age Silures who

were located on the fringes of the lowlands and valleys with some presence on the uplands has disappeared.

Roman remains are scarce. A Roman Road runs across the lowland partly on the line of the A48. This area was Roman border country with their influence mainly confined to the lowlands by the Silures.

Early Medieval traces are also few. The Bwlch yr Avan Dyke is an earthwork consisting of a bank and ditch across the ridgeline. This acted probably as a boundary. Other early features include the Merthyr Mawr early Christian Stones which suggest a Monastic settlement in the vicinity and the Coychurch Celtic Cross Shaft.

Medieval remains are more prevalent. The conquest of South East Wales by the Normans involved the building of castles to consolidate gains. In the Study Area three were built after the second generation of expansion from 1090 onwards. These include Coity, Ogmore and Newcastle, the latter two to guard key river crossings. The Marcher Lords also set up religious institutions of which Ewenny Priory is an example. Other castles on fringes include Candleston and Llangynwyd. Overall, the impact of the Normans on the lowlands was significant and remains today with the imposition of a manorial structure and the creation of villages. The 14th Century was a time of troubles including plagues, Welsh raids, climatic deterioration and sand blow. This led to the shrinking of settlement from marginal land. The Merthyr Mawr and Kenfig Burrows landscapes dated from these times.

The Study Area has a significant **Industrial Heritage** of ironworks [Cefn Cribwr, Bedford Works, Maesteg, Tondu], collieries and railways, most notably the Dyffryn, Llynfi and Porthcawl railway which linked the harbour with the ironworks. The Valleys settlements were primarily set up in this period dominating the valley floor and creating a new landscape of spoil tips and heavy industry. Schemes such as the Tondu Ironworks heritage scheme and the Garw valley railway are continuing the process of conservation of industrial heritage features. The damage of this era is now being rectified with reclamation schemes.

The Study Area has historically been divided between the Uplands/Valleys and the Lowlands and has at key times been a border area. The lowlands have been dominated by the incoming 'civilised' Romans and Normans and the

uplands and valleys on the fringes dominated by border lords with strong native Welsh ties. The split in the borough has continued with 19th century industrialisation of the the valleys and its subsequent decline with manufacturing and settlement concentrating in the lowlands in the 20th century.

There are 63 Scheduled Ancient Monuments in the Study Area. There are grade I Landscapes of Exceptional Historic Interest at Merthyr Mawr and Kenfig Burrows. These were designated by Cadw/ICOMOS/CCW in 1995 because they contain remains beneath the encroaching sands of immense archaeological and historical potential from Prehistoric, Roman and Medieval periods.

There are five Parks and Gardens on the CADW register for Wales within the Study Area. They are Bryngarw, Court Colman, Glanrhyd Hospital, Merthyr Mawr House and Tythegston Court.

Conservation areas are concentrated on the cores of villages and towns of medieval origin in the lowlands and at Llangynwyd and Llangeinor. Listed buildings have not been studied.

It is important to note that the above is based on limited information including Cadw's Schedule of Ancient Monuments, informal Borough Council records and other literature. Full information on non-designated archaeological sites has not been made available to the consultant.

See Figure TA12.

3.0 FIELD APPRAISAL

The landscape field appraisal was carried out in accordance with the Countryside Commission Guidance in CCP423. A standard field survey form was used to assess the landscape which included an annotated sketch, brief description, a checklist of the dominant landcover and landscape elements, landform, aesthetic factors, perceptions and impressions. A note was also made of potential issues which could be of relevance to the landscape strategy. Forty one viewpoints were selected covering the study area offering panoramic views of the surrounding landscape.

4.0 LANDSCAPE TYPES

From the desk study and field survey, Landscape Types were identified [see Figure TA10]. These show a broad range throughout the borough from the Coalfield Plateau uplands and valleys in the north through fringe areas of the strong east/west running Millstone Grit ridge, to the lowland valleys and Limestone and Lias plateaux and the coastal dunes and cliffs in the south.

5.0 LANDSCAPE CHARACTER AREAS

Having broken down the landscape into understandable components we have defined areas of coherent landscape identity or landscape character. The following criteria have been applied to these areas:

Area associated with dominant landform e.g valley, coast

Area associated with a dominant settlement/landcover pattern e.g. the valleys settlements, Bridgend

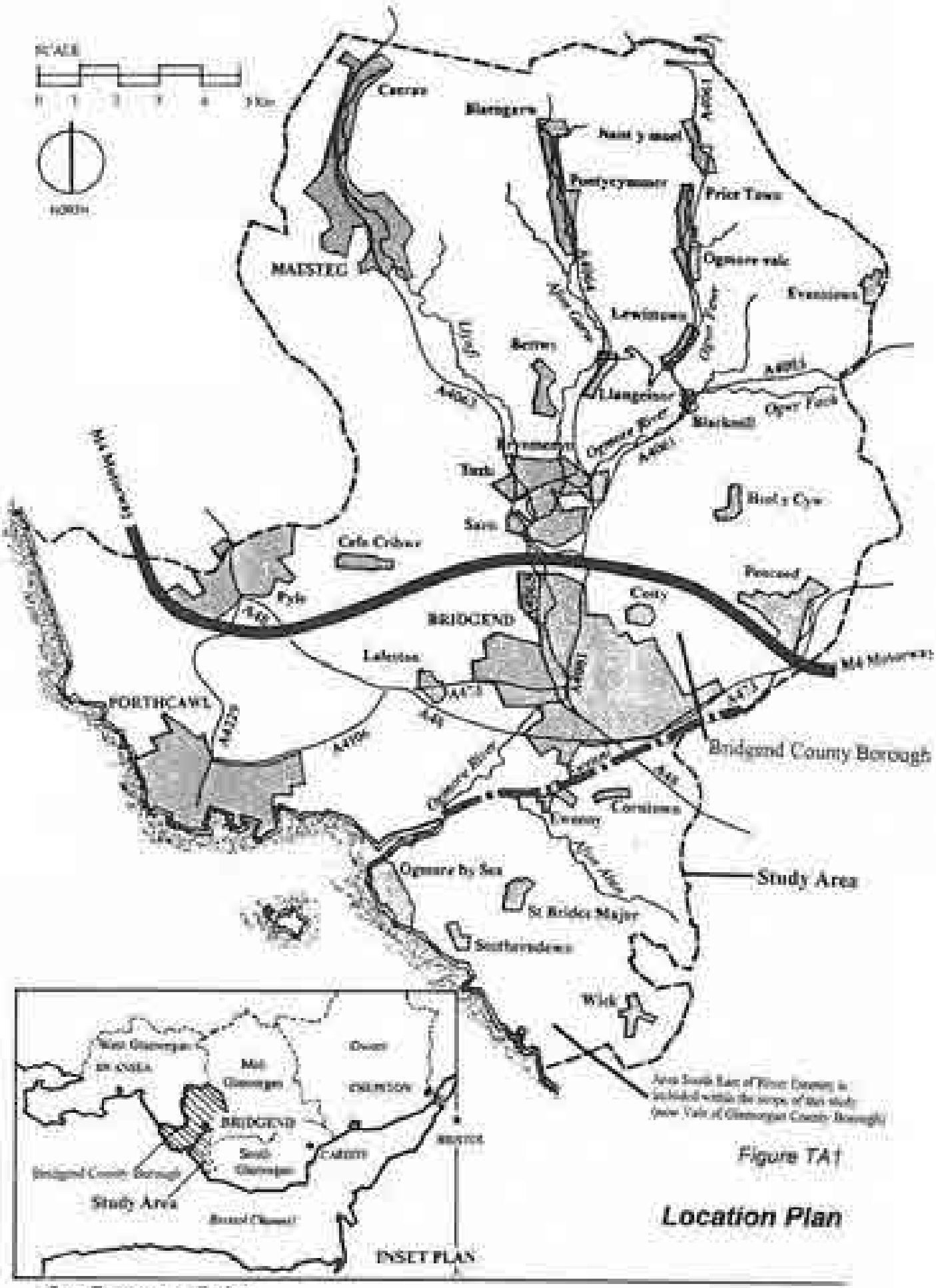
Area with consistent cultural or historical character e.g. the Valleys share a different history from the Vale.

Area identified with a particular community e.g. communities in each valley have been physically separated by topography which has led to the development of separate identities.

The historical and cultural aspects of the area have also been researched in books on local history and culture and in talking to community fora about their areas [see Community Issues, Technical Annex Section 8.0].

The Character areas defined are shown in Figure TA11

A primary purpose of defining the Landscape Character areas is to enable a strategy to be prepared at a detailed level which has relevance in reinforcing local identity. This is dealt with in the Main Strategy Report Volume 1.



Area South East of River Ewenny is excluded within the scope of this study (now Vale of Glamorgan County Borough)

Figure TA1

Location Plan

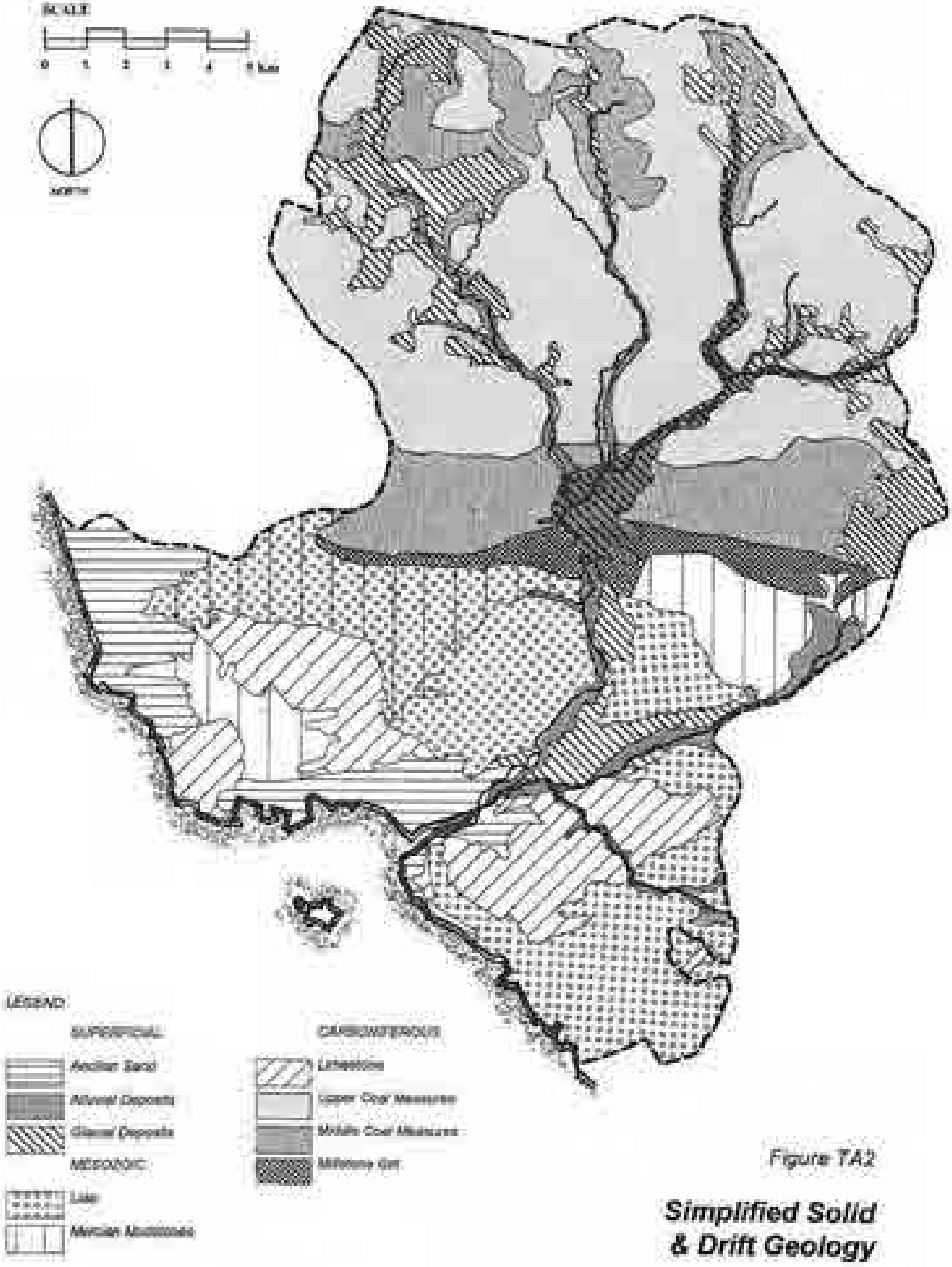


Figure TA2

Simplified Solid & Drift Geology

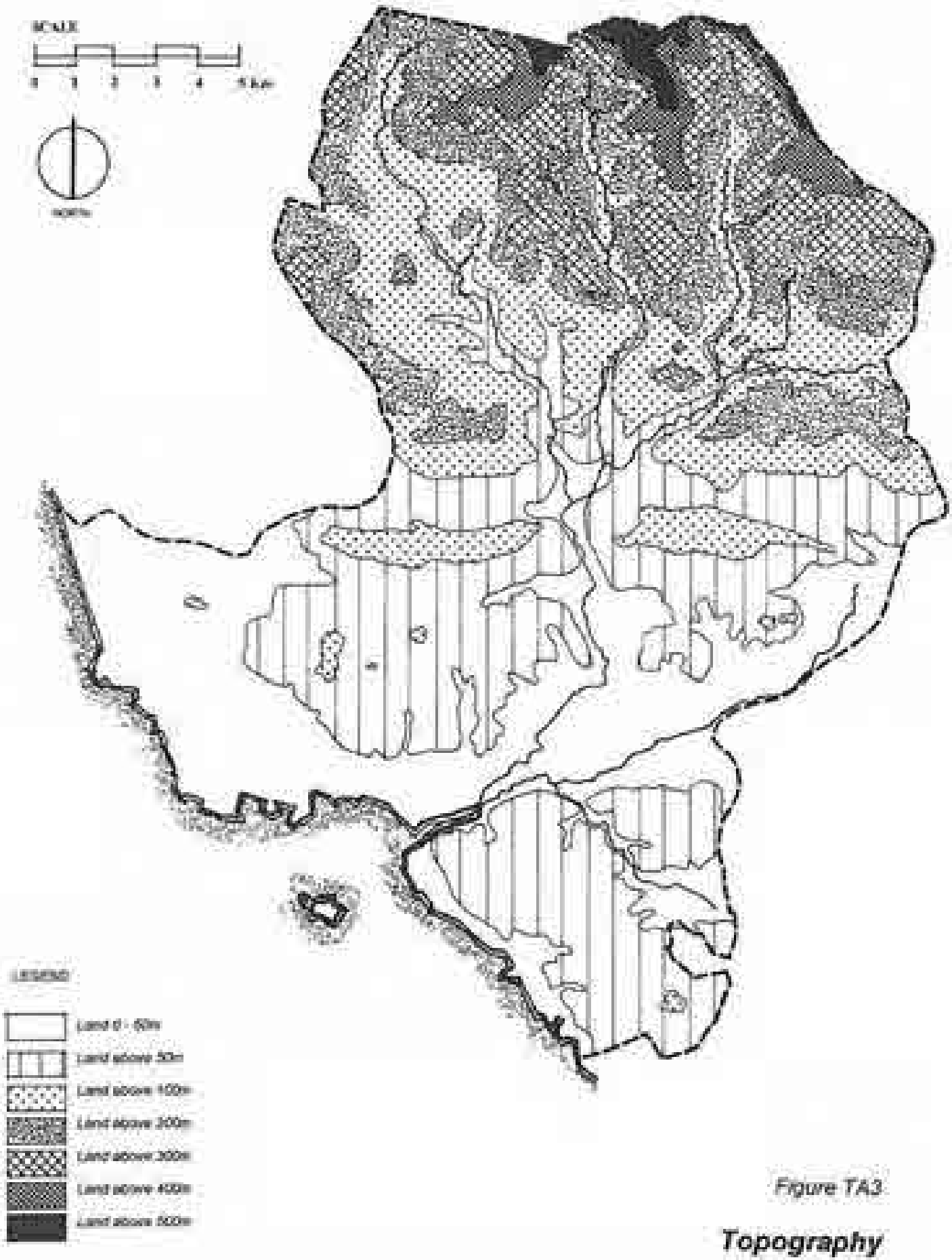


Figure TA3

Topography

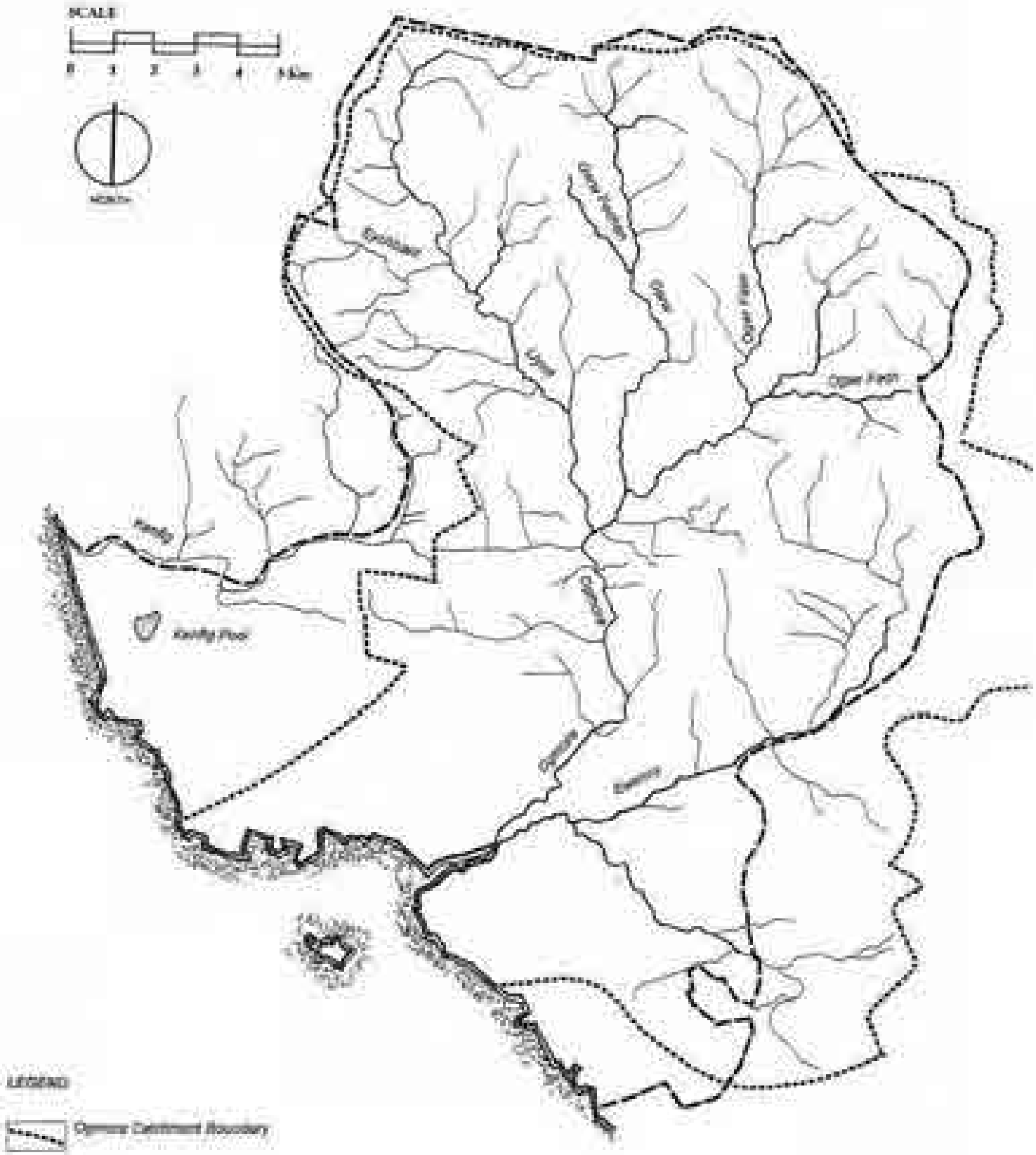


Figure: TA4

Drainage

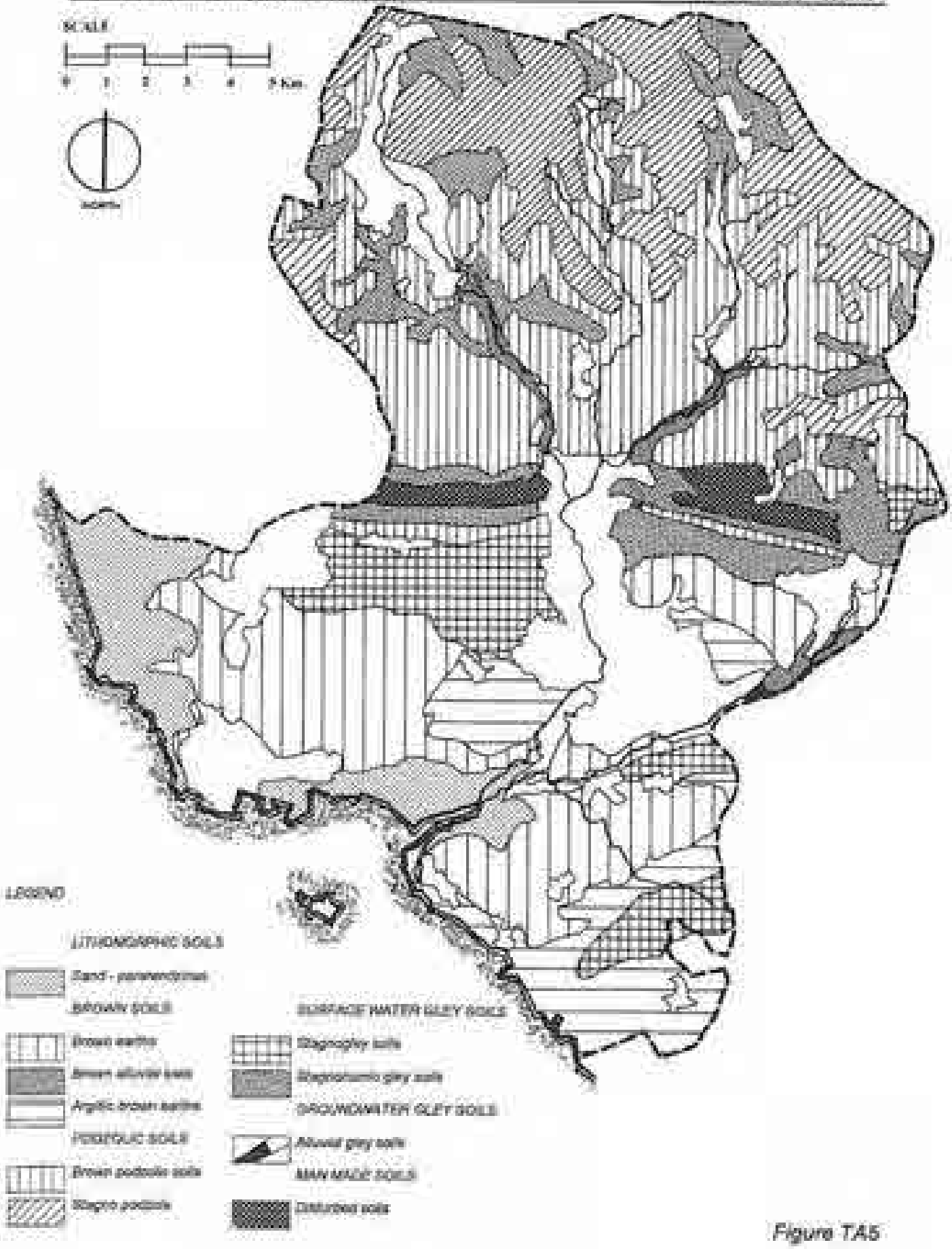


Figure TA5

Soils

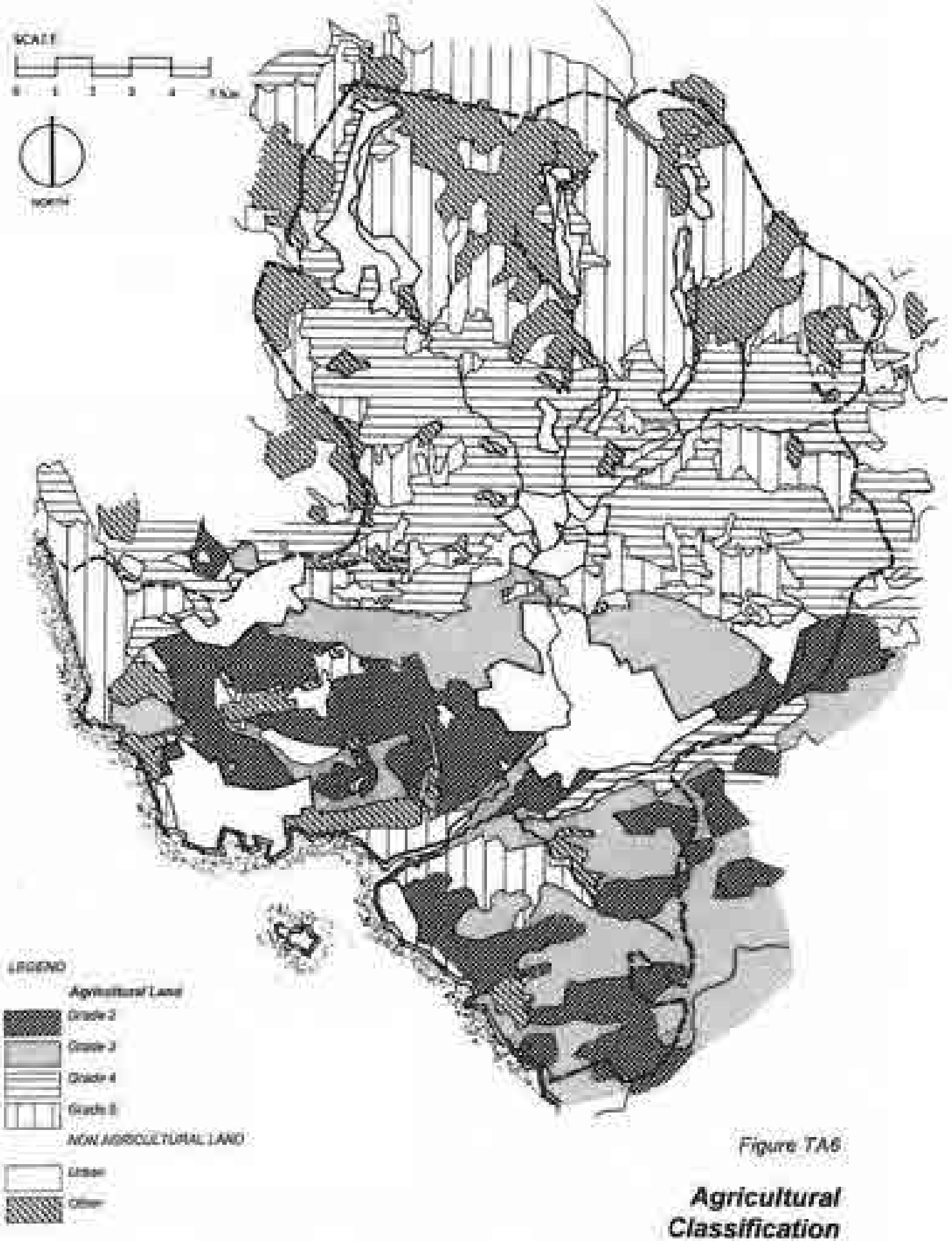


Figure TA6

Agricultural Classification

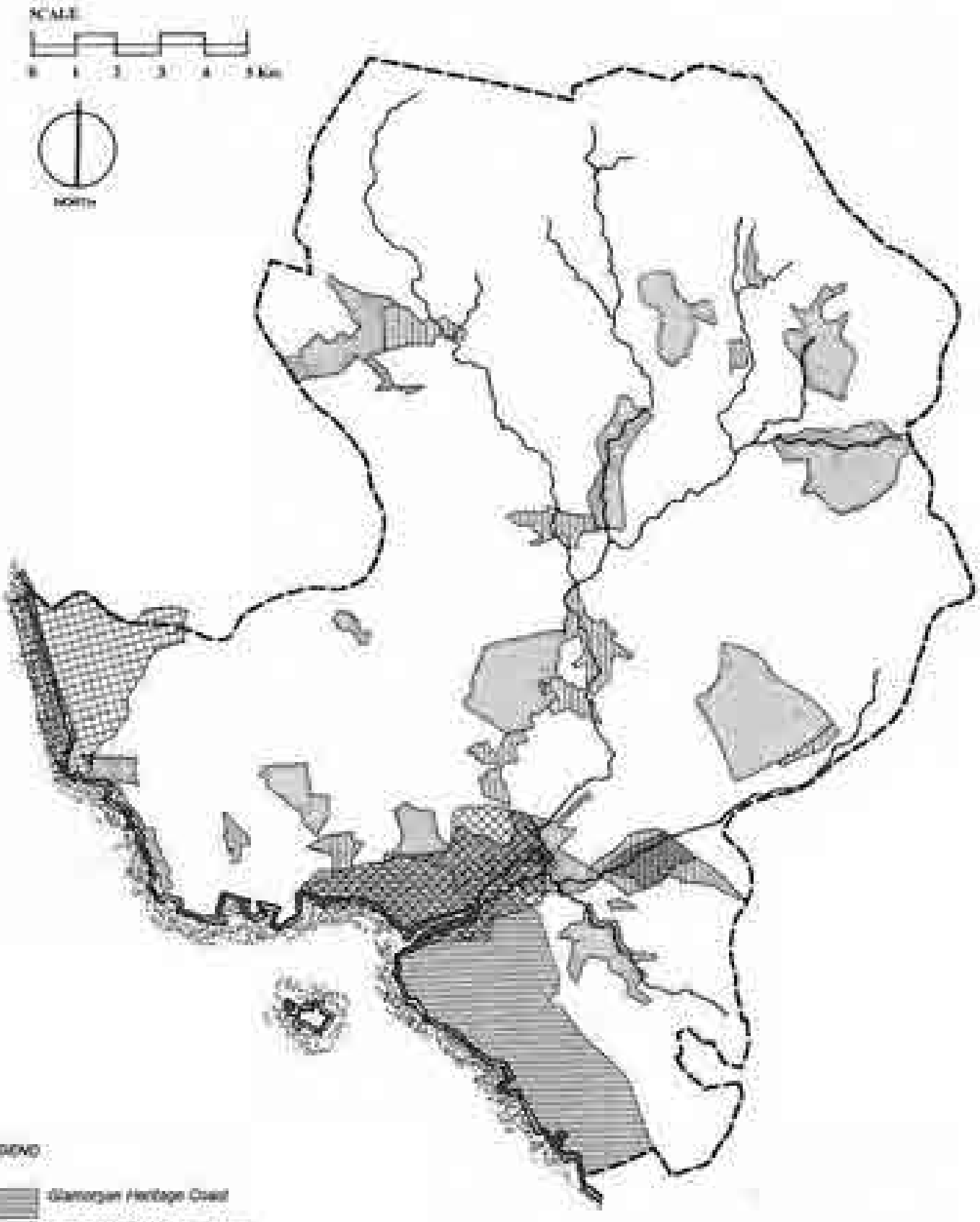


Figure TA7

Landscape Designations

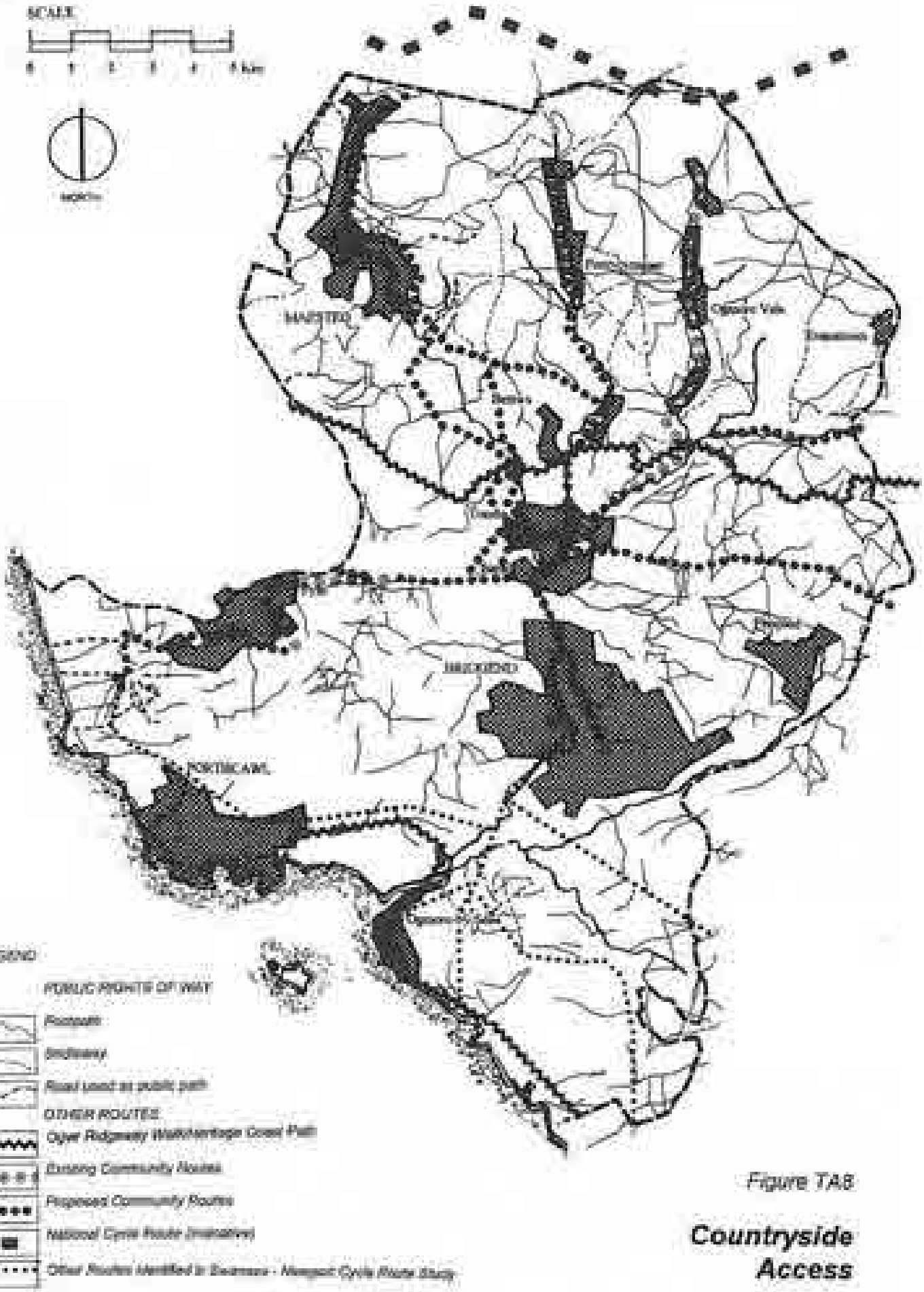


Figure TA8

Countryside Access

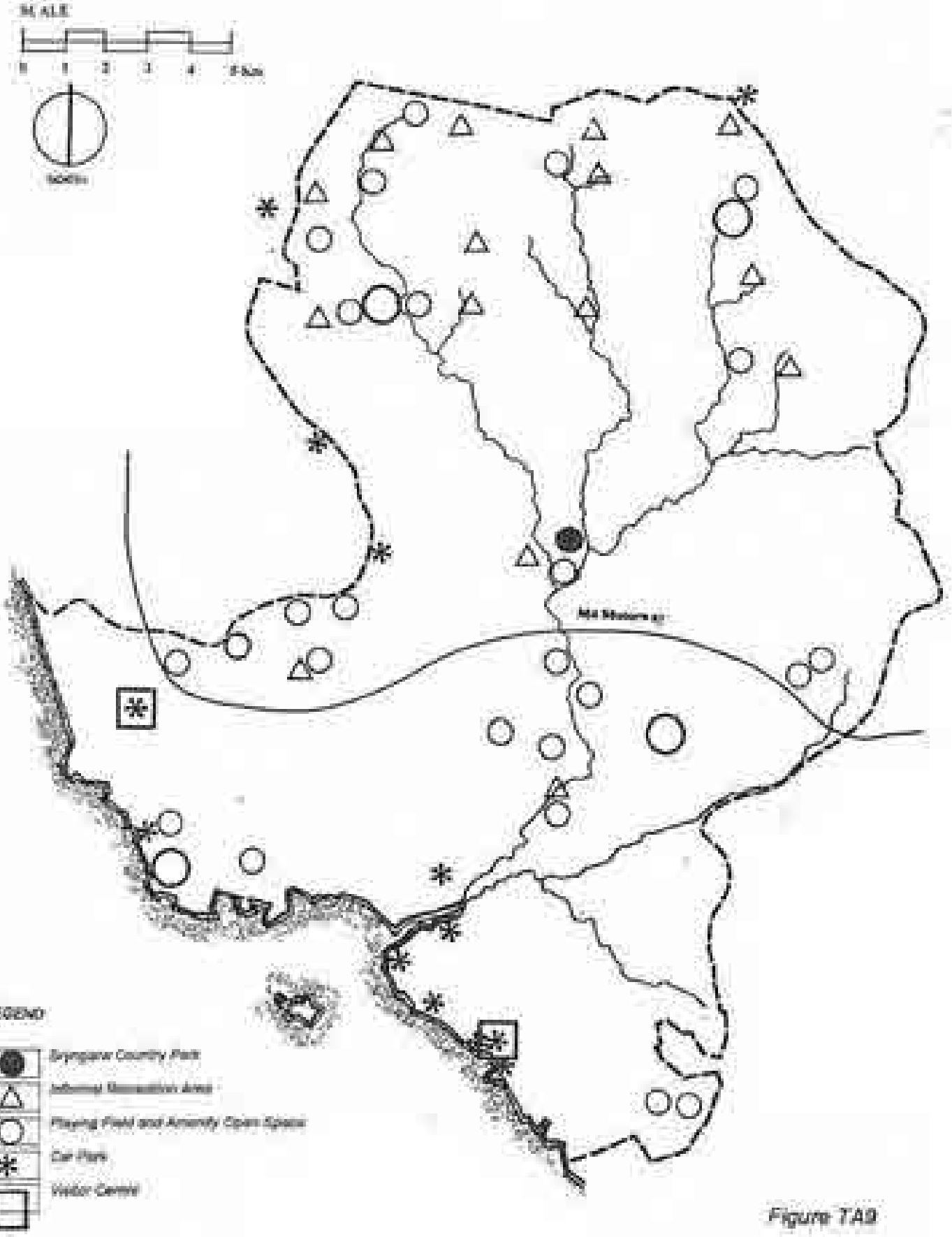


Figure TA9

Recreation & Amenity

LEGEND

	UPLANDS
UPG	Upland Plateau Acid Grassland
UPFG	Upland Plateau with Forestry and Acid Grassland
UPF	Upland Plateau Farmland
UPFO	Upland Plateau with Forestry
UFF	Upland Fringe Plateau with Farmland
MSC	Millstone Grit Ridge with Acid Grassland
MGF	Millstone Grit Ridge with Farmland
UVD	Upland Fringe Valley with Disturbed Landscape
	VALLEYS
UVS	Upland Valley with Settlement and Disturbed Landscape
UVF	Upland Valley with Farmland
UVB	Upland Valley with significant Broadleaf Woodland and Farmland
UVC	Upland Valley with Coniferous Woodland and Rough Grassland
UVD	Upland Fringe Valley with Disturbed Landscape
UVCF	Upland Fringe Valley with Common and Farmland
VC	Valley Confluence with Settlement and Urban Fringe Farmland
UVSFF	Upper Valley sides with Farmland and Forestry
UVSF	Upper Valley sides with Farmland
LVS	Lowland Valley with Settlement
LV	Lowland Valley with Farmland
LVF	Lowland Valley with Farmland and Woodland
LPF	Plateau with Farmland and Woodland
LPG	Limestone Plateau with Woodland and Quarries
RL	Rolling Lowland Farmland with Woodland
	COAST
CFC	Coastal farmland with Cliffs
CF	Coastal Farmland at Low Elevation
CD	Coastal Dunes

Figure TA10

Landscape Types

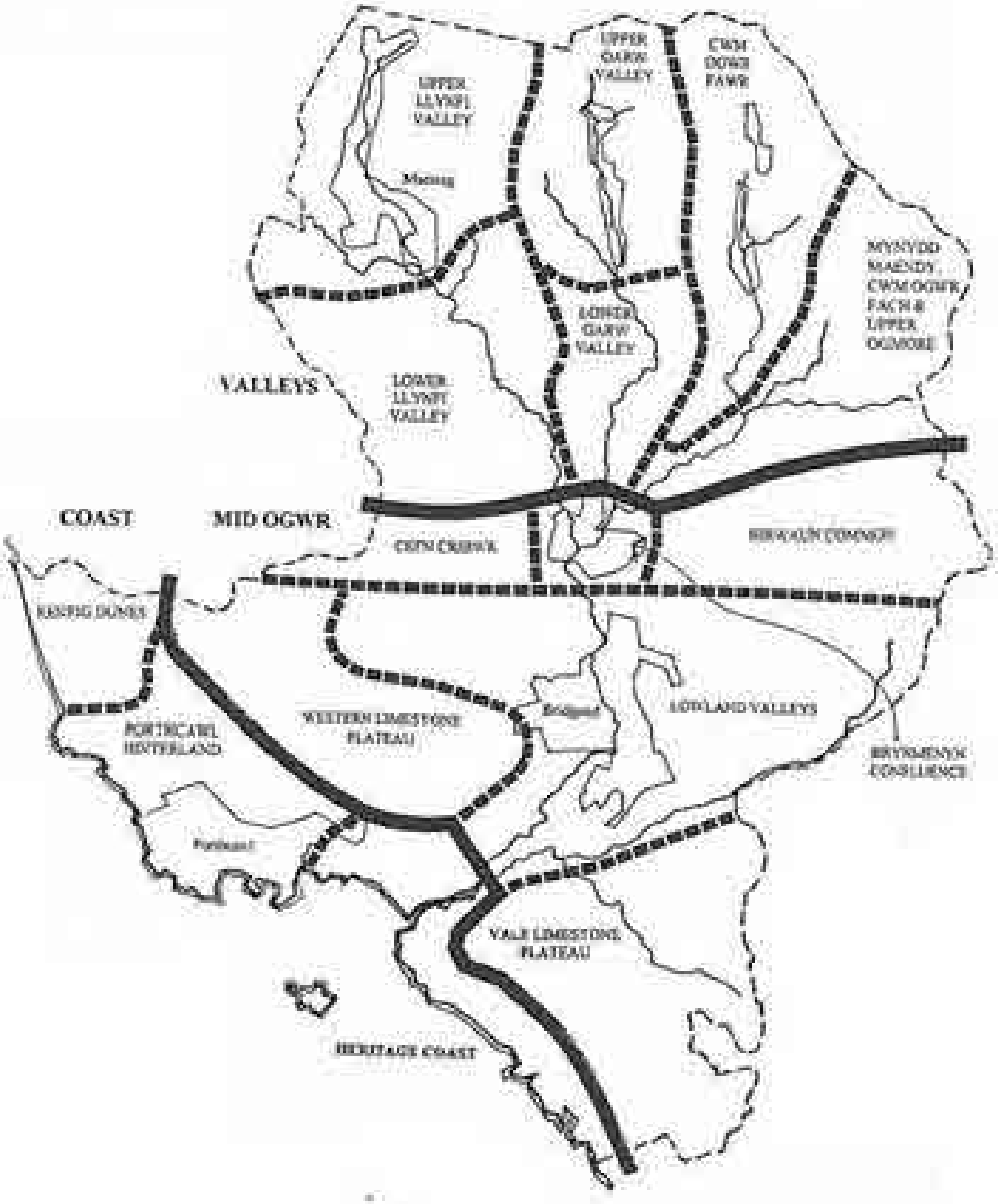


Figure TA11

Landscape Character Areas

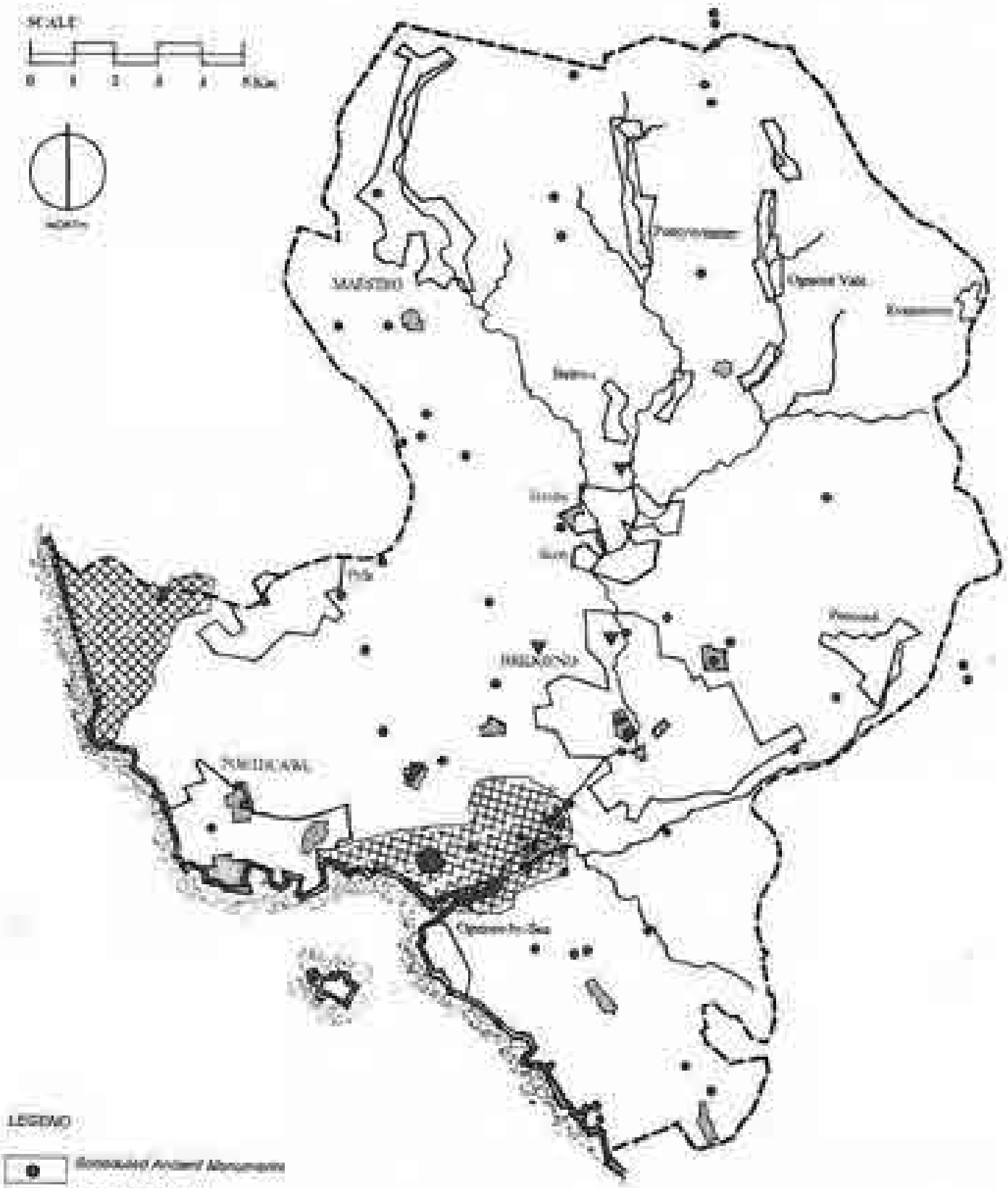


Figure TA12

Sites of Heritage Interest

SCALE 1 : 25,000

ECOLOGY

LANDSCAPES WORKING FOR BRIDGEND COUNTY BOROUGH

Ecological Appraisal

SECTION 3.0

3.0 ECOLOGY AND NATURE CONSERVATION

PART 1 - INTRODUCTION

This technical annex provides an overview of the nature conservation resource provided by the distinctive assemblage of wildlife habitats, communities and species of flora and fauna that are present within Ogwr. The aim is not to provide a comprehensive review, but to illustrate the variety of features that are present, and to establish some of the principal relationships between geology, climate, soils, drainage, landform, landuse and landcover that have developed a distinctive pattern of features of nature conservation interest. The review is followed by the planning policy context in relation to nature conservation and strategy proposals including the establishment of a Biodiversity Action Plan and Countryside Management Service. A schedule of the proposed SNCIs derived from the Ogwr Wildlife Strategy with location plans is included. A bibliography is set out at the end of the document for reference. The annex is divided into the following parts:

Part 1 Introduction
Part 2 Summary Biodiversity Profile of Study Area
Part 3 Outline Nature Conservation Review [of each Landscape Character Area]
Part 4 Planning Context and Strategy Proposals
Part 5 Proposed SNCIs Schedule
Part 6 References

The review has been undertaken in support of the landscape assessment to identify the prime features of the nature conservation interest and to establish the key issues relating to the conservation, enhancement and consolidation of this resource through a framework of protective and proactive policy recommendations.

The review has been compiled from a variety of sources, and these are cited in the text. An outline biodiversity profile for the Borough is provided as a summary of the review, which is followed by an outline of the prime features of interest that comprise the nature conservation resource of each landscape policy area. An outline is provided of the key issues regarding biodiversity conservation within each landscape policy area, accompanied by a review of the principal aims and objectives to be considered in addressing these issues.

METHODOLOGY

This review draws from information derived from a desk study of existing information and from reconnaissance field surveys undertaken for this appraisal. Details of these stages are outlined below:

Desk Study

Existing information on the nature conservation resource of Ogwr has been compiled from consultation with a variety of individuals and organisations. These are as follows:

- Glamorgan Wildlife Trust, Conservation Officer;
- Glamorgan Wildlife Trust Reserves Management Officer;
- Glamorgan Heritage Coast Project Officer and Ranger Service;

- West Glamorgan County Council Ecologist;
- Kenfig Burrows National Nature Reserve Project Officer;
- Countryside Council for Wales Area Officers;
- Countryside Council for Wales Phase 1 Habitat Surveyor;
- Countryside Council for Wales Phase 2 vegetation surveyor.

Consultation with these individuals has provided access to the following principal sources of information:

- An Inventory of Rare, Scarce and Notable Vascular Plant Species in the County Borough of Bridgend (1996);
- Submission for Wales Biodiversity Plan, Glamorgan Wildlife Trust Conservation Committee (1996);
- Citations and citation maps for Sites of Special Scientific Interest within Ogwr and for the Kenfig Burrows National Nature Reserve;
- Recommendation for possible Special Area of Conservation at Kenfig Pool and Dunes and Merthyr Mawr Sites of Special Scientific Interest;
- Glamorgan Wildlife Trust Phase 1 Habitat Survey Maps (1992);
- Countryside Council for Wales Phase 1 Habitat Survey Maps and Target Notes for lowland areas ( );
- Phase 2 Vegetation survey profiles for semi-natural lowland grassland sites;
- Biological Surveys of Common Land No. 20 - Mid Glamorgan, CCW Rural Surveys Research Unit (1991);
- Glamorgan Heritage Coast Plan Statement (1975) and Annual Report 1994/1995;
- Upland Vegetation Survey No. 22 - Mid Glamorgan Uplands, Nature Conservancy Wales Field Unit (1985);
- Survey and monitoring of the Breeding Status of the Marsh Fritillary in Mid Glamorgan, CCW Contract Science No. 73 (1993);
- An Introduction to Kenfig NNR - paper presented at fifth EUCC meeting, Cardiff (1995);
- A Wildlife Strategy for Ogwr - Groundwork Ogwr (1993), including a schedule of provisional Sites of Nature Conservation Interest.

In addition to these sources, additional information has been obtained from frequent discussions with the consultees listed above. In addition, consultation with the Glamorgan Wildlife Trust has provided access to a summary nature conservation review of Ogwr that draws from the following additional sources:

- Nature Conservancy Council Wetlands Survey 1977-1984;
- Nature Conservancy Council South Wales Open Water Survey 1981;
- Nature Conservancy Council Uplands Survey 1982-1983;
- Nature Conservancy Council Meadow Survey 1985-1986;
- Nature Conservancy Council Ancient Semi-natural Woodland Inventory 1986;
- Nature Conservancy Council Woodland Surveys 1981-1989.

Field appraisal

To supplement the information provided by the sources listed above, and to identify key strategic issues, areas of Ogwr readily accessible by car were visited during January 1996. A series of target notes were taken at locations throughout the landscape character areas to enable a broad characterisation of the biodiversity resource, and to record the principal issues, strategic aims and objectives for each area.

Limitations

Due to time constraints, a comprehensive review of existing information or an exhaustive programme of field appraisals has not been possible. Consequently, the Summary Biodiversity Profile and Outline Nature Conservation Review presented in the following sections aim to provide a digest of key points rather than a definitive appraisal of the nature conservation resource of Ogwr.

PART 2 - SUMMARY BIODIVERSITY PROFILE OF STUDY AREA

Collation of information from the sources listed above has enabled the preparation of an outline biodiversity profile for the Study Area. This aims to indicate the location and extent of core areas of biodiversity interest in terms of tracts of countryside that comprise notable wildlife habitats, plant and animal communities and species of flora and fauna. In these areas, wildlife habitats are present either as a continuous matrix or a contiguous network of habitat patches connected by a mesh of linear habitats.

The biodiversity resource of the Study Area has been summarised as a series of Key Areas of Biodiversity Interest, and these shown on plan no. xxxx, Ecology and Nature Conservation. This indicates the following general points:

- in general terms, core areas of biodiversity interest are present within the Valleys, Mid Ogwr and Coast landscape policy areas;
- the biodiversity resource is most fragmented and marginalised within the Mid Ogwr Landscape Policy Area;
- on the high level land within the Valleys Landscape Policy Area and along the maritime fringe of the Coast Landscape Policy Areas, core areas of biodiversity interest are relatively continuous.

Within the Valleys landscape policy area, key areas of biodiversity interest are generally associated with extensive tracts of upland acid grassland on upper valley sides and along ridgelines. In places, vegetation in this area is modified through agricultural improvement, but retains extensive areas of grassland with strong semi-natural character. In these areas, habitat diversity is provided by the occurrence of rock outcrops, scrub and areas of heathland vegetation. Biodiversity interest extends along re-entrant valleys, associated mainly with semi-natural broadleaved woodland and riparian habitat.

Lower sections of the Valleys landscape policy area are of particular importance for broadleaved woodland and grassland habitat of strong semi-natural character, associated with sections of river corridor generally subjected to low intensity development pressure.

The Mid Ogwr landscape policy area is notable for contiguous area of diverse biodiversity character. This includes low-level outliers of acid grassland, with locally extensive tracts of semi-natural wet grassland of considerable nature conservation interest. Riparian semi-natural woodland is an important element of Key Biodiversity Areas within the Mid Ogwr landscape policy area. Towards the coast, areas of biodiversity interest are fragmented by locally extensive agricultural improvement, and are mainly associated with localised areas of uncultivated grassland and corridors of semi-natural riparian woodland and grassland associated with a series of river valleys.

The maritime margin of the Coast landscape policy area is a virtually continuous area of significant biodiversity interest. Most of the maritime margin is undeveloped coastline, protected from significant change by a variety of protective designations, in contrast to a localised section of developed coastline at Porthcawl.

PART 3 - OUTLINE NATURE CONSERVATION REVIEW

This section provides a systematic review of key features of nature conservation interest and the principal strategic issues for nature conservation within each of the landscape character areas within each of the Landscape Policy Areas.

The following landscape character area reviews have the following structure:

- Description, providing a physiographic review of each landscape character area, followed by a description of the principal wildlife habitats;
- Key issues, identifying the most prominent issues for consideration by policies for ecology and nature conservation;
- Key aims, providing a translation of the key issues into a series of policy aims;
- Key objectives, identifying a series of practical activities to be encouraged through policy mechanisms to address key issues for ecology and nature conservation.

UPPER LLYNFI VALLEY

Description

Physiographic overview

This area extends south from high ground at around 300m AOD at Blaencaerau, as far as Cwmfelin, south of Maesteg at around 121m AOD. The eastern boundary of this area follows the crest of the undulating ridge defining the main watershed between the northern Llynfi Valley and the northern section of Cwm Garw to the east. The boundary extends from the summit of Mynydd Caerau at 556m AOD in the north, falling across a relatively well-defined ridge to Foel Gwilim Hywel at 434m AOD to the south. From this point the boundary continues to a low summit above Bryncelefaid where the boundary leaves the main ridge, following a steep spur to cross a saddle near the head of Cwm Du before rising to the summit of Garth Hill at 257m AOD.

From Garth Hill, the southern boundary of the Upper Llynfi landscape character area falls across steep land to cross the flood plain of the River Llynfi between Cwmfelin and Pont Rhyd-y-cyff at around 120m AOD. From this point the boundary rises across steep slopes to the summit of Moel Trecd-y-Rhiw (218m AOD) before rising along a dissected ridge that defines the watershed of Cwm Cerdin. The boundary continues to follow this ridge until the main Administrative Boundary above Cwm Kenfig to the west.

The main valley is well-defined in the north, with steep valley sides enclosing the valley bottom flood-plain between prominent hilltops of Foel y Dyffryn and Garn Wen to the west and Mynydd Bach to the east. At Maesteg, however, the valley sides are interrupted by the main re-entrant valleys of Nant y Crymeydd to the west, and by a broad, indistinct valley between the prominent landforms of Mynydd Bach and Garth Hill. South west of Maesteg the east facing valleys side of the Llynfi Valley is dissected by a distinct side valley of Cwm Sychbant.

This is an area of complex geological characteristics, with highest land comprising Upper Coal Measures, with complex dip characteristics, forming distinctive landforms at Mynydd Bach, Foel y Dyffryn and Waun Llwest-wen in the south west. Upper valley sides below Mynydd Bach and Garn Wen comprise frequently bedded Middle Coal Measures, with upper valley sides elsewhere containing extensive Boulder Clay deposits. Boulder Clay extends across lower valley sides and valley bottoms within principal side valleys and the main Llynfi valley north of Maesteg, with well-drained alluvial deposits present across the main valley bottom at Maesteg.

The variety of soils within the Upper Llynfi landscape character area are closely related to the distinctive geology of the area. Upper Coal Measures on highest land generally support freely-draining and strongly leached acidic ferric stagnopodzols and typical brown podzols, both with slowly decomposing peaty topsoils. These soils extend across the Middle Coal Measures, grading into locally extensive slowly permeable, clay-enriched cambic stagnohumic gley soils with peaty topsoils formed over glacial boulder clay deposits on lower valley sides and valley bottoms. Within Maesteg, freely draining, coarse and fine loamy brown alluvial soils have developed over valley bottom alluvial deposits.

Principal wildlife features

In the north of the Upper Llynfi valley, the generally acute topography at Blaencaerau has prevented significant landcover modification, and hard development is typically confined to the valley bottom. Lower valley sides support significantly modified vegetation, with spoil heaps and locally extensive areas of improved agricultural grassland.

Upper valley sides in this area support less intensively modified wildlife habitats comprising vegetation of distinct semi-natural character, typically acid grassland, and including Purple Moor-grass with Deergrass, Heather, Cross-leaved Heath, Sheep's-fescue and Matrass. The semi-natural vegetation has a significant element of Bracken cover, and locally extensive Gorse scrub.

At highest levels, semi-mature to mature Larch and Norway Spruce forestry has had a notable modifying effect on features of nature conservation interest. In these areas, features of nature conservation interest are mainly fragments of semi-natural acid grassland along rides, within clearings and along edges of the plantation blocks. In places there is significant Bracken cover.

Between Blaencaeau and Dyffryn, verges along the A4063 support a distinctive mosaic of acid grassland acid dry heath vegetation, with extensive early mature phase Heather vegetation. Locally patchy sections of Bracken and Gorse are present, but are not significant detractors.

Land on valley sides above Dyffryn is of some nature conservation interest, with frequent mature broadleaved trees along a network of well-defined hedgerow field boundaries, and blocks of broadleaved acid Oak woodland with Beech and Sycamore present on lower slopes, over rough acid grassland. Land in this area is uneven, providing topographic variety, reflected in variations in drainage conditions and vegetation structure. However, woodland generally has a uniform, open structure, where grazing is apparently significant in suppressing woodland regeneration.

Lower level woodland blocks have some features of note in terms of diversifying the habitat structure, including localised rock outcrops and mine spoil, with a number of small re-entrant stream valleys dissecting the main Llynfi valley side.

At Nantyffyllon, features of semi-natural interest along the valley bottom and lower valley sides are almost entirely replaced by residential and industrial development, and lower valley sides are significantly modified by spoil dumping.

Upper valley sides support extensive rough grazing on marginally improved grassland with a weak system of field boundaries. On highest level land, some features of semi-natural interest comprising localised areas of semi-natural acid grassland with locally extensive Bracken cover are retained where locally aggressive topography on coarser spoil heaps and localised rock outcrops occur. Commercial forestry is a significant feature on higher valley sides, whose features of some interest are associated with diversifying elements such as small stream valleys, and rock faces such as the significant outcrops at Darren y Barasau.

The Llynfi channel at Nantyffyllon is not significantly modified, retaining an apparently natural meander physiography, and local sections of scattered Goat Willow scrub with Ash over semi-aquatic marginal vegetation. The river channel has sections of incised rocky channel with a good riffle-pool structure, and the combination of these elements represents significant riparian habitat interest along upper sections of the Llynfi, remaining relatively intact as far as the edge of Maesteg.

Forestry at gors Wen creates a potential pinch point in the continuity of open, non-forested land with wildlife habitat structural diversity and ecological interest below Pen y Llan. In this area, a small stream channel passes through a narrow strip of land occupied by a scrap yard/waste tip between the conifer plantation and adjacent developed land along the lower valley sides and valley bottom.

A significant cover of mature phase Heather is present along steeper sections of the lower Llynfi valley in this area, with strong semi-natural character and nature conservation interest. In contrast, colliery spoil on lower valley sides east of Nantyffyllon has been planted up extensively by the WDA, using a uniform matrix of standard trees.

Along the B4282 is a well-defined side valley of the Upper Llynfi landscape character area, with a variety of land uses reflected in a diverse land cover. Maesteg golf course has created an extensive arc of significantly modified vegetation with negligible nature conservation interest, in contrast to adjacent rough grazing on rush pasture, retaining localised features of semi-natural interest. Grassland characterised by abundant Purple Moor-grass is locally abundant on lower valley side and valley bottom areas, often present in conjunction with areas of scattered and dense Willow and Hawthorn scrub, providing features of some semi-natural value. The Willow scrub also includes an element of Oak woodland, following the stream channel, and in combination with the Purple moor-grass vegetation creates an area of Oak-Willow carr woodland.

Extensive mature conifer plantation woodland is present on upper sections of this side valley, with features of nature conservation value generally confined to rock faces and rides where some semi-natural vegetation and features of wildlife habitat interest survive.

Above Maesteg is a relatively well-defined valley below Foel Gwilym Hywel, with modified vegetation comprising pasture with locally significantly improved grassland on the valley bottom. Fields are generally defined by lines of low Sessile Oak and Holly trees, merging into a strip of locally substantial woodland along the valley bottom comprising Silver Birch, Holly and shrubby Willows. Semi-natural grassland is also present on the valley sides, comprising Bent-Fescue-Matgrass vegetation with sections of Purple Moor-grass.

Upper valley sides support significant scree exposures enclosing extensive belts of Bracken alternating with scattered scrub and acid grassland, modified through moderate grazing pressure. At the valley head there is an extensive conifer plantation with localised features of some nature conservation interest associated with rides, glades and rock outcrops.

The adjacent valley below Garth Hill includes a woodland SSSI, and Nant Cwm-du has localised features of semi-natural broadleaved woodland interest. There is sufficient broadleaved woodland interest in this area to make it one of the more valuable areas locally for the conservation of semi-natural woodland wildlife habitat.

Key issues

- Forestry, agricultural grassland improvement, industrial/residential development and colliery waste disposal has reduced features of significant nature conservation interest to a series of localised fragments.
- Features associated with past mining activities such as rock outcrops and spoil heaps have developed vegetation of strong semi-natural character.
- Features within conifer plantation woodland such as rides, clearings, streams and rock outcrops provide some habitat structural diversity.
- Within areas of notable wildlife habitat, a lack of appropriate management is resulting in significant Bracken cover, and the development of structural uniformity within grassland vegetation of semi-natural interest on upper valley sides.
- Semi-natural broadleaved woodland habitat is localised on lower valley sides and is scattered along the river channel.

- Re-entrant valleys provide areas of some local woodland and grassland wildlife habitat interest, including an area of nationally important broadleaved woodland habitat at Garth Hill.
- Road verges within higher sections of the valley support acid grassland and heathland vegetation of strong semi-natural character.
- Field systems on lower valley sides are defined by weak networks of gappy, undermanaged hedgerows.
- The Afon Llynfi is not significantly modified and is of some nature conservation interest, supporting riparian scrub and grassland vegetation.
- Local juxtaposition of development within the valley bottom and forestry on valley sides reduces the continuity of notable wildlife habitats along the valley.

Key aims

- The conservation and enhancement of existing areas of woodland and grassland wildlife habitat of nature conservation interest, minimising further losses of semi-natural vegetation through development within sensitive sites and through inappropriate vegetation management.
- Within areas of conifer plantation woodland, maximise the residual value of habitat fragments of semi-natural interest that survive along rides and within glades, and diversify the plantation woodland structure and composition.
- Enhance the continuity of wildlife habitat along valley sides and the valley bottom.
- Biodiversity enhancement within land in upper valley side and on valley tops, minimising further conversion of valuable semi-natural wildlife habitat to productive agricultural uses such as improved grassland.
- Enhance and consolidate remnant semi-natural vegetation along road verges.
- Maintain and diversify the quality of aquatic and semi-aquatic wildlife habitat, flora and fauna along the Afon Llynfi; consolidate and enhance the field boundary hedgerow pattern on valley sides and within re-entrant valleys.

Key objectives

- Undertake ecological assessment and management planning of core areas of wildlife habitat, with the objective of identifying coherent countryside management units, focusing on woodland, grassland and riparian habitat, to identify vegetation management priorities.
- Enhance the existing woodland wildlife habitat resource by provision of stock-proof enclosures to encourage natural regeneration, and by undertaking appropriate habitat management.
- Consolidate the existing woodland wildlife habitat resource through extension of woodland areas by tree and shrub planting on adjacent significantly modified grassland sites, to provide woodland strips and outlying woodland blocks to increase the connectivity of broadleaved woodland habitat.

- Hedgerow rejuvenation to be achieved by planting within stock-proof exclosures to consolidate hedgerow structure and composition, with subsequent sensitive management to diversify habitat structure and composition.

- Enhance areas of existing grassland wildlife habitat interest by appropriate management, and consolidation of existing areas by conversion of adjacent productive agricultural land to grassland of semi-natural character.

- Undertake water quality monitoring within the Afon Llyfni for water resource conservation and management planning, and undertake aquatic and semi-aquatic riparian vegetation management and habitat diversification through creation of reedswamp and inundation vegetation.

- Undertake assessment and management planning of remnant semi-natural vegetation along road verges.

LOWER LLYNFI VALLEY

Description

Physiographic review

This area extends from the southern boundary of the Upper Llynfi landscape character area as far as Coytrahen in the south, at around 50m AOD. The eastern boundary follows the southern section of the main ridge defining the watershed between the Llynfi valley and Cwm Garw to the east. This abuts the Upper Llynfi landscape character area at around 300m AOD above Brynsefaid, continuing across a dissected ridgeline to Craig-yr-hudol before falling across steep slopes above Brithdir to around 150m AOD. From here the boundary passes to the west of Betws and continues towards the Bryngarw Country Park at around 100m AOD. From Bryngarw, the southern boundary of the Lower Llynfi landscape character area crosses the River Llynfi valley bottom at Coytrahen before rising steeply to follow the prominent ridge of Mynydd Baedan at 251m AOD. From here the boundary continues to the west, falling across steep slopes above Nant Craigyraber that marks the main administrative boundary.

In contrast to other main valley systems within Ogwr, the main valley of the River Llynfi is less distinct in this area, as the valley sides are dissected by frequent, well-defined re-entrant side valleys, creating a landform of rounded spurs between incised valleys. Prominent high level landforms enclosing the main valley are associated mainly with Waun Llwest Wen at 316m AOD, Moel Troed-y-Rhiw at 218m AOD and Garth Hill at 259m AOD in the north, with Moel Cynhordy at 346m AOD in the north east, Craig-yr-hudol at 355m AOD in the east, Mynydd Baedan at 251m AOD in the south and Mynydd Ty-du'wyn at 241m AOD in the south west.

Principal side valleys are those at Cwm Du in the north west, flowing between Garth Hill and Moel Cynhordy, Nant y Galdys draining valley sides above Llangynwyd and below Mynydd Ty-talwyn and Cwm Coidfyw draining land below Moel Cynhordy and Craig-yr-hudol. The interfluves between these valleys are further dissected by smaller tributaries.

The geology of this landscape character area is dominated by an extensive, heavily dissected plateau of Upper Coal Measures, extending across hilltops, ridges and valley sides. In the north of the area, lower valley sides support glacial boulder clay, extending along lower sections of Nant y Galdys, Nant Cwm-du and Cwm Coidfw. Recent, well-drained alluvial deposits are present along the entire valley bottom of the main Llynfi valley. A geological feature of significance in shaping the scenery of this area is a fault line, corresponding with lower Cwm Coidfw, where low-lying undulating land below the foot of steep slopes between Craig-yr-hudol and Bryncoryn is present on the downthrow side of the fault.

The principal soil types within this area closely reflect the geological characteristics. Widespread freely-draining and strongly leached acidic typical brown podzols with slowly decomposing peaty topsoils are present across extensive areas of the main valley sides on Upper Coal Measures, with locally extensive slowly permeable, clay-enriched cambic stagnogleyic gley soils with peaty topsoils over glacial boulder clay deposits on lower valley sides in the north of the area. The valley bottom alluvial deposits support freely draining, coarse and fine loamy brown alluvial soils.

Principal wildlife habitats

Nant Bryncoryn is in a well defined, distinctive valley to the north of this area, of particular value for the conservation of significant areas of semi-natural broadleaved woodland. This is present as core areas of semi-natural woodland and outlying secondary woodland sites, with some connectivity provided by strong field boundary hedgerows. Core woodland areas comprise woodland near Bryncoryan, along Nant Bryncoryan

and adjacent tributary valleys

Woodland in this area comprises a distinctive Oak-Ash canopy over Hazel, typically with notable habitat structural diversity, and associated with valuable complementary habitats such as the riparian channel habitat of Nant Brynewnan. This has a well-defined meander physiography, varied riffle-pool channel bed features, enclosed by a combination of woody vegetation, and sections of low-lying flood plain wet grassland. There is occasional evidence that coppicing may have taken place on an ad-hoc basis in the past, but past management of the woodland blocks is not obvious, and many have developed a high forest structure.

The field pattern in this area is locally modified to a system of relatively large fields with frequently trimmed hedges along field boundaries. Many fields support modified grassland with little semi-natural character, but in places the grassland has retained some semi-natural interest. Hedges in this area are distinctive in that they comprise Oak, Ash, Holly and Hazel, are closely associated with adjacent woodland habitat, but are frequently trimmed to a uniform structure, which is a general loss of nature conservation value.

Along the Llynfi below Pont Rhyd-y-cyff, the valley bottom is of particular value for the conservation of woodland wildlife habitat, including significant continuous blocks of semi-natural woodland along the Llynfi flood plain. Woodland in this area is generally Oak-Ash high forest with no obvious management history, and with local Alder valley bottom woodland over reedswamp vegetation. This combination of semi-natural habitat types is of ecological interest and of considerable nature conservation value.

Extensive fields of significantly modified agricultural grassland occur adjacent to these woodland blocks, and these are enclosed by field boundary hedges that are of some local interest supporting lines of mature hedgerow standard hedgerow Oak and Ash trees with a scattered understorey of Hawthorn, Elder and Hazel.

To the east of the Lower Llynfi, Nant Cedfyw is enclosed by an extensive valley bottom woodland strip supporting semi-natural broadleaved woodland of considerable ecological interest and nature conservation value. The woodland is not obviously managed and has a well-developed, varied structure including Oak canopy standards with a sub-canopy of Downy Birch over a shrub layer of Hazel with occasional Guelder Rose and Holly, and regeneration of woody species is prolific. The Nant Cedfyw is a fast flowing watercourse with a well-defined meander physiography and flowing through a stony substrate. The flow is turbulent, with good riffle-pool formations and likely to be of value for aquatic macroinvertebrates.

Land enclosing Nant Cedfyw comprises early successional woodland and scrub with a series of well-defined wooded hedge banks defining a small scale field pattern. Hedge banks are occasionally in a deteriorating condition where the shrub element has been lost and where the field boundary is defined by a line of mature standard Sessile Oak trees.

The fields typically contain grassland, often modified from the semi-natural state, but in places retaining some features of semi-natural character, often where poor drainage conditions prevail. In these areas, semi-natural grassland characterised by abundant Purple Moor-grass is notable.

On high level rounded slopes above Llangynyd, very large fields of significantly modified agricultural grassland area present, extending to the tops of the valley sides, and onto high level ridges. Features of nature conservation interest are marginalised on these high level slopes, where field boundaries are typically dry-stone walls and wire fences, with very occasional weak hedgerows and some scattered Gorse along field boundaries. This pattern is reflected across high level land enclosing the Llynfi valley within this section, and with commercial forestry typically sited on the tops of ridges where there are significant climatic constraints on grassland cultivation.

In the Lower Llynfi valley, features of nature conservation interest are generally confined to the lower valley sides and valley bottoms and are principally associated with semi-natural broadleaved woodland and localised semi-natural grassland. However, a number of the sunken lanes that extend into the upper valley side areas retain relict flora that has strong semi-natural character, supporting ericaceous sub-shrub species, with associated species such as Sheep's-fescue and Matgrass.

Key issues

- The lower Llynfi valley is of particular importance for the conservation of riparian flora and fauna and wildlife habitat of strong semi-natural character, incuding broadleaved woodland, grassland and river channel wildlife habitat.
- Lower valley sides are of value for the conservation of semi-natural broadleaved woodland wildlife habitat, often with complementary grassland habitat.
- Re-entrant valleys are of particular value for the conservation of semi-natural broadleaved woodland wildlife habitat, often with complementary grassland habitat.
- Lower sections of the Llynfi are of high general water quality, supporting valuable aquatic and semi-aquatic wildlife habitat, flora and fauna.
- Locally extensive areas of productive agricultural land are present, reducing the continuity of features of nature conservation interest.
- Most field boundary hedgerows are subject to intensive management, reducing their nature conservation value.
- Upper valley sides and valley tops support agricultural grassland with few features of nature conservation interest, generally limited to grassland along road verges and field boundaries.

Key aims

- The conservation and enhancement of woodland, grassland and riparian wildlife habitat of strong semi-natural nature conservation value along lower valley sides and valley bottom.
- The conservation and enhancement of woodland, grassland and riparian wildlife habitat of strong semi-natural nature conservation value within re-entrant valleys.
- The conservation and enhancement of notable species of flora and fauna, and consolidation of wildlife habitat pattern to enable dispersal throughout the landscape.
- Rejuvination of field boundary hedgerow wildlife habitat.
- Biodiversity enhancement within land in upper valley side and valley top locations.
- Maintain the quality of aquatic and semi-aquatic wildlife habitat, flora and fauna within lower sections of the Llynfi.
- Minimise further conversion of valuable semi-natural wildlife habitat to productive agricultural uses.

such as improved grassland.

Key objectives

- Undertake ecological assessment and management planning of core woodland, grassland and riparian wildlife habitat with the objective of identifying a series of coherent countryside management units, focusing on valley bottom and lower valley side woodland and grassland mosaics. Incorporate assessment and management planning of complementary habitats such as outlying semi-natural woodland and grassland and riparian channel habitat.

- Enhance the existing woodland wildlife habitat resource by provision of stock-proof exclosures to encourage natural regeneration, and undertaking appropriate habitat management

- Consolidate the existing woodland wildlife habitat resource through extension of woodland areas by tree and shrub planting on adjacent significantly modified grassland sites, to provide woodland strips and outlying woodland blocks to increase the connectivity of broadleaved woodland habitat.

- Consolidation of existing woodland wildlife habitat by relaxation of intensive hedge management practice to enable the development of a more varied hedgerow habitat structure adjacent to woodland blocks, extending valuable woodland edge habitat into adjacent areas of open grassland.

- Hedgerow rejuvenation to be achieved by planting within stock-proof exclosures to consolidate hedgerow structure and composition.

- Enhance areas of existing grassland wildlife habitat interest by appropriate management, and consolidate existing areas of notable grassland habitat by conversion of adjacent productive agricultural land to grassland of semi-natural character.

- Undertake ecological assessment and management planning of habitat remnants along road verges and field boundaries within upper valley sides.

- Undertake water quality monitoring within the lower Llynfi for water resource conservation and management planning.

- Undertake aquatic and semi-aquatic riparian vegetation management and habitat diversification through creation of reedswamp and inundation vegetation.

UPPER GARW VALLEY

Description

Physiographic review

This area extends from high ground at around 500m AOD at Blaengarw, to a point along Cwm Garw at around 100m AOD north of Pont-y-rhyl, enclosed to the east by the distinctive ridge of Mynydd Llangeinwyr, defining the watershed between Cwm Garw and Cwm Ogwr Fawr to the east. The character area boundary descends from Werfa in the north east at 568m AOD to Pant Blaenhirwr in the south east at 366m AOD, descending from this point to the valley bottom of Cwm Garw before rising across short steep slopes to attain a point along Mynydd Moelgeila at around 340m AOD. From this location, the Upper Garw Valley character area abuts the Lower Llynfi and Upper Llynfi character areas to the north, following the ridge at Mynydd Moelgeila to Foel Gwilym Hywel at 434m AOD and then to Mynydd Caerau at 555m AOD.

The main valley is distinctive, with steep valley sides enclosing a narrow valley floor. The west facing valley sides are dissected by a series of steep sided re-entrant valleys, whereas the east facing main valley side has more uniform topography, where side valleys are less frequent.

The principal side valleys along the west facing valley side are at Cwm Garw north of Blaengarw, Cwm Nant-hir, Cwm Gelli-wern and Cwm Ffoych-wen, enclosed by prominent, steep-sided spurs extending from the main ridge of Mynydd Llangeinwr. The main side valleys along the east facing main valley side are at Nant Cwm-gwyn in the north and along Cwm Garw Fechan in the south.

This landscape character area has a distinctive geological character, comprising extensive Upper Coal Measures on highest land, forming the distinctive landform of Werfa and the Mynydd Llangeinwyr ridge, and of Mynydd Caerau and the ridge between Foel Gwilym Hywel and Mynydd Moelcila. Upper Coal Measures extends across upper valley sides, grading into strata of the Middle Coal Measures on lower valley sides, forming the distinctive incised re-entrant valley topography. The main valley bottom of Cwm Garw mainly comprises boulder clay deposits, with alluvial deposits present to the south.

Soils within this landscape character area closely reflect the distinctive geological characteristics. Upper Coal Measures on highest land generally support freely-draining and strongly leached acidic ferric stagnopodzols, grading into freely draining, loamy typical brown podzols over the Middle Coal Measures of lower valley sides. Valley bottom boulder clay typically supports slowly permeable, clay-enriched cambic stagnohumic gley soils with peaty topsoils.

Principal wildlife habitats

In the north of this area, Cwm Garw provides an area of high ground that has not been blanket afforested, principally because Cwm Garw is lined with a series of steep crags and scree fields. The consequence of this is that Cwm Garw and Bwich Garw support some of the few areas of significant upland unimproved acid grassland, and this may be one of the most important areas within Ogwr for the conservation of this vegetation type. The rock faces and scree slopes are also important in providing additional habitat structural diversity and is likely to be reflected in local populations of plant and possibly animal species (eg cliff-nesting raptors) that are relatively uncommon elsewhere in the Borough.

East facing valley sides of Cwm Garw have been afforested, where afforestation has largely replaced semi-natural features of nature conservation significance, and the wildlife habitats of conifer plantations are relatively weak in nature conservation terms. Within conifer plantations some features of more interest are

present, mainly associated with diversifying elements such as rides, streams and rock faces, and in places these may be of particular value.

On west facing valley sides above Ponteymer, middle valley side slopes along Cwm Gelli-wern are dominated by Bracken, leading to more semi-natural grassland on upper valley sides and valley tops. Along the lower valley sides there is a more varied mosaic of mature woodland and semi-improved pasture grassland, in fields generally enclosed by a strong hedgerow network, locally comprising lines of mature broadleaved trees. The woodland is generally open, semi-natural broadleaved woodland and has a weak structure, with woodland regeneration typically suppressed by grazing effects.

Above Ponteymer, the valley sides are large, rounded slopes, supporting extensive unenclosed rough grazing. The higher valley sides mainly support improved grassland leading to valley tops and ridge lines, but also include both grassland and extensive Bracken. On lower valley sides there is a smaller scale field pattern, including fields of less significantly modified grassland. The field boundaries in this area are generally defined by relatively weak boundary hedges, comprising mainly lines of standard mature Oak hedgerow standards.

Towards Moel Garn the valley sides support a varied topography, derived from small scale quarrying operations, and this has generated an area of some habitat structural diversity. This includes heathland and acid grassland patches on rock exposures and on scree, with areas of mature semi-natural woodland that is open grown with little structural variety and showing the effects of suppressed regeneration through grazing pressure. Abandoned quarries are principal sites for ericaceous heathland sub-shrub vegetation in this area, and make a valuable contribution to the nature conservation resource of the valley.

To the south of Ponteymer, at Braich y Cymer, the local road on the western side of the valley bottom edges onto a conifer plantation which has significant areas of acid grassland with building to mature phase heather along the plantation edge, of some ecological interest. In areas, this heather zone is around 15m wide, making a noteworthy contribution to local vegetation interest, as it provides significant semi-natural character. The heathland strip includes occasional rock outcrops and occasional small streams, adding to the variety of wildlife habitats present. There is also Purple Moor-grass grassland, Bilberry, Sessile Oak and Downy Birch, which provides more habitat structural variety, diversifying the lower edge of the conifer plantation which would otherwise provide a relatively narrow zone of nature conservation interest.

The extent of heathland vegetation in this area complements that which occurs across the valley, and this vegetation is of value in its context, ie the valley bottom and lower valley sides of the Afon Garw, which has seen significant modification in nature conservation terms, and a virtually complete replacement of semi-natural habitat by residential and industrial development. Some vegetation has developed along the valley bottom associated with the railway line and the Afon Garw, but the value of these areas is relatively marginal, compared to the extent of riparian habitat associated with upper and middle sections of the Llynfi.

To the extreme south of Ponteymer, the river channel has been significantly modified, with rock armour along the banks, resulting in removal of features such as gently shelving channel edges that are of wildlife habitat interest. In addition, the bankside vegetation has been removed and replaced by the rock armour. There are also sections of planted broadleaved woodland on steep slopes above the Afon Garw along this section, mainly over mature Beech, which is presently in a state of deterioration, with many trees collapsing and in need of treatment.

Key issues

- Upper sections of Cwm Garw are of significance for the conservation of semi-natural upland wildlife

habitats, notably cliff-face, scree and acid grassland vegetation, with locally extensive Bracken colonisation on upper valley sides and valley tops. Mine spoil is locally extensive on lower valley sides, and has developed acid grassland vegetation of semi-natural character.

- Conifer plantation woodland is locally extensive, creating areas of little nature conservation value. Features within conifer plantation woodland such as rides, clearings, streams and rock outcrops provide some habitat structural diversity, including areas of semi-natural grassland and heathland vegetation.
- Sections of Afon Garw channel have been modified through engineering works, removing features of nature conservation interest.
- Juxtaposition of valley bottom development with conifer plantation woodland on valley sides reduces wildlife habitat connectivity.
- Broadleaved woodland blocks on lower valley sides lack structural variety due to suppression of regeneration by grazing pressure.
- Lower valley sides include areas of grassland of moderate semi-natural character enclosed by weak field boundary hedgerows.

Key aims

- Ensure the conservation and enhancement of upland wildlife habitats on rock face and scree fields on upper valley side and associated with mine spoil disposal areas.
- Diversification of conifer plantation woodland, conservation, enhancement and consolidation of features of nature conservation interest within plantation woodland areas.
- Reinstatement of features of riparian wildlife habitat interest along modified sections of Afon Garw.
- Improve and maintain continuity of wildlife habitat along valley sides.
- Ensure appropriate management of lower valley side grassland of nature conservation interest and improve nature conservation value of field boundary hedgerows.

Key objectives

- Undertake ecological appraisals of upland wildlife habitats and within mine spoil areas to determine habitat management priorities and implement vegetation management plans as appropriate, including Bracken management.
- Implement programme of conifer plantation woodland edge habitat diversification.
- Undertake aquatic and semi-aquatic wildlife habitat creation and management.
- Undertake wildlife habitat management and creative conservation on valley sides to maximise habitat connectivity.

- Maximise value of broadleaved woodland wildlife habitats through planting and by exclusion of grazing to enable natural regeneration.

- Undertake ecological assessments of lower valley side grassland to identify wildlife habitat management priorities, and enable consolidation and enhancement of hedgerow wildlife habitats through planning and exclusion of stock to enable regeneration.

LOWER GARW VALLEY

Description

Physiographic review

This area extends from Pont-y-rhyl at around 100m AOD south along Cwm Garw to the Bryngarw Country Park at around 100m AOD. The eastern boundary follows the southern section of the Mynydd Llangrimou ridge, falling across steep slopes from Pant Blaenhirw and Penyr Foel at around 350m AOD to the Brynmenyn confluence at around 100m AOD. The character area boundary then crosses Cwm Garw at the Bryngarw Country Park before abutting the adjacent Lower Llynfi landscape character area boundary.

In the north of this area the valley landform is consistent, enclosed by steep slopes below Craig-yr-hadol and Penyr Foel. However, between Llangeinor and Brynmenyn in the south, land falls across steep slopes to an area of low-lying, undulating land dissected by the Afon Garw.

This area has a uniform geological character, mainly comprising an extensive area of Upper Coal Measures on upper and lower valley sides, with a narrow strip of alluvial deposits along the immediate valley bottom of the Afon Garw. A geological feature of significance in shaping the scenery of this landscape character area is a fault line trending roughly east - west above Llangeinor. Low-lying, undulating land has developed on the downthrow side of the fault, extending towards Brynmenyn.

A limited variety of soil types have developed within this landscape character area, mainly in response to topographic variety. On highest land north of Llangeinor at Craig-yr-hadol and at Penyr Foel are localised sections of freely-draining and strongly leached acidic ferric stagnopodzols, within extensive areas of strongly leached acidic typical brown podzols with slowly decomposing peaty topsoils. On locally low-lying land north of Betrwa, slowly permeable, clay-enriched cambic stagnogleumic gley soils with peaty topsoils have developed.

Principal wildlife habitats

At Pont-y-rhyl in the north of this area, the lower valley sides of Cwm Garw are less intensively developed than at higher levels, and as a consequence the nature conservation interest increases, where there is a greater variety of vegetation types, which includes a locally extensive cover of heathland with a mosaic of Gorse and acid grassland with extensive Bracken, and local areas of broadleaved woodland.

Land along the east facing valley side of Cwm Garw above Llangeinor is intermediate between the upper valley/upland zone and the lower wooded improved grassland zone. The landcover here is generally improved grassland in relatively small scale fields enclosed by wooded hedgerows. The upper valley sides support a combination of improved/semi-improved grassland with areas of more semi-natural acid grassland with extensive areas of Bracken and Gorse. Higher slopes also support significant conifer plantation woodland, mainly Larch and Norway Spruce, with some broadleaved woodland. Broadleaved woodland in this area is typically Oak, but has an open structure comprising mature and semi-mature canopy standards with a virtually absent shrub layer, and no notable regeneration due to suppression by grazing. The field boundary hedgerows and woodland strips are declining and are prevented from regeneration by suppression from grazing.

Lower slopes leading down to the Afon Garw are more densely wooded, with a smaller scale field pattern enclosing rush pasture and moderately improved grassland with a system of field boundaries supporting significant hedgerows and discrete woodland strips, notably following tributary valleys flowing towards the Afon Garw. The Afon Garw valley bottom is marked by a strip of semi-natural woodland.

In the vicinity of Bettws, lower valley sides and the valley bottom of the Afon Garw supports an extensive and virtually unbroken corridor of semi-natural broadleaved woodland. This is a significant area for the conservation of broadleaved woodland habitat, as it is an extensive area, and is associated with other complementary habitats such as the river channel of the Afon Garw, and areas of moderately improved grassland enclosed by field boundaries that in places comprise wire fences, but elsewhere comprise lines of woody vegetation. The woodland is generally Oak-Ash, but includes areas with Birch and Holly, and there is local valley bottom Alder woodland.

Key issues

- The lower Garw valley is of particular importance for the conservation of riparian flora and fauna and wildlife habitat of strong semi-natural character, including broadleaved woodland, grassland and river channel wildlife habitat.
- Lower valley sides are of value for the conservation of semi-natural broadleaved woodland wildlife habitat, often with complementary grassland habitat.
- Upper valley sides are of some value for the conservation of semi-natural acid grassland, with local Gorse and Bracken colonisation.
- Locally extensive conifer plantation woodland on upper valley sides create areas of relatively little nature conservation interest.
- Broadleaved woodland of some wildlife habitat value are present on upper valley sides, but where woodland regeneration is impeded by grazing.
- Lower sections of the Garw valley are of high general water quality, supporting valuable aquatic and semi-aquatic wildlife habitat, flora and fauna.
- Many field boundary hedges within lower valley sides and along the valley bottom are undermanaged and have a gappy structure, reducing their wildlife habitat value.
- Locally extensive areas of productive agricultural land are present, reducing the continuity of features of nature conservation interest.

Key aims

- The conservation and enhancement of notable woodland, grassland and riparian wildlife habitat of strong semi-natural nature conservation value along lower valley sides and valley bottom.
- Enhancement of upper valley side acid grassland through Gorse and Bracken management.
- Diversification of conifer plantation woodland structure and composition on upper valley sides to enhance their nature conservation value.

- Enhancement of upper valley side broadleaved woodland wildlife habitat through diversification of habitat structure and composition.
- Maintain the quality of aquatic and semi-aquatic wildlife habitat, flora and fauna within lower sections of the Afon Garw
- Consolidate and enhance the field boundary hedgerow pattern on lower valley sides and within the valley bottom.
- Minimise further conversion of valuable semi-natural wildlife habitat to productive agricultural uses such as improved grassland.

Key objectives

- Undertake ecological assessment and management planning of core woodland, grassland and riparian wildlife habitat. Identify a series of coherent countryside management units, focusing on valley bottom and lower valley side woodland and grassland mosaics. Incorporate assessment and management planning of complementary habitats such as outlying semi-natural woodland and grassland and riparian channel habitat.
- Enhance the existing woodland wildlife habitat resource by provision of stock-proof exclosures to encourage natural regeneration, and undertaking appropriate habitat management.
- Consolidate the existing woodland wildlife habitat resource through extension of woodland areas by tree and shrub planting on adjacent significantly modified grassland sites, to provide woodland strips and outlying woodland blocks to increase the connectivity of broadleaved woodland habitat.
- Undertake ecological assessments of grassland on upper valley sides and within woodland mosaic on lower valley sides and valley bottom to identify vegetation management priorities.
- Implementation of conifer plantation edge management regimes to diversify the plantation habitat structure and composition to reduce the contrast between the conifer plantation edge and the adjacent open grassland habitat.
- Undertake enhancement and consolidation of field boundary hedgerows through planting and by regeneration within stockproof exclosures, and adopting sensitive hedgerow management practices elsewhere.
- Undertake water quality monitoring within the lower Llynfi for water resource conservation and management planning.

MYNYDD MAENDY AND CWM OGWR FACH

Description

Physiographic review

This landscape character area extends form high ground in the east between around 450m AOD and 240m AOD at Mynydd Maes-teg to around 60m AOD along the Ogmore River in the south west at the Brynmenyn confluence. The eastern boundary follows that of the administrative boundary, along upper sections of Cwm Ogwr Fach. To the south of Gilfach Goch, the boundary follows the prominent high level ridge of Mynydd y Gaer, defining the watershed of Cwm Ogwr Fach between Gilfach Goch and Brynmenyn. At Brynmenyn the boundary follows that of the adjacent Cwm Ogwr Fawr landscape character area. The landform of the Mynydd Maendy and Cwm Ogwr Fach landscape character area is varied, consisting of two principal units, the high level dissected plateau of Mynydd Maes-teg, and the valley form of Cwm Ogwr Fach.

Mynydd Maes-teg comprises a broad ridge and several rounded spurs formed by dissection of a high level plateau by tributary valleys of the main Cwm Ogwr Fach valley to the south. The principal tributary valleys are those of Nant Abercerdin, draining Mynydd Maes-teg above Gilfach Goch and Nant Hendre Ifan Goch draining land below Mynydd Maendy, with Nant Llwyn-caer-iwch and the prominent, sinuous valley of Cwm Dimbath, both draining Bryn y Cae below Mynydd Maes-teg.

Cwm Ogwr Fach has a distinctive valley physiography, with short, steep valley sides enclosing the valley bottom. South facing valley sides are dissected by a series of re-entrant river valleys draining from Mynydd Maendy and Mynydd Maes-teg, with several short, steep valleys crossing north facing valley sides below Mynydd y Gaer. These include Nant Caner-mawr and Cwm Dwr. A significant topographic feature is provided at Blackmill, where the confluence of Cwm Ogwr Fach with Cwm Ogwr Fawr creates a major break along the steep south facing valley side of Cwm Ogwr Fach.

This landscape character area has well-defined geological characteristics, where most of the high-level ground associated with Mynydd Maes-teg, Mynydd Maendy and Mynydd y Gaer consist of Upper Coal Measures. Where the south facing valley sides of Cwm Ogwr Fach are most heavily dissected, re-entrant valleys support boulder clay deposits. This is most notable within lower Cwm Dimbath and Nant Llwyn-caer-iwch. The valley bottom of Cwm Ogwr Fach contains extensive superficial deposits, and these include a combination of alluvial deposits with glacial sands and gravels with localised boulder clay.

The development of soil types within this area closely reflects patterns of landform, where highest level land to the north and in the south east support localised freely-draining and strongly leached acidic ferric stagnopodzols. Across much of the remainder of the area, strongly leached acidic typical brown podzols with slowly decomposing peaty topsoils are present on upper and lower valley sides. In the extreme west, locally extensive slowly permeable, clay-enriched cambic stagnohumic gley soils with peaty topsoils have formed over glacial boulder clay and alluvial deposits on lower valley sides and valley bottoms. Alluvial deposits along the valley bottom south west of Blackmill support freely draining coarse and fine loamy typical brown alluvial soils.

Principal wildlife habitats

Along lower Cwm Dimbath is an area of local significance for the conservation of semi-natural broadleaved woodland and grassland wildlife habitat. The principal features of nature conservation interest are along the lower valley sides and the valley bottom, where woodland along the valley bottom of lower Cwm Dimbath includes Nant Iadyd SNCI, and is a core feature in defining the local woodland nature conservation resource.

This is a significant woodland block, comprising an Oak-Ash canopy over Hazel, with very occasional Beech and scattered Holly, and includes numerous significant boundary features, indicating ancient semi-natural woodland origins. Along the valley bottom there is distinctive valley bottom Alder woodland, providing additional habitat variety. There is reasonable regeneration in Ash, Holly and Hazel, but little obvious Oak regeneration. There is some evidence of past management in the area, with many of the Alders present as heavily overstood coppice, but other areas of the woodland are not obviously managed. The woodland edge along the road has potential significant habitat interest as this has been laid, but has been trimmed to a uniform shape, lacking significant structural variety. Upper sections of Cwm Dimbath are also of nature conservation value, including Cwm Dimbath SNCI, and Duren Y Diesbath SSSI, of particular importance for bryophyte and fern species.

The value of woodland habitat in this area is enhanced by the presence of complementary stream and grassland habitat, where lower lying grassland comprises areas of rush pasture with sections of Purple Moor-grass vegetation, and with strong semi-natural character. The riparian channel habitat is associated with a fast-flowing stream passing through a rocky substrate and providing a good riffle-pool structure and varied meander physiography. Tributary streams such as this would be used by Otters moving out of Ogwr Fach.

On the upper valley sides, grassland is significantly modified, generally comprising improved grassland. This is present in large fields enclosed by a network of variable boundary features, including wire fences and defunct hedges, but in places comprising lines of scrub and large mature trees, providing features of more nature conservation interest.

West of Gilfach Goch, on lower slopes of Mynydd Maendy and at land around Bryn-cwrth, improved grassland extends across much of the area within a large scale field system defined by a relatively strong network of hedges. These are typically lines of mature and semi-mature standard Oak trees, with an understorey of Hazel and Holly, in places replaced with defunct hedgerows where standard trees are not present, and where field boundaries are marked by scattered Hawthorn, Hazel and Holly scrub. This area is important for the conservation of broadleaved woodland, which occurs along the valley bottom of Ogwr Fawr, and extends along the tributary valley of Nant Hendre Ifan Goch, providing a valuable extension of the woodland habitat into an area otherwise dominated by improved grassland.

The section of Cwm Ogwr Fach between Gilfach Goch and Blackmill is of particular importance for its diversity of nature conservation interest. The valley is virtually undeveloped, and land cover on both sides of the valley support largely semi-natural vegetation types and wildlife habitats. Significant elements include extensive mature broadleaved Oak-Ash woodland with Downy Birch and locally extensive areas of open acid grassland with patchy heathland, valley bottom Purple Moor-grass grassland in extensive valley mire formations, resembling valley mire vegetation at Cwm Cause Mawr SSSI. Within a relatively short section of valley bottom along Cwm Ogwr Fach between Blackmill and the distal end of Cwm Dimbath there has been locally significant development along one side of the Ogmore River flood plain, and this is the main interruption along the Cwm Ogwr Fach habitat corridor.

On south facing valley sides of Cwm Ogwr Fach south west of Gilfach Goch, valley bottoms and lower valley sides are notable for semi-natural broadleaved woodland, a significant area, and apparently of strong semi-natural character. These include sections of valley bottom Alder wet woodland, and are connected by the corridor of Ogwr Fach, where the lower valley sides of Cwm Ogwr Fach provide an area of considerable importance for the conservation of semi-natural broadleaved woodland, including Llandyfodwg Wood SNCI and Cwm Ogwr Fach SNCI. The woodland is generally enclosed on higher slopes by significantly modified grassland, which on lower level land is enclosed by strong field boundary woodland strips and hedgerows. On lowest slopes, field boundary woodland strips and hedgerows enclose fields of some semi-natural character, including areas of rush pasture and Purple Moor-grass grassland. High level land at Mynydd y Gaer supports extensive Bracken dominated acid grassland.

At Blackmill, Cwm Ogwr Fach and Cwm Ogwr Fawr meet at a point where there has been relatively little valley bottom development, and consequently, features of nature conservation value are locally abundant, consisting a mosaic of semi-natural broadleaved woodland, grassland and scrub extend across the lower valley slopes and the valley bottom. This comprises Oak-Ash over Hazel woodland with wet Alder woodland and occasional Downy Birch on the valley bottom, with clearings that comprise acid grassland with dense Bracken along the valley sides. Upper valley sides typically comprise modified acid grassland with extensive areas of intensively grazed grassland, defined by a network of field boundary hedges that are generally strong, as lines of Oak and Ash standards with Hazel and Holly understorey. On south facing valley sides of Cwm Ogwr Fach south west of Blackmill, Craig Tal-y-fan common provides an extensive area of Bracken encroached semi-natural acid grassland, and this is repeated on steep slopes below Dolau-llan-ddu.

Between Blackmill and Brynmenyn, this section of the Ogmore valley provides a continuation of the undeveloped Ogmore Valley system, with significant nature conservation interest on valley sides and across the valley bottom. Two SSSI woodlands are present in this area, one of which enclosed by common land at Craig Tal-y-fan. Additional complementary woodland habitat is present along the valley bottom in the form of semi-natural Alder valley woodland strips with areas of Oak over Hazel and Holly woodland in strips defining fields of grassland with moderate semi-natural character on the Ogmore flood-plain.

Key issues

- In places, Upper valley sides are notable for the conservation of semi-natural acid grassland, with local Gorse and Bracken colonisation. Elsewhere, upper valley sides and valley tops support agricultural grassland with few features of nature conservation interest.
- Lower valley sides are of value for the conservation of semi-natural broadleaved woodland wildlife habitat, often with complementary grassland habitat, forming a virtually continuous corridor of wildlife habitat interest. Woodland typically has a uniform structure due to regeneration supression by grazing.
- Nationally important woodland wildlife habitat occurs at Craig Tal-y-fan and Allt y Rhaw, and nationally important valley mire vegetation occurs within Nant Caser-enawr.
- Re-entrant valleys are of particular value for the conservation of semi-natural broadleaved woodland wildlife habitat, often with complementary grassland habitat and field boundary woodland strips and hedgerows.
- The Afon Ogwr is of high general water quality, supporting valuable aquatic and semi-aquatic wildlife habitat, flora and fauna. Land along the valley bottom is of value for the conservation of riparian woodland and grassland vegetation. The Afon Ogwr has a well-developed meander physiography with little channel modification.
- The confluence of Cwm Ogwr Fach with Cwm Ogwr Fawr at Blackmill is a concentration of wildlife habitat interest.
- Locally extensive areas of productive agricultural grassland are present on high level land, reducing the extent and continuity of features of nature conservation interest.
- In places, upper valley sides are of some value for the conservation of semi-natural acid grassland, with local Gorse and Bracken colonisation.

- Local conifer plantation woodland on high level land create areas of relatively little nature conservation interest.
- Many field boundary hedges within lower valley sides and along the valley bottom are undermanaged and have a gappy structure, reducing their wildlife habitat value.
- Fly-tipping is a detractor within woodland blocks along local roads within re-entrant valleys.

Key aims

- The conservation and enhancement of notable woodland, grassland and riparian wildlife habitat of strong semi-natural nature conservation value along valley sides and valley bottom. Conservation of nationally important woodland and mire habitat is a priority.
- Enhancement of upper valley side acid grassland through Gorse and Bracken management.
- Maintain the continuity of wildlife habitat along lower valley sides and the valley bottom.
- Biodiversity enhancement within land in upper valley side and valley top locations, and minimise further conversion of valuable semi-natural wildlife habitat to productive agricultural uses such as improved grassland.
- Diversification of conifer plantation woodland structure and composition on upper valley sides to enhance their nature conservation value.
- Maintain the quality of aquatic and semi-aquatic wildlife habitat, flora and fauna along the Afon Ogwr.
- Consolidate and enhance the field boundary hedgerow pattern on valley sides and within re-entrant valleys.
- The conservation and enhancement of notable species of flora and fauna, and consolidation of wildlife habitat pattern to enable dispersal throughout the landscape.
- Biodiversity enhancement within land in upper valley side and valley top locations.
- Eradicate the problem of fly-tipping in woodland blocks.
- Sensitive habitat management and creation should be undertaken at the confluence of Cwm Ogwr Fach with Cwm Ogwr Fawr at Blackmill to maintain wildlife habitat continuity along Cwm Ogwr Fach.

Key objectives

- Undertake ecological assessment and management planning of core woodland, grassland and riparian wildlife habitat with the objective of identifying a series of coherent countryside management units, focusing on valley bottom and lower valley side woodland and grassland mosaics. Incorporate assessment and management planning of complementary habitats such as outlying semi-natural woodland and grassland and riparian channel habitat.

- Undertake ecological assessments of grassland on upper valley sides to identify vegetation management priorities.
- Enhance the existing woodland wildlife habitat resource by provision of stock-proof exclosures to encourage natural regeneration, and undertaking appropriate habitat management.
- Consolidate the existing woodland wildlife habitat resource through extension of woodland areas by tree and shrub planting on adjacent significantly modified grassland sites, to provide woodland strips and outlying woodland blocks to increase the connectivity of broadleaved woodland habitat.
- Hedgerow rejuvenation to be achieved by planting within stock-proof exclosures to consolidate hedgerow structure and composition.
- Enhance areas of existing grassland wildlife habitat interest by appropriate management, and consolidate existing areas of notable grassland habitat by conversion of adjacent productive agricultural land to grassland of semi-natural character.
- Undertake water quality monitoring within the Afon Ogwr for water resource conservation and management planning.
- Undertake aquatic and semi-aquatic riparian vegetation management and habitat diversification through creation of reedswamp and inundation vegetation.
- Implementation of conifer plantation edge management regimes to diversify the plantation habitat structure and composition to reduce the contrast between the conifer plantation edge and the adjacent open grassland habitat.
- Undertake enhancement and consolidation of field boundary hedgerows through planting and by regeneration within stockproof exclosures, and adopting sensitive hedgerow management practices elsewhere.

CWM OGWR FAWR

Description

Physiographic review

This character area extends from high ground at 550m AOD, above Craig Ogwr as far as land above Blackmill at around 180m AOD. The eastern boundary of the area follows a ridge that defines the watershed between Cwm Ogwr Fawr and the adjacent Cwm Ogwr Fach to the east. In the north east the character area is enclosed by the administrative boundary that initially follows Mynydd William Meyrick, then follows a sinuous ridge running south west to Mynydd y Gwair at 325m AOD. From here the ridge continues along high ground above Pant-yr-awel before crossing the Ogwr Fawr at around 100m AOD near Blackmill. The boundary then follows steep slopes above Cwm Ogwr Fach to abut the adjacent boundary of the Lower Garw Valley landscape character area.

The main valley is well defined along the full length of this landscape character area, with a narrow valley bottom enclosed by steep, undulating valley sides, dissected by a series of incised re-entrant valleys. The main valleys are those at Cwm Nant-y-moel, Cwm-y-ffosp, Cwm y Fwrch and Cwm Cyffog in the north, with Cwm Nant-y-ci providing local topographic variety above Lewistown. The incised re-entrant valleys that dissect the main valley sides of Cwm Ogwr Fawr create a series of high-level spurs that extend the adjacent ridges of high ground. These provide locally prominent landforms such as that at Mynydd yr Aber.

The geology of Cwm Ogwr Fach is dominated by extensive Upper Coal Measures that comprise valley side and ridge landforms throughout the landscape character area. In the extreme north, steep upper valley sides enclosing Nant-y-moel and Price Town consist of Middle Coal Measures, with locally extensive boulder clay deposits on lower valley sides. Along upper reaches of the Ogwr Fawr, valley bottoms consist of alluvial deposits, fringed with glacial sands and gravels, and with boulder clay within lower reaches.

Within this landscape character area three main soil types are present. Freely-draining, strongly leached acidic ferric stagnopodzols are widespread on highest level land that comprises Upper Coal Measures north of Ogmore Vale, extending along Mynydd Llangeinwyr to Pen y Fool and to Mynydd y Gwair. On lower valley sides and valley bottoms north of Ogmore Vale, locally extensive slowly permeable, clay-enriched cambic stagnohumic gley soils with peaty topsoils are widespread over Middle Coal Measures and boulder clay deposits. South of Ogmore Vale soils are typically freely-draining, strongly leached acidic ferric stagnopodzols over Upper Coal Measures, with local freely draining coarse and fine loamy brown alluvial soils along the valley bottom between Lewistown and Blackmill.

Principal wildlife habitats

The north of the area at the head of Cwm Ogwr Fawr is above the limit of conifer plantation woodland within Cwm Ogwr, and the landcover is mainly characterised by semi-natural vegetation. This consists predominantly acid grassland, comprising Matgrass-Agrostis-Festuca, with widespread Polytrichum and local areas of Heather and Heath Tormentil. The character of the vegetation is varied, due to a mosaic of substrate types, including rock outcrops, coarse scree slope boulder fields and small stream channels dissecting the superficial deposits of the area.

The area is extensively grazed, and is of some value and importance for the conservation of upland semi-natural acid grassland vegetation. The conifer plantation has had a significantly modifying effect on the grassland vegetation, and is a locally extensive, significant landcover. The plantation is mature Larch and Norway Spruce with Corsican Pine, providing an area of negligible nature conservation value, with the

exception of local features that retain some semi-natural character. This is, however, less notable in this area than with other conifer plantation woodland, where eg locally extensive areas of heathland and acid grassland vegetation is present within rides, in glades and associated with rock faces in conifer plantations.

On lower valley sides below the belt of conifer plantation woodland within the head of Cwm Ogwr, grassland is marginally improved through intensive grazing. In these areas, rush pasture with locally abundant Bracken is the predominant vegetation type, with in least well-drained areas there is localised semi-natural Purple Moor-grass dominated grassland with Bramble scrub and Soft Rush.

The field system on the lower valley sides and the valley bottoms is reasonably well-defined by a network of wire fences and lines of scattered scrub, mainly Hawthorn and local Birch and Oak and occasional emergent Oak standards. The head of Talga is marked by more significant broadleaved woodland, particularly below Ffynhonnau Tyllau Gleyn. These areas are, however, even aged, mature open grown woodland, and are similar to other areas of broadleaved woodland seen elsewhere, afflicted by intensive grazing with the effect of suppressing any obvious regeneration, resulting in a uniform woodland structure of marginal nature conservation value.

Upper valley sides support extensive conifer plantation, effectively modified the semi-natural vegetation to a significant extent. Above the conifer plantation there is an extension of semi-natural grassland on high level slopes along Rhiw'r Mynach and Rhiw Fer.

At Nant-y-Moel, this is the first location where the Ogmore valley bottom has been significantly modified through development and habitat modification. There has been significant residential development, relatively little industrial development, and this has occupied much of the valley bottom in this area. Within the residential development within this area and below price town there has been significant modification of the valley bottom for amenity uses with development of a rugby pitch and amenity tree planting. Forestry at nant-y-moel has been recently clear felled to an extensive degree and this presents an opportunity for incorporation of habitat creation measures within replanting plans.

The immediate valley bottom of the Ogmore is relatively unaffected by residential development in this area and retains some features of semi-natural character such as sections of scattered Willow and Hawthorn scrub, within a semi-improved coarse grassland vegetation with sections of Bramble and Bracken. The Ogmore channel has retained many features of nature conservation interest and has not been significantly modified by river engineering works along this section.

At the bottom of Cwm-y-llotp above Price Town, the area comprises essentially modified vegetation on lower valley sides where grassland has been significantly improved for high quality forage. Above this, grassland is generally improved, but grades into a rush-pasture vegetation, and on upper slopes the grassland is more semi-natural in character with more Bracken cover. On upper valley sides the vegetation is diversified by the presence of localised rock faces and more extensive areas of scree and boulder fields, generally the product of mine spoil tipping. There are a number of stream valleys with deeply incised, dissecting channels that contribute to diversification of the mosaic of grassland types present within this area.

Price Town is a location where the valley bottom is significantly modified, and where most features of nature conservation value have been replaced by man-made features. Field boundaries on lower slopes are weakly defined by scattered scrub and lines of mature standard trees, but in general the field boundaries are weak and there is a negligible broadleaved woodland cover in this area.

The Ogmore Vale at Wyndham is at a point north of Ogmore vale that is notable for semi-natural broadleaved woodland. This is present in an extensive area of acid Oak woodland below Mynydd yr Afer, and is present as a series of riparian broadleaved woodland strips associated with Nant Dyri. In addition,

there is significant broadleaved woodland cover along the Ogmore, comprising mainly planted woodland of Goat Willow, Black Poplar Sercotina and Common Alder, planted in association with river engineering works in this section, but of sufficient extent and at a state of development where this makes a contribution to the nature conservation value of this section of the Ogwr valley bottom.

Above Wyndham the field pattern is defined by a network of relatively weak woodland strips, marking the remains of wooded field boundaries that are in a state of dereliction. Upper valley sides are valuable for the conservation of grassland wildlife habitat, notably unimproved upland acid grassland with scattered Bracken with some features providing local diversification, such as rock outcrops and rock faces at the site of disused small quarries, and spoil heaps providing a scree-type habitat. Consequently, grassland that has developed by natural invasion and establishment provide analogues with natural grassland of rock face habitat on ledges and scree fields. In general (throughout Ogwr) this is a key factor in the value of grassland vegetation that has developed on post-industrial mine sites.

Woodland blocks in this area are relatively even-aged and have a uniform structure, comprising mature standards with a negligible sub-canopy or shrub layer. This situation has arisen due to uncontrolled grazing within the woodland blocks which has suppressed regeneration. Although the area around Wyndham is of value in terms of relatively unimproved semi-natural grassland on upper valley sides, the moderately improved grassland enclosed by wooded field boundaries on lower valley sides, the valley bottom has undergone significant modification through the development of a number of industrial units, and river engineering works, and consequently, this contributes to the general lack of riparian corridor interest along the Ogwr between Price Town and Ogmore Vale.

At the head of Ogmore Vale this is a section where the lower valley side has been significantly affected by development, where residential development extends to the edge of the river channel, and where the channel has been subjected to significant river engineering works in the past. In places the river channel passes under some of the factory units built at the head of Ogmore Vale.

Above Ogmore Vale is Cwm y Fawch, which provides a features of significant topographic variety along the sides of Cwm Ogwr Fawr, and this generally supports extensive unimproved acid grassland with continuous Bracken cover, and with extensive mature conifer plantations. On lower slopes above Ogmore Vale there is a more varied mosaic of Bracken with open grassland, Gorse cover and areas of heathland, generally associated with rock outcrops and small scree slopes in sections of disused quarry workings.

The Cwm Ogwr Fawr at Lewistown, between Ogmore Vale and Lewistown, the valley bottom of Cwm Ogwr is significantly modified, through past industrial development, which is presently a strip of derelict land, creating opportunities for creative conservation to strengthen the nature conservation value of Ogwr Fawr valley bottom between Ogmore Vale and Lewistown. At Lewistown, the west facing valley side supports a locally extensive area of mature semi-natural broadleaved woodland on the lower valley sides, comprising mainly mature Sessile Oak and local Ash. Above this a relatively narrow conifer plantation below moderately improved acid grassland on higher slopes, largely defined by a weak field pattern, in places present as lines of Gorse scrub and Hawthorn scrub.

Above Lewistown along Graig Wen there is generally unimproved semi-natural acid grassland with extensive continuous Bracken and areas of most interest for grassland are associated with local rock outcrop and scree formations.

In the south of Cwm Ogwr Fawr at Bryn y Wrach common, slopes below the high common plateau support typically improved grassland, resulting in an acute contrast with the semi-natural grassland vegetation of the common. The common is a mosaic of relatively strong semi-natural grassland comprising a Bent-Fescue-Matgrass-Crested Dogs-tail community with Tufted Hair-grass and Soft Rush in damper areas, supporting a

form of rush pasture vegetation. An extensive element of the vegetation in this area is Gorse and Bracken invasion, and these present issues in terms of grassland conservation.

Key issues

- Upper sections of Cwm Ogwr Fawr are of significance for the conservation of semi-natural upland wildlife habitats, notably acid grassland vegetation.
- Conifer plantation woodland is locally extensive, creating areas of little nature conservation value. Features within conifer plantation woodland such as rides, clearings and streams provide some habitat structural diversity.
- Side valleys provide local wildlife habitat variety, notably including diverse grassland mosaics on lower valley sides enclosed by field boundaries marked by weak hedgerows.
- Lower valley sides include areas of value for the conservation of broadleaved woodland wildlife habitat, including woodland along valley bottoms. Elsewhere, broadleaved woodland blocks lack significant structural variety due to suppression of regeneration by grazing.
- Juxtaposition of valley bottom development with conifer plantation woodland on valley sides reduces wildlife habitat connectivity.

Key aims

- Ensure the conservation and enhancement of upland wildlife habitats on rock face and scree fields on upper valley sides.
- Diversification of conifer plantation woodland, conservation, enhancement and consolidation of features of nature conservation interest within plantation woodland areas.
- Improve and maintain continuity of wildlife habitat along valley sides.
- Ensure appropriate management of lower valley side grassland of nature conservation interest and improve nature conservation value of field boundary hedgerows.

Key objectives

- Undertake ecological appraisals of upland wildlife habitats and within mine spoil areas to determine habitat management priorities and implement vegetation management plans as appropriate, including Bracken management.
- Implement programme of conifer plantation woodland edge habitat diversification.
- Undertake wildlife habitat management and creative conservation on valley sides to maximise habitat connectivity.
- Maximise value of broadleaved woodland wildlife habitats through planting and by exclusion of grazing to enable natural regeneration.

- Undertake ecological assessments of lower valley side grassland to identify wildlife habitat management priorities, and enable consolidation and enhancement of hedgerow wildlife habitats through planting and exclusion of stock to enable regeneration.

BRYNMENYN CONFLUENCE

Description

Physiographic review

This landscape character area is bounded by the developed area enclosing the confluence of Afon Garw and Ogmore River. The area is sited on a complex of superficial deposits comprising alluvial deposits along the river channels, with terrace deposits, glacial sands and gravels and boulder clay present along flood plain margins and along lower valley sides.

Principal wildlife habitats

The intensity of development within this area has significantly reduced the number and extent of features of nature conservation interest. These are typically associated with linear wildlife habitats along river corridors and open spaces within the matrix of developed areas. Ogmmore River is the principal river corridor that retains some nature conservation interest, extending along Afon Llynfi and along Nant Bryncothin to the east, and Nant Iowerth-jach to the west. In places, all river corridors are associated with riparian woodland strips and localised sections of flood plain grassland. Woodland is often of semi-natural origin, and grassland is typically modified through improvement to amenity grassland and through river engineering works.

Key issues

- Features of nature conservation interest are marginalised by extensive developed land, with most features of value associated mainly with the Ogmore River wildlife habitat corridor, Afon Llynfi, and several other watercourses passing through the area. A series of open spaces are also present that support features of wildlife habitat interest. Most wildlife habitats are significantly modified through the effects of development.

Key aims

- Enhancement of features of nature conservation value within corridors and open spaces to maximise the ecological value of the area, and to increase opportunities for movement of wild species.

Key objectives

- Undertake ecological assessment and management planning of core areas of wildlife habitat, focusing on identification of habitat management priorities along corridors and within open spaces.
- Consolidate the existing wildlife habitat resource through diversification and extension of existing features through appropriate vegetation management and habitat creation where possible.

CEFN CRIBWR

Description

Physiographic review

The northern boundary of this area follows the ridge of Mynydd Bandan along the southern boundary of the Lower Llynfi Valley landscape character area, attaining a maximum height of 251m AOD. This is followed to the west until the ridge abuts the administrative boundary which is followed to Kenfig Hill in the south. From Kenfig Hill, the southern boundary of this area follows the Cefn Cribr ridge to Pen-y-fan, attaining a maximum height of 130m AOD at Pen-y-castell. The area is characterised by three distinct physiographic units, the high ridge of Mynydd Bandan, a low-lying plain west of Tondu, and the Cefn Cribwr ridge. From Mynydd Bandan, land descends across gently undulating, moderately steep slopes, grading into undulating low-lying land resulting from a restored open cast mine site at around 100m AOD west of Tondu. This is in contrast to the prominent ridge of Cefn Cribwr to the south.

The characteristic physiographic units of this area reflect a distinctive geological character. The steep northern slopes below Mynydd Bandan consist of Upper Coal Measures, grading into locally extensive quarried sandstone strata of the Middle Coal Measures, contrasting with the locally prominent sandstone ridge of Millstone Grit at Cefn Cribwr.

The soils of this area have a direct relationship with the arrangement of geological strata, with the steep northern slopes supporting freely-draining and strongly leached acidic ferric stagnopodzols. The low-lying restored open cast west of Tondu comprises made land, contrasting with slowly permeable, clay-enriched cambic stagnohumic gley soils with peaty topsoils on lower slopes of the Cefn Cribwr ridge, grading into freely-draining and strongly leached acidic typical brown podzols on north facing upper slopes of the ridge.

Principal wildlife habitats

At Cefn Cribr, ridgetop grassland is typically modified to a significant degree for pasture, and has been converted to improved grassland. On side slopes of the Cefn Cribwr ridge, grassland, and other open habitats including wet heath, with strong semi-natural character survive and these are typically enclosed by field boundaries that comprise densely wooded hedgerows and in places woodland strips of semi-natural origin. The result is a complex mosaic of habitat types of considerable nature conservation interest, including grassland and wet heath vegetation mosaics at Cefn Cribwr Meadows SSSI and at Waun Cimla SSSI, and the strong semi-natural character of these habitats is of value in the context of the significantly modified habitat of the ridgetop and at the Tondu open cast reclamation site.

Within these grassland areas and extending along the western end of the Tondu open cast reclamation site are additional grassland areas that are of value for Heath Fritillary. This interest extends into grassland on south facing slopes above Tondu, mainly within the Cwm Risca Meadows SSSI.

The eastern end of this landscape character area is notable for the conservation of broadleaved woodland wildlife habitat, including Tondu House Woood SNCI and Cilendy Wood SNCI.

Key issues

- Includes fields of lowland semi-natural wet grassland and wet heath of considerable nature

conservation value including areas of nationally important wildlife habitat.

- Field system defined by a network of semi-natural broadleaved woodland strips and large hedgerows. Hedgerows are locally subject to more intensive management programmes, resulting in relatively features of weak nature conservation value.
- Extensive areas of agricultural grassland of little nature conservationinterest are present.
- Locally extensive conifer plantation woodland creates an extensive area of little nature conservation interest.

Key aims

- Ensure conservation, enhancement and consolidation of valuable grassland wildlife habitat, including extension of areas comprising grassland of semi-natural habitat character.
- Maximise the nature conservation value of field boundary hedgerows, undertaking habitat enhancement and consolidation where appropriate.
- Diversification of conifer plantation woodland.

Key objectives

- Undertake ecological appraisals of grassland wildlife habitats to identify habitat management priorities. Undertake appropriate management within areas of grassland habitat interest, and implement a programme of creative conservation within adjacent land to consolidate the value of the area for grassland habitat conservation.
- Undertake sympathetic management of field boundary woodland strips and implement a programme of habitat rehabilitation where inappropriate management or neglect has reduced the nature conservation value of hedgerows.
- Diversify structure and composition of conifer plantation woodland.

HIRWAUN COMMON

Description

Physiographic review

The northern boundary of this area follows the ridge of Mynydd y Gaer, achieving 295m AOD at the highest point, abutting the southern boundary of the Mynydd Maendy and Cwm Ogwr Fach landscape character area. The eastern boundary follows the administrative boundary to Penprysg in the south, then ascends the ridge of Cefn Hirgoed to a height of 130m AOD before descending to 5arn in the west. The physiography of the area is mainly associated with three distinct features, comprising steep south facing slopes below Mynydd y Gaer, low-lying land at Hirwaun Common and the prominent ridge of Cefn Hirgoed.

From Mynydd y Gaer, the area descends across short, steep slopes, dissected by several incised river valleys, principally Cwm Crymlyn, Cwm Llwyd and Nant Teirw-y-groes. At around 100m AOD steep land below Mynydd y Gaer grades into low-lying land along the valley bottom of Nant Crymlyn within Hirwaun Common. This comprises a very gently undulating plain that varies between 45m AOD in the east at Penprysg, to between 80m and 90m AOD in the west at Bryncethyn. South of Hirwaun Common, land rises across short, steep slopes to the ridge of Cefn Hirgoed that attains a maximum height of 142m AOD midway along the east-west axis.

The distinctive physiography of this landscape character area is a close reflection of its geological character. The steep south facing slopes below Mynydd y Gaer comprises the southern extent of Upper Coal Measures within Ogwr. Low-lying land within the valley of Nant Crymlyn marks a locally extensive area of sandstone strata of the Middle Coal Measures, contrasting with the locally prominent sandstone ridge of Millstone Grit at Cefn Hirgoed. In the extreme east of the area, low-lying land comprises a southern outlier of Boulder Clay deposits.

Soil types within this landscape character have formed in response to the combined influence of the distinctive topography and the geological character of the area, with low altitude outliers of typically high-level podzolic soils present on local areas of high ground. Highest level land at Mynydd y Gaer in the north of this area supports freely-draining and strongly leached acidic ferric stagnopodzols, grading into a variety of freely-draining and strongly leached acidic typical brown podzols, and slowly permeable, clay-enriched cambic stagnohumic gley soils with peaty topsoils on Middle Coal Measures within Hirwaun Common. Boulder clay deposits within low-lying land in the east support a combination of freely-draining and strongly leached acidic typical brown podzols with fine loamy surface water gley cambic stagnogley soils. In the south of the area, steeper sloping land of the Millstone Grit ridge of Cefn Hirgoed supports a section of strongly leached acidic typical brown podzols with slowly decomposing peaty topsoils on lower valley sides and valley bottoms.

Principal wildlife habitats

North east of Penood, grassland at Bryngwenith is part of an extensive area of considerable nature conservation interest within low-lying land on the flood plain of nant Crymlyn. In this area the vegetation comprises an area of unimproved Purple Moor-grass grassland with Soft Rush, in a complex mosaic with wet woodland that comprises extensive Alder, Scrub Oak and Goat Willow in a series of woodland belts. There is some local Bracken in the area, and a network of field drainage ditches that support open water and marshy grassland vegetation. This is an extensive area of semi-natural vegetation wildlife habitat of considerable nature conservation value.

Between Penood and Rhiwceiliog in the north is an area of grassland at Ty-chwith, a continuation of the wet

grassland mosaic in low lying land within the Nant Crymlyn catchment, and includes the Bryncyn and surrounding areas SNCI, including areas of value for Heath Fritillary. The area generally consists of a small scale field pattern defined by large woodland strips and hedgerows of Hazel and Holly that comprise mainly wet woodland of Alder, Sessile Oak, and Goat Willow that enclose fields of unimproved neutral grassland and marshy grassland with locally abundant Purple Moor-grass. A notable feature of this area are sunken trackways lined with woodland strips that provide local features of wildlife habitat diversity. This interest extends across adjacent higher ground to the north, abutting an unreclaimed spoil heap at Wern Tarw, which is gullying and has a patchy vegetation cover resulting from colonisation by Birch and a variety of Bent grasses from adjacent established vegetation.

On south facing slopes below high land at Mynydd y Gaer, the landform is an undulating, dissected scarp face of the coal measures escarpment, supporting improved grassland on upper slopes. Along the valley bottom and defining many of the fields there is a series of strong semi-natural broadleaved woodland blocks and strips, and these provide an important area for the conservation of woodland wildlife habitat, including a woodland SNCI east of Heol y Cyw. Through woodland blocks extending along Nant Ton-y-groes there is a continuum of broadleaved semi-natural woodland cover extending into the valley bottom of Nant Crymlyn, which is an important corridor of woodland extending from the valley bottom across the valley sides and fringing the upland plateau. Woodland of this character extends across lower slopes of this coal measures scarp face, and is strongly associated with stream valleys where attempts at improving grassland have been least successful. These riparian corridors support woodland of added value where woodland combines with riparian features to provide corridors of notable habitat structural diversity.

Along the undulating high level plateau of Mynydd y Gaer is an area of some value for the conservation upland grassland habitat. There is a considerable area of open acid grassland comprising a Matgrass with Bent and Fescue species, but also there are areas with significant Bracken invasion. Sections of patchy heathland vegetation are also present in this area, with valley mire vegetation along Cwm Rhychmilwyr, an important and relatively scarce type of semi-natural vegetation.

Central sections of Hirwaun Common comprises low-lying land, supporting areas of improved grassland and locally extensive areas of rush pasture typically modified from the semi-natural state, with very occasional Purple Moor-grass grassland. The fields area largely defined by weak field boundaries, typically lines of scattered scrub and occasionally more substantial low trees. The area is in contrast the adjacent slopes leading towards Cefn Hirgoed, supporting more strongly semi-natural vegetation, with and acid grassland and Bracken mosaic and locally extensive scattered Gorse scrub.

Low lying land at the east of Hirwaun Common, support extensive rush pasture vegetation, with moderate semi-natural character, but grassland with strongest semi-natural characteristics is generally localised, confined to patches of Purple Moor-grass dominated grassland. Where this grassland is present there is generally dense Bracken encroachment, and this is typically present adjacent to Nant Crymlyn, defined by a line of Alder woodland with Ivy and occasional Hazel. The adjacent Penrood ridge supports scattered Gorse scrub and extensive Bracken over unimproved acid grassland, with lines of significant woodland with strong semi-natural character, primarily Oak and Alder woodland.

On the steep scarp face of Cefn Hirgoed is an impoverished acid grassland vegetation, with extensive Bracken and Gorse invasion, part of the extensive Cefn Hirgoed SNCI. On the plateau there is extensive Purple Moor-grass with Cross-leaved Heath, Heather, Soft Rush and grassland comprising Matgrass with Bent and Fescue species. This is an important area for conservation of this distinctive semi-natural grassland community, providing a low-level outlier of a combination of grassland types that are characteristic of high-level areas within the upland dissected plateau of the Ogwr valleys.

At Cefn Hirgoed, the field system at Heol-las comprises modified Purple Moor-grass grassland into a series

of grazing paddocks, but the grassland is not significantly modified and retains some semi-natural character. The field system is defined by a network of woodland strips along hedge lines, and these provide a locally valuable assemblage of complementary habitat types in combination with the grassland.

On the brow of the Cefn Hirgoed ridge, a main water pipe has been constructed, and where the pipe trench has been reinstated, agricultural cultivation and seeding methods have been used, replacing the semi-natural grassland with a swathe of agricultural grassland. This is a significant feature in ecological terms, severing the vegetation and habitat interest of the Cefn Hirgoed ridge, and has had a significant ecological impact.

Key issues

- Includes an extensive area of semi-natural lowland wet grassland of considerable nature conservation interest, within a network of field boundaries comprising semi-natural broadleaved woodland strips. The area includes extensive tracts of relatively uniform rush pasture vegetation.
- Steep slopes enclosing the areas to the north support extensive areas of semi-natural broadleaved woodland wildlife habitat of considerable nature conservation value, below high level land supporting valuable upland semi-natural acid grassland vegetation with locally extensive Bracken.
- Steep slopes and plateau of Cefn Hirgoed support a mosaic of semi-natural acid grassland types with local dense Bracken and Gorse. Grassland on the plateau is severed by the line of a recently laid water pipe.

Key aims

- Conservation and enhancement of valuable low-lying wet grassland and complementary broadleaved woodland strip habitats.
- Diversification of extensive low-lying rush pasture vegetation.
- Conservation and enhancement of broadleaved woodland wildlife habitat within low-lying wet grassland areas and on steep slopes to the north.
- Conservation and enhancement of upland acid grassland, reinstating valuable vegetation damaged within area affected by pipeline construction.

Key objectives

- Undertake ecological appraisals of both low-lying wet grassland and high level acid grassland wildlife habitats to identify habitat management priorities. Undertake appropriate management within areas of grassland habitat interest, and implement a programme of creative conservation within adjacent land to consolidate the value of the area for grassland habitat conservation.
- Undertake sympathetic management of semi-natural field boundary broadleaved woodland strips and implement a programme of habitat rehabilitation where inappropriate management or neglect has reduced the nature conservation value of hedgerows.
- Undertake ecological appraisals of semi-natural broadleaved woodland wildlife habitats to identify

habitat management practices. Undertake appropriate management within areas of woodland habitat interest, and implement a programme of creative conservation within adjacent land to consolidate the value of the area for broadleaved woodland habitat conservation.

- Undertake a programme of vegetation reinstatement along the line of pipe construction.

WESTERN LIMESTONE PLATEAU

Description

Physiographic review

This is an area characterised by a very gently landform, generally lacking features of significant topographic variety. The area extends from the perimeter of Kenfig Hill in the west at between 130m AOD and 160m AOD, to the outskirts of Bridgend in the east at around 80mAOD. The southern boundary is defined in the west by the edge of Newton Down, extending along the edge of Merthyr Mawr. In the east and north, the boundary follows that of the Lowland Wooded Valleys landscape character area. Principal features of topographic interest are associated with localised steep, south facing slopes of Cefn Cribwr in the north east, and with shallow valleys at Cwm y Befos and Cwm Cwinin that dissect land above Merthyr Mawr.

The geology of this area comprises a varied assemblage of Mesozoic strata in three main areas. In the north of the area, Mesozoic rocks are mainly of the Mercia Mudstone group and sandstones of the Penarth Group with areas of Lower Lias. Superficial deposits are also present, comprising mainly head, boulder clay and glacial sands and gravels. In the south west, there is a varied assemblage of Lower Carboniferous Limestone strata comprising bands of Oxwich Head Limestone, Cornelly Oolitic Limestone and Gully Oolitic Limestone, with localised superficial deposits comprising mainly head and boulder clay deposits. In the east there are locally extensive Lower Lias deposits on land either side of the River Ogmore.

Relatively few soil types are present within this area, mainly comprising an extensive area of shallow to moderately deep fine silty and loamy typical brown earths. In the north west, slowly permeable, fine loamy cambic stagnogleys are present on steep slopes below Cefn Cribwr, grading into slowly permeable, seasonally waterlogged clay enriched pelo-stagnogley soils. In the south east, locally high land supports shallow, well-drained fine silty argillic brown earths with significant clay enrichment.

Principal wildlife features

South east of Kenfig Hill, high level land supports an area of uncultivated land at Stormy Down, consisting dense stands of Bracken with patchy scattered scrub comprising Goat Willow and Hawthorn. The Bracken is at a sufficient density and extent to be of marginal nature conservation value, and would benefit from management to achieve a more patchy distribution of Bracken and allowing the development of greater semi-natural grassland interest, likely to be undergoing significant modification from shading by the Bracken canopy.

Stormy Down is surrounded by land that has undergone significant modification either as improved grassland or as quarrying and landfilling, and in nature conservation terms, Storm Down is of considerable local value and significant ecological benefit would be attained from appropriate Bracken management on Stormy Down. There is also Japanese Knotweed here, relatively localised but requiring management to control its spread. To the south west of Stormy Down, Cornelly Quarry includes woodland, scrub and grassland vegetation of considerable nature conservation value, including vegetation with strong semi-natural calcareous grassland associations.

Above Newton Down is an area dominated by significantly modified land cover, where improved grassland and arable cultivation are widespread. There are few features of semi-natural value in this area, and these are isolated areas of Willow scrub with Gorse and Bracken on uncultivated field corners and field margins.

There are several areas of conifer plantation that occupy in places considerable areas, and these are of negligible nature conservation interest. Field boundaries comprise mainly linear, frequently trimmed hedges, typically species poor comprising Sycamore, Hawthorn, Bracken and Bramble, and these are relatively weak in nature conservation terms.

On land below Newton Down, the area supports predominately improved grassland with infrequently trimmed hedgerows defining many of the field boundaries. On higher land to the north, on slopes leading to Newton Down, the improved grassland continues for some distance, but is interrupted by areas of Gorse and Bracken over relatively unimproved grassland. There are also blocks of relatively open, semi-natural broadleaved woodland on the bank. The woodland interest continues along the slopes below Newton Down as far as Danygraig, where there are substantial broadleaved woodland blocks.

Land south of Laleston comprises extensive improved grassland, with a series of woodland blocks, and frequently trimmed hedgerows enclosing the fields. The core area of semi-natural woodland interest is associated with the Coed Cwintin, which extends into the area along a valley bottom, which has a large hedgerow extending from it along the valley bottom.

Key issues

- An area dominated by extensive productive agricultural land providing few features of nature conservation interest.
- Stormy Down and Newton Down provide local areas of semi-natural grassland vegetation with extensive dense Bracken colonisation within extensive productive agricultural land.
- Cornelly Quarry includes a variety of features of nature conservation interest including woodland, scrub and grassland of strong semi-natural character.
- Steep sloping land below Newton Down support locally extensive areas of woodland wildlife habitat, including areas of semi-natural broadleaved woodland.

Key aims

- Diversification of the wildlife habitat interest of the existing extensive agricultural landscape.
- Maximisation of the semi-natural vegetation interest of Stormy Down and Newton Down by control of Bracken encroachment.
- Maximisation of the nature conservation value of widlife habitats that have developed within Cornelly Quarry and ensuring the protection from further quarrying operations of areas that have developed particular interest.
- Maximising the wildlife habitat interest of woodland below Newton Down.

Key objectives

- Encourage investment in creative conservation on farmland by creation of woodland and grassland wildlife habitats of strong semi-natural character.

- Undertake ecological appraisals of wildlife habitats within Stormy Down and at Newton Down to identify nature conservation and habitat management priorities. Undertake Bracken management on Stormy Down and at Newton Down to enable extension of area of open semi-natural acid grassland vegetation.

- Undertake ecological appraisals of wildlife habitats within Cornelly Quarry to identify nature conservation and habitat management priorities.

LOWLAND WOODED VALLEYS

Description

Physiographic review

This is an extensive landscape character area, including land to the east of Bridgend, land to the west of Bridgend including Nanat Ffornwg, and land to the south of Bridgend, inlcuding sections of the Ogmore River and the Ewenny River. The northern boundary of this area is defined by high level land along the southern boundaries of landscape character areas at Cefn Cribwr and Hirwaun Common, and along the southern boundary of the Brynmenyn Confluence landscape character area.

West of Bridgend, this area consists of south facing slopes of the Cefn Cribwr ridge in the north, descending from a maximum height of 131m AOD across moderately steep slopes to the valley floor of Nant Ffornwg at around 50m AOD. Along the southern boundary of this area are very gently undulating, north facing valley sides of Nant Ffornwg achieving a maximum height of around 90m AOD. East of Bridgend, the area comprises a strongly undulating landform, varying in height from 114m AOD to around 30m AOD, including the distinct, sinuous valley of Nant-Brn-glas. South of Bridgend, most of the land surface is below 50m AOD, with the steepest sloping land present on north facing valley sides of the Ewenny River in the south east, and on south facing slopes of Cef Hirgoed along the northern boundary of this area.

The landform of this area generally reflects a distinctive assembly of geological characteristics, with Millstone Grit sandstone strata present along the high level, steep sloping land of the Cefn Cribwr and Cefn Hirgoed ridges. West of Bridgend, most land within the valley of Nant Ffornwg comprises a locally extensive, varied assemblage of Mesozoic and superficial deposits. The Mesozoic rocks are mainly of the Mercia Mudstone group, sandstones of the Penarth Group and areas of Lower Lias, with superficial deposits mainly coonisting head deposits, boulder clay , glacial sands and gravels, and with localised alluvial deposits associated with Nant Ffornwg.

East of Bridgend, the majority of low-lying land below Cefn Hirgoed consists of relatively uniform Mesozoic deposits of the Mercia Mudstone group, with local sandstones of the Penarth group and localised superficial deposits comprising head and boulder clay. Predominately alluvial deposits are present on the valley bottom of the Ewenny River in the extreme east of this area, with localised head deposits on lower valley side slopes.

South of Bridgend, the landscape has been more significantly dissected by the channels of the Ogmore River and the Ewenny River, creating an area of more varied geological character. Locally higher land in the south east and the north west mainly consists of Lower Liassic deposits, with localised accumulations of head deposits within undulations within the Lias surface. Low-lying land between the channels of the Ogmore River and the Ewenny River consists of locally extensive glacial sands and gravels with boulder clay, mainly overlying lower Lias deposits. Within the channels of the River Ogmore and River Ewenny there are predominately alluvial deposits with localised head deposits on lower valley side slopes.

Soils that have developed within this area generally reflect the influence of underlying geology. South facing slopes above the Nant Ffornwg in the north west support slowly permeable, fine loamy cambic stagnogleys, grading into slowly permeable, seasonally waterlogged clay enriched pelo-stagnogley soils on gentle north facing slopes above Nant Ffornwg. East of Bridgend, seasonally waterlogged, strongly gleyed cambic stagnohumic gley soils area extend across undulating land below Cefn Hirgoed, grading into locally extensive shallow to moderately deep fine silty and loamy typical brown earths to the south. In the extreme west, the Ewenny River flood plain supports extensive freely draining, coarse and fine loamy brown alluvial soils.

South of Bridgend, locally high land above the Ogmore River support shallow, well-drained fine silty argillic

brown earths with significant clay enrichment. High land above the Ewenny River supports slowly permeable, seasonally waterlogged clay enriched pelo-stagnogley soils. Shallow to moderately deep fine silty and loamy typical brown earths are present between the channels of the Ewenny River and the Ogmore River, mainly supporting freely draining, coarse and fine loamy brown alluvial soils.

Principal wildlife habitats

East of Bridgend, from Coity through Bragdy to Hedre the undulating landscape is occupied by a distinctive small scale field pattern that includes both unimproved and semi-improved grassland. Field boundaries are well defined in this area and comprise lines of mature Oak and Ash standards with an understorey of Hazel, local Holly and Hawthorn. The field boundaries are present at a relatively high density, enclosing a relatively small scale field pattern, and this provides a framework of significant field boundaries with potential as woodland habitat. In places, the field boundaries are in a state of deterioration and have developed significant gaps and are present as lines of isolated mature standard trees.

Within land to the north of Shelf is an area with a series of locally significant semi-natural broadleaved woodland blocks. The woodland is present within a gently undulating landform, supporting largely semi-improved and poor semi-improved grassland with locally more significantly improved grassland. In places the field boundaries are defined by frequently trimmed hedgerows, but the majority of field boundaries are large hedges that comprise Oak and Ash standards with Hazel, Holly, Field Maple, Hawthorn, Field Rose and Dog Rose. The majority of woodland blocks are set within a matrix of large field boundaries, and consequently, woodland habitat connectivity is strong. Many of the woodland blocks are structurally varied, but some have developed a more uniform structure through the prevention of regeneration by browsing stock within woodland blocks.

West of Bridgend at Pen-y-fai common, the common supports dense Bracken and Gorse with extensive mature scrub comprising Downy Birch, Hawthorn, Blackthorn and Goat Willow. In places semi-natural grassland vegetation is present, a combination of acid grassland, damp Tufted Hair-grass and Purple Moor-grass grassland with Saw-wort in low-lying areas. The vegetation as not been significantly modified or improved, and as a consequence, an issue at this site is that it is of some local interest for the conservation of unimproved semi-natural wildlife habitat. Woodland at Coed-y-waun comprises mainly planted Sycamore and has relatively little semi-natural character. The woodland is an even-aged plantation, with a uniform structure, lacking significant sub-canopy or shrub layer elements. The woodland edge includes some Holly, Hazel and localised Sessile Oak standards, complementary to the grassland and scrub mosaic at Pen-y-fai common.

At Court Colman, there are frequent areas of mature planted broadleaved woodland, mainly comprising mature sycamore, typically with a weak woodland habitat structure. The woodland blocks are associated with a number of stream valleys and extend across woodland at Pant Farm as far as Cefncribwr Wood and along to woodland at Ton-gwyn and to the outskirts of Pen-y-fai.

Between Bridgend and North Cornelly is an area where improved grassland is present extending across significant areas, and where features of nature conservation interest have been marginalised by this improvement process, and are relatively localised and confined principally to remnant woodland blocks. Fields are typically enclosed that are frequently trimmed and often gappy, comprising Hawthorn and Blackthorn, providing features of low nature conservation value.

Main features of interest are scattered woodland blocks, and these have strong semi-natural character. These are typically broadleaved woodland, with some areas comprising structurally varied woodland habitat composition. A number of woodland blocks are apparently used for cover by stock, resulting in the continuation of grazing into the woodland areas, where woodland regeneration is largely eliminated by

browsing effects.

In low-lying areas, and along the Nant Fformwg, the woodland appears to include blocks of Willow woodland, with some local distinctiveness, and is likely to have strong semi-natural character. Nant Fformwg creates a relatively weak valley in this area, the most distinctive features being the cluster of substantial woodland blocks along the lower valley sides, associated with the lower sections of the river valley - upper valley sides and the interfluve ridges are occupied by extensive improved grassland. Along the river channel of Nant Fformwg, there is an unbroken strip of semi-natural broadleaved wet woodland of considerable nature conservation value. This comprises Oak and Poplar and possibly Aspen over Goat Willow, Hazel, Ash and local Downy Birch. Along side the railway line the woodland has been coppiced as part of lineside vegetation management, and thus contributes to a diverse woodland habitat structure. There is also locally extensive notable Common Alder woodland. This woodland complements extensive semi-natural broadleaved woodland at Coedymaen and on the outskirts of Cefn Glas.

South of Bridgend, the River Ewenny has an extensive flood plain, with a number of drainage ditches that are long established, and enclose areas of lightly modified alluvial grassland. In places the fields are enclosed by lines of scattered Hawthorn, Hazel and Ash scrub, but are generally enclosed by wire fences. Along the main river channel is a line of semi-natural wet Alder woodland which is of nature conservation value, and extending to Corntown is a series of woodland blocks of semi-natural character, extending the habitat interest of the Ewenny Valley, into the valley sides that typically support improved grassland and arable cultivation on upper valley sides and valley tops.

In the extreme south of the area, land above Corntown is gently sloping, high level land, supporting improved grassland and arable fields, with the result that features of nature conservation interest are generally confined to steepest sloping areas of land where cultivation has been least successful. In this area, this has resulted in the retention of semi-natural woodland habitat along Cwm Alun and below Booch Court Farm. This is in contrast to areas of woodland surrounding Wick and St Bride's Major, which is generally plantation woodland and has very weak semi-natural characteristics. Woodland in the Cwm Alun area, in contrast, tends to be derived from recent secondary ancient woodland, and the recent secondary woodland is likely to be on ancient woodland sites.

Key issues

- Broadleaved woodland blocks of strong semi-natural character are widespread throughout this area, with concentrations of interest adjacent to Coity, along the valley of Nant Fformwg and at Pen-y-fai common. Many woodland blocks have a weak habitat structure due to supression of regeneration by grazing.

- Field systems are typically small-scale, with field boundaries marked by large hedgerows and woodland strips enclosing fields that include areas of semi-natural grassland.

- Core areas of nature conservation interest are enclosed by extensive tracts of improved grassland that inlcudes isolated features of local nature conservation interest.

- Alluvial grassland with relatively strong semi-natural character is present on the flood plain of the River Ewenny, where localised blocks of riparian woodland provide some habitat structural diversity.

Key aims

- The conservation, enhancement and consolidation of existing areas of woodland and grassland wildlife habitat of nature conservation interest, minimising further losses of semi-natural vegetation.
- Maximise the nature conservation value of the system of field boundary woodland strips through enhancing woodland habitat structure and composition.
- Maximise the nature conservation interest of extensive improved grassland by enhancement of existing features of value and by consolidation through introduction of additional wildlife habitats.

Key objectives

- Undertake ecological assessment and management planning of core areas of wildlife habitat, with the objective of identifying coherent countryside management units, focusing on woodland, grassland and riparian habitat, to identify vegetation management priorities.
- Provide grazing exclosures around woodland blocks and along wooded field boundaries to encourage regeneration of woodland habitat and to enable tree and shrub planting.
- Implement a policy of creative conservation within extensive improved grassland to enhance the existing network of wildlife habitat, including woodland, grassland and wetland habitat types.

VALE LIMESTONE PLATEAU

Description

Physiographic review

This area is generally characterised by an extensive, gently undulating low level plain, with some topographic interest provided by the Alun valley in the north. In the east, the area boundary follows that of the administrative boundary to a point south west of Wick, where it follows a gentle, rounded change of slope above the coastal margin at between 60m AOD and 90m AOD. In the north the boundary follows the edge of Ogmore Down before joining the boundary of the adjacent Lowland Wooded Valleys landscape character area above the river Ewenny.

North of Wick, the Alun valley is a broad, indistinct feature, becoming more steep-sided at Castle-upon-Alun and forming a sinuous, dissected ravine through locally high level land at Old Castle Down and Ewenny Down. A feature opf similar character is provided by the steep-sided valley of Pant St Bride's, between Old Castle Down and Ogmore Down.

The geological character of this area comprises two main strata. Land in the south east consists mainly of lower Lias, with local deformation by fault systems, and localised accumulations of head deposits present within local undulations in the surface of Lias deposits. The north west of the area comprises mainly High Tor Limestone with local Oolitic and Dolomitised Limestone deposits, and along the Alun valley in the north east there are predominately alluvial deposits within the valley bottom, with localised head deposits on lower valley sides. On steep slopes at the edge of Ogmore Down in the north west there is a local area of blown sand as superficial deposits over Dolomitised Lower Carboniferous Limestone bedrock.

The soils of the area closely reflect the gelogical character of this area, with shallow to moderately deep well drained fine silty typical brown earths over Limestone deposits in the north east, and loamy, well drained argillic brown earths with significant clay enrichment over the Liassic deposits in the south east. Extending across the area to the north of Wick is a section of slowly permeable, seasonally waterlogged pelo-stagnogleyic soil, and on the wind blown sand fringing Ogmore Down there is a local area of shallow, immature sand pararendzina soils.

Principal wildlife habitats

Land around Wick supports extensive fields of significantly improved grassland where features of nature conservation value are localised, and are marginalised. The fields are extensive rectilinear and are typically defined by networks of frequently trimmed species poor hedgerows comprising Hawthorn, Elder, Ash and Holly. Arable is also present in the area. Land of most nature conservation interest is that in the immediate hinterland of Wick, where the field pattern is a smaller scale, and where grassland is modified but less significantly improved than surrounding improved grassland. The field systems in these areas are defined by infrequently trimmed large hedgerows. In addition, this network includes a series of significant blocks of scrub, and semi-natural broadleaved woodland. The small scale field pattern is of nature conservation interest, and of particular note at Try-pit has been identified as a SINC.

Woodland at Pant y groes is one of the most significant features locally for nature conservation interest, set within a landscape of improved grassland with negligible features of wildlife habitat value, where semi-natural characteristics have been entirely modified through extension of improved grassland. The woodland at Pant y groes is a shelter belt and has weak semi-natural characteristics, comprising mainly planted Sycamore with some Pine, Ash and Beech. The plantation is relatively unmanaged, and is even-aged with

a relatively uniform habitat structure. The woodland strip extends to the coast, and a key potential interest is as a breeding or stop-over site for migrant passerine birds. Its value in this respect would be enhanced considerably by the creation of a more varied habitat structure.

At Blackhall, this location marks the start of an area of significant nature conservation interest to the south of Bridgend. It marks the source of the Afon Alun, and the head of Cwm Alun is strongly associated with features of interest at Craig Ddu and Coed y Wallas and at Old Castle Down. Woodland in this area includes Ash, Hazel and Holly, and includes the Coed y Bwl Glamorgan Trust reserve. Where the Alun flows through the woodland it has a strong meander physiography, creating an area of inundation vegetation and reedswamp, providing considerable habitat structural diversification. At this point the woodland character is varied, including areas of valley bottom Alder and Ash woodland. The river flows through this area in a variety of braided channels, with a valuable aquatic macrophyte vegetation, and is likely to be of considerable interest for riparian invertebrates, birds and otters. Along the edge of this area, wildlife habitats have moderate semi-natural character, comprising mainly under managed shelterbelt woodland enclosing farm buildings and areas of semi-improved grassland. Adjacent land supports extensive improved grassland in large fields enclosed by frequently trimmed uniform hedgerows. In consequence, this area is of considerable local nature conservation importance, diversifying an area where features of nature conservation interest have been significantly modified by extensive intensive agricultural land use.

Land along Clementstone Brook above Tynewydd is an area of undulating topography, where sloping land supports highly productive grassland in extensive fields with very localised areas of poorly drained land with rush pasture and enclosed by infrequently trimmed hedges. In general, this area is typical of the surrounding agricultural landscape, and where features of nature conservation interest have generally been replaced and modified by the improved grassland. The damp grassland and large hedges are of some interest, however, and this extends in a relatively interesting corridor along Clementstone Brook.

Woodland along the Afon Alun forms a continuous strip along the valley of the river which has been worked for small scale quarrying in the past, and the valley sides include a series of rock faces providing local topographic variety. The river a good meander physiography, flowing through a strip of reedswamp with inundation vegetation fringed by extensive semi-natural broadleaved woodland clothing the varied slopes of the valley sides. The woodland is an Oak-Ash canopy over Hazel with Holly and Downy Birch, and is a valuable area for the conservation of woodland habitats including a number of locally significant ground flora species such as Dogs Mercury, Wood False-brome, Wood Sedge and Herb Bennet. The woodland is not in any obvious management regime, and has a varied high forest structure.

Above Corntown, high level gently sloping land supports improved grassland and arable fields, with the result that features of nature conservation interest are generally confined to steepest sloping areas of land where cultivation has been least successful. In this area, this has resulted in the retention of semi-natural woodland habitat along Cwm Alun and below Beach Court Farm. This is in contrast to areas of woodland surrounding Wick and St Bride's Major, which is generally plantation woodland and has very weak semi-natural characteristics. Woodland in the Cwm Alun area, in contrast, tends to be derived from recent secondary ancient woodland, and the recent secondary woodland is likely to be on ancient woodland sites.

Old Castle Down and Ogmore Down is a significant area for the conservation of limestone heath vegetation and calcareous grassland vegetation. A key issue in this area is undermanagement of the vegetation, where side slopes and areas on the common plateau are undergoing colonisation by significant areas of Gorse and Bracken. These species are having a modifying effect on the grassland through shading and enrichment, and this is likely to suppress the regeneration of stress tolerant plant species that are characteristic of the semi-natural grassland and limestone heath quality of the area.

Land at Beacons Down consists of large fields occupied almost entirely by improved grassland and defined

by frequently trimmed, uniform hedges and include few features of nature conservation value. Features of most interest are associated with outliers of Ogmore Down and Beacon Down at Pant Norton and Pant Mari Flanders. These contain areas of rough semi-natural grassland with Gorse and Bracken and are locally valuable as diversifying the wildlife habitat interest of this extensive agricultural plain. They are valuable in extending the core area of Ogmore Down and Beacons Down into adjacent land.

Issues

- There is significant marginalisation of features of nature conservation interest in this area of extensive fields of improved grassland and arable cultivation, with localised concentrations of considerable semi-natural and near semi-natural wildlife habitat interest.
- Land at Blackhall includes a variety of features of nature conservation interest, providing a buffer between the surrounding agricultural landscape and a locally extensive area of ecological value along the Alun Valley, including woodland of national importance at Coed y Bwl SSSI.
- Old Castle Down, Ogmore Down and Beacons Down are of particular importance for the conservation of semi-natural grassland wildlife habitats, including examples of national importance at Old Castle Down SSSI. In addition, nationally important semi-natural grassland is also present at Clementstone Meadows SSSI.
- Important grassland wildlife habitat at Old Castle Down, Ogmore Down and Beacons Down is under threat from invasive Gorse scrub and Bracken cover, resulting from a lack of appropriate vegetation management.
- The section of River Alun flowing through this area is of high quality and supports a variety of riparian wildlife habitats of particular value and importance.

Key aims

- Conserve, enhance and where appropriate consolidate the areas identified as of particular nature conservation importance, addressing issues of inappropriate vegetation management within nationally important grassland sites.
- Enhance the nature conservation value of the wider agricultural landscape by wildlife habitat diversification.
- Maintain the quality of the River Alun riparian environment and associated features of nature conservation interest.

Key objectives

- Undertake ecological appraisals of wildlife habitats within key areas of nature conservation interest to identify nature conservation and habitat management priorities. Undertake Gorse scrub management and control of Bracken spread on key grassland sites to maintain areas of open grassland wildlife habitat.
- Undertake ecological appraisals of wildlife habitats within wider agricultural landscape to identify and appraise fragments of nature conservation interest.

- Encourage investment in creative conservation on farmland to reduce marginalisation of features of wildlife habitat interest and to increase the continuity of wildlife habitat fragments within the area. Achieve this by creation of woodland and grassland wildlife habitats of strong semi-natural character in areas of least productive land and by relaxation of intensive hedgerow management policy to enable development of stronger network of linear wildlife habitats.

- Undertake appraisals of environmental quality within the River Alun and maintain aspects that are of particular nature conservation importance.

HERITAGE COAST

Description

Physiographic review

This landscape character area comprises two main sections, Merthyr Mawr Warren, Newton Burrows and the Ogmore River in the north west, and the coastal strip south east of Ogmore-by-sea. In the north, the boundary follows land at between 15m AOD and 60m AOD forming a crescent of high land enclosing the dune system of Merthyr Mawr Warren. The boundary crosses the River Ogmore at between 9m AOD and 10m AOD at Merthyr Mawr before ascending steep slopes to the edge of Ogmore Down at around 75m AOD. The boundary continues along the edge of Ogmore Down to the south west, rising to a height of 93m AOD above Ogmore-by-Sea. From this point the boundary follows gently undulating land above the coastal margin between 60m AOD and 90m AOD to the south east.

This landscape character area comprises a variety of distinctive geological characteristics that have had a direct effect on shaping the scenery of the area. Merthyr Mawr Warren is a dune system comprising wind blown sand that has developed as a superficial deposit over Dolomitised Lower Carboniferous Limestone bedrock, outcropping within the distal end of the River Ogmore valley. High ground enclosing the dune system to the north west marks the southern extent of a locally extensive outcrop of Oolitic Lower Carboniferous Limestone. In the north east, the dune system is enclosed by the edge of a locally extensive area of Lower Lias strata. Along the valley bottom of Ogmore River, a variety of superficial deposits are present, comprising mainly alluvial deposits along the valley bottom, with areas of glacial sand and gravel, boulder clay and head deposits.

Between Ogmore-by-Sea and Dunraven Park the boundary of this landscape character area follows the edge of a locally extensive section of Oolitic and Dolomitised Limestone to the east, in contrast to the section of Lower Lias within the landscape character area. In the north of this section, Oolitic and Dolomitised Limestone outcrops along cliffs below Ogmore-by-Sea, and in the south, Lower Lias underlies all land within the landscape character area and extends to the east.

A variety of soil types are present within the landscape character area, and these are closely associated with the prevailing geological characteristics. Well-developed, non-alluvial loamy brown earths occur over higher level land comprising Oolitic Limestone and Lower Lias strata enclosing Merthyr Mawr Warren, with shallow, immature sand pararendzinas developed over unconsolidated calcareous sand deposits. The southern section of this landscape character area extending along the coastal fringe supports mainly well-drained, shallow, typical argillic brown earths, with significant subsoil clay enrichment.

Principal wildlife habitats

The physiography of this landscape character area has produced a range of contrasting features of considerable nature conservation interest, reflecting the diverse landform and variety of maritime and terrestrial influences that predominate the ecology of different parts within the area.

The dune system at Merthyr Mawr Warren is an extensive feature, supporting a varied mosaic of wildlife habitats, including calcareous grassland and dune slack habitats with areas of scrub woodland and localised sections of heathland vegetation. The area includes both stabilised dunes with a significant vegetation cover and mobile dunes where windblown sand is an important feature. The extent and location of the dune system is reflected in a variety of notable fauna groups, including significant invertebrate populations and providing a significant location for avian nature conservation, hosting both breeding bird populations and providing

a stop-over location for migrant species and a significant site for wintering bird populations. The outstanding ecological interest of Merthyr Mawr Warren is recognised by its designation as a Site of Special Scientific Interest (SSSI), and combined with Kenfig Pool and Dunes, its identification as a proposed Special Area for Conservation (pSAC). This is in accordance with the EU Directive on the conservation of natural habitats and of wild flora and fauna (92/43/EEC), and is recognition of the importance of Merthyr Mawr for the conservation of a number of wildlife habitat types and species at a European level.

Bounding Merthyr Mawr dunes to the south east is the Ogmore Estuary SNCI. This is a tidal section of the Ogmore River supports a variety of aquatic and semi-aquatic wildlife habitats with varying degrees of maritime influence, including extensive areas of intertidal soft sediment wildlife habitat fringed with saltmarsh vegetation and tidal inundation grassland. This grades into alluvial grassland at Ogmore Moor, on the flood plain of the Ogmore River, an area subject to occasional flooding. This is largely open grassland with few diversifying features, confined to scattered scrub, and a belt of more continuous scrub along the main river channel. The Moor includes a series of drainage ditches and has an undulating surface which retains areas of open water to create a series of pools, enhancing the wetland habitat value of this area. The combination of these elements results in an area of particular interest birdlife, notably with the intertidal soft sediment providing rich low tide feeding habitat for various species of waders, with higher level saltmarsh, inundation and alluvial grassland providing high tide feeding areas.

On steep side slopes of Ogmore Down above Ogmore River to the south, calcareous grassland of interest continues around and develops some localised areas of less base rich grassland and these are being colonised by Gorse and Bracken. The mature conifer plantation at Pant y Gwerti on the valley sides has resulted in significant modification of the grassland interest through soils acidification and shading.

The nature conservation interest of the southern section of the landscape character area comprises features of value are associated with exposures of Limestone and Lias deposits along the cliffs and wave-cut platforms, and with the variety of grassland, woodland and scrub wildlife habitats on land above the cliff edge. The cliffs and wave-cut platforms are especially noted for their geological interest, with sections designated as a geological SSSI at Southern Flats and at Southern-Down Coast, both areas including a combination of cliff exposures and wave-cut platforms. Notable features within land above the cliff edge are valleys at Dunraven Park, Pant-y-groes, Cwm Mawr and Cwm Bach. These are typically wooded valleys, where steep valley sides have prevented significant improvement, and generally have strong semi-natural qualities, particularly notable for populations of passage migrant and breeding passerine birds. In many locations the woodland is part of a complex mosaic with complementary, non-woodland wildlife habitat, adding significantly to the nature conservation interest of these valleys, including many specialised coastal vegetation types that have developed under the influence of salt-laden onshore winds. Included within the series of wooded valley systems are Slade Wood SNCI and Cwm Mawr Wood SNCI. In addition to the notable ecological elements within this part of the landscape character area, significant colonies of high brown fritillary are known to occur.

Key Issues

- An area of international nature conservation importance, including an outstanding variety of natural and semi-natural coastal wildlife habitat types, including sand dune, salt marsh and tidal grassland, rocky shore, soft shore, cliff and cliff-top grassland and woodland.
- Wildlife habitat quality is under threat from effects of recreation pressure, coastal erosion, river-borne and tidal litter accumulation and spread of invasive Japanese Knotweed.
- Many of the area's most valuable features are maintained by complex and wide-ranging

coastal processes.

- Area designations omit locally valuable areas of contiguous wildlife habitat, connected by physical coastal processes.

Key aims

- Ensure conservation, enhancement and consolidation of features of nature conservation interest, maintaining wildlife habitats of international importance as a priority.
- Ensure that threats to nature conservation interest from litter accumulation and inappropriate recreational uses are minimised.
- Identify principal coastal processes, and ensure that they are maintained and where appropriate enhanced. Characterise important relationships between natural processes and land use patterns.
- Ensure that contiguous and interdependent features of nature conservation interest are represented in frameworks of site designation and protection.

Key objectives

- Implement a programme of ecological appraisal and management planning to identify management priorities, notably those arising from litter accumulation and inappropriate recreational uses.
- Undertake coastal process appraisals with a view to identifying key management and enhancement requirements. Characterise principal relationships between natural processes and land use characteristics.
- Rationalise frameworks and mechanisms for site designation and protection to include contiguous features of value and importance.

KENFIG DUNES

Description

Physiographic review

This area mainly comprises the extensive dune system at Kenfig Burrows, and includes localised sections of surrounding land. The eastern boundary of this landscape character area encloses Waterdsheet Dunes, north east of the M4, passing to the east of Kenfig village and crossing Kenfig golf course as far as Parc Newydd Farm to the south. The southern boundary of the area extends west from Parc Newydd Farm along the access road to Sker House, following the south western edge of the dune system to Sker Point.

The area is defined by a distinctive assemblage of geological characteristics and soil types, comprising superficial deposits of blown sand over Mercian Mudstones at the distal end of the River Kenfig valley. Mudstones outcrop through the sand deposits as a local area of high level ground west of Kenfig village, and in this area, the impermeable strata support Kenfig pool. Soils within the main dune system are mainly thin, immature sand pararendzinas that have developed over unconsolidated calcareous sand deposits. Where Mercian mudstones outcrop in the east of this area, generally well-drained, non-alluvial, loamy brown earths have developed.

Principal wildlife habitats

Kenfig Warren contains one of the largest dune systems in south wales, and the dunes have an extensive semi-natural vegetation cover, revealing few areas of bare sand. The vegetation is varied, including a mosaic of calcicolous grassland, with areas of more mesotrophic and local calcifuge grassland on dune soils where leaching has reduced the base content. The assemblage of contrasting vegetation types is of interest, but these include a number of notable plant species that are of importance at national and international levels.

Wildlife habitat structural diversity at Kenfig is enhanced by dune slack flora, and areas of dune scrub woodland, and by Kenfig Pool, an extensive freshwater dune lake supporting a rich aquatic and semi-aquatic vegetation, including both shallow marginal, emergent and submerged vegetation elements. The extent and variety of distinctive wildlife habitat types present at Kenfig support a range of notable fauna groups, including a diversity of specialised invertebrate species. Kenfig Dunes is also noted as an important location for birdlife, hosting significant breeding bird populations, providing a stop-over location for migrant species and a significant site for wintering populations.

The outstanding ecological interest of Kenfig Dunes is recognised by a cascade of statutory designations in accordance with domestic and European legislation. This includes notification of the area as a Site of Special Scientific Interest (SSSI), a Local Nature Reserve (LNR), and a National Nature Reserve (NNR). In conjunction with Merthyr Mawr Dunes, Kenfig Dunes has also been identified as a proposed Special Area for Conservation (pSAC), in accordance with the EU Directive on the conservation of natural habitats and of wild flora and fauna (92/43/EEC), in recognition of the value of these areas for the conservation of a number of wildlife habitat types and species at a European level.

Between the Kenfig pSAC and the surrounding agricultural land is the Kenfig golf course, comprising extensive areas of modified fairway vegetation, but including significant tracts of remnant dune system. This comprises relatively unmodified dune grassland with areas of dense and scattered scrub and of significant Bracken colonisation on leached dune soils. The hinterland to the golf course and the NNR is characterised by extensive fields of improved grassland and local arable fields, the large scale field system typically enclosed by wire fences, scattered Hawthorn scrub, and locally with areas of denser scrub comprising Hawthorn, Goat Willow and occasionally Oak.

Key issues

- An area of international nature conservation importance, including an extensive and varied assemblage of sand dune wildlife habitat formations and species.
- In places, nature conservation interests are under threat from inappropriate recreational use.
- Area designations are not comprehensive and omit sections of valuable wildlife habitat, notably areas of dune habitat severed by the M4 and the administrative boundary following the River Kenfig.
- Many of the most valuable features are maintained by complex and wide-ranging coastal processes, and the Kenfig dune system is part of a more extensive dune system.

Key aims

- Ensure conservation, enhancement and consolidation of features of particular nature conservation interest, ensuring that threats to nature conservation interest are minimised.
- Provide a more coherent framework for site appraisal and management, rectifying anomalies in protected area boundaries.
- Identify principal elements of coastal processes and reflect these in a framework for appraisal and management, representing contiguous and interdependent aspects.

Key objectives

- Implement and monitor a programme of ecological appraisal and wildlife habitat management, as part of a programme of wide-ranging appraisals to characterise the interaction of natural processes and human activity in maintenance of the Kenfig Dune system.

Identify the extent of non-designated features complementary to the core areas of primary nature conservation importance at Kenfig and incorporate into programme of assessment and management planning.

PORTHCAWL HINTERLAND

Description

physiographic review

The boundary for this landscape character area is defined in the north west by the boundary of the Kenfig Dunes landscape character area, and to the north east by the boundary of the western limestone plateau landscape character area. To the south and east the area is bounded by the undeveloped coastline between Sker Point and Porthcawl, and the developed coastline of Porthcawl.

The area is characterised by complex geological features, with superficial calcareous sand deposits in the north west over Mercian Mudstones and over Dolomitised Lower Carboniferous Limestone in the south east. Porthcawl is situated on an area of Lower Carboniferous Limestone, outcropping along the coastline, and grading into coastal outcrops of Mercian Mudstone in the north east. Mercian Mudstones are present as extensive strata north and east of Porthcawl, grading into localised areas of Lower Carboniferous Limestone along the boundary with the western limestone plateau character area.

Soil types within this landscape character area reflect the influence of underlying geology. Shallow, immature sand pararendzinas have developed over sand deposits in the north west and the south east, and a variety of non-alluvial typical brown earths over Mercian Mudstones north and east of Porthcawl.

Principal wildlife habitats

The combination of extensive agricultural improvement and development within Porthcawl have reduced features of nature conservation interest to a variety of localised fragments, and these are mainly along the coastline and within Porthcawl. The field system enclosing Porthcawl typically comprises a large scale pattern of improved pasture fields defined by weak field boundaries of wire fences and frequently trimmed hedgerows.

Along the coastal strip, notable rocky shore wildlife habitat is present at Sker Rocks SNCI, Locks Common SNCI, Rych point SNCI and Black Rocks SNCI. Locks Common SNCI also includes notable maritime cliff-top grassland vegetation. Within Porthcawl, a number of undeveloped spaces contain features of interest, including Trafalgar Wood SNCI, The Wilderness SNCI, Nottage Court Wood SNCI and Pwll y Waun SNCI.

Key Issues

- Developed coastline within Porthcawl reduces the continuity of coastal features of nature conservation interest.
- The landscape surrounding Porthcawl is characterised by extensive fields of improved grassland with few features of nature conservation interest, confined mainly to cliff-top semi-natural grassland and scattered woodland blocks.
- Sections of undeveloped coastline are important for the conservation of rocky shore wildlife habitat.
- A series of locations with local nature conservation value are preset within Porthcawl, diversifying

the ecological value of the developed area.

Key aims

- Enhance the nature conservation value of features within the Porthcawl section of developed coastline to maximise continuity of coastal wildlife habitats.
- Conservation, enhancement and consolidation of rocky shore and cliff-top semi-natural wildlife habitats.
- Enhancement of the wildlife habitat value of improved grassland surrounding Porthcawl, and of areas of nature conservation interest within Porthcawl.

Key objectives

- Undertake ecological assessment and management planning of core areas of wildlife habitat, with the objective of identifying wildlife habitat management management priorities.
- Enhance and consolidate the nature conservation value of the area by sensitive wildlife habitat management of existing sites of interest, and by implementing a programme of creative conservation within Porthcawl and within surrounding agricultural land to maximise the area's nature conservation resource.

PART 4 PLANNING CONTEXT AND STRATEGY PROPOSALS

PLANNING AND LEGISLATIVE FRAMEWORK

Nature conservation

Current statutory framework policies aim for the following:

- Definition and conservation of biodiversity resources through biodiversity action planning;
- Systematic identification and protection of special areas through site and area designation frameworks.

The commitment to formal biodiversity conservation and Biodiversity Action Planning derives from commitments made at the 1992 Rio Earth Summit, translated into domestic guidance by the United Kingdom Biodiversity Strategy. This requires the preparation of biodiversity conservation targets at national and local levels, and implementation of various action plans to achieve these targets.

The legislative framework for site designation derives from a variety of statutory instruments at European and domestic levels, resulting in a hierarchy of site designations as follows:

DESIGNATION	LEGISLATION/ COMPETENT AUTHORITY
SINC	Town and Country Planning Acts / Bridgend County Borough
SSSI	National Parks and Access to the Countryside Act 1949; Wildlife and Countryside Act 1981/ Countryside Council for Wales
LNR/NNR	National Parks and Access to the Countryside Act 1949; Countryside Council for Wales; Bridgend County Borough
*SPA (not in study area)	Birds Directive/ Countryside Council for Wales, Joint Council for Nature Conservation.]
*pSAC	Habitats Directive, Conservation Regulations/ Countryside Council for Wales, Joint Council for Nature Conservation

The current designation system has developed most significantly in response to the European Directive on the Conservation of Natural Habitats and Wild Flora and Fauna (92/43/EEC), the Habitats and Species Directive. This is the primary legislation for designation of Special Areas for Conservation. These are sites identified on the basis of species or habitat types of European nature conservation importance. There is also a requirement within the Directive for ecological appraisal to include assessment of biodiversity interests at the landscape scale, to represent nature conservation interests outside the boundaries of designated sites. The Ogwr Wildlife Strategy is the current base document for nature conservation policy in the borough. It identifies a number of discrete provisional SNCIs where nature conservation is of importance. In general, this approach is not in accordance with current legislation notably by the lack of provision for features of nature conservation interest that exist outside the provisional SNCI boundaries. On this basis:

It is recommended that a biodiversity action plan is undertaken by the borough and a systematic survey and evaluation of sites carried out to enable appropriate and consistent designation of sites of nature conservation interest. Biodiversity Action Plan needs to be integrated into a framework for wider countryside management.

Integrated Coastal Zone Management and Planning

The coastline of Ogwr is a particularly important landscape, nature conservation and heritage resource. It is also used extensively for tourism and recreation with resultant conflicts in some areas. The physical and biological processes that shape the coastline and the administrative and institutional frameworks for its management are extremely complex. They transcend borough administrative boundaries and require consideration at a broader scale which in part is already being done. However, despite this the existing system does not address all the issues satisfactorily.

It is recommended that the coastal zone is identified as a discrete coastal management unit relating to the whole of Swansea Bay for the purpose of integrating the institutional, organisational, legislative and administrative aspects undertaken by the relevant authorities. The Borough could take the lead in in integrating its coastal planning with neighbouring authorities.

It is recommended that coastal zone management plans is developed for the Bridgend coastal zone area, comprising a shoreline management plan and an integrated intertidal-terrestrial management plan, setting out a framework for integration with neighbouring authorities.

STRATEGY

Overall Strategy

The landscape of Study Area is characterised by a varied ecological resource, recognised by a diversity of site designations including Special Protection Areas, proposed Special Areas for Conservation, Sites of Special Scientific Interest, National Nature Reserves, Local Nature Reserves and Sites of Nature Conservation Interest [see Figure LS3]. In summary the key ecological interest of the borough is as follows:

- The coastal zone boasts the main designations with Kenfig Pool and Dunes Dunes National Nature Reserve and SSSI, Merthyr Mawr Warren SSSI, both of which are proposed to form a single Special Area for Conservation. There are also a number of geological SSSIs along the Glamorgan Heritage Coast. These areas of sensitivity are under pressure from recreational use in some areas.

- In Mid Ogwr, the main ecological interest is split between semi-natural woodlands in the Coity and Court Colman areas ; calcareous grassland and heathland on the limestone plateaux and river corridors such as the Alun. These are under greatest threat from agricultural practice such as over-grazing of some woodlands, and the drainage and improvement of some grassland sites. several nationally grassland areas within Mid Ogwr are notable for supporting breeding populations of the Marsh Fritillary butterfly.

- In the Valleys, the key interest is the semi-natural woodlands on the valley sides and acid grassland and heathland on the upper valley sides and plateau. Attempted conversion of high level grassland to improved pasture with high forage value and inappropriate management have led to extensions of Gorse, Bracken and other scrub, resulting in loss of valuable semi-natural grassland wildlife habitats and species. Conifer afforestation also has reduced the ecological value of some areas.

An overall problem is the fragmentation of habitats through development and patterns of land management. In addition, the changing nature of land management through a decline in traditional land management practices and a declining agricultural labour force are important factors in shaping the current nature conservation resource.

Despite the widespread application of existing site designations, and significant developments in the current statutory planning context (notably through the effect of the EC Habitats and Species Directive), a number of general issues regarding planning for biodiversity conservation and countryside management exist within the County Borough of Bridgend.

In some situations, site designations have succumbed to the alignment of designation boundaries. This includes situations where features of value and importance are omitted and are therefore not afforded appropriate protection. This situation may have arisen in circumstances where details of landownership do not reflect the pattern of ecological interest at a

site, prompting the need for a statutory site boundary review. Alternatively, the value of appropriate nature conservation management within land adjacent to designated sites could be promoted to consolidate the protection afforded by site designations. In addition, the provisional SNCI framework does not provide a comprehensive reflection of the area's varied biodiversity resource.

It is recommended that a landscape scale biodiversity assessment of the borough is carried out, complimenting and extending relevant work being undertaken by other bodies.

It is recommended that core areas of biodiversity interest are identified.

It is recommended that additional areas of biodiversity interest are defined as complimentary buffer zone habitats and habitat corridors that reduce the ecological effects of isolation on fragmented core areas of biodiversity interest.

It is recommended that a formal Biodiversity Action Plan should be developed to provide the fulcrum for biodiversity conservation within Bridgend County Borough.

It is recommended that the network of Sites of Nature Conservation Interest should be reviewed through the process of Biodiversity Action Plan preparation, and consolidated to ensure that all features of biodiversity value and importance are included.

The borough lacks an administrative structure necessary for planning the achievement of biodiversity conservation and wider countryside management objectives.

It is recommended that a countryside management service should be developed to provide an administrative structure and human resource for an integrated service of biodiversity conservation and countryside management. The countryside management service should be structured in a way that complements wider environmental planning objectives such as implementation of Local Agenda 21.

Opportunities for stronger community involvement in biodiversity conservation and countryside management are not being taken.

It is recommended that the structure of the countryside management service should identify a clear role for involvement of community groups. Operation of the countryside management service should include a clear commitment to provision of advice on environmental enhancement to land owners, and guidance on sources of funding.

Organisation of environmental information is fragmented and is a weak basis for achievement of biodiversity conservation objectives.

It is recommended that the countryside management service should include a commitment to establishment of a centralised biological recording centre for the Bridgend County Borough, comprising a partnership of organisations already actively involved in biological recording.

Proposed Biodiversity Action Plan

Biodiversity Action Planning is a fundamental activity for achievement of sustainable development objectives, providing a clear definition of the County Borough's biodiversity resource and identifying a systematic framework of prioritised objectives for biodiversity maintenance, enhancement and consolidation. An administrative structure for Biodiversity Action Planning is proposed that maximises opportunities for involvement of local communities at all stages in implementation of the Action Plan, providing a high profile for countryside management and biodiversity conservation. It is essential that biodiversity action planning within the borough is set within a context of priority biodiversity conservation objectives operating at national and international levels.

Preparation of a Biodiversity Action Plan for Bridgend County Borough has three main aims:

- The translation of national biodiversity targets to action at a local level, with preparation of a local

Biodiversity Action Plan to provide a focus for local initiatives to fulfil local biodiversity conservation requirements, reflecting the values of local people and a range of prevailing local environmental factors;

- To define an environmental conservation priorities as a context to planning for sustainable development;
- To act as a catalyst for action at the local level, through formation of partnerships for all stages of Action Plan preparation and delivery, and raising awareness of the importance of the biodiversity resource.

Preparation of a Biodiversity Action Plan for the County Borough requires a number of discrete activities, grouped into five principle stages:

- Establish an administrative framework and set broad objectives;
- Undertake data collection and definition of the biodiversity resource;
- Define biodiversity conservation objectives and priorities;
- Define elements of the biodiversity strategy;
- Deliver the biodiversity strategy.

A variety of organisations are currently engaged in activities that are complementary to biodiversity action planning objectives, including the Glamorgan Wildlife Trust and the Royal Society for the Protection of Birds, and it is essential that complementary effort is coordinated through a partnership approach to biodiversity action plan preparation.

Definition of the biodiversity resource should identify core areas of biodiversity importance, as Prime Biodiversity Areas,as important components of the critical natural capital of the County Borough of Bridgend. In addition to these core areas, features of lower nature conservation interest that are adjacent to and complement the Prime Biodiversity Areas also require identification in defining the County Borough's biodiversity resource. This approach will provide a biodiversity profile for the County Borough that draws from landscape scale ecological appraisals, and providing a hierarchy of areas to be considered as a basis for identifying a system of countryside management units for the County Borough. A prioritised programme of detailed ecological management planning for Prime Biodiversity Areas should be developed, complementing the preparation and review of site management plans for Sites of Special Scientific Interest, National Nature Reserves and Local Nature Reserves.

Successful Biodiversity Action Planning requires effective description, classification and evaluation of the Critical Natural Capital of the County Borough. This would enable identification of clear biodiversity enhancement targets, and setting thresholds of significant change in the biodiversity resource as a basis for monitoring biodiversity conservation achievements.The present system of environmental information management within the County Borough is largely informal, with data held in a variety of locations, in a variety of formats and by a combination of enthusiastic amateur naturalists and professional ecologists. It is therefore recommended that in development of a countryside management service a framework for environmental information management is established.

It is recommended that a formal Biodiversity Action Plan is developed for Bridgend County Borough, and that the Action Plan is adopted as central to the organisation of an administrative structure for integrated countryside management, coordinating the activities of appropriate organisations.

It is recommended that an integrated environmental information management system is developed in support of Biodiversity Action Planning activities.

PART 5 - PROPOSED SNCIS SCHEDULE WITHIN THE OGWR BOROUGH WILDLIFE STRATEGY

Site No.	Site Name	Grid Ref.
1	Newton Burrows pLNR	SS845772
2	Black Rocks	SS843768
5	Ogmore Estuary	SS866762
6	Ogmore by Sea	SS865747
7	Craig-an Wood	SS875778
9	Slade Wood	SS888735
10	Ogmore Down	SS894763
11	Kings Wood	SS895766
12	St. Brides Major Pond	SS895744
13	Cwm Mawr Wood	SS899723
14	Old Castle Down Wood	SS902762
16	Coed y Wallas	SS912755
17	Beech Court Farm	SS905768
19	Ewenny Cross, Road Verge	SS912768
20	Tingle Wood	SS911773
21	Tair Croes	SS915765
22	Chapel Wood, Ewenny	SS915774
23	Gwern Uchaf, Trepit	SS916721
24	Beacon Tower Pond	SS919727
26	Corntown Road pond	SS921776
27	Llanphy Pond	SS921754
28	Longlands Quarry	SS927773
30	Afon Kenfig	SS815823
31	Bedford Park	SS779834
33	Sker Rocks	SS787797
36	Sker Farm Dunes	SS790801
38	Pink Bay, Porthcawl	SS797793
39	Pyle and Kenfig Golf Course	SS803805
40	Sker Pool	SS802792
41	Lock's Common	SS798786
42	Verville Merthyr Mawr	SS812773
43	Moor Lane Pond	SS815792

Site No.	Site Name	Grid Ref.
44	Trafalgar Wood	SS817775
45	Nottage Court Wood	SS821785
46	The Wilderness	SS823776
47	Ty Tanglwyst Wood	SS827806
48	Grove Common	SS827798
49	Rhych Point	SS826764
50	Cornelly Quarry	SS825803
51	Pwll-y-Waun	SS830770
52	Frog Pond Wood Meadow	SS828822
53	Old Dallas Wood	SS831807
54	North of Pyle	SS834833
55	Pant-y-Hyl	SS837794
56	Footpath Wood	SS834807
57	Newton Point	SS836763
58	Kenfig Hill Field	SS842819
59	Kenfig Hill Field	SS841819
61	Dismantled Railway	SS842833
63	Quarry Wood	SS843778
64	The Beacons	SS845792
66	Sunny Down	SS847807
67	Mynydd Bach	SS848825
68	Waun Cimla	SS850832
69	Marther Mawr Common	SS853782
70	Home Wood/Coog Bach Woodlands	SS855799
71	Waun Fawr/Coedcchaf	SS858820
73	Cae Pen-y-Strom	SS862814
74	Cwm-y-Helig	SS859780
75	Pwll-y-mor	SS862796
76	Cae-perth	SS871811
77	Coed Cwnsin	SS872784
78	Laleston 'Meadows'	SS878807
79	Court Colman fishpond	SS883817
80	Ffynyl Wood	SS888828
81	Parc Slip Nature Park	SS880838

Site No.	Site Name	Grid Ref.
82	Pennsylvania Wood	SS8855837
83	Coed-y-Havern	SS8867784
84	Coed-y-Tyle	SS8877786
85	Coed y-maen	SS8888813
86	Chapel Hill	SS8889781
87	Coed-y-Wern	SS8991827
88	Penylan Farm	SS8922832
90	Coed-y-Cierw	SS8949814
91	Pen-y-Fal Common	SS8993826
94	Cefn Glas Wood	SS8999807
95	Angelton Common	SS9000814
96	Wildmill Community Park	SS9006813
97	Heronston House Meadow	SS9009784
98	Part of Cefn Hirgoed (combined with SNCI 107 Cefn Hirgoed)	SS9008832
99	Coed Castellog	SS9013838
100	Derwen Wood	SS9014825
101	Coed y Morfa	SS9017806
102	Ewenny Moor	SS9010780
103	Long Wood	SS9019777
104	River Wood	SS9019782
105	Tremains Wood	SS9021802
106	Cottage Wood	SS9023779
107	Cefn Hirgoed	SS9022831
108	East of Pare Farm	SS9025821
109	Coed Pare-Gawr	SS9027824
110	Waterton Moors	SS9027784
111	Coed Stryn-Glas	SS9033809
112	Coed Lan	SS9034812
113	Rhos Wen	SS9036834
114	Bryn Glas	SS9036808
115	Bryn Du Farm	SS9041824
116	Morfa Llangrallo	SS9045794
117	Coed-Cae-Garw	SS9043807
119	North of Brynteg	SS9049843

Site No.	Site Name	Grid Ref.
121	NW of Waun Fawr Farm	SS955842
122	Bryngarn Isaf	SS965832
123	Brynmenyn Fields	SS966834
124	Cwm Sychbant	SS840900
125	Cwmtir Wood (Hafod Decca)	SS852865
126	Aber Cerdin Wood	SS851895
127	Ffordd-Fach Wood	SS834883
129	Cwm Nant-gwyn	SS870867
131	Llettybrongu Wood	SS878888
132	Park Pond	SS881843
133	Tondu House Wood	SS887849
134	Coed Pantwyn	SS887864
135	Parc Farm	SS889844
136	Cildeudy Wood	SS852886
137	Celliydd Isa	SS891879
138	Coytrahen Wood	SS895856
139	Coytrahen House	SS896852
141	Coed Kensington	SS904857
142	Brynmenyn Common	SS903849
143	Bryngarw Country Park	SS902854
144	Coedgarlys	SS905865
145	Bryngarw Meadow	SS906862
146	Cwmdda Bach	SS913852
147	Bryn y Wrach	SS920870
148	Craig Talyfan	SS860921
149	Part of Cefn Hirgoed (SINC 107)	SS922831
150	Ffrithwaun	SS923876
152	Ffrithwaun Common	SS928875
154	Cwm-Bach	SS945867
155	Nant Iechyd	SS948876
156	Cwm Dimbath	SS949889
157	Heol y Cyw	SS948843
159	Cwm Gadlys	SS956886
160	Mynydd y Gaer	SS955857

Site No.	Site Name	Grid Ref.
161	Cwm Ogwr Fach	SS949869
162	Llanfrothwg Wood	SS963872
163	Heudy-uchaf Wood	SS983835
164	Llwynllarth Wood	SS859844
165	St. John's Colliery Field	SS872916
167	Ffrith-wen Wood	SS911911
168	Mynydd Llangeinor	SS919933
170	Coed Nant Dwys	SS932927
171	Aber Wood	SS936911
172	Bryn y Cae	SS948900
174	Mynydd Maendy	SS969895

Candidate sites

Site No.	Grid Ref.
A	SS894757
B	SS878759
C	SS881757
D	SS882768
E	SS809815
F	SS844818
G	SS843819
H	SS843822
I	SS865831
J	SS866817
K	SS872788
L	SS867796
M	SS939833
N	SS943543 (Not in Study Area)
O	SS982816
P	SS988796 (Not in Study Area
Q	SS938849

LEGEND

- Individual SNCIs / Groups of SNCIs
- SSSI
- SSSI + pSAC + pNNR
- SSSI + NNR + LNR + pSAC
- Suggested Key Biodiversity Areas

KEY TO NOMENCLATURE

SNCI = Sites of Nature Conservation Interest
SSSI = Sites of Special Scientific Interest
pSAC = Proposed Special Area for Conservation
SAC = Special Area for Conservation
pNNR = Proposed National Nature Reserve
LNR = Local Nature Reserve

Figure TA13

Ecology & Nature Conservation

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Economic Appraisal

SECTION 4.0

Contents

1 Introduction

KPMG have been commissioned by Ogmr on behalf of Ogwr Borough Council and the Welsh Development Agency to examine, from an economic development perspective, the implications of the proposed environmental strategy to be developed for Ogwr Borough. As part of this exercise this paper provides a brief review of the economic, social and policy context. This is intended to provide a basis for discussions with other members of the team regarding the development of the environmental strategy and possible areas of conflict.

The paper is structured as follows:

- Section 2 examines the economic and social context through a review of Censi of Employment and Population information and other available secondary data;
- Section 3 briefly outlines the policy context provided by the Local Plan and the Borough Economic Development Strategy;
- Section 4 provides a summary of the key issues emerging.

2 Economic and Social Context

2.1 Introduction

Despite its overall coherence and a range of common issues, significant differences exist within the Borough in the problems, opportunities and environmental issues of individual areas. These variations will need to be recognised within the environmental strategy. Broadly the Ogwr can be sub-divided into three main sub areas:

i) *The coastal strip* - this area includes attractive stretches of coastline and some good quality beaches. The major resort is Porthcawl which is now in need of substantial investment.

ii) *The valleys* - there are three main valleys Llynfi, Garw and Ogmore which are amongst the earliest industrialised areas in the world. This is reflected in many cases in the quality of the urban environment, unattractive town centres, the age and quality of much of the housing stock and the problems of industrial dereliction and contamination.

iii) *The M4 corridor* - centred around the industrial town of Bridgend this now the focus of the majority of economic development pressures and opportunities.

2.1.1 *Historical development*

Industrial development of the area began in the Llynfi Valley in the 1820s and 1830s with the establishment of iron works and the subsequent growth of coal mining in the 1850s in the Ogmore Valley. Deep coal mining has now ceased in Ogwr and many valley communities whose origins derived from the development of the coal industry have been seriously affected as a consequence.

The dependence on mining and heavy industries has had far reaching effects on factors as diverse as the occupational structure and skill composition of the workforce, activity rates and attitudes in relation to enterprise and mobility. It has left a major legacy of environmental problems. Together these characteristics, together with the difficult topography of the valleys and shortage of available development sites, have created major economic development difficulties for the sub-region which require considerable investment to overcome.

The industrial development opportunities that exist in the three main valleys - Llynfi, Garw and Ogmore - tend to be comparatively small scale. Development opportunities continue to be hindered by poor access and environmental quality.

However, the Borough is in transition. The traditional core of coal mining and metal manufacturing have declined. Employment opportunities now primarily centre on Bridgend and the M4 corridor to the north of Bridgend and the A473 and A48 which service large industrial areas to the south.

The other area of economic activity is the coastal strip which includes some attractive coastline and the traditional coastal holiday resort of Porthcawl. Fundamental changes in the tourism market combined with a lack of investment mean that the resort is now in need of regeneration and a major initiative led by the WTB, WDA and local authorities is currently being implemented.

These local variations in local economic structure, performance and prospects are important and inevitably mean that the environment strategy will need to consider issues at a lower spatial scale than the Borough and the broad statistical units used within this paper which mask important local issues.

2.2 Demographics

The total population of the Borough was 134,900 according to the 1993 mid year estimates; approximately one quarter of the population of the County. This represents an overall population increase in the Borough of 4,700 (3.6%) since 1981; slightly below the overall rate of increase for Wales (6.4%) over this period.

The increase in population reflects both positive contributions from natural change (excess of births over deaths), plus contributions from in-migration. Ogwr was the only Borough in Mid Glamorgan where there were positive inflows of migrants. The age structure is remarkably similar to that for Wales as a whole.

The population is concentrated in the main towns of Bridgend (34,887), Maesteg (21,672) and Porthcawl (16,100).

2.3 Employment Structure and Change

Below we examine the structure of employment and employment change at SIC division level for Ogwr and Wales over the period 1981 and 1991.

Table 1 Employment structure and change in Ogwr and Wales (1981-1991)

SIC Division	Wales 91 employment structure	Ogwr 91 employment structure	Ogwr actual change 81-91	Ogwr % change 81-91	Wales % change 81-91
0 Agriculture, forestry & fishing	2.2				-15
1 Energy/water supply	2.5	11.6	}-4,366	}-87.9	-59.9
2 Extraction/minerals/metals	4.9	4.3	56	3.2	-29.9
3 Metal goods/vehicle industries	9.4	13.2	152	2.8	-8.1
4 Other manufacturing industries	8.5	13.4	470	9.2	12.8
5 Construction	4.8	5.1	341	13.9	-11.2
6 Distribution, hotels/catering repairs	20.8	21.1	2,231	34.5	21.8
7 Transport/communication	4.8	4.2	-129	-6.9	-14.2
8 Banking, finance, insurance	7.4	5.3	-38	-2.5	43.9
9 Other services	34.8	31.7	1,789	15.2	13.9
Total	100.0	100.0	-621	-1.48	2.9

Note: The figures do not include the self employed. At district level figures are prone to inaccuracy with sample of area.

It should be noted that the Census of Employment for 1993 has been classified under a different SIC than in previous years enabling only broad comparisons to be made so we have restricted the comparison here to cover the 81-91 period. Some of these figures are restricted by the confidentiality clauses.

The employment structure of Ogwr relative to that of Wales indicates the significance of manufacturing industries, particularly vehicle and other manufacturing. Primary industries now only form a very small proportion of the overall economy. Banking, finance and other services

comprise only a relatively small proportion of the overall economy. This reflects the absence of any major service centre within the Borough and the proximity to Cardiff and Swansea.

In terms of employment performance, the picture is dominated by the loss of jobs in the primary sector, reflecting the substantial rationalisation of the coal industry over the 1980s. Manufacturing industry, construction and distribution, hotels/catering all performed well. The overall performance of the service sector was disappointing.

In the period between 1991 and 1993, overall employment has continued to decline to around 38,000 employees in employment. Unfortunately, direct comparison with the 1991 dataset is not possible (See Annex 1 for details).

2.4 Components of Employment Change

There are a number of components of change within a local economy including: i) the contribution made by the formation of new firms; ii) changes within the indigenous sector; and iii) the attraction of inward investors.

Employment change within the Borough has clearly been dominated by structural change associated with the restructuring within the coal industry and the colliery closure programme implemented over the 1980s. This has led to the substantial decline in employment of an industry which in 1981 employed over 10% of the workforce.

If allowance is made for the decline of coal, the overall performance of the economy begins to look quite favourable. The major factor in the successful restructuring of the local economy has been the attraction of inward investment in electronics, information technology and automotive sectors. Table 2 below shows for the four counties of the region, the number of inward investment projects over the period 1983 - 1992, the number of new jobs created and the value of the capital investment involved.

Table 2 Overseas investment in South Wales (1983 - 1992)

County	Number of projects	New jobs	Capital investment (£)
Gwent	133	8,379	388,931
Mid Glamorgan	131	9,572	862,571
South Glamorgan	74	6,662	1,376,054
West Glamorgan	60	2,834	226,092
Total	**398**	**27,447**	**2,853,648**

Ogwr has been especially successful in attracting investment including Sony Manufacturing and Sony Music Mouldings, Diaplastics, Meiki (from Japan), Align Rite, British Tissues, Carters (J&A) Ltd, Ford Motor Co., Rexel Engineering (from North America) and Rockwool, Punch Precision Ltd, Milim Laboratories (from Europe). Much of this investment has been concentrated in Mid Ogwr, particularly Bridgend (Sony, Ford and British Tissues are located here).

2.5 Unemployment Rates

Average annual unemployment in Ogwr declined consistently from 1986 to 1990 and the average unemployment rate for Bridgend TTWA (which includes part of the Vale of Glamorgan) fell from 17.3% to 7% (see Table 3)

Table 3 Average unemployment rates: Bridgend TTWA and Wales (1988-1994)

Year	Bridgend TTWA	Mid Glamorgan	Wales
1988	10.2	12.0	10.4
1989	7.5	9.2	7.4
1990	7.0	8.7	6.8
1991	9.8	11.7	9.0
1992	10.9	12.4	10.0
1993	11.2	12.9	10.4
1994	9.7	11.4	9.6

2.6 SWOT Analysis

The following summarises the key strengths, weaknesses, opportunities, and threats which are perceived by the Council to face the district.

Strengths	Opportunities
• skilled workforce, good labour relations and relatively low labour costs; • good access to the motorway network, ports and airports; • competitive commercial property prices, variety of serviced land; • proximity of three Universities; • variety of financial incentives.	• potential to encourage further inward investment; • sites suitable for high technology manufacturing, including Science Park; • upgrading the quality of the tourism product.

Weaknesses	Threats
• low levels of high tech employment; • few corporate and HQ functions; • geographical peripherality in Europe; • dereliction in the valleys; • under investment in tourism facilities; • low levels of private sector white collar employment and relatively low earnings.	• the Channel Tunnel and the SEM could emphasise area's peripherality; • competition for investment from other sites along the M4 corridor; • over-capacity in the European steel and automotive industries could have adverse impacts locally; • increasing competition for declining amount of mobile inward investment.

3 Policy Context

3.1 Introduction

This section provides a brief overview of the policy context for the Borough of Ogwr, focusing on the economic development strategy and Local Plan policies.

3.2 Economic Development Strategy

The overall aim of the strategy is *"To endeavour to improve and broaden the economic base of the Borough of Ogwr, in order to ensure that secure and good quality employment opportunities are available to the residents of the Borough."* The specific policy aims and actions are set out below.

Development action programmes	Targets
Business development programme	To undertake an advertising awareness campaign and a targeted telemarketing campaign. To complete phase II of the managed workshop units at Heol Ty Gwyn Industrial Estate and implement the one stop shop initiative. To produce quarterly updates of the Property and Land Availability Schedule, provide a new business directory and assist with the creation of 20 new businesses via the Council's Small Business Grant Scheme. To continue to participate in the ECC and to secure optimum funding under Rechar. Production of an EDS for the Bridgend area.
Infrastructure development	To complete building of managed workshops at Heol Ty Gwyn and adopt Borough Local Plan. To carry out environmental improvements to the [illegible] Industrial Estate, [illegible], to declare the Llynfi/Brackla Industrial Estate an [illegible] and commission a major environmental strategy. To redevelop Brygarw House, enhance Bedford Park, complete Llynfi Ironworks and develop a Community route between Bridgend and [illegible].
Employment development	To appoint 2 Community Development Workers, facilitate a Community Forum in the Upper Llynfi Valley and support Community Business Services. To submit funding applications for ERDF/ESF, to continue to devise SDS submission and make similar applications under Rechar programme.

3.3 Ogwr Local Plan

The overall guiding principles of the plan are:

- to maintain substantial valleys communities;
- exploit the development potential for industry at the valley mouths and heads of the valleys area; and

- recognise the continuing development of Cardiff as an administrative, manufacturing and service centre.

A summary of the main Plan policies is given below.

Housing

(1) Major new development within Mid Ogwr, particularly in Bridgend, to accommodate all the future in migration to the Borough, the area's own natural change and an element of overspill from the Llynfi valley.
(2) The development of existing residential communities in Porthcawl and the coastal vale, together with a limited release of new land on the periphery of the Porthcawl urban area to accommodate the areas own natural change only.
(3) The development of existing residential communities in the Llynfi valley, together with some limited replacement sites, to satisfy the area's own natural change.
(4) There will only be minimal developments within the smaller settlements of the Borough.

Employment

(1) Major new allocations of industrial land in Mid Ogwr, to satisfy needs of medium and large scale enterprises.
(2) The full development, or where necessary, the limited extension, of existing industrial estates throughout the Borough, for light, general and service industry.
(3) The allocation of land in the form of new small sites, for the development of light and service industries close to residential areas.
(4) The development of existing or, where necessary, the allocation of additional sites throughout the Borough to provide opportunities for those employers with specialist requirements.
(5) The encouragement of office and other service jobs in appropriate locations.

Retailing

Bridgend should remain the focus of the Borough's trade.

Transportation

To improve the levels of accessibility by both public and private transport to the major places of attraction within and outside the Borough, to promote comprehensive commercial transport plans for the established centres of Bridgend, Porthcawl and Maesteg, and to identify policies for the main road network in other communities within the Borough.

3.4 Employment Sites

The availability of land for development is an issue in Ogwr as in other valley communities. For example, the Local Plan indicates that in January 1994 out of a total of 280 hectares of land, only 30 was immediately available for development with much of the remainder requiring substantial infrastructure investment.

Premium employment sites

The Local Plan identifies a number of premium employment sites with good access to the motorway network which are to be developed to high design standards. These sites include:

i) Mid Glamorgan Science Park, including adjacent land at Island Farm, Bridgend (allocated for high technology uses).

ii) Sony Technology Park, Pencoed (B1 manufacturing).

iii) Parc Hospital Site, Bridgend (B1 business use).

iv) Land sw of the M4 motorway junction 35, Pencoed (B1 business use).

The development of these sites will provide for the increasing demand for employment in locations where good design and landscape standards are desired by the occupiers and where good access to the motorway network is required. On all of these sites there is a requirement for high quality landscaping and architectural design.

Industrial and commercial development sites

The Local Plan identifies a total of 36 sites for industrial and commercial development during the Plan period, although not all will be available at any one particular time. The larger industrial estates include: Brackla, Bridgend, Brynmenyn, Village Farm and Waterton.

Llynfi Power Station site is included in the local plan as an industrial site. However, there are access and contamination problems associated with the development of this site and hence high costs of development. As a result of these barriers to development EDAW have suggested, as part of their economic study for Mid Ogwr, that the site may be more appropriately developed for tourism related uses, including environmental improvements to screen the nearby British Tissues plant and generally clear up the site through planting.

New allocations at Brocastle (Waterton) and Wern Fawr (Pencoed) have been included to increase the range of employment opportunities in close proximity to the strategic road network where investment can be most easily attracted. The Brocastle site is particularly important because it provides over 18 ha of good quality employment land which is in short supply throughout the region.

It should also be noted a large proportion of the sites identified above as serving the Borough's employment needs is actually located in the Vale of Glamorgan.

Further site specific details will be contained in the Economic Strategy for Mid Ogwr due for completion by EDAW by the end of this month.

4 Summary

4.1 Key issues from Economic Appraisal

- The Borough has undergone substantial economic restructuring over the past decade associated with the area's previous dependence on coal – and to a lesser extent metal industries - and the programme of colliery closures implemented over the 1980s.

- The local economy has, in other respects, performed well. Employment growth in manufacturing has been relatively marked. Much of this growth has been the consequence of the attraction of inward investment.

- There are concerns that much of the investment has been in relatively low value added and routine tasks with limited R&D or design functions. There is a danger of creating a 'branch plant' economy.

- The success of the area in attracting inward investment reflects a number of factors including the success of the WDA, the availability and competitive rates for most of the key factors of production and the package of financial assistance available. Key amongst the success factors has been the location close to the M4 corridor and the availability of sites and premises.

- The Borough now has the opportunity to capitalise on previous inward investment into the region by bringing forward some of the key development opportunities along the M4 corridor.

4.2 Key Issues from Environmental Appraisal

- The Borough can broadly be sub-divided into at least three sub-regions; the valleys, mid Ogwr and the coast. The environmental strategy will need to reflect the differences in problems, potentials and opportunities within these areas.

- In parts of the Borough economic and environmental objectives would appear to be complementary. Tourism development and environmental protection, for example, should result in mutually supportive actions. Environmental improvements also have a key role to play in the regeneration of the older valley communities.

- Inevitably, there would appear to be areas of tension between economic and environmental development, perhaps most notably in relation to the continued growth of Mid Ogwr. There are a number of potential environmental issues here including:

  - the balance between the development of the valley communities and the M4 corridor must be handled carefully. Where the two effectively compete for investment the valley communities will lose out with implications for investment and environmental quality;

  - the environmental quality of Mid Ogwr appears to be quite high and development may result in some loss of valuable habitats and environmentally sensitive areas and/or the character of specific communities;

  - the implications for travel demand of the new employment sites. Many of these appear to be located close to the national motorway network and tend to be more difficult to serve by public transport. This has implications for travel demand and also accessibility for those without access to motor vehicles;

there may be a case for reviewing the economic justification for the reclamation of sites in the Valleys and possibly examining the potential for leisure/environmental upgrading rather than for industrial estate development.

This would need to be looked at on a site by site basis. Each appraisal would need to examine:

- a detailed site assessment;
- the likely levels of demand;
- the costs of development/gap funding;
- the number of jobs likely to be attracted to each site; and
- the respective cost per job created and value for money issues.

Clearly in the absence of a detailed assessment which goes beyond th remit for this study it is not possible to state whether specific sites - eg Pen Clwyd - should be allocated for hard or soft end uses.

Planning Appraisal

SECTION 5.0

LANDSCAPES WORKING FOR OGWR BOROUGH

PLANNING CONTEXT

1. PREAMBLE

1.1 This paper is intended to form one of a number of background papers which provide information and insight into the study area. The paper will consider, in global terms, the present planning framework for Ogwr and, in particular, will analyse the approaches of both the County and Borough Councils, as expressed in their recently approved development plans. The paper will go on to consider the area in the longer term, in recognition, in particular, that the environmental and landscape strategies that are to be formulated by this study, will operate on a much longer timescale than the present 10 year cycle of Development Plans. Sustainable planning will inevitably require long-term strategic goals to be defined and firm commitments made towards them.

2. HISTORICAL AND ECONOMIC CONTEXT

2.1 Inevitably the approach to the control of land-use in any area is governed, to a great extent, by both the historical context and economic background to the area. By and large, this material has already been provided by the report of K.P.M.G. in Section 2, and there is no need to duplicate this information.

3. THE COUNTY-WIDE STRATEGY

3.1 The Borough of Ogwr is, of course, presently one of the six district Councils within the County of Mid Glamorgan. The majority of the County's area comprises the valley areas of Cynon Valley, Merthyr, Rhondda and Rhymney Valley. Ogwr and Taff Ely, however, occupy the more southern sections of the County and present within their individual boundaries, strikingly contrasting areas, whether defined in landscape terms or in socio-economic terms.

3.2 The County Council was first formulated in 1974 and the general planning and socio-economic strategies adopted since that time have, inevitably, been heavily influenced by the fact that the area has been principally one of contraction and re-building, as the traditional industries of the area have gone into steep decline. Ogwr, because it combines mining valley areas to the north, redefining valley mouth areas in the centre, and relatively prosperous rural and coastal areas to the south, has shown as a microcosm of what has happened in the County as a whole, or rather the Mid Glamorgan and South Glamorgan Counties when seen as an entity.

3.3 The first expression of strategic policy for South East Wales came in the Welsh Office publication 'Wales the Way Ahead' produced in 1967. It is in this document that the first ever commitment is given to the rejection of any policy that would assume the disintegration of the substantial valley communities. The plan, therefore, proposed that new employment be brought to the valley communities and to the Heads of the Valleys where possible. It also recognised, however, that economic forces would dictate that new development would be more likely to gravitate to the valley mouth areas or to the coastal strip, and it was made clear that such developments should be catered for. In this context, it was even suggested at that time that a new town be created at Llantrisant to be a focus for the growth that was needed.

3.4 One of the tools by which Government hoped to bring about the required growth and restructuring of the South Wales economy at that time was via the grant system that accompanied Development Area status. In the 1970's the whole of the County, with the exception only of Bridgend, was defined as being a Special Development Area and therefore eligible for the highest level of grant for the establishment of new employment-generating development. By 1976 this incentive scheme was given a boost by the creation, firstly, of the Welsh Development Agency, to act in a more direct way in providing and servicing new industrial areas and, secondly, the Land Authority for Wales, whose role is to ensure that land is brought forward for development when it has been so allocated.

3.5 The first Structure Plan for Mid Glamorgan was produced in draft form in 1978, received final approval in 1982 and covered the period to 1991. The Plan adopted in full the ethic that all existing valley communities should be maintained and that full exploitation should take place of the development potential of the Valley Mouths and Heads of the Valleys areas. It was recognised that there would inevitably be a migration of people from the valley areas and their policy of maintaining valley communities would of necessity have to be a positive one. The pragmatic view seems to have been taken at that time, that the valley settlements should be maintained by allowing them to become, effectively, dormitory residential areas, with the majority of new job opportunities being provided at valley mouth and valley head locations together, inevitably, with the majority of new housing. The building and alignment of the M4 must also be seen as fitting exactly with the strategic policies identified with the area and, to some extent, explains the apparent detour of the road to the north of Bridgend, rather than the more direct and easier route that would have been available to the south.

3.6 Specifically in the Borough of Ogwr, Structure Plan policies recognised the dominance of Bridgend, where the majority of new jobs would be established and also where a significant proportion of the expected 8% population growth of the area would be housed. Policies were, nevertheless, imposed which sought to reinforce and improve Bridgend as a service centre for the Ogwr sub-region, whilst at the same time seeking to provide additional job opportunities and housing at the valley mouth conglomeration around Aberkenfig, Brynmenyn and Sarn. Growth in this area was seen at that time to also have the added bonus of rationalising what had become a very disparate and unstructured growth pattern. Even today it is doubtful whether this policy has yet had the desired effect.

3.7 Elsewhere in the Borough there was a general policy of restraint of growth. In Porthcawl and along the coastline, encouragement was given for the development of tourism, but new housing was to cater only for local needs. The rest of the coastal strip was designated either as important dune-land or heritage coast, which was to be protected from development in its own right. In the valley areas there was a presumption in favour of new industry in Maesteg but otherwise housing was to be allowed only to meet local needs.

3.8 The setting of policy in the 1960's and 1970's has been described in some detail in order to demonstrate that planning policies for this part of Wales are long-standing and unlikely to radically change in principle. This is, of course, partly due to political commitment but also because policy and economic initiatives of the past, where they have been generally successful, as in Ogwr, must also reflect and accommodate the economic realities of the time. It is only where policy fails or economic factors drastically change, that we are likely to see any real deviation in policy for the area.

3.9 The first updating of the County Structure Plan was issued in draft in 1985 and eventually received the approval of the Secretary of State in 1989. The Plan made plain its continued commitment to the maintenance of substantial valley communities and the exploitation of the development potential of areas at the heads and mouths of the valleys. In so doing, it was expected that a significant level of population increase would also be witnessed. For the first time there was also official recognition of a need for high technology employment sites, and the site at Bridgend was one of a number that were allocated. Housing land requirements were seen to be high, particularly in Ogwr where growth in population was expected to contribute to a need for some 7000 new dwellings over the period to 1996.

3.10 A significant change could be discerned at this time, however, in policy towards retailing. Whereas previous policies had sought to bolster and improve existing town centres, this new Structure Plan accepted the changes that were already occurring in retail patterns as superstores and retail warehouses began to appear.

3.11 A draft replacement Structure Plan was produced in December 1993. The Examination in Public of the Plan took place in September 1995 and final adoption will be taken forward by the new Unitary Authority following re-organisation. The guiding principle of the plan and, hence, also of the recently approved Ogwr Local Plan, remains the maximisation of the development potential of the valley mouth and valley head areas, whilst at the same time having regard to the need to maintain the substantial valley communities.

3.12 For the first time the replacement Structure Plan introduces the concept of sustainability which is defined as follows:-

"Development that meets the needs of the present without compromising the ability of future generations to meet their own needs"

Specifically, these requirements are interpreted by the County Council as requiring the conservation and enhancement of the best of the environment; an emphasis on urban renewal as opposed to new development; the protection of important natural resources, the encouragement of public transport; and the long term protection of specific development sites for the particular purpose for which they are designated.

3.13 Over the plan period, it is again expected that Ogwr will be the only real growth area in terms of population change, and there is an anticipated need for some 4800 new dwellings in the period up to 2006. Ogwr and Taff Ely also had the highest recognised needs in terms of new industrial acreage, with some 60% of the total requirement for the County to be provided in these two districts. The need for further 'high-tech' sites continues to be emphasised and, in this respect, the County Council, in partnership with the Welsh Development Agency, has completed the acquisition of land for the second phase of the Bridgend Science Park. Significantly also, the plan now seeks to emphasise the need not only to provide new employment sites, but to dramatically improve the appearance of existing ones by redeveloping derelict sites, upgrading buildings, rationalising layouts, and introducing landscaping. The Bridgend Industrial Estate has certainly benefited from this approach. High standards of layout and design are now required of all new industrial or business developments.

3.14 The Plan can also be identified as introducing an increasing emphasis on the protection of the natural environment for its own sake, in response to a general political and professional acceptance of 'green' policies. Development in the countryside is to be allowed only when specifically required. Important features of the natural and built environment have been given protection by the introduction of special designations and controls such as 'Areas of High Landscape Value'. In Ogwr, this designation covers all of the upland areas to the north of the Borough as well as the heritage coast, and Policy EV4 of the Plan militates against any development in these areas which would result in visual intrusion.

4. BOROUGH-WIDE POLICIES

4.1 The Development Plan system in England and Wales is a two-tier process, comprising structure or strategic plans over a wider area, that set the framework of policy and the targets for growth, accompanied by local plans for more restricted areas, which seek to translate that policy framework into specific land-use allocation. Ogwr sought to prepare a series of local plans to cover the Borough. Those plans for Greater Bridgend and Ogmore and Garw were taken through to full adoption stage. The Kenfig-Pyle Plan reached the adoption stage, but this never actually took place, whilst plans for Maesteg and Porthcawl got no farther than the draft stage. These plans conformed closely with the approved Structure Plan and did not seek to set any specific policies for the area as a whole.

4.2 More recently, the Planning & Compensation Act 1991 has introduced the requirement that all district councils in England and Wales shall produce unitary development plans to cover the whole of their areas. Such a plan, of necessity, tends to overlap the prevailing structure plan and contains a significantly higher proportion of strategic policies than had hitherto been seen in local plans.

4.3 The draft of the Ogwr Local Plan was produced in 1991 and, following a public inquiry in 1994, it was formally adopted on 12 April 1995. The overall strategy of the Borough Council, as expressed in the plan and clearly accepted by the Welsh Office, is *"to maximise the development potential of the growth area of the Borough based mainly around and to the south of the M4 corridor, whilst at the same time having regard to the need to maintain the substantial Valley communities to the north"*

4.4 The initial draft of the plan envisaged a need for the provision of some 9,600 new dwellings, in line with stated Structure Plan targets at the time. Following the production of the final mid-year estimates by the Registrar General, however, and in conjunction with the County Council, it was finally agreed that the Borough required the provision of some 7,240 new dwellings between 1991 and 2006, or approximately 500 per annum. Over and above existing approvals and commitments, it was necessary to allocate sufficient land to accommodate just over 2000 houses.

4.5 New housing provision is primarily intended to be in Bridgend, with two major releases of land at Litchard, to the north east of the town, and at Laleston to the west. Some housing had been proposed at Porthcawl, but with the lowering of the identified requirements, many of these sites were deleted. However, only a portion of the allocated areas of the two major sites will be developed during the plan period. As in previous years, and continuing the policies laid down since the 1960's, the housing allocations in the valley areas are to cater for natural growth or local needs only, and the majority of the identified sites in the plan are those which already retain an outline planning permission. Some new sites are identified in the Ogmore and Garw Valleys, to replace existing unattractive ones that have remained undeveloped. All this is, in any event, unavoidable, because developers generally require to build where they are sure they can sell, and there is little or no interest in the valley areas from the volume builders. The valley areas continue, therefore, to be dormitory areas only, and this is assisted in recent years by improved communications and environmental upgradings. The provision of services continues to be a problem, however, with school populations declining and many retailers being forced out of business from the competition of new retail businesses in the Bridgend area.

4.6 The analysis of employment land carried out by the Council as part of their plan preparations, clearly demonstrates Ogwr's continuing attraction to industry, particularly on those sites in the vicinity of Bridgend with good access to the M4. The conclusion drawn was that additional land was required to be allocated in the Borough to satisfy the demands of medium and large scale enterprises, on good quality sites with good access to the main road network and, of course, to cater for the employment needs of a growing local population. The major industrial land releases within the plan are at the Sony Technology Park, Pencoed; Wern Fawr and Wern Tarw to the north of Pencoed and close to the existing Rockwool plant; Park Slip, Tondu; and Waterton, in the vicinity of the Ford Plant. Extensions are also proposed to the Brackla estate near Coity; the Brynmenyn estate; the Abergarw estate north of Brynmenyn; and Village Farm at Kenfig Hill. Minor allocations intended to serve local business are also proposed in valley locations, particularly in the Lower Llynfi Valley. Sites for business uses (B1) are also identified at Island Farm; Cefn Hirgoed to the north of Bridgend; motorway junction 35 at Peencoed; and close to Sony at Pencoed. Clearly all of these allocations reflect the obvious need to locate new employment facilities close to lines of communication and close to the main population centre. In so doing, the areas to the north and east of Bridgend are reinforced as being the areas under greatest pressure for new development, stimulated both by population growth and the decline of the older industrial base.

4.7 Highway proposals in the plan, not surprisingly, reflect and reinforce these growth pressures. The major new scheme is the Bridgend southern distributor road, linking the town centre with the M4, and this is coupled with an inner by-pass scheme for the town centre, which is currently under construction. In the longer term, roads are envisaged to provide by-pass arrangements for both Bryncethin and Coity.

4.7 In environmental terms, the plan sets a number of objectives, as follows:

a) to guide and control development in order to enhance and protect the urban and rural environment;
b) to maintain the physical and social identity of existing settlements;
c) to conserve and enhance the man-made heritage and natural fauna and flora; and
d) to undertake and co-ordinate efforts in the environmental improvement of, and access to, the urban and rural environment.

In accordance with these aims, therefore, the plan includes a phalanx of policies designed to protect the open countryside (defined as being that area outside the defined settlements or allocated land) from unnecessary development, and to ensure that any new development that does take place does not detract. A number of guiding principles apply, including the need to retain clear separation of settlements by recognising green wedges; the need to protect and retain trees and hedgerows; the resistance to ribbon development; and the need to protect recognised sites such as SSSI's and Nature Reserves. In respect of the last point, the plan specifically seeks to resist any development which would adversely affect or visually impinge upon a number of named sites, as follows:

i) The Glamorgan Heritage Coast;
ii) The Kenfig National Nature Reserve;
iii) The strategic coalfield plateau and associated valley sides;
iv) Landscape Conservation Areas;
v) Other important natural features such as the coastline, valley sides, hill tops, and ridgelines;and
vi) The landscape associated with the rural highway network.

5. THE LONGER TERM

5.1 Building on the above assessment of Development Plan policies for the area, it is essential for the purposes of this study, that some consideration is given to the likely directions of growth and strategy beyond the present cut-off point of 2006. The likely future pattern of growth will inevitably be an important factor in the setting of landscape policy for the area. If we are serious about achieving a measure of sustainability in the future, the planning of the built form will need to achieve the same sort of time-scales that are utilised in the natural world.

5.2 The Ogwr area has experienced a consistency of growth in the post-war period and there seems little reason to believe that this will not continue post 2006. Population shift continues to take place within the Borough as people move out of the valley areas, but this is likely to diminish in the future as the valley areas benefit from the significant improvements made in both environmental and transportation terms. These areas would appear now to be establishing themselves as a consequence of these changes, primarily as dormitory residential areas dependent, by and large, on the mid-Ogwr area for employment and shopping facilities.

5.3 Natural population growth and a likely continuation of in-migration will serve to maintain the continuing growth of mid-Ogwr and, in particular, this will be seen to take place along the M4 corridor. Structure Plan policies have consistently sought to cater for these growth demands and future regional guidance from the Welsh Office will be likely to continue with this policy. What has also been generally recognised and accepted throughout England and Wales in recent years is the potential for commercial investment on sites within close proximity of major road interchanges, and particularly those close to motorways. It is inevitable, therefore, that these development nodes will figure in the future re-shaping of the area. Landscape considerations need to be established at an early stage and, in this respect, any areas denoted in the Local Plan as green wedges (Policy EV10) should be treated as under threat of future development pressure.

5.4 Probably the most obvious pressure area in the future will be the corridor either side of the A473 road linking Pencoed and Bridgend. The village of Coychurch has gradually been drawn into a Greater Bridgend initially in the 1950's by the development of Bridgend Industrial Estate and, in more recent times, as a result of the massive Brackla residential area and the Waterton industrial areas, including the Ford Plant. A tenuous gap of less than one mile now exists between Coychurch and the motorway interchange at Pencoed and this is to be further eroded in the near future with the development of a major site immediately west of the junction on land allocated in the Ogwr Local Plan (Policy E4(4)) for special employment purposes. Planning permission was granted on this site in February 1996 for a scheme including cinemas, a shopping village, restaurants, and a petrol filling station/car sales. To the north of the main railway line, and lying between Bridgend and the motorway, is a considerable area of land recognised as being of special landscape value. South of the railway, and between it and the road, the Local Plan identifies an area under pressure for development by defining it as a green wedge, in accordance with Policy E10 which, essentially, is a mechanism to maintain the separation of communities. Strangely, the land to the south of the road and east of the Waterton industrial estate is not given any form of protective allocation and would appear to be a natural future growth area for commercial or industrial developments generally.

5.5 New industrial areas are identified in the Hirwaun common areas to the north of Pencoed, in the vicinity of the Rockwool plant at Wern Fawr. Improved road links to the motorway have encouraged this allocation and this may well lead to further industrial developments, particularly where major sites may be required for industry that does not make a good neighbour. Local concern has already been expressed concerning the environmental impacts of these allocations and these possibilities will need to be carefully considered against the requirement, to ensure that all new developments are sustainable in environmental terms.

5.6 It might similarly be expected that development will be attracted to the motorway interchange at Cornelly, which will be assisted by the recent improvements to the road links with Porthcawl. This particular area represents and interface between the mid-Ogwr growth zone and the coastal zone and future development may well be based on recreational or tourism enterprise.

5.7 Two major housing developments are allocated in the Bridgend area, at Lalleston and Litchard, and it is anticipated that they will not be completed during the life of the plan. Future housing growth will not, therefore, have to be accommodated immediately after 2006. This situation is reinforced by the proposed new settlement just across the Borough boundary, to the west of Pyle. Some 460 houses are proposed in a scheme which is to be taken forward by Wesibury's. Inevitably, this scheme will relate far more to Bridgend as a centre rather than Port Talbot, and many people from the Borough will be likely to find accommodation there. Major new housing areas will not be required even in the medium term, therefore, although more modest sites will continue to be found in the context of existing settlements. Improved road links will allow further growth in the Nottage area of Porthcawl, whilst there will be continuing pressure for growth immediately to the north of the Newton-Nottage road at Porthcawl, for housing, recreational and tourist developments.

KEY ISSUES FROM PLANNING APPRAISAL

Following a study of the Local Plan and draft County Structure Plan, the following key issues have been highlighted:

* The Local Plan provides a sound basis for the development of a complimentary landscape strategy;

* The land-use proposals for the District reflect the settlement pattern and communications network, and follow general policy lines that have been in place for a considerable period and are likely to continue;

* Increasing growth pressure will almost certainly be felt in the mid-Ogwr area and close to the motorway intersections. This will be most keenly felt between Bridgend and Pencoed;

* Pressure for growth will generally not be in areas of high landscape value but steps need to be taken at an early stage to ensure that growth patterns are sustainable;

* Recreational and housing pressures will also be felt in the environmentally sensitive coastal areas.

GRAHAM S CARLISLE

Tourism Appraisal

SECTION 6.0

OGWR LANDSCAPE STRATEGY
TOURISM INPUT

1 INTRODUCTION

The purpose of this report is to identify where a landscape strategy can assist the tourism product of Ogwr. In order to provide a realistic assessment of this issue, it has been necessary to undertake a review of existing studies which have been undertaken over the past few years which look at the tourism product, analyse the market and determine the future tourism potential of Ogwr Borough (see Appendix 1).

There is an image and identity problem for the Borough as far as tourists and visitors perceptions are concerned and the Borough has, comparatively speaking, made little investment in tourist facilities. The challenge is to identify realistic new opportunities and the means of turning good ideas into action. Within the Local Plan, Ogwr Borough have identified possible opportunities for development or reinvestment in tourism related products such as:

- Bedford Park, Waun Cimla, industrial heritage and recreation project (now implemented);
- conservation and interpretation of Cefn Cribwr and Llynfi Ironworks;
- interpretation strategy for Duffryn Llynfi Porthcawl Railway.

Within this study we will aim to put forward recommendations which achieve sustainable developments, serving the interests of economic growth and conservation of the environment.

2 TOURISM OVERVIEW

2.1 National Perspective

Discussions of the benefits of tourism has tended to focus upon income generation. This is not surprising since spending remains the tangible evidence of tourism development. During 1994, United Kingdom residents took some 109.8 million tourism trips of one night or more within the United Kingdom. These lasted a total of 416.5 million nights, with spending of £14,495 million. A further £9,820 million was spent in the United Kingdom, during 1994, by 21 million overseas visitors. British people took an estimated 58 million long holidays (4+ nights) away from home in

1994 - an increase of 4% on 1993 figures. The number of holidays taken in Britain during 1994 was down by 1 million compared with the previous year, while the number of holidays taken abroad increased by 2.75 million. Long holidays in Britain reached its highest ever volume in the mid seventies but since then have declined gradually.

2.2 Regional Perspective

Tourism in Wales has shown many of the same characteristics as that in the rest of Britain. Main holidays of a week or more in the summer have declined because families have gone abroad for generally better and less expensive facilities plus guaranteed sunshine. Shorter holidays, particularly in the shoulder season (April, May and September,October), have more than compensated in terms of overall spending and have had the effect of spreading business over a greater part of the year.

According to the Wales Tourist Board, domestic (UK) residents took on average some 8.6 million tourism trips in Wales during 1994. These lasted an average of 38.6 million nights and cost £984 million. The majority of trips (72%) were for holiday purpose, a further 16% were to visit friends and relatives, while 8% were for business/work purposes.

In South Wales, it was estimated in 1993 that 3.8 million tourism trips were taken lasting 17.1 million nights and cost £400,000. 60% of trips were for holiday purposes, 22% were visiting friends and relatives and 5% on business/work.

It is estimated that in the region of 95,000 jobs, more than 9% of all employment in Wales, are due to tourism. More than 60,000 of them are serving tourists directly in various tourism-related industries and more than 30,000 are in industries supplying tourism.

2.3 Local Perspective

Within Ogwr Borough, it is estimated that the Borough receives an annual figure of £25 million from visitors, supporting some 2000 jobs. Business tourism, according to hotels and guest houses in the Borough, accounts for around 90% of trade. In terms of product, Ogwr has approximately 30 hotels, 50 guest houses, 10 self-catering establishments and 6 caravan/camping sites. Trecco Bay Caravan Site in Porthcawl is the largest accommodation provider in the Borough. Accommodation is predominantly located in the Bridgend and Porthcawl areas with virtually no provision in the Valleys. Although Ogwr Borough does not have a visitor attraction, it does offer a reasonably good range of informal outdoor recreation facilities such as:

- Glamorgan Heritage Coast;
- Kenfig National Nature Reserve;

- Bryngarw Country Park and House.

The informal recreational facilities prevalent within Ogwr Borough outwith the key tourist areas complement the contrasting activities available within, for example, Porthcawl. According to the Wales Tourist Board, the main activities undertaken by visitors on a trip to Wales are walking, sight seeing, visiting castles and monuments. Outwith Porthcawl, therefore, the rest of Ogwr has much to offer the visitor and should be marketed and developed as an alternative to the seaside resort "experience".

3 AREAS FOR POTENTIAL DEVELOPMENT

3.1 Introduction

The following are the key areas at which we feel tourism and landscape can work together to enhance the quality and enjoyment of the area for both visitors and the local community;

- the Valleys;
- the coastal strip;
- mid Ogwr.

These are discussed in more detail below.

3.2 The Valleys

3.2.1 The Resource

The three deep Valleys which divide Ogwr Borough are the Garw Valley which ends in a cul de sac and run northwards through the heart of Ogwr; Llynfi Valley which runs northwest from Bridgend to Maesteg; and Ogmore Valley, the most eastern of the three main valleys with steep-sided hills and traditional terraced communities and thick forests. A spectacular mountain road leads up to the head of this valley where there are panoramic viewpoints.

The image of the Valleys as being solely related to industry and mining largely obscures the very considerable natural heritage which lies within and around the Valleys. Were is not for the landscape and its geology, the Valleys would never have become prominent in the industrial history of South Wales. The Valleys require a period of consolidation, where tourism is part of an overall conservation ethic and not part of a developmental drive which has little or no concern for the surroundings.

While the Valleys have a fascinating history and attractive countryside, many of the towns still need further environmental improvements. The main tourism appeal of the Valleys currently is to specialist niche markets for staying visitors, to school groups and to independent visitors. The accommodation base is under developed in the Valleys but, before visitors will spend more nights in the area, there will be a requirement to improve the quality of the visitor infrastructure and increase the critical mass of activities and facilities for the day visitor and tourist to enjoy (particularly wet weather facilities).

3.2.2 The Potential

The tourism element of the landscape strategy should play an important part in establishing and developing tourism as a recognised economic and social force in the Valleys. It will help to focus not only the attention of visitors but, importantly, also that of the local people.

The Valleys have significant potential through their natural assets but still suffer from their industrial past. The network of "community routes" are perhaps key to opening up greater opportunities for "green tourism". The "community routes" could provide the vital link between the Valleys and the Heritage Coast Path, Bridgend and the Ogwr Ridgeway Path, creating considerable interest in the walking/cycling markets.

The recreational potential for the three Valleys is substantial and should be exploited in conjunction with the landscape strategy. Opportunities for providing activities for the residents and day trip visitors to the Valleys lies in the development of recreational activities supported by visitor infrastructure and interpretation, such as cycle routes, trails, bridle paths, circular walks, play areas, benches, litter bins, signage both to signify the recreational activities located at key nodes, way markers, shelters etc.

There are also opportunities to develop visitor infrastructure at the following points:

- a car park at Gilfach Orfydd;
- orientation points at the public houses at Llangynwyd and Llangeinor (which already has a play area for children);
- car park and picnic spot east of Blackmill at Llwyn - Helyg; this spot allows for easy access to the Ogwr Fach riverside and the route is currently a byway open to all traffic;
- circular walks developed in the lower Llnfi along Cwm Ogwr Fach, leading to the Ogwr Ridgeway Walk.

3.3.3 Orientation

Visitors should be exposed to orientation information at key sites. Looking at the three Valleys as a whole, there is very little identification as to:

- where each valley starts and ends;
- what attractions and facilities can be found on visiting the Valleys either on foot, by bicycle or car;
- the length of time required to visit each Valley.

Visitors should be exposed to orientation information at key sites and locations. There are several reasons for this:

- many visitors set out with a clear idea of their main destination but can be open to suggestions for additional visits on their day out;
- other visitors are unsure as to where they are heading and will be responsive to clear suggestions;
- orientation displays can be used to promote lesser known sites;
- many visitors require detailed guidance when on their day trip to give them key information about what they might see/visit etc (Ogwr Borough have produced route maps for car drivers travelling the Valleys).

There is also a requirement for several "Gateways to the Valleys" sites and it is suggested that such Gateway Centres may be situated at Tonda, within Bryngarw Country Park and at Llangeinor. It may also be possible to link these Gateway Centres to the tourist information centre network. Their job would be to present key interpretive themes and explain how they can be explored by means of town trails, car tours and visiting attractions. By combining such centres with tourist information centres, operational costs can be minimised whilst providing a logical extension to the tourist information centre function (The Wales network of TICs currently consists of around 80 centres, over half of which are open all year round. There are TICs at Bridgend and Porthcawl).

The "Gateway" should:

- be attractively designed to encourage visitors to stop and find out more information;
- have a orientation and relief map at a strategic point within Maesteg offering clear information to the visitor on the "Valley Experience", local attractions, entertainment etc;
- indicate things to look out for in terms of bird life, plants, picnic spots, viewpoints, play areas for children etc.

Interpretation and theming of, for example, lay-by's, signposts and information boards, may enhance the "sense of arrival" for the visitor at their chosen destination.

3.2.3 Recreation Developments

The proposed tourist train journey from Tondu Station in the Garw Valley to Pontycymmer, for example, will provide an ideal opportunity for improving the landscaping along the route and providing infrastructure and informal recreational facilities at each station stop. Improved visitor facilities are also required at Pontycymmer, Blaengarw and Nant-y-Moel, in terms of accommodation, retail and catering and tourist information.

At the Llynfi Valley there are plans by Ogwr Borough to interpret the old corn store/blast house on the old furnace sites alongside the car park as part of the Bedford Ironworks project.

Garw Valley is a blind valley. There is a proposal for operating a steam train to Pontycymmer but there is a requirement for the route to have small scale facilities/activities along it to make it a worthwhile trip. It would be particularly sensible to have the train station starting from within Bryngarw Country Park, which will have a steady flow of visitors to it throughout the summer months.

At Pontycymmer, there needs to be a focal point - a reason for travelling up the valley. Walks, footpaths, trails, picnic tables, wet weather shelters, play areas, refreshments etc should be developed from here to encourage visitors to alight from the train and spend several hours in the valley before taking the return train back.

However, as tourism itself is no panacea for ailing economies, interpretation and signposting, in themselves, will not bring more people. Tourism must be allied to environmental improvement; interpretation must be allied to the enhancement of existing tourism and leisure resources and the creation of new attractions.

Bryngarw Country Park currently offers nature trails and woodland walks, information centre, catering and a formal Japanese Garden. Signage to the country park is poor externally and requires to be addressed within an area signage strategy.

The landscape strategy will have an important role to play in terms of developing the visitor infrastructure along the Valley road so that, once the visitor is suitably informed as to where to go and how to get there, that they are not disappointed by the experience they encounter.

Within the Wales Tourist Board Tourism 2000 Strategy, there are a number of Development Action programmes, one of which is the South Wales Valley's Programmes. The Wales Tourist Board objectives through this programme will be:

- to improve the quality of the product in both physical and service terms;

- to raise the profile of the Valleys as a tourist destination, promoting its links with major towns and cities on the coast;
- to develop the tourism potential of the Valleys for staying and day visitors.

For any proposed developments it is advisable to involve the Wales Tourist Board in future development plans.

3.3 Coastal Strip

3.3.1 The Resource

The strength of the coast as a natural asset has been recognised in the designation of the Heritage Coast and Kenfig Nature Reserve, the latter of which requires to be more fully integrated into the tourism product of the area in terms of interpretation, signage and car/cycle/walking routes. At the same time there are pressures on what may be deemed sensitive environments, at Merthyr Mawr Warren for example. Coney Beach Amusement Park in Porthcawl is the largest visitor attraction in Ogwr but is in obvious contrast to the natural environment.

Within the Wales Tourist Board Tourism 2000 Strategy, Development Action Programmes have been proposed which will provide an integrated framework within which the industry can develop. A specific programme within the Development Action Programmes is the Coastal Resort Regeneration Programme for Wales. Key components of this programme include:

- co-ordinated programmes of public infrastructure improvements including implementation of visitor management plans relating to traffic management, parking, signing, visitor information and interpretation;
- environmental enhancement/landscaping measures in public areas;
- developing opportunities for activity tourism particularly relating to water sports;
- improving the quality of the existing product and identifying opportunities for new developments;
- improving the quality of beach management.

It is advisable to involve the Wales Tourist Board as an active partner in any future development work.

3.3.2 The Potential

The potential of the coastal strip in Ogwr and the small seaside towns lies in providing facilities which match a particular market sector and in joint marketing with other resorts and inland attractions. There is a visitor centre at Kenfig Nature Reserve, Newton Burrows and a Heritage Centre at Dunraven Bay. These nodes have very poor linkages with one another. Within the resort of Porthcawl, for example, a unified approach is needed with regard to design features and street furniture.

The tourism product of Ogwr is presently Porthcawl. It has a population of around 16,000 and receives in excess of 0.5 million visitors each year. Within the resort, implementation of some of the objectives within the Porthcawl Regeneration Strategy are currently underway. It will be important for the landscape strategy to be integrated into whatever developments are currently planned for the next 12 months. Since writing the Porthcawl Regeneration Strategy, the following developments are planned:

- Jennings Building: subject to a feasibility study resulting in the weatherproofing of the building in January. The uses of the building will be to turn it into a visitor attraction focusing on the history of the seaside, hoping that this will have national appeal. It will also have a catering outlet. It is viewed as a high risk strategy but it is the only suggested solution that will meet the requirements of the regeneration strategy;

- Salt Lake Car Park: tenders are being sent out to consultants to ascertain the best possible use of this high profile site. The idea of locating a swimming pool at this site has been voiced but the consultants report highlighting key options will not be completed until early next year;

- Grand Pavilion: refurbishment is currently underway both internally and externally. The shelters on either side of the Pavilion are currently being upgraded to become office accommodation on one side and a catering facility on the other;

- Rest Bay: planned to develop a seasonal road train from Rest Bay to the centre of Porthcawl;

- Sandy Bay: there is the potential for indoor leisure facilities to be developed. A feasibility study into the potential use of Sandy Bay is just about to be commissioned by Ogwr Borough - the landscape strategy should be aware of both the studies at Sandy Bay and Salt lake car park.

Whilst the frontage of Porthcawl is receiving attention in terms of upgrading the visual impact and image of key buildings, there are obvious opportunities that could also be addressed:

- removal of the Dunraven Flats at the corner of the Esplanade. This is one of the first buildings you see approaching the Front and its ruinous state immediately sets the wrong tone for the resort;
- look at sensitively developing Porthcawl's "hinterland" – the villages of Nottage and Newton are located within walking distance of the Esplanade and within the villages there is a village green, good catering facilities and pubs and a wishing well. Walks, cycle routes and nature trails could be developed to encourage visitors to explore further afield and give them a wider experience than the beach;
- development of fishing at Pwll-Y-Waun;
- development of a Gateway into Porthcawl at the roundabout approaching Porthcawl, creating a sense of arrival;
- improved signposting of the area within the resort;
- develop short break "themed" weekends, focusing on golf, outdoor activities, the environment etc.
- provision of tourist information points (unmanned) at strategically placed locations offering information to the visitor on a variety of things for them to see and do, thus aiding in keeping them in the area longer.

There are also the following opportunities for improving the visitor infrastructure along the coastal strip as follows:

- provide a tourist information point at Methyr - Mawr;
- should Newton Burrows be designated as a local nature reserve, ensure that there are plans and a budget for providing board walks, car parking and other visitor infrastructure in this area; this would provide the people of Porthcawl with another option for recreation;
- link the Lock's Common pedestrian route into a National Coastal Footpath from Kenfig, via Methyr Mawr to Dunraven Bay; the success of such a coastal route will be dependent upon the availability of public transport to provide a shuttle service.