

# 5.0 ACTIVITIES AND PRESSURES



## 5.0 ACTIVITIES AND PRESSURES

### 5.1 Introduction

- 5.1.1** This part of the Plan considers what activities take place in the area, and what affect these have on the area's character and special qualities. Some activities will have no effect; some will have a negative effect, whilst others will be beneficial. It is important to be aware of the activities and to gain an understanding of them and the pressure they place on the area's special qualities. Without this information the Management Plan cannot identify what steps need to be taken in order to prevent or reduce negative effects, whilst also promoting and encouraging actions which would have a beneficial effect on the special qualities. Factual information is required in order to gauge the effects of the various activities accurately. There was a lack of comprehensive information in this field when preparing this Plan. Such shortcomings will be highlighted and noted as matters for action.
- 5.1.2** Consideration was given to the contents of a number of reports, plans and strategies to assess the relevant activities, and the related pressures and benefits gained. These documents include planning documents, research reports and additional plans and strategies by public and private bodies. Information from these documents has also been included in order to show the size or scale of the activity, and additional information was obtained from sources such as the National Census. The opinions and comments of individuals and public bodies are also vital in order to obtain a complete and balanced picture of activities. Residents' views were obtained by means of a LANDMAP Pilot Survey; local businesses' opinion by means of research work by Cynefin Cyf in 2003, and visitors' responses by a Visitor Survey for Llŷn AONB in Summer 2003. Comments have also been received through consultations carried out during the preparation of the Management Plan.
- 5.1.3** This section of the Plan contains a general analysis of the activities taking place in the area concentrating on the following themes: Primary industries, Visitors, Communities, Development, Care and maintenance, Pollution/Waste and Natural processes. The section includes information on the scale of the activity and change over time. The factual information which has been included will be useful to monitor the increase or decline in the activity in question.
- 5.1.4** At the end of the section a table has been included which provides further information on the effect of various activities on each of the area's special qualities. The table includes an assesment of the effect the activity has (positive, negative or neutral), to which area is it applicable and the tendency to increase, decrease or continue at the existing level. Appendix 4 lists the plans and strategies influencing activities which take place in the Llŷn AONB.

## THE ECONOMY

### 5.2 The local economy

- 5.2.1** The prosperity of communities is dependent upon the success of the local economy. The economy in Llŷn is rather weak due to a dependence on traditional industries which are in decline and a dependence on the service and administrative industries. A weak economy results in less job opportunities and low incomes. This then reflects on the community which will be poorer with less money to spend. The following table includes the main unemployment statistics including information on the economically active, type of work, income support, earnings and VAT registrations:

#### Economic details for the Llŷn AONB

GENERAL	CURRENT SITUATION	CHANGE
<b>Unemployment</b>	3% Pwllheli travelling area. July. ONS	10.5 % Pwllheli travelling area July 1996. ONS
<b>Economically active</b>	67.3% (2001 – Census)	68.57% (1991 – Census)
<b>Income support claims</b>	11.6 % of people of working age.2000 (Cynefin)	No earlier information
<b>Weekly earnings</b>	£360.20 Gwynedd. 2003	£289.90 Gwynedd. 1997
<b>Activities and VAT registration</b>	305 Agriculture 15 Manufacturing 308 Self-employed (i.e. Building)	No earlier Information

Source: The Census, ONS, SASPAC.

- 5.2.2** **Traditional industries** – Economic activities have had a significant impact on the character of Llŷn and have played a big part in forming the culture and history of the area. A few industries still continue today, however many changes have occurred over the years, with some industries declining and dying away altogether. Today old remains of small ports, mines, mineral workings and traditional farming customs are seen all over the area. Other than traditional industries, there are very few manufacturing businesses in the area.

- 5.2.3 Public services** – by now a large number of the area's population are employed by public services (local government, health services etc). The hospitality industry (including the tourism sector) has developed rapidly in more recent times bringing a substantial amount of income into the local economy.
- 5.2.4 Self-employment** – there is a high percentage of self-employment in the area; this includes builders, carpenters, contractors, electricians etc.
- 5.2.5 Small rural businesses** – there is a tradition of this type of business in Llŷn. Many of these businesses supply other businesses such as agriculture.
- 5.2.6** The following table provides information on the number of workers in various sectors of employment in the Llyn AONB communities (Aberdaron, Botwnnog, Buan, Clynnog, Llanaelhaearn, Llanbedrog, Llanengan, Nefyn, Pistyll, Tudweiliog):

### Employment sectors in the AONB

EMPLOYMENT SECTOR	NUMBER	PERCENTAGE
Agri, hunting and forestry	429	9.87
Fishing	17	0.39
Quarrying and mineral extraction	16	0.37
Production	363	8.35
Water, energy and gas supply	32	0.74
Building	496	11.42
Vehicles – sales and service	674	15.51
Hotels and catering	430	9.90
Transport, storage, communications	192	4.42
Financial institutions	57	1.31
Property sales, renting, business	288	6.63
Public admin, defence	190	4.37
Education	361	8.31
Health and social services	539	12.41
Other	261	6.01
Total	4,345	100.00

Source: Census 2001 (SASPAC)

## PRIMARY INDUSTRIES

### 5.3 Agriculture

- 5.3.1** Farming has formed part of the area's heritage from a very early period and it is still the area's main indigenous industry making a significant and important contribution to the economy. Traditional farming methods, namely mixed farming on small family units, have, in general, done much to maintain and safeguard Llŷn's special landscape, and the variety of wildlife that it sustains. It has also been responsible for the erection, care and maintenance of miles and miles of "cloddiau", stone walls and hedgerows which make such an important contribution to the character of the area's landscape. The industry has also been, and still is, of crucial importance in contributing to the economy, and supporting the communities, Welsh language and culture.
- 5.3.2** Agriculture also makes an important indirect contribution to the area's economy. There are a variety of agricultural foodstuff and produce suppliers in the area in addition to machinery suppliers and repairers, agricultural builders and contractors. There is also work associated with stock trading, haulage of stock and processing agricultural produce – the most important example being the creamery at Y Ffôr which provides jobs for many people from Llŷn.
- 5.3.3** Until recently most farms on the peninsula were mixed farms with a variety of animals kept and various crops grown. The farms were self-sustaining to a large degree with most of the stock feed, and family's food needs being grown on the unit.



Ploughing on the Llŷn Peninsula

**5.3.4** The agricultural industry developed significantly during the second part of the twentieth century in Llŷn as in other parts of Britain. New machinery was introduced for farm work and a revolution took place in terms of land improvements for agriculture with crop growing on a much more extensive and commercial scale than ever before. Unfortunately, many of these changes had a negative effect on the natural environment of rural areas. The table below provides a summary of the state of the industry in the area as regards number of units, workers, stock and crops grown as the Management Plan was being prepared:

### Information on the agricultural industry in the Llŷn AONB

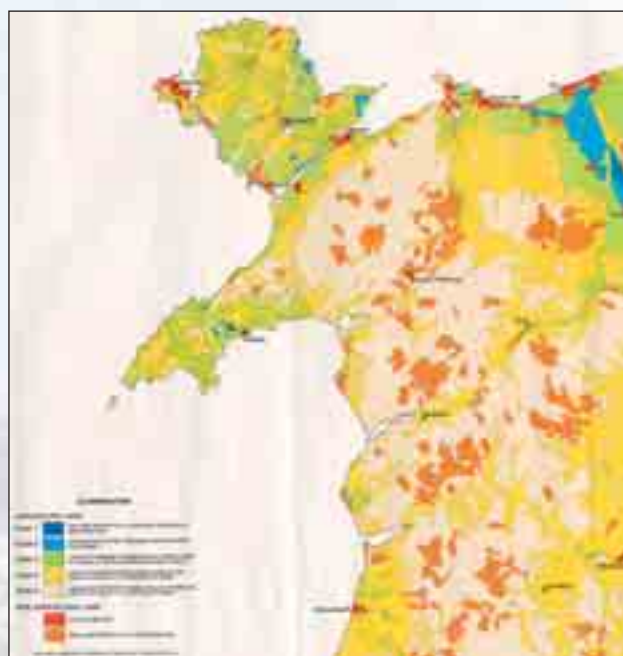
ISSUES	SITUATION IN THE PAST	CURRENT SITUATION
Total holdings	710 – in the 10 communities (1978) Dwyfor District Council	No recent information
Size of units	35 ha on average in the 10 communities (1978) Dwyfor District Council	No recent information
Full time employment	540 (1993)	516 (2000)
Part time employment	282 (1993)	425 (2000)
Breeding ewes	106,044 (1993)	118,255 (2000)
Beef cattle	5,506 (1993)	6,059 (2000)
Grain	1,302 ha (1993)	846 ha (2000)

Source: Cynefin Report 2003, Census, Dwyfor District Council

### Improving land and holdings

**5.3.5** During the 1960s and 1970s, a good deal of agricultural land was improved and reclaimed. In the main, this work involved draining wetlands and reclaiming land on hillsides by felling trees, ploughing and reseeding. This led to an improvement in the quality of produce and in efficiency. Many of the wetlands that were drained were important habitats, and they are now scarce in Llŷn. In the same way, much of the upland that was improved was natural vegetation, much of it heathland.

These were the habitats of a host of different species, with the result that a substantial number of species have become rare or have disappeared from the area. No factual information is available regarding how much land in the AONB has been 'improved' through these methods, but the previous section of the Plan demonstrated that there has been a substantial reduction in the area of rough land, wetland, heathland and woodland in Llŷn.



Safon tir amaethyddol © Swyddfa Gymreig

**5.3.6** As a consequence of these improvements many traditional field boundaries were removed and many other traditional features were also lost such as gate posts and stone stiles etc.

Many of the field boundaries in Llŷn date back several centuries and are an important feature of the area's history and development. Walls, 'cloddiau' and hedgerows are also important habitats for a variety of wildlife. Many historic field names were also lost along with the boundaries.

**5.3.7** As agriculture in this way changed the dependency on artificial fertilizers, pesticides and weedkillers increased. Excessive use of chemicals and fertilizers of this type leads to the outflow of artificial fertilizers impairing water and soil standards and harming habitats and species.

### Sheds and agricultural structures

**5.3.8** Although the majority of local farms have traditional agricultural buildings, they are unsuitable for modern farming. Many of these have by now become redundant and are becoming dilapidated while others have been converted to an alternative use such as holiday accommodation. Many agricultural sheds were built from the 1960s onwards as were structures such as silage pits and fodder silos. 2002 – 2004 saw an increase in the activity following the introduction of the Welsh Assembly's (Farming Connect) Farm Enterprise Grants and in 2003 14 applications for agricultural sheds within the AONB were submitted, 13 of which were approved.

## Stocking and crop growing

- 5.3.9** From the 1980s onwards a tendency developed for farms to specialise and concentrate on their beef and/or sheep rearing changing the traditional farming pattern. This has led to a situation of overgrazing in some areas and undergrazing in others. There has also been a marked decline in the production of crops such as potatoes, barley, oats etc. with an increased emphasis on silage and bought-in fodder. Producing and storing fodder is now much easier following the introduction of big bales, and there is a trend towards producing more fodder (two or three cuts) in order to feed more animals. The grass is also cut earlier in the year than was the case in the past with hay, with an adverse effect on wildlife. Another side effect of big bales is their prominence in the landscape.
- 5.3.10** Tables are included in Appendix 3 to show the stock situation in selected wards in 1993 and 2000. Stock levels appear to have stabilised, with a reduction in some categories. To a large degree subsidies have influenced farming trends, the principal ones are connected with the Common Agricultural Policy and stock rearing and crop growing holdings. These include Arable Area Payments Scheme, Sheep Annual Premium Scheme, Beef Annual Premium Scheme and Suckler Cow Premium Scheme. All these schemes will be replaced by the Single Farm Payment in 2005.

## Agri-environment schemes

- 5.3.11** During the 1980s, the emphasis shifted as regards agricultural subsidies and greater importance was placed on environmental matters. The Llŷn Peninsula was amongst the first areas to be designated an Environmentally Sensitive Area and as a part of this scheme subsidies were available to support natural and semi-natural habitats (rough land and hay meadows, lakes, pools and streams, broadleaved trees and scrub), to maintain and restore field boundaries ("cloddiau" hedgerows and stone walls), and maintenance and repair of historical agricultural features, including items such as stone gateposts and traditional agricultural buildings.
- 5.3.12** The scheme was applicable to the whole Llŷn area (which includes the entire peninsula from Pontllyfni to Porthmadog) and by 1999 245 individuals were participating – a total of 14,325 ha. (Source: Gwynedd Agricultural Affairs Report 1999). In 1991 a report on Assessing the Landscape for Inspection was published which defined specific areas, the plan being to reassess these areas at the end of the scheme in order to evaluate its success from the point of view of conserving the area environment. A report was published by Gwynedd Archaeological Trust in 1997 that included an historical assessment of the landscape of different parts of the Environmentally Sensitive Area.
- 5.3.13** This scheme was succeeded in 1999 by Tir Gofal, which applies to all of Wales. This Scheme follows the same principles of maintaining and restoring habitats and historical remains, but with additional focus on maintaining habitats and options for farmers. Another agri-environmental scheme that has been active in Llŷn, but which has now come to an end, was the Hedgerow Restoration Scheme. This Scheme was implemented in 1992. Part of this Scheme involved offering 10 year contracts to restore and maintain hedgerows. 6586m of hedgerow were restored in the AONB under this Scheme, according to the Countryside Council for Wales, who administered it. In addition to this, thousands of metres of existing hedgerow were also maintained.
- 5.3.14** Other relevant Schemes are those involved with establishing and managing woodlands. In addition to the general grants there are some specifically for farmers, namely the Farm Woodlands Premium Scheme and the Shelterwoods Project.

## Organic farming

- 5.3.15** Organic farming involves farming without the aid of artificial fertilizers and most pesticides and weed killers. It is a more labour-intensive system than conventional farming, with strict rules governing transfer and the recording of activities. Recently, there has been an increase in awareness, and a willingness to pay for organic produce, as a result of concerns about husbandry and production methods, pollution and genetically modified crops. Organic systems are similar to the mixed farming systems of the past, and clearly beneficial to an environmentally sensitive area.
- 5.3.16** Since 2001 the Welsh Assembly Government, through Farming Connect, has been offering assistance to farmers who wish to convert to organic and register with the Organic Farming Scheme. This assistance includes an information pack and aid to produce a Farm Business Development Plan. To date only a small minority of farmers have joined the Organic Scheme in Llŷn according to local Farming Connect facilitators. The Organic Centre Wales provided information which showed that there were 10 members of the Scheme in the LL53 postal code area (Llanystumdwy to Llithfaen) with a total of 228ha.

## Problems in the agricultural industry during the 1990s

**5.3.17** The agricultural industry suffered a severe blow in the late 1980s, the 1990s and at the turn of the new century, due mainly to the following factors:

- Bovine Spongiform Encephalopathy (BSE) at the end of the 1980s;
- Restrictions on exporting live animals;
- The strong pound affecting exports;
- Foot and Mouth Disease (FMD) in 2001.

**5.3.18** Farmers incomes fell dramatically during this disturbing period. Due to the fall in income farmers also had less money to spend in the local economy and other industries suffered.

**5.3.19** Because of the need for larger, economically viable units, and the high prices paid for farmhouses with a few acres of land, the number of farms being broken up has escalated. Very often, farms are sold in lots, with parts of them being bought by adjacent landowners. The farmhouse, along with a small area of land, is often sold to another buyer, not necessarily a local. No information regarding the AONB is available but some figures for Gwynedd are shown below:

- Reduction of 60% in the number of very small units (less than 5ha) between 1985 and 1995;
- Reduction of 17.6% in the number of lower middle band units (5 – 49.9 ha);
- Substantial increase of 187% in the number of large units (up to 100 ha);
- Increase of 26.2% in the number of upper middle band farms (50-99.9ha).

### Diversification

**5.3.20** Due to lack of income and support from the Government a number of farmers in Llŷn have diversified their businesses to bring in extra income. The most popular forms of diversification have been keeping caravans, adapting out-buildings into holiday lets and open air activities such as hovercrafting and grass boarding. Agricultural diversification plans are helping to maintain farm units, local communities and the local economy. But some plans can adversely affect the special characteristics of AONB, e.g. caravans in prominent sites, noisy activities or unsympathetic alterations to agricultural buildings. New grants have been introduced to develop diversification schemes and improve farm holdings by the Assembly (Farm Enterprise Grant, Farming Connect). Also, various other grants are available to support diversification schemes by the Wales Tourist Board, Welsh Development Agency, Gwynedd Council etc.

### The future

**5.3.21** Due to its important contribution in environmental, social, economic and cultural terms it is important to ensure that existing farming units are acknowledged and supported. To carry on and survive farmers will have to adapt and capitalize on opportunities. Being within the AONB should not hamper such projects (e.g. diversification) but all schemes need to have regard to the AONB designation and not harm the area's special qualities.

**5.3.22** Agri-environmental and organic farming are definitely more sustainable than farming based on high levels of stock and a high dependency on artificial fertilizer, weedkillers and pesticides and bought in fodder. Also farming under these schemes has a positive influence on the area's special characteristics.

**5.3.23** It is anticipated that the emphasis on environmental work is set to continue as a consequence of reforms to the Common Agricultural Policy that will come into force in 2005. The link between stock numbers and subsidy will cease following the reforms and farmers will be expected to conform with cross-compliance conditions and environmental conditions in order to receive the new Single Payment, and with Hedgerow Regulations and new regulations on uncultivated land. These measures secure environmental advantages, and provide work for local contactors and craftspeople, thereby boosting the rural economy.

**5.3.24** Other possibilities for the future include growing new and innovative crops and keeping non-traditional livestock. The MENTERRA project is researching the possibility of growing and processing new and innovative crops in the Gwynedd area such as naked oats, linseed and soft fruits as well as developing a new Agriculture Innovation Centre on the farm managed by UCW, Bangor. This project was developed by financial aid supplied by Objective 1, the Assembly, the Welsh Development Agency and Gwynedd Council. Other project partners include the UCW itself, CYMAD and bic Innovation while the project will be co-ordinated by Gwynedd Council. New and varied crops could be of benefit to the AONB by

introducing new and more varied habitats, providing diversification opportunities and helping sustain traditional farming units.

## 5.4 Forestry

**5.4.1** Broadleaved woods are scarce in the AONB, and the most important and most vulnerable are protected by Tree Protection Orders. Trees come under threat mainly from new developments which require tree felling and which lack proper management. Diseases such as Oak Decline and Dutch Elm Disease are also a threat.

**5.4.2** The 1950s and 1960s saw the introduction of government schemes to produce more timber and to aim for greater self-sufficiency in the product. Many pine plantations were established on uplands and other low quality land in Wales, England and Scotland. There are only a limited number of this type of pine forest in the Llŷn AONB, on the slopes of Garn Fawr, Moel Penllechog, Nant Gwrtheym, the slopes of Garn Boduan, and in the Garn Fadrun and Rhiw areas. Although pine trees are not native to the area they have, by now, become part of the fabric of the landscape. When these trees are felled, and the replanting process starts, there is a substantial visual impact because the land is left bare and exposed. The LANDMAP landscape assessment has identified the following forests as ones where numbers of broadleaved trees should be increased at the expense of pine trees:

- Garn Boduan – Establish a programme of woodland and habitat management, which includes increasing numbers of broadleaved trees.
- Mynydd Rhiw – Establish long term management in order to restore broadleaved trees.
- Garn Fadrun – Establish a programme of woodland management in order to increase broadleaved trees and heathland management.

**5.4.3** The Forestry Commission in Wales provides grants to establish new pine and broadleaved woodlands. The Farm Woodland Premium Scheme and the Shelterwoods Project offer farmers' specific grants, and this type of diversification could contribute to the continuation of family farming units. The Forestry Commission in Wales also provides grants for restoring and managing existing coppices, namely Re-supply grants, Woodland Improvement Grants, and an Annual Management Grant. Payments for long-term management are also available through the Forestry Scheme and Native Woodland Schemes.

## 5.5 Fishing

**5.5.1** Fishing for fish, crabs and lobsters is a traditional industry in Llŷn but only a few make a full-time living from the industry nowadays. Sea fishing around the peninsula is therefore not on a commercial scale. A study of new opportunities for fishermen was undertaken for Gwynedd Council in 1999 ("New Opportunities for fishermen in Llŷn") which concluded that there were only 10 full time fishermen fishing for crabs and lobsters in the area. By 1999 only 56 fishermen had fishing licences in Llŷn and of these 51 were mainly for crabs, lobsters and sea snails and the remainder for scallops. The industry also supports some part time fishermen and those involved in processing.



Porth Ysgaden

**5.5.2** In 1999 it was estimated that the fishing industry was worth over £1 million inclusive of produce which landed in ports outside the area. The fishermen make an additional expenditure of £200,000 locally to maintain the business. The following table illustrates the value of the different produce to the economy:

PRODUCE	WEIGHT	VALUE
Lobster	32.5 t	£ 344,500
Crab	64.3 t	£ 45,815
Whelks	500-750 t	£ 175 – 262.5

Source: New opportunities for Llŷn fishermen 1999

**5.5.3** The 1999 study also comes to the conclusion that there is a possibility of developing a Lobster Incubation Unit in Llŷn to stabilize this form of fishing (as part of another development). There were also possibilities for developing fish farms and making more use of effective marketing to benefit the economy. In terms of processing it is possible to develop a special unit to process crabs or a larger unit which would process store and distribute produce.

**5.5.4** Sea fishing as a leisure pursuit is also increasing along the coast and is a low impact activity. The opportunities for freshwater fishing are fairly limited due to the lack of sizable rivers and lakes in the area.

## 5.6 Quarrying and mineral mining

**5.6.1** Quarrying and mineral excavation were very important in Llŷn during the nineteenth and early twentieth century. At that time there were many active granite quarries on the slopes of the igneous hills prevalent in the area, and there were mineral works in the Llanengan, Bwlchtocyn and Rhiw areas.



*Trefor Quarry*

**5.6.2** The quarries have had a striking effect on the landscape and geology of the peninsula, but they have also provided the material for a large number of the area's historical buildings, and it could be argued that the continued production of some local stone for building maintenance is justified, as well as to ensure that new buildings in sensitive locations blend in with traditional buildings. Only two granite quarries - Trefor and Nanhoron - now continue to operate in the Area of Outstanding Natural Beauty. Both quarries produce on a small scale, mainly for the local market.

**5.6.3** Because of the sensitivity of the AONB, the Heritage Coast, nature interest and archaeological remains, and the possible impact were the quarries to be reopened, Gwynedd Council placed a Prohibition Order in 2003 to regulate the recommencement of mining at the following sites:

- Tyddyn Hywel/Tan y Graig (Llanaelhaearn) Quarries
- Yr Eifl/Cae'r Nant Quarry
- Porth y Nant Quarry
- Carreg y Llam Quarry
- Tan y Mynydd, Llanbedrog Quarry

## VISITORS

### 5.7 Tourism

**5.7.1** Tourism makes a considerable contribution towards the local economy in Llŷn and is one of the main industries in the area. Expenditure by tourists provides a significant boost to support local services and facilities such as public houses, restaurants, cafes, hotels shops and garages. Accommodation facilities include hotels, guest houses, bed and breakfast, holiday cottages, static and mobile caravans, chalets and tents. It is essential to find the right balance between benefiting from the industry and the possible over-development of the area which would have an adverse effect on the attributes of the area. Some statistics relating to the tourist industry are noted in the following table:



*Abersoch*



## Visitors to the Llŷn Peninsula AONB

TYPE OF VISITOR	ESTIMATED NUMBER OF VISITORS	NUMBER OF VISITOR DAYS
Long and medium term visitors	201,696	865,275*
Short term visitors (1-3 days)	71,040	304,761*
Day visitors	164,010	Nil
Total	436,746	1,170,036

Source: Welsh Tourist Board

### Details of accommodation and length of stay

ACTIVITY	DETAILS
Long/medium stay visitors	201,696 (estimate) 2000 *
Short stay (1-3 days)	71,040. 2002 *
Day visitors	164,010. 2002*
<b>Accommodation</b>	
Serviced	6.13 %. 1998*
Caravan/tent	88.2 %.1998*
Self-catering/hostel	5.67%. 1998*

Source: Wales Tourist Board

**Note:** \*Figure based on multiplying the estimated number of visitors with the average length of visitors' stay in north Wales of 4.29 days. (WTB, 2000)

**5.7.2** At present tourism in Llŷn is very seasonal and traditional in nature. In an effort to try and counter this the Wales Tourist Board and others are emphasising the targeting markets such as activity holidays (walking, cycling, fishing etc) and less seasonal businesses and cultural tourism. There is considerable potential for this type of tourism in Llŷn, which is more sustainable and in-keeping with the area's special qualities. Guidance on these and similar matters is provided by the WTB in the Cultural Tourism Strategy and its Sense of Place guidebook.

**5.7.3** However, there are also side-effects associated with this industry. Over use of paths and beaches causes erosion, some activities are noisy or create conflict, caravans can impinge upon the landscape and second homes can affect the language and culture. The industry can also place significant pressure on public services and facilities during busy periods. There is also pressure on the natural environment from erosion, litter, traffic and pollution. It is important to assess the effect of the tourism industry on the environment and the area's special qualities due to the effects of the industry.

**5.7.4** In order to improve the industry and limit negative effects the WTB have been encouraging local authorities to adopt Intergrated Quality Management as a tool to improve visitors experiences and



Caravans in Sam Bach

and safeguarding economic, environmental and social benefits for the local community. Details trial work on this matter has been carried out by UCW Aberystwyth.

### Accommodation

**5.7.5.** Serviced accommodation, namely hotels, guesthouses and bed and breakfast bring significant direct benefits to the local economy and provide jobs. However there has been a decline in demand for this type of accommodation and a number of hotels have closed during the past twenty years (e.g. Cecil Court and the Linksway Hotel, Morfa Nefyn). It would be worth while to look into the reasons for these changes as this sector is in need of support and leadership to redevelop.

**5.7.6.** On the other hand there is a significant increase in the demand for self-catering accommodation throughout Llŷn – particularly adapted outbuildings and caravans. In a survey of the Llŷn AONB area in the summer of 2003 visitors were asked about the type of accommodation they were staying in; the results can be found in the table below:

## Visitors accommodation in the AONB (2003)

TYPE OF ACCOMMODATION	PERCENTAGE OF VISITORS
Touring Caravans	24%
Self catering	18%
Holiday cottages	16%
Static caravans	15%
Bed & Breakfast	7%
Friends/relatives	6%
Hotel	4%
Resort	8%
Other	2%

Source: Gwynedd Council 2003

### The effect on language and culture

- 5.7.7** In 2001, the University of Wales Centre for Advanced Welsh and Celtic Studies, Aberystwyth, published a Study entitled "The Effects of Tourism on the Welsh Language in North-West Wales". This Study looks at three specific areas including the community of Llanengan in the Llŷn AONB. According to the Census results the numbers of Welsh speakers have declined significantly in this area since 1971.
- 5.7.8** According to the Study the main reason for the decline in Welsh speakers is the number on non-Welsh speaking people who have moved into the area. When immigrants were questioned about their previous links with the area, 73% in the Llanengan area said that tourism attracted them to the area. It appears that there is a link between holiday homes and retired immigrants, as 41% of the people who had a holiday home in the area had bought it specifically for their retirement. Part of the Study's conclusions note: *"It is impossible not to conclude that tourism has had adverse effects on the Welsh language in north-west Wales, not because of its direct effects (which, in fact, were largely beneficial), but as a result of the indirect effects and the fact that central and local governments have failed to control them."*

### Static caravans, touring caravans and tents

- 5.7.9** Static caravans, chalets and touring caravans can all have a negative effect on the environment due to their impact on the landscape and the additional traffic they create. This problem was highlighted in the research report: "The Llŷn Peninsula – an assessment of the heritage coast and the area of outstanding natural beauty" published in 1983. Some rights concerning these units, such as the Warren near Abersoch, date back to the 1960s. In order to obtain a picture of the number of caravans on the peninsula, Gwynedd Council Caravan Surveys were studied. The information shown below is based on these surveys and includes units on the peninsula within the AONB or near the boundary.

### Accommodation facilities in the AONB

TYPE OF UNIT	TOURING	STATIC	TENTS
Number	315	2,054	1,039

Source: Gwynedd Council, List of Caravans in the Dwyfor Area (c.1998)

- 5.7.10** It is believed that the above information is now dated and that there are now considerably more touring and static caravans on the peninsula. Another important factor to be considered in this context is that a number of site owners and operators keep more caravans more units than they are entitled to hold. Planning officials are concerned about this situation as the operators can claim Legal Use Certificates for the additional number of caravans following a continuous period of use. Officers are of the opinion that regular monitoring is essential, that opportunities to lessen the impact of present developments through landscaping exist and that additional controls are needed in sensitive areas.
- 5.7.11** The WTB is aware of various problems caused by caravans and has been encouraging owners and operators to improve the quality of landscaping by offering advice and grant aid. The Board's view is that discussion and persuasion should be used to try and alleviate the problems rather than enforcement action.
- 5.7.12** A trend has recently developed of storing touring caravans and boats on sites over the winter months which is more convenient for owners although this can be a blight on the landscape so planning applications will require careful consideration.

## 5.8 Recreation

- 5.8.1** Many outdoor recreation activities take place in Llŷn, particularly during the hectic summer period. Low impact activities dependent such as walking, cycling and horse riding do not cause any pollution or congestion. It is believed that significant potential exists to develop such activities, cycling in particular, in Llŷn as alternative means on travel.

**5.8.2** Visitors to the area and local people make substantial use of access rights and rights of way. Public footpaths, bridleways, common land and many minor roads are used for numerous activities such as walking, running, horse riding and cycling and most of the area's beaches are used for swimming, sunbathing, games and sports.

**5.8.3** Many of the popular seaside/marine activities in Llŷn are also low in impact. In the coastal areas of Pwllheli, Llanbedrog, Abersoch, Porthdinllaen, Morfa Nefyn, Nefyn and Trefor boating activities (e.g. canoeing, rowing, and small boats), sailing, jet skiing and water skiing and windsurfing are popular. Surfing is a popular activity at Porth Neigwl (Hell's Mouth), Porthdinllaen, Porth Ceiriad, Aberdaron, Porthor, Nefyn and Trefor. The Green Seas Initiative, developed by the coastal authorities of Wales, Snowdonia and the Pembrokeshire Coast National Park Authorities and the Tourist Board has been instrumental in improving beach access (including for the disabled), facilities and signing in addition to beach management which has helped many achieve the Blue Flag standard.

**5.8.4** A visitor survey which took place in the summer of 2003 shows a pronounced emphasis on beach use, walking, visiting prehistoric remains and archaeological sites and learning about the area's history. The results are listed below:

### Activities by visitors to the AONB (2003)

ACTIVITY	PERCENTAGE
Walking	65%
Learning about the history and culture	32%
Visiting the beaches	78%
Visiting prehistoric remains/archaeological site	41%
Maritime activities (skiing/sailing etc)	24%
Shopping	47%
Golf	2%

Source: Gwynedd Council, 2003

### Erosion by people

**5.8.5** Over-use or unsuitable use can lead to the erosion of sites, paths or resources. Fortunately, this is not a major problem in Llŷn at present. Main areas suffering from population erosion are:

- roadsides due to unofficial parking e.g. Porth Neigwl
- panoramic areas
- paths (mainly coastal)
- historical remains e.g. Tre'r Ceiri
- beaches and sand dunes (mainly Abersoch and Tanymynydd)

**5.8.6** There is no information available about the extent of this kind of erosion but the extent of the problem is evidently much greater during the busy holiday periods.

### Conflict between users

**5.8.7** Conflict between various users is to be expected where there is public access. Problems can sometimes arise between land owners and path and land users. These incidents are usually the result of failing to keep to specific pathways or dogs disturbing stock.

**5.8.8** During the summer extensive use is made of the beaches by people sunbathing, playing games, going for walks, fishing, swimming, diving, surfing and windsurfing. There has been a recent increase in the number



*Conflict between users*

coming to water-ski and with personal water crafts and there is potential conflict between these and the other beach users. The problem is exacerbated when individuals use tractors and vehicles on the beach to launch and leave vehicles and trailers on the beach. This is a significant problem in Abersoch during the summer months. The main locations for marine activities are Abersoch, Llanbedrog, Nefyn, Porthdinllaen and Trefor.

- 5.8.9** The table below shows the substantial increase in the registration of personal water crafts since the establishment of this system in Gwynedd in 1997 (although registration is not mandatory). The registration system was established to try and retain control on the situation which caused concern to Council staff and other beach users.

#### Personal water craft registrations

YEAR	PWLLHELI	OFFICE
1998	247	Information not recorded
2000	276	Information not recorded
2002	224	54
2003	414	261

Source: Maritime Service, Gwynedd council

#### Noisy sports

- 5.8.10** There has been a recent increase in noisy activities following new rural diversification initiatives and more leisure time, but no factual information was available to confirm this when the Plan was being drawn up. Sounds associated with motor leisure such as quad bikes, motorcycles and speed boats definitely impair the peaceful and rural nature of the Area of Beauty. Some noisy activities also can have an effect on other qualities eg motor bikes damaging habitats and disturbing wildlife (there is verbal testimony of this taking place at Gam Boduan and Nant Gwrtheyrn).

## COMMUNITIES

### 5.9 Changes in the population and community

- 5.9.1** Although the area's population figures remain relatively consistent, there has been a clear change in the nature of the population as shown by the Census. The age structure has changed because there are less young people in the area and more older people. This can be partly accounted for by the fact that people tend to live longer but the nature of the population has also changed due to migration.
- 5.9.2** The area suffers from the outward migration of young people born and raised in the area, which means losing indigenous residents who are familiar with the language and the culture. A study by UCW Bangor into migration in Gwynedd and Anglesey showed that the main reasons for this are the lack of employment opportunities (in specific areas), job shortages, low wage jobs and seasonal jobs. There are also factors that attract them to other areas such as good job opportunities, town/city life and friends or family contacts. Efforts are now being made to keep in touch with people from the area informing them when jobs become available through the Llwybro - Routes scheme developed by the Welsh Development Agency.
- 5.9.3** On the other hand, there is the migration of people mainly from other parts of Wales and Britain. On the whole, two categories of people tend to migrate to the area: older people coming to retire and families moving for various reasons such as opting for a different way of life. The table below, prepared by Gwynedd Council, shows the rate of house purchases by non-local people during two specific periods:

#### House purchasing in Dwyfor and Llŷn

GWYNEDD HOUSING SURVEY 1/7/2001 – 31/6/2003		
Houses bought by	Dwyfor Area	Llŷn Area
People living in Gwynedd	63%	59.4%
People living in Anglesey	0.3%	0.4%
People from outside Gwynedd and Anglesey	36.7%	40.2%

Source: Housing Research Papers 2003, 2005

Gwynedd Council Department of Planning and Economic Development.

- 5.9.4** These population changes, when taken together, harm the communities, the culture and the use of the Welsh language in the AONB in the following ways:
- change in the age structure of the population;
  - fewer people who were born and raised locally;
  - reduction in the number of Welsh speakers;
  - decline in awareness of local history and culture;
  - some Welsh names are lost eg homes and fields.

## 5.10 The housing stock

**5.10.1** The housing stock is a very significant social and economic resource. What happens to the housing stock has a significant impact on the local community and economy. There are no plans to conduct a detailed study of the local housing stock; this will be done in other documents – most notably the Gwynedd Unitary Development Plan and the Housing Operational Plan and Strategy. Both these documents are produced by Gwynedd Council. Attention will be given specifically to the 2 issues which are very prominent in the local housing sector, namely second/holiday homes and house prices.

### Second homes and holiday accommodation

**5.10.2** Second homes or holiday accommodation form a significant part of the area's housing stock. Naturally, the total varies from area to area with a high number in the most popular areas, such as Llanengan and Llanbedrog. A number of scholars have conducted specific studies on holiday homes, such as Mark Tewdwr-Jones in his book *Second and Holiday Homes and the Land Use Planning System* and J T Coppock's *Second homes: curse or blessing?*. These studies show that second and holiday homes can reap benefits to the local economy but that there are also a number of negative side effects:

- \* a proportion of the housing stock goes out of the local community's reach;
- \* the character of parts of villages can change due to the fact that the houses are empty for significant periods of the year, particularly in winter;
- \* price increases. Second homes create additional competition in the housing market.

**5.10.3** Recent figures show that the percentage of second and holiday homes in the housing stock is declining, however this varies from one area to another :

### Second homes/holiday homes

USE	1981	1991	2001
Second homes/ Holiday accommodation	24.4%	21.5%	19.58%

Source: Census (10 AONB communities)

### House prices

**5.10.4** There has been a significant increase in house price since the end of the 1990s which has created a situation where it is difficult, if not impossible in some areas, for local people to buy houses. The increase is a progression of the national pattern but there are also additional factors such as competition from immigrants, competition from those wishing to buy second homes, and low local wages. Between 1997 and 2003 there was an increase of 96.9% in Gwynedd house prices, compared with 84.8% for Wales. The table below contains more detailed information about house prices in the Llŷn area in 2003. Prices have clearly risen again since 2003 and there are regular articles in the local press regarding the housing problems of local people (especially the young).

### Local house prices in 2003

HOUSES FOR SALE IN LLŷN (UDP CATCHMENT AREA) JANUARY 2003		
Under £31,055	Under £49,862	Under £73,775
1	4	22

Source: Housing Research Papers, 2003, 2005 Gwynedd Council Department of Planning and Economic Development.



Cambrian News 25:3:04

## 5.11 Community facilities

**5.11.1** There is a relatively good provision of traditional communal facilities such as village halls and buildings for public use (e.g. religious buildings) in the area and these are useful for meetings, providing training, entertainment, money raising activities etc. It's important that these buildings are maintained for the future and developed to meet current needs by providing modern facilities and disabled access. But the area lacks

recreation and modern entertainment facilities for young people. The lack of local facilities increases the need to travel and this can mean great difficulties for local residents, particularly if they do not have the use of a car or someone to provide them with transport.

**5.11.2** There has certainly been a decline in services and facilities on the Peninsula, particularly in the most western villages and areas. There has been a noticeable decline in shops, post offices and garages. Gwynedd Council began collecting specific information in a 2002 survey and a second survey was completed in 2004. Information about the following villages within the Llŷn AONB was collected in 2002 and 2004: Aberdaron, Clynnog, Edern, Llanaelhaearn, Llanbedrog, Llanengan, Llithfaen, Morfa Nefyn, Mynytho, Pistyll and Trefor. The aim is to continue to conduct these surveys in future, enabling the situation to be monitored. The table below shows the reduction in some of the services noted and an increase in others. The period between these two surveys is in fact too short to indicate any great changes.



Llangian village shop

### Changes in services and facilities

SERVICE	2002	2004	CHANGE
Nursery school	5	6	+1
Primary school	8	8	0
Shops	17	15	-2
Shop/post office	9	8	-1
Restaurant/Cafe	3	5	+2
Pub/Hotel	19	15	-4
Community hall	7	7	0
Garage	2	2	0

Source: Survey of Gwynedd Towns/Villages 2002, 2004

### Leisure

**5.11.3** There are a number of leisure facilities in the area for the local people that are also available to visitors. These include the all-weather pitch at Botwnnog Secondary School, Bodegroes Sports Club and Dwyfor Leisure Centre which offers a number of facilities, including a swimming pool, fitness room, badminton, tennis and squash courts, a football pitch and practice ground. The leisure centre also holds a number of classes and lessons. By now a number of leisure activities have been developed to service the holiday industry in Llŷn, these are also open to the local population e.g. quad bikes (Castellmarch, Abersoch), hovercraft (Tanrallt, Llanengan) and clay pigeon shooting (Llanbedrog).

## DEVELOPMENT

### 5.12 New buildings and extensions or alterations to existing buildings

**5.12.1** New buildings which are permitted in the AONB, could potentially have an impact on a number of special qualities if they are not suitably located and designed with regard to their setting. The vast majority of new buildings are houses (and agricultural buildings) although there are a few commercial buildings. Every new building has an impact on its surrounding landscape or townscape and some locations are much more sensitive than others.



Contrast between traditional and modern character

**5.12.2** Although planning regulations have worked effectively to the advantage of the AONB in controlling new buildings, it has not been as successful in controlling the design of buildings. The "Llŷn AONB Settlement Character and Conservation Area Appraisal Study" report highlights examples of new houses in rural areas and villages which are unsuitable in scale and design. Some of these recent buildings have had a negative impact on the skyline, the character of the Conservation Area, listed buildings or the general character of the villages. There is often a tendency towards urban designs in villages and rural locations.



*Inappropriate design*



*A new house in the countryside*

### Extensions, alterations and minor developments

**5.12.3** Gwynedd Council has recently seen a substantial increase in the number of planning applications for improvements, extensions and alterations to houses as well as applications for change of use of buildings into houses. The full reasons behind this are unknown, but it is likely that low interest rates and a strong housing market have been an influence. Historical buildings or buildings in conservation areas are particularly sensitive to any changes. Unsuitable extensions or alterations in terms of size, form, scale and design can impair the character of such buildings.

**5.12.4** Planning permission is not required for minor developments under the 1990 Town and County Planning Act (permitted developments). This permits such modifications as changing colour, fitting satellite dishes, erecting a porch, situating a caravan within a curtilage, and erecting a garage or a garden shed. A combination of these changes could harm the character of individual houses and areas. There is no factual information available to measure how many such changes occur or how many are detrimental to existing buildings. The Llŷn AONB Settlement Character and Conservation Area Appraisal Study contains an assessment of every village within the AONB and refers to a number of examples of these kinds of developments.

## 5.13 TRANSPORTATION

### New roads and road improvements

**5.13.1** Increased traffic levels render improvements for road safety and ease of travel a necessity. New roads and substantial road improvements in rural areas can have a significant impact on the landscape and the AONB's other qualities, such as habitats and species, archaeology and historical remains. Although there have been no major schemes in the area recently, there are a number of significant schemes in the pipeline, namely the A499 – Aberdesach to Llanaelhaearn improvement scheme (2007) and new road at Plas yn Rhiw (2005). The routes of the above roads have now been decided, but the design of the plans is all important in reducing the effect of the development on the landscape and the coastline, habitats and species.



*Road markings in Llanaelhaearn*

**5.13.2** Over the years minor improvements have been regularly carried out on crossroads, narrow areas and entrances. Generally, engineers work to developed standards with regard to road width and pavements, lines, signs, lighting, entrances etc. Improvements often lead to the creation of a much more formal and urban atmosphere which is incongruous in a rural area such as Llŷn.

### New signs and street lighting

**5.13.3** One factor which has contributed towards the rural and peaceful feel of the area is the lack of street lights and signs. However, there has recently been a tendency to erect more and more signs and street lights, which impair the nature of the area and create a more urban atmosphere. The new signs and lights are often provided in a bid to improve safety, but they are not always necessary. Bright road marks are also used sometimes, such as those near Llanaelhaearn and Gym Goch, to warn motorists of dangers.

**5.13.4** New signs are also erected at the roadsides advertising various attractions, some of which are official tourist signs whilst others are by private companies. Private signs are not always of a suitable style to blend into the background and often such signs are not bilingual, and thus an opportunity to acknowledge the area's culture and language is lost.

**Traffic**

**5.13.5** As the area is rural in its nature, there are high levels of car ownership and dependency in order to reach work and services. In 2001, 66% of the people travelled to work in a car compared to 63.3% in Gwynedd. Of course, traffic levels are also much higher during holiday periods. The information shown in the table below confirms this. Also, many visitors now bring trailers with boats or personal water craft or tow caravans which can increase problems on the peninsula's narrow roads. Significant traffic during holiday periods create problems at Nefyn, Abersoch and particularly at Pwllheli (especially on Wednesday, which is market day).

**Traffic levels in summer and winter**

ROAD/AREA	NUMBER (TRAFFIC)	
	August 2002	November 2002
A499 Llanbedrog	7,400	4,023
B4417 Llithfaen	1,865	1,170

Source: Gwynedd Council (2002)

**5.13.6** Information from the Census suggests a high level of dependency on cars to travel to and from work in the area. This suggests a lack of effective alternative modes of transport which would offer environmental benefits. Research work is needed on this subject to assess alternative means of travelling and a more integrated system of public transport because decreasing traffic and the dependency on cars would benefit the AONB environmentally.

**5.14 Communication and telecommunication**

**5.14.1** There are no high voltage (132kv) electrical lines or electrical structures of a considerable size in the Area of Beauty. Although they do have a noticeable effect, telephone and electrical poles have been accepted to some extent as part of the landscape, although the substitution of underground cables offers an opportunity to improve the appearance of the landscape, as work carried out by the National Trust in Porthdinllaen illustrates. Road redevelopment schemes could offer an opportunity to simultaneously put in underground cables.

**5.14.2** Mobile telephone masts are a recent development which can be very prominent in the landscape, detrimentally affecting the views. A number of these have now been erected in or near the AONB and a number of applications refused (applications were submitted to erect 17 masts in the AONB during the period 1996-2002). In some cases, masts are mounted on existing buildings or are hidden in artificial trees.



*Electricity and mobile phone masts*

**5.15 Energy**

**5.15.1** No electrical energy is created on a commercial scale in Llŷn. Electricity is carried to the area by a system of wires and poles which are very prominent in the landscape and townscape. Undergrounding such structures would improve the views of the landscape and townscape.

**5.15.2** Because Llŷn is an open peninsula, with areas of high ground and favourable wind strength, studies show that it would be possible to locate windmills here. Although windmills can produce electricity without burning fossil fuel and creating pollution, developments of this kind, particularly on a commercial scale, could have a detrimental effect on the landscape, the views and the biodiversity of the AONB and therefore it is unlikely they would be permitted. As yet, only a few small individual structures have been erected in addition to masts measuring wind speed.

**5.15.3** Offshore wind developments would have less effect on the area but again, due to the sensitive environment and the number of statutory and local designations, especially the Special Area of Conservation, it is unlikely that such developments on a commercial scale would be permitted. The scenario is similar with regard to tidal developments off the shore of Llŷn. There are no opportunities for water power on a commercial scale due to the nature of the landscape and the rivers.



**5.15.4** As a means of decreasing the dependency on national energy and being more sustainable there may be opportunities to produce energy on a limited and local scale in the area. Any such schemes would have to take fully into account the effect on the area's sensitive environment (an ecological footprint model might be suitable). Schemes that could be suitable for Llŷn include small water turbines on some rivers, solar energy and biomass. The potential and effects of these types of development will be assessed in the forthcoming Gwynedd Energy Strategy. This Strategy is being co-ordinated by Sustainable Gwynedd and various partners will contribute to its preparation including Gwynedd Council.

**5.15.5** Unfortunately society and industry use more and more electricity. Saving energy by prudent use and making efficient use of energy are also important matters which will need to be addressed in the Gwynedd Energy Strategy.

## 5.16 Care and maintenance

**5.16.1** Lack of maintenance can impair many of the special qualities of the area, but most importantly the landscape and coastline, the historical environment and access. All that is often required are simple actions such as hedge trimming, clearing and cleaning rubbish. Prominent examples would include unkempt sites in the countryside and in villages, blockages in lakes and rivers and overgrown paths which become impossible to traverse.



*Plas Pistyll*



*Pen y Caerau shop*

**5.16.2** On the other hand, maintenance work can impair some of the area's qualities because the work is carried out incorrectly, at the wrong time or because the work damages or disturbs some other feature.

**5.16.3** The LANDMAP Landscape Assessment identifies two specific areas within the AONB which are environmentally poor and recommends improvements: Trefor (poor quality environment) and Bwichtocyn/Machroes – remains of mineral works. The Llŷn AONB Settlement Character and Impact and Conservation Area Appraisal Study (2003) also identifies the following sites as being of low environmental standard:

### Low quality environment in the AONB

VILLAGE	SITE LOCATION
Nefyn*	Site at the north of Well Street near the Fire Station
	Site of old garage – Church Street
	Car park site, St David's Road
	Madrin Hall building
Rhiw	Northerly part of the village
Trefor	Bus depot site, village centre
	Works and bus site, westerly part of the village
Llithfaen	Sites and buildings below the B4417 in the direction of Llanaelhaearn
Clynnog	Site opposite the St Beuno Hotel
Llanbedrog	Minor sites on Ffordd Pedrog and other roads
Mynytho	Council houses' car park
Morfa Nefyn	Playing field in the village centre
	Site at the westerly entrance of the village on the B4412
	House and site to the south of the crossroad
	Linksway Hotel site
Edem	Site of an old garage on entering the village
Sam Melteym	Garage site at the village centre (when closed)
Pistyll	Patch of land between the Council houses and the road

Source: Gwynedd Council (BDP) 2003

## Historical environment

- 5.16.4** Although historical and archaeological remains have survived over long periods of time, some can decline due to lack of maintenance work. This is particularly true for sites where the remains are on the surface of the land and where there is much visiting and traversing, such as Tre'r Ceiri. Historical features identified in Llŷn, which are suffering due to lack of maintenance, include archaeological remains, field boundaries and wells.
- 5.16.5** Important historical features are also being damaged by careless or incorrect maintenance work, e.g. historical milestones are broken, stone gate-posts are replaced with metal poles or concrete posts and the area's traditional iron gates are replaced with wooden gates or galvanised metal ones. Archaeological remains are also sometimes lost or damaged by engineering work involving boring or building.
- 5.16.6** Lack of maintenance and defective maintenance can have a significant effect on historical buildings and structures and on the general character of villages. The main problems are:
- untidy buildings (failure to paint, tidy etc);
  - buildings becoming dilapidated, fragile or dangerous;
  - buildings/structures being incorrectly maintained (materials and methods);
  - individual buildings and areas losing value due to minor developments impairing their character.
- 5.16.7** One of the worst examples of a dilapidating building having a negative effect on the AONB is the former Plas Pistyll hotel on the northerly coast.
- 5.16.8** Due to planning regulations, Listed Building Planning Permission is required to make any changes to a listed building or structure; therefore it is possible to keep stringent control of unsuitable developments. However, the problem is greater in the case of historical buildings and historical parts of villages (including conservation areas) as there are no strict regulations. For example, there are several minor developments that do not require planning permission such as changing the colour of buildings, replacing windows, etc. An Article 4 Order could possibly be used under the 1990 Town and County Planning Act to withdraw permitted development entitlements in order to control such situations.
- 5.16.9** There are certainly insufficient funds to carry out suitable maintenance work to a high standard, and insufficient information and understanding contribute to maintenance problems in historical buildings. Although there is no detailed information about this problem, two recent reports contribute significantly to the information available about the situation within Llŷn AONB, namely the Gwynedd Buildings at Risk Survey 2001 and the Llŷn AONB Settlement Character and Conservation Area Appraisal Study 2004. The Buildings at Risk Survey showed that 56 buildings within the AONB are at moderate risk and 35 are at high risk.
- 5.16.10** The Llŷn AONB Settlement Character and Conservation Area Appraisal Study 2004 includes an assessment of every village and Conservation Area within the Llŷn AONB (except Bardsey Island). It is a detailed study including an evaluation for each individual village and Conservation Area. The Study generally illustrated that the character of the villages has been well preserved but that there are some recent unsuitable developments, mainly new houses.
- 5.16.11** The Assessment of Conservation Areas illustrated that some areas have suffered significantly from the general decline due to minor developments. Other areas have retained their traditional appearance and character effectively over time. A concise summary of the Study's conclusions is given below:

### Findings of Llŷn AONB Settlement Character and Conservation Area Assessment

VILLAGE	HISTORICAL CHARACTER	CONSERVATION AREA
Aberdaron	Well maintained on the whole	No change
Nefyn	Varied	Extension designated
Porthdinllaen	Unique	Extension designated
Rhiw	Relatively well maintained	No designation
Llangian	Extremely well maintained	Additional conservation
Llaniestyn	Well maintained	Additional conservation
Llanengan	Varied rural character	Additional conservation
Trefor	Distinct character relatively well maintained	Extension designated and additional conservation
Llanaelhaearn	Relatively well maintained	Extension designated and additional conservation
Llithfaen	Relatively well maintained	No change
Clynnog	Distinct character but marred by some developments	Additional conservation
Bwlchtocyn	Rural character relatively well maintained	No designation
Abersoch	Varied character, historical part is commendable	No designation
Llanbedrog	Varied character, historical part is commendable	Designation of new CA
Mynytho	Varied. Limited historical character	No designation

Source: Gwynedd Council (BDP) 2003

## 5.17 Pollution and waste

**5.17.1** Not much waste is produced in Llŷn, mainly due to the lack of industrial plants and processes. However, domestic waste, agricultural waste and sewage are created locally and require disposal. If waste is not disposed of using suitable methods, or recycled, it will create mess or pollution in water, in the sea and in soil. This will have a negative effect on the landscape, habitats and species.

**5.17.2** Gwynedd Council has now adopted a recycling scheme which is also operational for the majority of the Llŷn AONB. When preparing the Scheme, waste was collected / recycled in the following ways:

- weekly refuse collection service;
- recyclable material collection service (blue boxes);
- recycling centres for paper, glass, clothing and books;
- community skips – with specific skips for recyclable materials;
- collection service for large and electrical equipment.

### Unauthorised waste disposal (“Fly tipping”)

**5.17.3** Illegal fly tipping in the countryside and on the coast is still fairly commonplace, mainly due to the remote nature of the area and the lack of licensed waste facilities. The usual locations for disposing of refuse in this way are in lay-bys, in wooded areas on rural roadsides, on parts of sea cliffs and on agricultural land. It is mostly domestic equipment (such as furniture and refrigerators), building waste, old cars and agricultural waste that are disposed of in these places.

**5.17.4** This type of fly tipping has a visual effect on the landscape, is a source of pollution and is a risk to public health. The Environment Agency investigates cases of large scale fly tipping, fly tipping by groups and cases of dangerous waste. It is the Local Authority’s responsibility to clear refuse on public land such as lay-bys and roadsides as well as domestic waste. The Environment Agency conducted an enforcement campaign in the Llŷn area during 2004, targeting sites where fly tipping regularly occurred. The Agency will also visit local builders to teach them about correct methods of waste disposal.

**5.17.5** No detailed information is available about fly tipping, but Gwynedd Council has recorded 130 cases between April 2003 and March 2004. Keep Wales Tidy also keeps a record of some cases. The Environment Agency recently established a system on the internet for recording information about fly tipping, named “Fly capture”, and a telephone recording system is also in operation.

### Agricultural waste

**5.17.6** Historically, liquid waste such as diesel, waste oil and dip was disposed of on farms by pouring it into holes or onto the soil. Recently, plastic containers for different liquids and medicines, as well as big bale plastic wrap, have become a common waste product on farms. Disposing of liquids and plastics in the ground pollutes the soil and can also pollute streams and rivers. Silage and slurry are another source of pollution on farms. Liquid from these products can flow into rivers and streams, polluting them. By law, farmers can now be prosecuted by the Environment Agency if incidents of this type come to light and compliance with the conditions of the Single Farm Payment will also definitely improve the situation.

### Sewage disposal

**5.17.7** In the past, elementary sewage disposal systems were developed for the Llŷn area. As in many coastal areas, the sea was exploited as a simple and direct way of disposing of sewage. Prior to recent improvement schemes by Dŵr Cymru Welsh Water, there were pipes carrying untreated sewage directly into the sea in several locations on the Llŷn coastline. People bathed on some of the beaches where sewage poured out of pipes into the sea.

**5.17.8** Over the years, the resident population of the peninsula increased and the considerable increase of people during holiday periods also placed additional pressure on the sewage system. Furthermore, more stringent regulations emerged in respect of cleanliness standards and awareness of environmental and public health issues increased. The Foundation for Environmental Education beach awards also came into existence and the standard of bathing water was all important in order to gain blue and green flag awards.

**5.17.9** Dŵr Cymru Welsh Water has recently implemented a programme of building sewage treatment stations in Pwllheli and Llanbedrog and new work is being developed for the Nefyn, Morfa Nefyn and Edern areas in 2004. Water standards along the shores of Llŷn have significantly improved following new treatment works and this has enabled several beaches to be awarded the Foundation for Environmental Education’s flag awards.

## Litter and dog fouling

- 5.17.10** Littering is an old problem which is common and ongoing in the Area of Beauty. Awareness of the negative effects of litter has recently improved but the problem persists. While preparing an Interpretation Strategy for Llŷn, constant attention was paid to litter by various Council officers. The main areas where littering was creating an environmental problem were near picnic sites, alongside paths, on beaches and in car parks. The litter problem has recently increased on beaches as a result of the popularity of barbeques and parties.
- 5.17.11** Dog fouling is also an increasing problem throughout the area. Many use paths and beaches which are public areas used by families and children to take their dogs for walks. The press regularly features reports and complaints about this problem. Furthermore, beach awards (Blue flag) are subject to keeping dogs out of specific areas of beaches during certain times.

## Low flying aircraft

- 5.17.12** Because the armed forces have an airfield at Valley on Anglesey, it is relatively common for the Air Force's aeroplanes to fly over the Llŷn Peninsula. This air travel often occurs on fine days when the skies are clear. The noise generated by these jet aircrafts definitely impairs the tranquillity of the area and produces noise pollution. Also, low flying can sometimes disturb open-air events and activities.

## NATURAL PROCESSES

### 5.18 Marine erosion

- 5.18.1** Even though erosion has been responsible for creating the distinctive character of the Llŷn coast, the natural process of erosion can place considerable pressure on the AONB's special qualities. The opportunities to take action to manage or prevent it are much more limited and management measures themselves can have an impact on the environment.
- 5.18.2** Rocky areas of the Llŷn coast successfully withstand erosion and very little change has been seen over the centuries, but it is a different story in sand and sediment bays. Considerable erosion has already occurred in some areas of the coast and is continuing. The fact that water runs from the land into the sea down the sea cliffs can further unsettle the cliffs.
- 5.18.3** The negative effects of this kind of land erosion are the loss of agricultural fields, the risk to property and structures, the risk to cliff top pathways and the risk to lives on the beach. A number of coastal paths are suffering from marine erosion and require regular maintenance work. The path between Nefyn and Morfa Nefyn is a good example of this type of erosion.
- 5.18.4** On the whole, the areas which have suffered the most from this type of erosion are parts of the northerly coast between Trefor and Aberdesach and Porth Neigwl on the southerly coast. The Coastal Erosion Study (Aberdaron to Orme's Head) produced by Gwynedd Archaeological Trust in 1994 identifies the main areas of erosion on the northerly coast as follows (the extent of the erosion is noted in brackets):
- Porthor [Whistling Sands] (moderate), Porth Iago (substantial), Penllech beach (moderate);
  - Penrhyn Cwmistir and Borth Wen (moderate erosion);
  - East of Porthdinllaen (very substantial);
  - Gym Goch (very substantial);
  - Near Clynnog (moderate and substantial).
- 5.18.5** There has been substantial erosion in Porth Neigwl on the southerly coast. Slides and subsidence are common here and agricultural land is regularly lost. Property has already been lost to the sea and due to a serious landslide, part of an important connecting road between Treheli and Rhiw was lost.
- 5.18.6** Coastal defences have been erected to protect the coast in Nefyn, Morfa Nefyn and Aberdaron. There was particular justification for these defences due to the real threat to the villages in question. These schemes have certainly prevented erosion and saved property but they have also impaired the natural appearance and character of the area's coastline. Shoreline Management Plans have been produced and published for Ceredigion Bay and The Northern Coast.



*Coastal erosion at Porth Neigwl*