

## 7.0 TRANQUILITY AND LOW POLLUTION

The overall area of “undisturbed”* land in the AONB has decreased since 1997, from 85% to 71%.
Traffic has increased on the A499 since 1997 with related Environmental side-effects.
Many structures (masts and wind turbines) have recently been erected.
Many street lights have been replaced with LED in 2016/17

\* Countryside usually free of any substantial disturbance in daytime

### 7.1 Introduction

7.1.1 Tranquillity is a characteristic which is recognised and appreciated more and more in these busy and often hectic times. It is a phenomenon not easily measured but can be said to be a combination of factors including low levels of noise from industry and vehicles, limited traffic movement and other intrusions and low levels of lighting to disturb the night's dark skies. It is therefore a combination of many factors which creates an atmosphere of tranquillity and areas with high levels of tranquillity are relatively rare throughout the UK although there are significant areas in Scotland.

7.1.2 Tranquillity and a peaceful atmosphere were recognised as one of Llŷn AONB's special qualities during the preparation of the original Management Plan in 2004/5. The area's rurality and remote nature is partly responsible for this and has meant that there are no significant industrial or infrastructural developments and only low levels of intrusion by traffic and machinery. Also, the area's population is relatively low – around 6,000 – considering the surface area.

7.1.3 As well as being an area with high levels of tranquillity, the environmental quality of the soil, air, water and sea water in Llŷn is generally high, with low levels of pollution. The area has a reputation as one with a clean environment which is an advantage for local people and attracts visitors. However, it's important to maintain, and if possible, improve the local environment's condition by limiting activities that creates pollution and encourage activities that are pollution free – such as alternative methods of travelling.

7.1.4 For the purpose of the Management Plan of the AONB, the following has been set as a Main Aim regarding tranquillity and low pollution:

#### **Main Aim**

<b>TO MAINTAIN AND IMPROVE THE PRESENT LEVEL OF CLEANLINESS, PEACE AND SECURITY SO THAT RESIDENTS AND VISITORS ENJOY IMPROVED WELLBEING AND QUALITY OF LIFE</b>
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#### **Special Qualities**

### 7.2 Air Quality

7.2.1 The air in Llŷn is clean and pollution-free. It is an area in which people can enjoy

being out and about and enjoy the fresh air of the countryside and coast. There are no large industries, works or power stations in the area. Although there is no specific information available for the area, the Gwynedd State of the Environment Report (2004) contained information for the County and confirmed that levels of air pollution was low or very low (the four main type of air pollution are Sulphur Dioxide, Particulates, Nitrogen Oxides and Carbon Monoxides). There have been no major developments since 2004 therefore it is summarised that air quality remains the same or could have improved slightly due to tightened emission controls.

7.2.2 It appears that pollution levels generally continue to decrease on a national level. However, pollution is still emitted by many sources and affects the land, air and water thus affecting people, habitats and species. Local measures and projects on a small scale can help to reduce emissions and air pollution.

### 7.3 Clean Water

7.3.1 In general the water quality is good in the area. The main issues affecting water quality in rural areas such as Llŷn are pollutants such as acid rain, artificial fertilizer and slurry outflow. Natural Resources Wales are responsible for maintaining the quality of freshwater and coastal water in Wales.

7.3.2 **Freshwater** – The quality of rivers and streams in the area are good but a Natural Resources Wales recording system sometimes shows problems with river waters in Llŷn, mainly by pollution flowing into rivers. The main problems are:

- Pollution flowing from the land (mainly agricultural land);
- An overflow of agricultural fertilizer and pesticides, sewage and industrial water;
- Acid rain.

7.3.3 Information on the quality of river water in Gwynedd is included in the Gwynedd Information Pack, The Environment Agency (2008). However, only one river within the AONB was large enough to monitor – Afon Soch. This river scores very highly in terms of biology and chemistry whilst pollutant and phosphate levels are quite low/moderate. There are no major failings in terms of river water quality stated in the General River Quality Assessment (Environment Agency). To date, there are no Nitrate Vulnerable Zones in Llŷn.

7.3.4 **Drinking Water** – Welsh Water are responsible for ensuring a clean and reliable provision of drinking water. In terms of a local supply, Llŷn lies within the Llŷn-Harlech district by Welsh Water. The water treatment system for this area was upgraded recently by Welsh Water (the new treatment works was opened in 2017).

7.3.5 **Bathing Water** – The quality of Llŷn's beaches is reflected by the number of beaches awarded with national and European beach awards. They are amongst the cleanest throughout the UK with high water quality and facilities nearby in many instances.

- 7.3.6 The European Coast Awards include Blue Flags, Seaside Awards and Green Coast Awards based on water quality, facilities and management. In 2017 Aberdaron, Abersoch and Pwllheli were awarded Blue Flag status, as well as Seaside Awards while Porth Neigwl was given the Green Coast Award.
- 7.3.7 On a national level, reports confirm that the quality of bathing waters in Wales is very good as a result of improvements in sewage disposal and treatment. At times, rainfall does create an overflow from agricultural and some of that is polluted water. The Marine Conservation Society predicts that these problems will continue due to climate change and are hopeful that Welsh Water, Welsh Government and Green Seas will aid the improvement of the situation. The Marine Conservation Society recommends changes in farming, improving sewerage systems and constant monitoring.

## **7.4 Soil Quality**

- 7.4.1 Llŷn is an agricultural area and the land has been farmed for generations. There is good quality soil on lower lands (2, 3a 3b) which is a valuable national asset for stock and crop production as well as maintaining wildlife. Also, due to that absence of industries and plants, the level of pollution in soil is low even though there are some individual sites where pollution is present following mining operations. Even though there have been numerous landfill sites in the area, by 2009 there were no such sites within the AONB.
- 7.4.2 By now there is better understanding of the need to protect the land and soil quality. Legislation and systems have been adopted to assess soil quality, reclaim polluted land and prevent further pollution. The aim in Llŷn is to maintain the soil's high quality, rationalise the use of fertilizer and chemicals has a part to play in this.

## **7.5 Tranquillity**

- 7.5.1 Llŷn is a place of peace and tranquillity due to its coastal location, rural nature and the absence of large industries and works. This has been confirmed in a report commissioned by Countryside Council for Wales in 1997 to assess the tranquil areas of Wales. The study considered the main categories of development that creates disturbance such as traffic, towns and villages, electrical structures, railways and airports. Also, locations of some specific developments were recorded that affect the tranquillity such as quarries, masts, wind farms, clay pigeon shoots, personal water crafts and racing boats.
- 7.5.2 In this Report much of Llŷn was defined as a Quiet Area or tier C (low levels of disturbance). The Study showed that some noisy activities (mainly marine activities) were apparent on the south coast around Abersoch and Llanbedrog.

7.5.3 In 2009, CCW commissioned Land Use Consultants to assess from new the whole of Wales. For this work, the aim was to follow the methodology used previously to compare. The Study found that there is around 11,600km square of Quiet Area in Wales (around 55% of the country's land area) but that there was a reduction of 1,500km square (around 6% of Wales' land area). See [www.stats.wales.gov.uk](http://www.stats.wales.gov.uk) for more information. Natural Resources Wales intend to update the study in 2018/9.

## **7.6 Dark Skies**

7.6.1 By now, substantial night light is recognised as pollution. Not only does the direct light affect the natural dark sky but also, artificial lights affect the ecosystems that influence the health of people and wildlife. There is a high volume of light in urban areas compared to a low volume in rural areas such as Llŷn. Areas with low volumes of light are getting scarcer in the UK.

7.6.2 Also, there are opportunities to make financial and environmental savings by reducing the use of lights and also changing to LED lamps and lights. Some Local Authorities even switch off some street lights during the night in order to make financial savings, thus making environmental gains also.

7.6.3 As was indicated in the initial AONB Management Plan substantial parts of the AONB remain unpolluted by lights. There are of course street lights in towns and villages and along some roads but there are also significant areas where there are no lights at all. Flood lights have a significant effect on dark skies and are present at Clwb Chwaraeon Bodegroes and Ysgol Botwnnog – both of which are outside the AONB but which can be seen from afar when in use.

7.6.4 The Wales Tranquil Areas Map 2009 compares the situation in 1997 and 2009. In general, there is a reduction of 6% or 1,500 km<sup>2</sup> of tranquil areas in Wales. In terms of the Llŷn AONB, by 2009 the general tranquillity of the area shows pockets of disturbance in and around Llithfaen, Tudweiliog, Rhiw, Llanengan, and the slopes of Garn Fadryn. It is unclear if these pockets are a result of individual developments or if they are part of a longer term pattern of decline. No further work has been undertaken on tranquillity to see if there are any changes in the situation since 2009 but further work is scheduled by NRW in 2018/9.

### **Key Issues**

## **7.7 Transport and Motoring**

7.7.1 Due to Llŷn's rural nature, most residents depend on cars for everyday use. Tourism adds significantly to traffic levels during the holiday seasons, and this results in traffic congestion in some areas most evidently at Pwllheli and Abersoch. Increased traffic and congestion also increases emissions and air pollution.

- 7.7.2 A reduction in car usage and an increase in travelling by more sustainable means would be beneficial in terms of decreasing pollution and possibly create benefits in terms of health. It is therefore believed there are opportunities to promote sustainable means of travelling by methods such as displaying timetables and other relevant information. The Cambrian Line service and Llŷn Coastal Bus are convenient means of transport and it is vital to work together to promote and market such services.
- 7.7.3 Cycling also can offer opportunities to reduce travelling in cars and be beneficial in terms of health. As part of the general drive to promote cycling in the area the AONB Service has recently launched a new leaflet regarding Cycle Routes in Llŷn. It's important to develop further opportunities to cycle in the area by providing suitable paths and promotion.
- 7.7.4 There are also opportunities to promote the use of local paths to reduce car journeys, especially for short distance journeys in and around holiday hotspots.

## **7.8 Litter**

- 7.8.1 Litter on footpaths and around picnic areas and parking areas are harmful to the area's image. To date, this has not been a significant problem but there is a slight increase in cases and cuts in funding could mean less bins and wardens to monitor and manage.
- 7.8.2 Dog fouling is also an issue and this seems to be increasing as more people own pets. Unfortunately, of late there also seems to be a tendency for some people to discard plastic waste bags rather than placing them in the purposeful bins. Placing more bins in prominent places could help, as well as raising awareness of the AONB and its special qualities and how harmful it is to rid waste irresponsibly. Previous projects such as Tidy Towns have worked well with schools to create signs to try and tackle dog fouling problems.
- 7.8.3 Litter can also be a problem on some beaches, with some left by beach users and some brought in by the sea. There is an opportunity to raise awareness among boat users on how to rid waste responsibly. Also Keep Wales Tidy holds cleaning events from time to time on beaches with volunteers such as in Porth Neigwl and any such project is to be encouraged and supported.
- 7.8.4 Even though there is no factual evidence to confirm, there seems to be more fly tipping on roadsides recently. Again, there are opportunities to raise awareness and educate. Plastic farm waste can also be unsightly and there is a scope to raise awareness about disposing of farm waste carefully.

## **7.9 Water Pollution**

- 7.9.1 In general cases of water pollution in the area are rare and there have been improvements in the quality of freshwater, drinking water and bathing water

following new legislation, regulations and new treatment works. There is uncertainty about the exact situation in terms of sewage discharge into the sea and perhaps there is a case for reviewing the issue. Lower quality bathing water could mean problems if applying for beach awards such as Blue Flag and Green Coast Award. A lack of funding also could prevent applying for such awards in future.

7.9.2 Water quality needs to be measured and maintained and Welsh Water needs to continue to work effectively within the AONB.

## **7.10 Tourism Activities on Beaches**

7.10.1 There have been numerous issues in recent years regarding power boats and personal water crafts affecting others and the environment. They are noisy activities and can affect wildlife and other boat users. Some years ago Gwynedd Council established a system to register personal water crafts and this has improved the situation. Also, the Gwynedd Marine Code was recently published (2016) and is aimed at users of the sea and encourages them to be vigilant in terms of marine wildlife and not to disturb animals, fish and water.

## **7.11 Lighting Associated with New Developments**

7.11.1 With some new developments, additional lights will be installed to service the building. In terms of individual houses, this is not a big problem but is more significant with larger developments. Also, lights can be installed on new commercial buildings and there are some examples of significant lights e.g. the new Fire Station at Nefyn. Planning conditions offer the opportunity to control and limit lighting associated with new developments.

## **Policies**

### **PP 1. PROMOTE PUBLIC TRANSPORT VENTURES AND THEIR USE AND OTHER MEANS OF SUSTAINABLE TRAVEL.**

Most vehicles create emissions and air pollution and traffic increases during the busy holiday periods. The AONB Service, in cooperation with other organisations, will promote public transport as a way of travelling around the area (local buses and the Cambrian Railway). Also, there are opportunities to increase other means of sustainable travel – cycling in particular - and the AONB Service therefore will promote cycling locally.

### **PP 2. MAINTAIN AND IMPROVE THE QUALITY OF SOIL AND WATER IN THE AREA.**

Although the quality of water and soil in the area is high, it is important to maintain the situation and make some improvements wherever possible. The aim is to work with other departments in Gwynedd Council and with agencies such as Welsh Water, Natural Resources Wales and Welsh Government as well as site owners to achieve this. Also, it is believed that applications should be made for awards such as Blue Flag and Green Coast – to reflect

the high quality of the water and facilities at some locations.

**PP 3. LIMIT NOISE LEVELS AND LIGHTING WITHIN THE AONB AND NEARBY AND PROMOTE THE USE OF ENERGY EFFICIENT AND LOW IMPACT STREET/ EXTERNAL LIGHTS.**

Tranquillity and dark skies are features associated with the Llŷn AONB and the policy aims to limit developments that would have an impact on them. On the whole, noise is not a problem but existing and newly installed lighting can affect the dark night sky. Conditions will be recommended therefore to control lighting in regard of new developments and others will be encouraged to assess current lighting and possibly reduce lighting levels or install lower impact lighting.

**PP 4. PROMOTE LOCAL CLEANLINESS BY ENCOURAGING RE-USING, RECYCLING AND DISPOSING RUBBISH RESPONSIBLY.**

Even though there are some small areas of rubbish from time to time, fly tipping is not a major problem. The AONB Service will cooperate with other departments in the Council and others such as Keep Wales Tidy to clear sites, educate landowners about reducing waste and recycling and take enforcement steps when necessary.

**PP 5 . RAISE AWARENESS ABOUT THE NEGATIVE EFFECTS AND HEALTH DANGERS OF DOG FOULING AND ENCOURAGE OWNERS TO BE MORE RESPONSIBLE.**

As well as being dangerous to health, dog fouling is a nuisance and creates a negative impression of a particular location or a path. The aim is to cooperate with the Environmental Health department and other organisations to recognise places with problems and to implement campaigns to raise awareness and undertake enforcement action.