

Ynys Môn THE ISLE OF Anglesey

Topic Paper 6: Amenity



Prepared in support of the Wylfa Newydd Project: Supplementary Planning Guidance



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I Introduction

I.I Purpose of this Topic Paper

I.I.1 The purpose of this topic paper is to bring together the evidence base and policy context in relation to amenity to inform the updating of the *Wylfa Newydd Supplementary Planning Guidance* (*Wylfa Newydd SPG*). It is one of 11 topic papers that have been prepared to support the:

- Identification of the key matters to be considered in drafting the revised SPG;
- Provision of guidance with respect to how the revised SPG could respond to the challenges and opportunities identified; and
- To offer further information to the public in support of consultation on a draft revised SPG.

I.I.2 **Box I.I** provides a full list of topic papers being prepared in support of the *Wylfa Newydd SPG*.

Box I.I Topic Papers Prepared in Support of the *Wylfa Newydd SPG*

- Topic Paper 1: Natural Environment
- Topic Paper 2: Historic Environment
- Topic Paper 3: Housing
- Topic Paper 4: Economic Development
- Topic Paper 5: Transport
- Topic Paper 6: Amenity
- Topic Paper 7: Climate Change
- Topic Paper 8: Infrastructure
- Topic Paper 9: Waste
- Topic Paper 10: Population and Community
- Topic Paper 11: North Anglesey

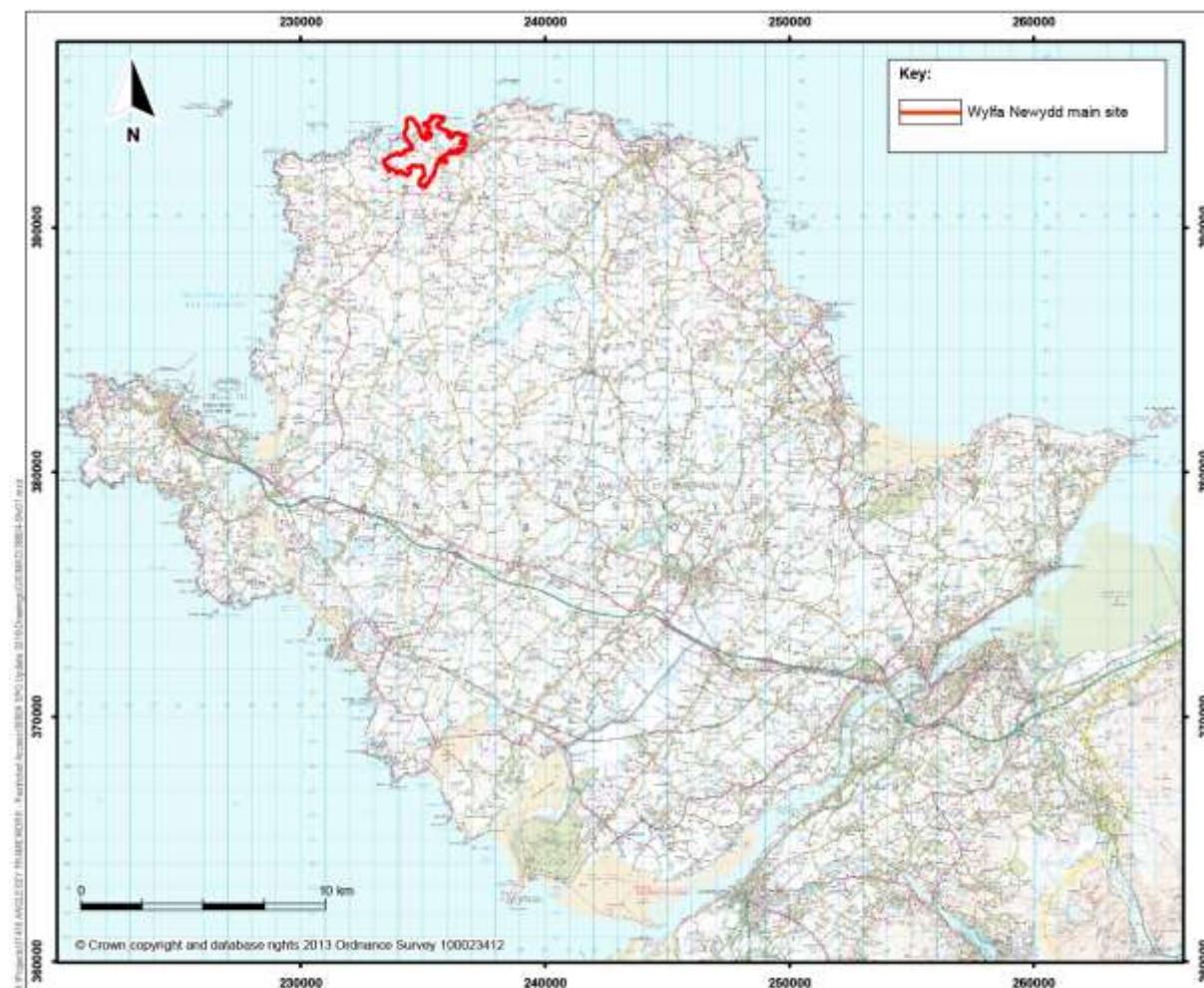
I.I.3 Ten topic papers were originally issued to support the SPG when it was first published by Isle of Anglesey County Council (the County Council) in 2014. Since that time the Anglesey and Gwynedd Joint Local Development Plan (JLDP) has been adopted which has required the topic papers to be updated in line with extant local planning policy including the drafting of an additional topic paper as indicated in **Box I.I** above.

1.2 Context

Wylfa Newydd

1.2.1 Wylfa has been identified by the UK Government in the National Policy Statement (NPS) for Nuclear Power Generation (EN-6) as a possible site for a new nuclear power station (see Part 4 and Annex C of the NPS). Horizon Nuclear Power (Horizon) plans to deliver two Advanced Boiling Water Reactors (ABWRs), generating a minimum of 2,700MW, on the Wylfa Newydd main site. The Wylfa site is approximately 300 hectare (ha) in size and its located beside the existing Magnox nuclear power plant (which ceased electricity generation in December 2015). The project will also include associated development both on the Wylfa Newydd site and at various other off-site locations (see **Figure 1.1**).

Figure 1.1 Location of the Wylfa Newydd Main Site



1.2.2 Construction of the new nuclear power station is a Nationally Significant Infrastructure Project (NSIP) under the Planning Act 2008. Legislation provides that projects like Wylfa Newydd are of such potential importance to the UK that a

different consenting process to the “normal” grant of planning permission by the local planning authority applies. Under this process, Horizon (the project promoter) proposes to submit an application for a Development Consent Order (DCO) for the power station to the Secretary of State for Business, Energy and Industrial Strategy (Secretary of State). The application will be made through the Planning Inspectorate who, following examination, will recommend to the Secretary of State whether development consent should be granted or not. The final decision on whether to grant or refuse development consent rests with the Secretary of State¹.

- I.2.3 Although the County Council is not the consenting authority for the NSIP, it will seek to ensure that development has regard to the strategic policies and principles of the Development Plan (JLDP), the relevant NPSs, national (Wales) planning policy and guidance, and relevant Supplementary Planning Guidance. The JLDP is the spatial plan that gives effect to, *inter alia*, the Anglesey Economic Regeneration Strategy and the Energy Island Programme (EIP).
- I.2.4 In addition to the proposed power station, Horizon will bring forward other projects directly related to Wylfa Newydd. These include off-site power station facilities and other facilities and works connected with the development (associated developments). In accordance with the NPS (para 2.3.4), associated development may be proposed at the main site, or may relate to works on land located off the main site. Associated development applications are now covered by the Planning Act 2008 in Wales and can, therefore, also be determined through the DCO process. Separately, third parties may bring forward development proposals indirectly related to the project. These might include, for example, sites for housing that will be occupied by construction workers. These development proposals would require consent under the Town and Country Planning Act (TCPA).
- I.2.5 Since the previous version of this Topic Paper, Horizon has refined the likely off-site power station facilities and associated development required as part of the Wylfa Newydd Project. It has undertaken three stages of pre-application consultation (in 2014, 2016 and 2017) relating to the proposals and, in the third of these stages (PAC 3), it presented a series of preferred options. The off-site power station facilities are now proposed on one site in Llanfaethlu and the associated development is likely to include:
 - Site preparation, clearance and enabling works for the new power station (within the Wylfa Newydd main site);

¹ Further information on the DCO application process is available via the Planning Inspectorate's website: <https://infrastructure.planningportal.gov.uk/application-process/the-process/>

- Marine Off-Loading Facility (MOLF), breakwaters and Holyhead Deep, a deepwater disposal site for inert construction material;
- Off-line Highway improvements in four sections along the A5025;
- Temporary Freight Logistics Centre at Parc Cybi;
- Temporary Park and Ride Facility at Dalar Hir; and
- Temporary accommodation for the construction workforce on the Site Campus (within the Wylfa Newydd main site).

I.2.6 In addition to the above associated development (that form part of the DCO application), Horizon also proposes to submit TCPA applications for site preparation and clearance works and for on-line improvements to the A5025. In this context, reference to the Wylfa Newydd Project in this document includes the proposed power station and other development on the Wylfa Newydd main site and also the off-site power station facilities and associated development proposals, including the TCPA applications. However, the Wylfa Newydd Project does not include the North Wales Connection Project (NWCP), which will connect Wylfa Newydd to the electricity transmission infrastructure (i.e. the National Grid). The NWCP is also an NSIP. It is being promoted by National Grid and will be subject to a separate DCO application process.

I.2.7 The term 'project promoter' relates to both Horizon and any other third parties proposing development in direct response to Wylfa Newydd (for example, the provision of construction worker accommodation or related employment uses).

Wylfa Newydd Supplementary Planning Guidance

I.2.8 Supplementary Planning Guidance is a means of setting out detailed thematic or site-specific guidance on the way in which development plan policies will be applied in particular circumstances or areas. The purpose of the Wylfa Newydd Supplementary Planning Guidance (Wylfa Newydd SPG) is to provide supplementary advice on important local direct or indirect matters and to set out the County Council's response to national and local policy and strategies in the context of the Wylfa Newydd Project. The SPG is supplemental to the recently adopted JLDP.

I.2.9 The Wylfa Newydd SPG is intended to:

- Inform the position which will be adopted by the County Council in its Local Impact Report² and relevant sections of the Statement of Common Ground³;

² As part of the Planning Act 2008 process, the County Council will be invited to submit a Local Impact Report giving

- Provide a planning framework (alongside the JLDP and other planning policy guidance) that helps guide the applicant(s) and influences the design and development of the Wylfa Newydd Project elements to ensure sustainable outcomes, with a focus on associated development;
- Inform pre-application discussions related to the main site, off-site and associated developments;
- Offer supplementary local level guidance, consistent with the relevant NPSs, which the Planning Inspectorate and the Secretary of State may consider both important and relevant to the decision-making process; and
- Form a material consideration in the assessment of any Wylfa Newydd Project related TCPA planning applications submitted by Horizon or other development promoters and businesses who may have, or wish to pursue, an interest in the project.

1.3 Amenity Overview

1.3.1 For the purposes of this topic paper, amenity covers the issues of air quality, noise, vibration and light pollution on Anglesey. Effects upon these issues can be caused by direct construction activity, increases in road traffic (particularly HGVs) and changes to the operating environment of a site (such as through increased lighting). These issues are important in relation to the Wylfa Newydd SPG because of the likely impacts caused by construction and operational activities on communities, people, habitats and species in specific localities, transport corridors, and across the Island. There may also be longer term, cumulative and synergistic effects (that is interaction with other impacts such as transport) to be considered. These impacts will need to be identified and taken into account as part of any mitigation strategy, either within the SPG or elsewhere.

1.4 Structure of this Topic Paper

1.4.1 The remainder of this topic paper is structured as follows:

- **Section 2:** Identifies the key messages relative to amenity arising from a review of international/European, UK, national, regional and local legislation, strategies/policies and guidance
- **Section 3:** Presents the baseline information about amenity in the Anglesey area, drawing on the evidence base; and

details of the likely impact of the proposed Wylfa Newydd Project on Anglesey. Further information on the preparation of local impact reports is available via the Planning Inspectorate's website: <https://infrastructure.planningportal.gov.uk/wp-content/uploads/2013/04/Advice-note-1v2.pdf>.

3 A statement of common ground is a written statement prepared jointly by the applicant and another party or parties such as the County Council, setting out any matters on which they agree. Statements of common ground help focus the examination on the material differences between the main parties.

- **Section 4:** Identifies the key matters related to amenity to be addressed by the Wylfa Newydd SPG and considers how the SPG could respond to each.

2 Policy Context

2.1 Introduction

2.1.1 The Wylfa Newydd SPG will influence, and will be influenced by, other plans and programmes at an international/ European, UK, national, regional and local level. This section of the topic paper identifies the plans and programmes most relevant to amenity in the context of the Wylfa Newydd Project and distils the key policy messages that will need to be reflected in the SPG.

2.2 International/European Plans and Programmes

Air Quality Framework Directive 96/62/EC and Ambient Air Quality and Cleaner Air for Europe Directive 2008/50/EC

2.2.1 The Air Quality Framework Directive and its Daughter Directives set a framework for monitoring and reporting levels of air pollutants across European Union (EU) member states, setting limits or reductions for certain air pollutants.

2.2.2 The Ambient Air Quality and Cleaner Air for Europe Directive consolidated earlier Air Quality Directives and also defines and establishes objectives and targets for ambient air quality to avoid, prevent or reduce harmful effects on human health and the environment as a whole. It sets legally binding limits for concentrations in outdoor air of major air pollutants that impact on public health such as particulate matter (PM10 and PM2.5) and nitrogen dioxide (NO₂). The 2008 Directive replaced nearly all the previous EU air quality legislation and was made law in Wales through the **Air Quality Standards (Wales) Regulations 2010**, which also incorporates the 4th Air Quality daughter Directive 2004/107/EC that sets targets for levels in outdoor air of certain toxic heavy metals and polycyclic aromatic hydrocarbons.

2.2.3 The UK monitors and models air quality to assess compliance with the air quality limit and target values set out in the EU legislation above. The results of the assessment are reported to the Commission on an annual basis. Air quality monitoring is also carried out by local authorities to meet local air quality management objectives.

2.2.4 In early 2011, the European Commission began a review of EU air quality policy which culminated with the publication of new proposals on ambient air quality and emissions ceilings in 2013. On 30 June 2011, the Commission launched a public consultation inviting views on the best way to improve the EU's air quality legislation. The consultation closed in October 2011.

EU Thematic Strategy on Air Quality (2005)

2.2.5 This strategy highlights that despite significant improvements in air quality across the EU, a number of serious air quality issues still persist. The strategy promotes an approach which focuses upon the most serious pollutants and states that more needs to be done to integrate environmental concerns into other policies and programmes. The objective of the strategy is to attain levels of air quality that do not give rise to significant negative impacts on human health and the environment. The strategy emphasises the need for a shift towards less polluting modes of transport and the better use of natural resources to help reduce harmful emissions.

Industrial Emissions Directive (IED) 2010/75/EU

2.2.6 This Directive combines seven existing air pollution directives, including the Large Combustion Plant Directive and the Integrated Pollution Prevention and Control (IPPC) Directive. As with previous directives aimed at minimising emission release, part of the benefit of the Industrial Emissions Directive is that it includes several new industrial processes, sets new minimum emission limit values (ELVs) for large combustion plant and addresses some of the implementation issues of the IPPC.

EU Directive 2002/49/EC relating to the Assessment and Management of Environmental Noise

2.2.7 The Environmental Noise Directive requires noise levels to be assessed from road traffic, railways, major airports and industry. The Directive requires strategic noise mapping to be carried out every 5 years followed by action plans showing measures to reduce noise where necessary and to preserve environmental noise quality where it is good.

2.3 UK Plans and Programmes

Overarching National Policy Statement for Energy (EN-1) (2011)

2.3.1 This National Policy Statement (NPS) sets out the criteria by which applications for nationally significant energy infrastructure projects will be determined and the recommended focus of analysis of the accompanying Environmental Statement. For air quality, EN-1 identifies the following principal effects: "The construction, operation and decommissioning phases can involve emissions to air which could lead to adverse impacts on health, on protected species and habitats, or on the wider countryside. Air emissions include particulate matter (for example dust) up to a diameter of ten microns (PM10) as well as gases such as sulphur dioxide, carbon monoxide and nitrogen oxides (NOx) (para 5.2.1). A particular effect of air emissions from some energy infrastructure may be eutrophication, which is the excessive enrichment of nutrients in the environment. Eutrophication from air

pollution results mainly from emissions of NOx and ammonia (para 5.2.3)."

Paragraph 5.2.7 identifies the need for the Environmental Statement to take account of the following:

- Any significant air emissions, their mitigation and any residual effects distinguishing between the project stages and taking account of any significant emissions from any road traffic generated by the project;
- The predicted absolute emission levels of the proposed project, after mitigation methods have been applied;
- Existing air quality levels and the relative change in air quality from existing levels; and
- Any potential eutrophication impacts.

2.3.2 Noise and vibration impacts are also identified, related to:

- The inherent operational noise from the proposed development, and its characteristics;
- The proximity of the proposed development to noise sensitive premises (including residential properties, schools and hospitals) and noise sensitive areas (including certain parks and open spaces);
- The proximity of the proposed development to quiet places and other areas that are particularly valued for their acoustic environment or landscape quality; and
- The proximity of the proposed development to designated sites where noise may have an adverse impact on protected species or other wildlife.

2.3.3 Paragraph 5.11.4 stipulates that noise assessments prepared in support of applications should cover:

- A description of the noise generating aspects of the development proposal leading to noise impacts, including the identification of any distinctive tonal, impulsive or low frequency characteristics of the noise;
- The identification of noise sensitive premises and noise sensitive areas that may be affected;
- The characteristics of the existing noise environment and a prediction of how the noise environment will change with the proposed development:
 - In the shorter term such as during the construction period;
 - In the longer term during the operating life of the infrastructure; and

- At particular times of the day, evening and night as appropriate.
- An assessment of the effect of predicted changes in the noise environment on any noise sensitive premises and noise sensitive areas; and
- Measures to be employed in mitigating noise.

National Policy Statement for Nuclear Power Generation (EN-6) (2011)

2.3.4 Together with NPS EN-1, NPS EN-6 is the primary decision-making document for the Planning Inspectorate when considering development consent applications for the construction of new nuclear power stations on sites in England and Wales. The NPS sets out considerations to be taken into account for a range of environmental and socio-economic factors. Noise, light intrusion and air quality are identified as issues to be considered in respect of biodiversity (para 3.9.2) and human health and well-being (para 3.12.3). The NPS states: “The operation of a new nuclear power station is unlikely to be associated with significant noise, vibration or air quality impacts (although there may be local impacts from transport and associated activities during construction; and if cooling towers are required, particularly forced draught towers, the potential noise impact may be greater). With appropriate mitigation, the subsequent effect of these potential impacts on human health is unlikely to be significant.”

Environment Act 1995

2.3.5 The Environment Act 1995 was enacted to protect and preserve the environment and guard against pollution to air, land or water. It requires local authorities to undertake local air quality management (LAQM) assessments against the standards and objectives prescribed in regulations. Where any of these objectives are not being achieved, local authorities must designate air quality management areas (AQMAs) and prepare and implement remedial action plans to tackle the problem.

Air Quality Strategy for England, Scotland, Wales and Northern Ireland (2011)

2.3.6 The Air Quality Strategy sets out air quality objectives and policy options to further improve air quality in the UK from today into the long term. As well as direct benefits to public health, these options are intended to provide important benefits to quality of life and help to protect our environment.

2.3.7 More specifically, it:

- Sets out a way forward for work and planning on air quality issues;
- Sets out the air quality standards and objectives to be achieved;
- Introduces a policy framework for tackling fine particles; and

- Identifies potential new national policy measures which modelling indicates could give further health benefits and move closer towards meeting the Strategy's objectives.

2.3.8 Consultation on a new Air Quality Plan⁴ was held in the first half of 2017. The draft plan seeks to improve air quality by reducing nitrogen dioxide levels in the UK.

UK Plan for Tackling Roadside Nitrogen Dioxide Concentrations (2017)

2.3.9 This document is the UK air quality plan for bringing nitrogen dioxide (NO₂) air pollution within statutory limits in the shortest possible time. It sets out roles and responsibilities and actions for tackling the problem. Section 7.6 details additional actions focused only on Wales.

Ozone-Depleting Substances (Qualifications) Regulations 2015

2.3.10 These regulations introduce controls on the production, use and emissions from equipment of a large number of "controlled substances" that deplete the ozone layer.

2.4 National (Wales) Plans and Programmes

Planning Policy Wales: (9th Edition) (2016)

2.4.1 Planning Policy Wales sets out the land use planning policies of the Welsh Government. Regarding air quality, it identifies potential material planning considerations in relation to: location and site selection; impact on health and amenity; the risk and impact of potential pollution from development as well as the effect of the surrounding environment, the prevention of nuisance and the impact on the road and other transport networks.

2.4.2 Chapter 8 requires that:

- Where it is found that air quality objectives are unlikely to be met, an air quality management area must be declared and an action plan must be developed.
- Development plan policies and decisions on planning applications should take into account national air quality objectives, EU limit and target values, World Health Organisation guidelines on the health effects of noise and national indicators set by the Welsh Ministers under the Well-being of Future Generations (Wales) Act 2015, together with information from the local authority's annual air quality reports, national noise maps and any area statements issued by Natural Resources Wales under the Environment (Wales) Act 2016.

⁴ <https://www.gov.uk/government/news/new-air-quality-plan-published-for-consultation>

2.4.3 Chapter 13 requires that:

- a) Local Development Plans should establish land-use planning policies which contribute to minimising and management environmental risks and pollution.
- b) Such policies should formulate policies relating to flood risk and climate change, contaminated and unstable land, air and water quality, noise and light pollution.

Technical Advice Note (TAN) 11: Noise (1997)

2.4.4 TAN 11 provides guidance on:

- How the planning system can be used to minimise the adverse impacts of noise;
- How Local Development Plans should take into account noise generation;
- How to adopt a corporate approach and ensure cooperation between planning and environmental health departments; and
- How area specific noise policies should be identified.

Environment Strategy for Wales (2006)

2.4.5 The Environment Strategy includes an air quality policy which has been developed by reviewing trends and projections, identifying challenges for PM₁₀, PM_{2.5}, NO and NO₂ and identifying critical loads and exceedances for air pollutants. The strategy was published in May 2006. It set out what the Welsh Government wanted to achieve in 20 years' time (by 2026), and how to get there.

2.4.6 The policy includes an action plan that sets out potential measures and levels to comply with by 2010, 2015 and 2020. The main objectives are to reduce air pollution and increase life expectancy taking into account the most vulnerable and ecological protection. Specific measures relating to transport which are identified include: low emission zones; anti-congestion measures; and local traffic management plans.

2.4.7 The last Environment Strategy annual progress report for 2010 – 2011 was published at the end of 2011. This coincided with the end of the second action plan. The most recent State of the Environment Report was published in July 2012. The Welsh Government are currently reviewing the Environment Strategy to ensure that we reflect the relevant commitments in the Natural Resource Management Programme.

Air Quality Standards (Wales) Regulations 2010

2.4.8 The Air Quality Standards Regulations 2010 transpose into UK law Directive 2008/50/EC on ambient air quality and cleaner air for Europe and Directive 2004/107/EC relating to arsenic, cadmium, mercury, nickel and polycyclicaromatic

hydrocarbons in ambient air. The objective of the Regulations is to improve air quality by reducing the impact of air pollution on human health and ecosystems. The standards set out air quality objectives, limit values and target values for pollutants, namely benzene, 1,3 butadiene, carbon monoxide, lead, nitrogen dioxide, PM₁₀, sulphur dioxide and PM_{2.5}.

Local Air Quality Management Policy Guidance Wales (June 2017)

2.4.9 This document summarises policy integration in Wales and the collaboration required to improve air quality. The intention is for this guidance to provide stability in terms of Welsh Government policy expectations and for it to always be read by Local Authorities in conjunction with the latest expert advice on what works in practice. This document does not spell out in detail how Local Authorities should go about such activities as public consultation and the processes of developing strategies and action plans. While these remain vitally important, they need to be tailored to local circumstances, and Local Authorities, being bound by the WFG Act, are expected to manage such activities as that Act requires.

2.4.10 The policy guidance makes reference to the fact that air pollutants, such as nitrogen dioxide and particulate matter, currently have no safe thresholds defined and the lower the concentration of these pollutants, the lower the risks of adverse health effects. While compliance with national air quality objectives is essential, it is desirable to keep levels of pollution as low as reasonably practicable. Therefore, in areas where there is good air quality, Local Authorities should strive to maintain this standard of good air quality.

Environmental Noise (Wales) (Amendment) Regulations 2009

2.4.11 Regulation 7 of the noise regulations requires the Welsh Ministers to produce strategic noise maps for the main sources of environmental noise on a five-year cycle. The maps are then used to assess the number of people potentially exposed to certain noise levels. For the first round implementation, the noise sources have been defined as: major roads with more than 6 million vehicle passages per year; major railways with more than 60,000 train movements per year; major airports with more than 50,000 movements per year; and agglomerations (large urban areas) with a population of more than 250,000 persons.

Welsh Government Noise Action Planning Priority Areas (NAPPAs) (2011)

2.4.12 The noise priority areas for road traffic noise and railways in Wales identify the most important areas affected by noise according to the strategic noise maps. The NAPPA ensures that noise impacts are managed in the priority areas. There are no NAPPAs on Anglesey.

Well-being of Future Generations (Wales) Act 2015

2.4.13 This Act seeks to improve the social, economic, environmental and cultural well-being of Wales. Public bodies listed in the Act, including Local Authorities, need to think more about the long-term, work better with people and communities and each other, look to prevent problems and take a more joined-up approach. Seven well-being goals are identified, namely:

- A prosperous Wales;
- A resilient Wales;
- A healthier Wales;
- A more equal Wales;
- A Wales of cohesive communities;
- A Wales of vibrant culture and thriving Welsh language; and
- A globally responsible Wales.

2.4.14 The Act establishes a statutory Future Generations Commissioner for Wales, whose role is to act as a guardian for the interests of future generations in Wales, and to support the public bodies listed in the Act to work towards achieving the well-being goals.

2.4.15 The Act establishes Public Service Boards (PSBs) for each local authority area in Wales, which must include: the local authority, the Local Health Board for an area any part of which falls within the local authority area; the Welsh Fire and Rescue Authority for an area any part of which falls within the local authority area, and the Natural Resources body for Wales. Each PSB must improve the economic, social, environmental and cultural well-being of its area by working to achieve the well-being goals.

Public Health (Wales) Act 2017

2.4.16 The Act seeks to improve and protect the health and well-being of the population of Wales. It requires Welsh Ministers to make regulations to require public bodies to carry out health impact assessments in specified circumstances. The aim is that the assessments should be limited to policies, plans and programmes which have outcomes of national or major significance, or which have a significant effect at the local level on public health.

2.5 Local Plans and Programmes

Joint Local Development Plan

2.5.1 The Anglesey and Gwynedd Joint Development Local Plan (JLDP) sets out the planning policy framework and strategic aims for development and land use from 2011 to 2026.

2.5.2 The JLDP contains several strategic policies relevant to amenity. These are summarised in **Box 2.1**.

Box 2.1 Summary of JLDP Strategic Policies Relevant to Amenity

- **Strategic Policy PS 5: Sustainable Development** states that development proposals will be supported where it is demonstrated that it is consistent with the principles of sustainable development.
- **Strategic Policy PS 8: Proposals for National Significant Infrastructure Projects and Related Developments** make reference to the importance of comprehensive assessment of, inter alia, the environmental (landscape, built, historic and natural) and social (including health and amenity) impacts of any proposal during their construction, operation and decommissioning and restoration (if relevant) phases, as well as measures to be achieved, where appropriate to avoid, reduce, alleviate and/or off-set the harm done.
- **Strategic Policy PS 9: Wylfa Newydd and Related Development** applies to the proposed new nuclear power station including development associated with it.
- **Strategic Policy PS 10: Wylfa Newydd Campus Style Temporary Accommodation for Construction Workers** applies to the proposed associated development.
- **Strategic Policy PS 11: Wylfa Newydd Logistics Centres** applies to the proposed associated development.
- **Strategic Policy PS 12: Wylfa Newydd Park and Ride and Park and Share Facilities** applies to the proposed associated development.
- **Strategic Policy PS 19: Conserving and where appropriate Enhancing the Natural Environment.** This policy sets out that development will be managed so as to conserve and where appropriate enhance the Plan area's distinctive natural environment, countryside and coastline, and proposals that have a significant adverse effect on them will be refused unless the need for and benefits of the development in that location clearly outweighs the value of the site or area and national policy protections for that site and areas. When determining planning applications consideration should be given to protect, retain or enhance trees, hedgerows or woodland of visual, ecological, historic, cultural or amenity value.

2.5.3 These JLDP strategic policies are supporting by more detailed development management policies. Those relevant to economic development are set out in **Box 2.2**.

Box 2.2 JLDP Development Management Policies Relevant to Economic Development

- Policy PCYFF1 Development Boundaries;
- Policy PCYFF2 Development Criteria
- Policy PCYFF3 Design and Place Shaping
- Policy PCYFF4 Design and Landscaping
- Policy PCYFF6 Water Conservation

Supplementary Planning Guidance Note 10: Lighting (2010)

2.5.4 This SPG sets out considerations for the prevention of light pollution from a variety of sources, and the design measures required to reduce the impacts on sensitive areas.

Strengthening Communities in Anglesey and Gwynedd – A Single Integrated Plan for Anglesey and Gwynedd 2013-2017

2.5.5 The Single Integrated Plan focuses attention on improving the quality of life of local people and communities by enhancing economic, social and environmental wellbeing through:

- Ensuring that reducing public service resources are used for the greatest benefit;
- Helping individuals and communities to become strong and resilient becoming increasingly less dependent on public services;
- Improving economic performance and skills to create/maintain jobs, emphasizing lifelong learning opportunities, in particular the Energy Island Scheme;
- Enabling communities and individuals to maintain and develop their independence;
- Ensuring opportunities are available for young people;
- Reducing poverty and providing effective services that meet the needs of vulnerable groups;
- Promoting and sustaining our environment; and
- Promoting and maintaining our rich culture including the Welsh Language.

2.5.6 The Plan includes a range of targets including the aim of decreasing noise pollution.

2.6 Key Policy Messages for the Wylfa Newydd SPG

2.6.1 Based on the review of plans and programmes in this section, a number of key messages/issues relevant to amenity have been identified that will need to be considered in preparing the Wylfa Newydd SPG. These messages are summarised in **Box 2.1** below.

Box 2.1 Key Policy Messages for the Wylfa Newydd SPG: Amenity

The need to consider:

- Air quality issues caused by construction and operation at both the main site and associated development sites, including the effects of dust and traffic-related pollutants;
- Noise and vibration associated with construction and operation and their effects on the surrounding human and natural environment;
- Potential impacts on visual amenity and environmental integrity associated with light pollution;
- Specific impacts such as the effect of air quality on human health, habitats and in particular acid deposition and eutrophication which is an issue for Natura 2000 sites;
- The need to identify cumulative impacts associated with air quality, noise, vibration and light pollution associated with new development, along with opportunities to mitigate their direct and indirect impacts; and
- The need to provide for the close monitoring of the predicted effects of new development.

3 Baseline Information and Future Trends

3.1 Introduction

3.1.1 This section describes the existing baseline characteristics of Anglesey in respect of amenity and identifies how this baseline could change in the future, taking into account the proposed nuclear power station at Wylfa. This helps develop an understanding of the key opportunities and challenges that should be addressed by the Wylfa Newydd SPG. It draws on a range of datasets from sources including those produced by the IACC and Welsh Government.

3.2 Baseline Information

Air Quality

3.2.1 The 2015 Air Pollution in Wales Report published by the Welsh Government highlights that there has been significant improvement in pollutant concentrations across Wales since the 1990s, although concentrations have remained fairly stable since 2000. The current UK National Air Quality Strategy objectives for PM_{10} are a concentration of less than 40ugm^{-3} measured as an annual mean and 50 ug m^{-3} measured as a 24 hour mean (not to be exceeded more than 35 times per year). The 2016 Air Quality Progress Report for Isle of Anglesey County Council highlights that there are no AQMAs declared on Anglesey, compared to 34 in Wales as a whole⁵ (AQMAs are declared in specific locations where atmospheric concentrations of one or more pollutants including pollutants such as nitrogen dioxide (NO_2), sulphur dioxide (SO_2) volatile organic compounds (VOCs) and fine particles (known as 'particulates') are either close to or exceeding statutory objectives set out within the Air Quality Strategy for England, Scotland, Wales and Northern Ireland).

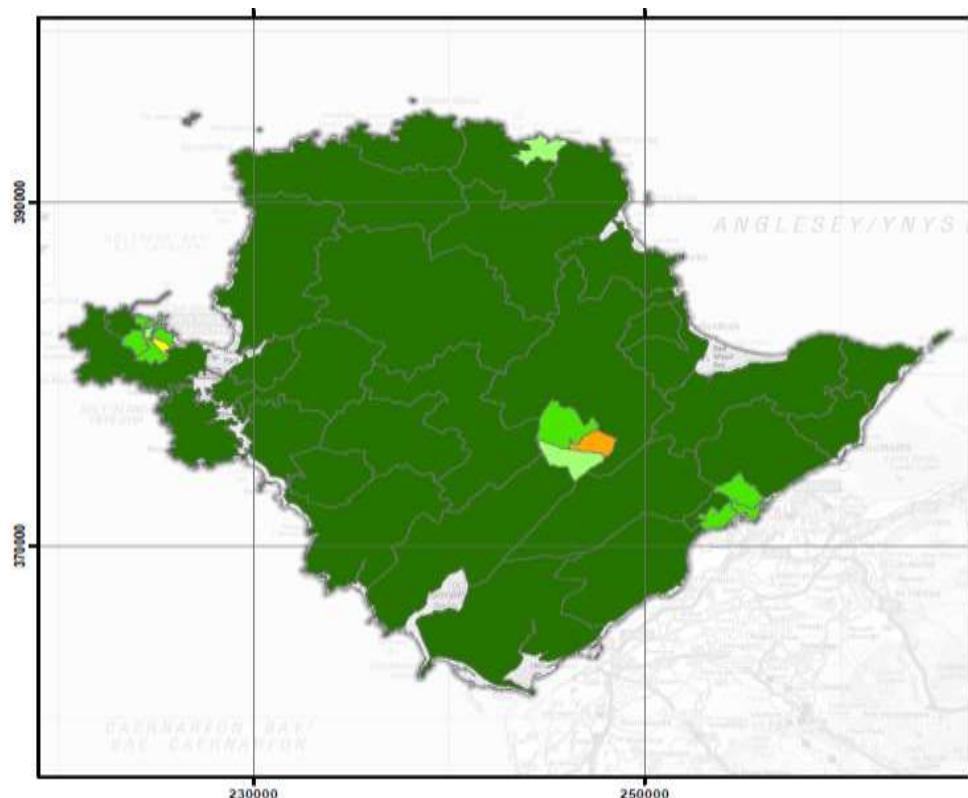
3.2.2 The Welsh Index of Multiple Deprivation 2014 (WIMD) is the official measure of deprivation for small areas in Wales. The physical environment domain of the WIMD index incorporates four indicators including air quality (concentrations of air pollutants) and emissions of air pollutants. The Air Quality indicator uses data on concentrations of pollutants (benzene, nitrogen dioxide, sulphur dioxide, particulates, carbon monoxide and ozone).

3.2.3 Compared to the rest of Wales, the WIMD highlights that air quality in Anglesey is good with all Lower Layer Super Output Areas (LSOA) areas in the County being amongst the least deprived in Wales. However, in terms of the population averaged

⁵ Welsh Government (2012) State of the Environment Report <http://wales.gov.uk/docs/statistics/2012/120725stateofenvironment12en.pdf> [Accessed July 2013]

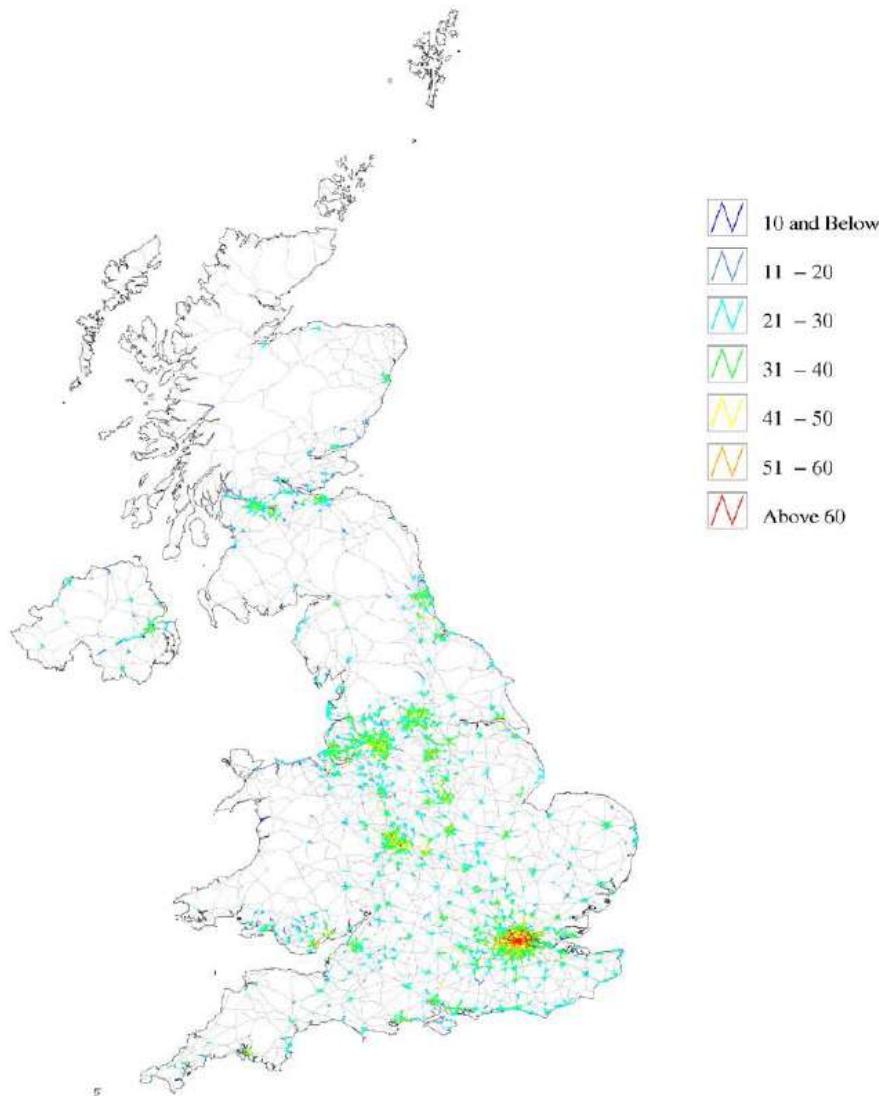
air emissions index it is noticeable that the more populated centres of Amlwch, Holyhead, Menai Bridge and Llangefni are more deprived (see **Figure 3.1**).

Figure 3.1 Welsh Index of Multiple Deprivation (WIMD): Population Averaged Air Emissions Index



Source: WIMD

3.2.4 Figure 3.2 shows the annual mean roadside NO₂ concentrations for 2013 as provided in Defra's 2015 report on '*Improving air quality in the UK - Tackling nitrogen dioxide in our towns and cities*'. The roadside NO₂ concentrations in Anglesey are relatively low compared to other regions in the UK such as London. The modelling has been superseded by the 2017 Plan, but the overall patterns are unchanged.

Figure 3.2 Annual NO₂ Background Levels

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Noise

3.2.5 Noise maps have been prepared by the Welsh Government, in accordance with the requirements of the European Noise Directive, to identify where noise levels are high and to help create noise action plans to address the issue where it arises. The maps show estimated levels of road traffic, railway and industrial noise in Wales' three largest urban areas, and noise from the busiest roads and railways.

3.2.6 The noise map for Anglesey is shown in **Figure 3.3** and highlights that noise levels along and adjacent to the A55 to Holyhead and A5025 are above 55dB (the World Health Organisations 'Guidelines for Community Noise' (1999) sets an aspirational 55dB LAeq, 16hr noise level for the avoidance in the onset of annoyance).

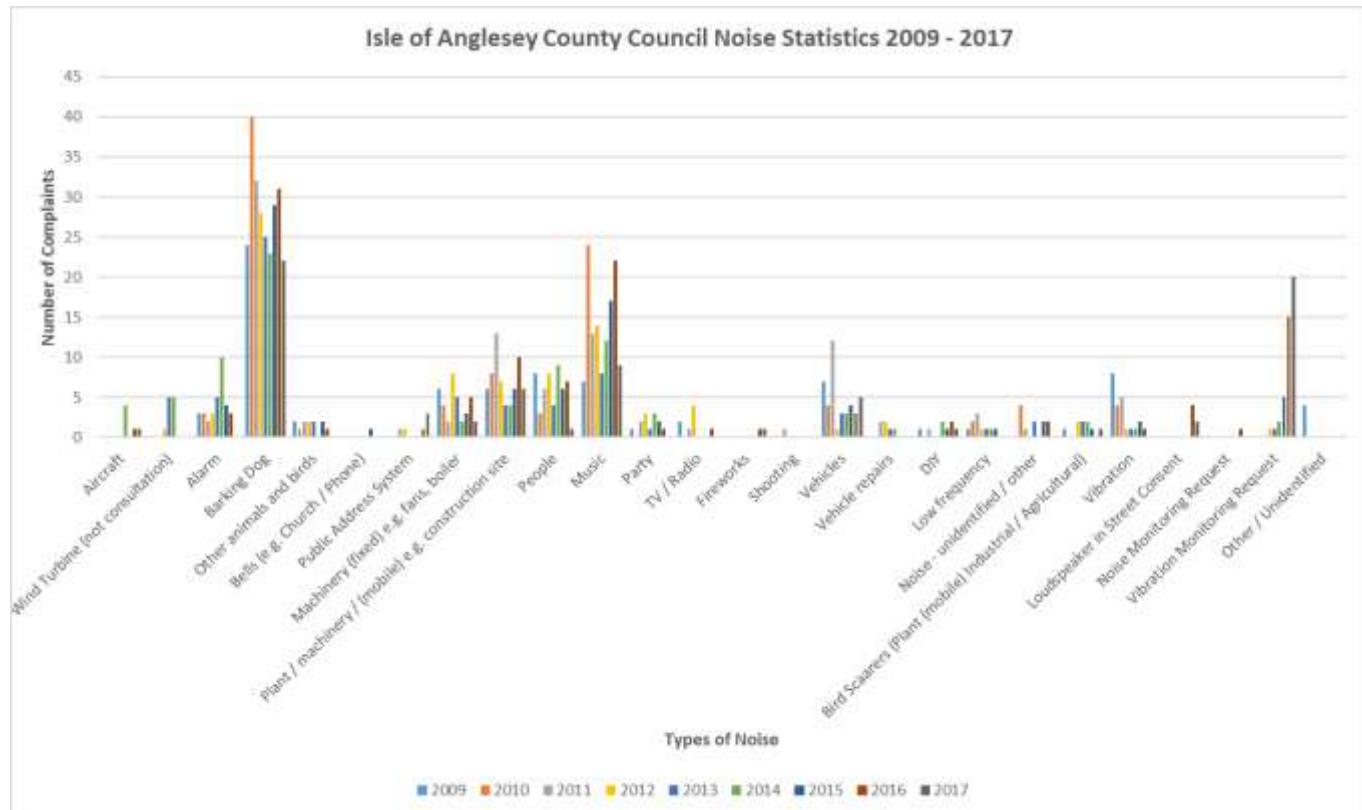
Figure 3.3 Average Road Noise Levels (55-75dB)



Source: <http://data.wales.gov.uk/apps/noise/#lat=53.2977&lon=-4.3987&zoom=11&time=den&theme=road>

- 3.2.7 The Welsh Government has identified 185 noise action planning priority areas where exposure to noise is high. No noise priority areas have been identified by the Welsh Government on Anglesey with the closest area being along the A4087 in Bangor.
- 3.2.8 **Figure 3.4** shows noise complaints received by the IACC's Environmental Health Department by source for the period 2009-2017. It highlights that complaints associated with construction and vehicles are relatively low.

Figure 3.4 Noise Complaints by Source (2009-2017)

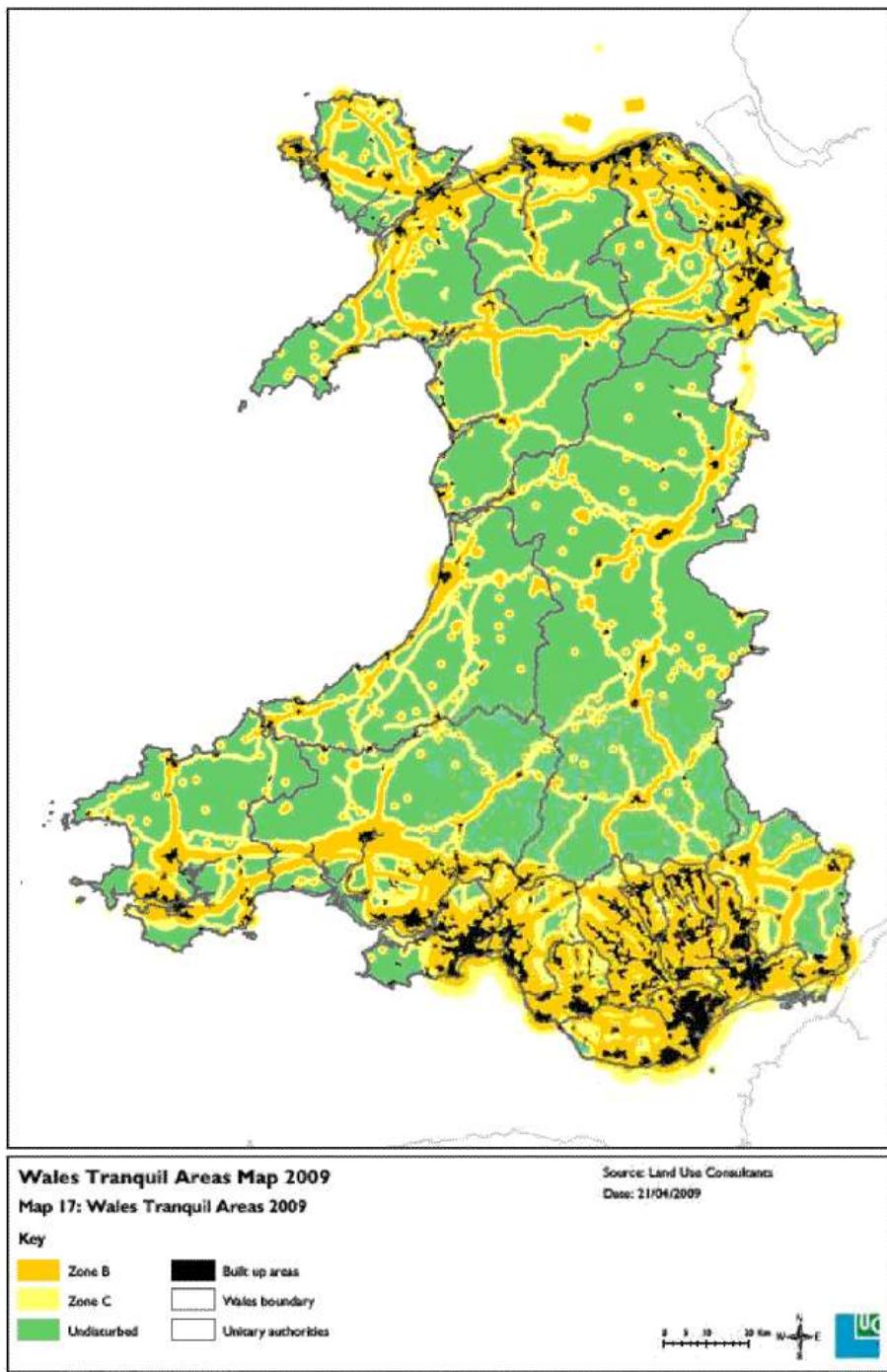


Tranquillity

3.2.9 Sources of light pollution are the main settlements and road networks on the Island.

Figure 3.5 illustrates tranquil areas across Wales showing the areas of land affected by noise and visual intrusion (including light pollution) in the landscape.

Figure 3.5 Tranquil Areas in Wales 2009



Source: Countryside Council for Wales, 2009

Notes:

- Zone B - Countryside subject to significant traffic intrusion and other equivalent disturbance.
- Zone C - Countryside somewhat disturbed by light traffic noise, small settlements, etc. This land would fit within the broad English definition of Tranquillity, but is not deemed fully tranquil by Wales standards.
- Undisturbed / Tranquil - Countryside usually free of any substantial disturbance in daytime. Significant intermittent aircraft noise can occur.

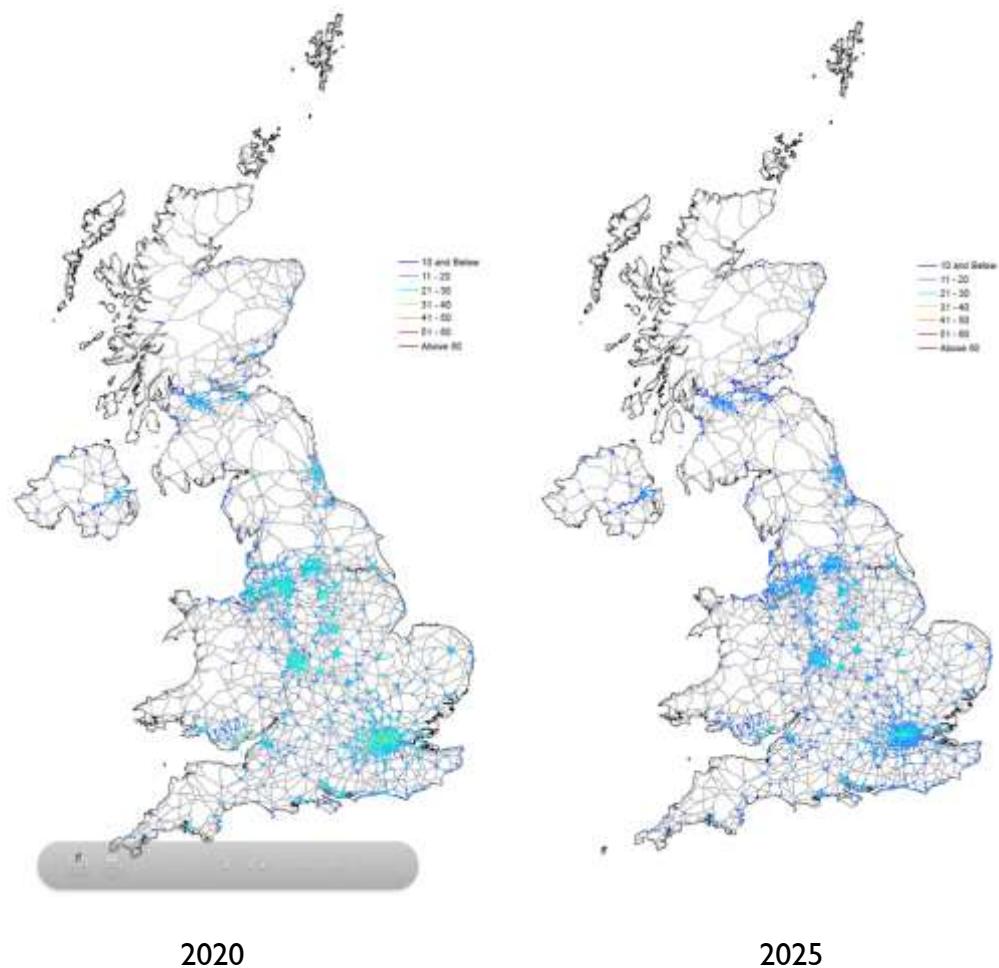
3.3 Future Trends

3.3.1 Air quality monitoring by the Welsh Government⁶ has identified a 'clear improvement' across Wales in the following air quality indicators: NO₂; SO₂; fine particulates; Non Methane Volatile Organic Compounds (NMVOC); carbon monoxide; and ammonia. There has also been an improvement in the area of natural and semi-natural habitat where deposition of acid exceeds critical loads. The following indicators were rated 'stable' or they showed no clear trend:

- The number of days when air pollution is moderate or higher in rural zones and urban agglomerations;
- Air concentrations of Heavy Metals; and
- The area of natural and semi-natural habitat where deposition of nitrogen compounds exceeds critical loads.

3.3.2 Projections for North Wales show a marked decrease in predicted annual mean NO₂ concentrations by 2020 and 2025 (see **Figure 3.6**).

⁶ http://www.welshairquality.co.uk/documents//news/322100927_AQ_Wales_15_English_web.pdf [Accessed July 2013]

Figure 3.6 Annual Mean Roadside NO₂ Concentrations ⁷

3.4 Key Issues for the Wylfa Newydd SPG

3.4.1 Based on the findings of the baseline analysis, a number of key issues relevant to amenity have been identified that will need to be considered in preparing the Wylfa Newydd SPG. These issues are summarised in **Box 3.1**.

⁷ <https://uk-air.defra.gov.uk/library/no2ten/>

Box 3.1 Key Issues for the Wylfa Newydd SPG: Amenity

- The need to protect the currently good air quality across Anglesey through preventing exceedences of pollutants, dust and odours;
- The need to avoid contributing to noise pollution associated with traffic along the A55 and A5025 in particular;
- The need to avoid light pollution associated with new development; and
- The need to identify an approach to dealing with the impacts of air pollution, noise, vibration and light pollution on key receptors including communities, people, habitats and species.

4 Challenges and Opportunities

4.1 Introduction

4.1.1 Based on the review of plans and programmes presented in **Section 2** and analysis of the baseline in **Section 3**, this section draws together the key strengths, weaknesses, opportunities and threats related to amenity to be addressed by the Wylfa Newydd SPG. Where appropriate, it also provides guidance in respect of how the SPG could respond to the issues identified in order to help inform the preparation of the document.

4.2 SWOT Analysis

4.2.1 **Table 4.1** presents an analysis of the strengths, weaknesses, opportunities and threats associated with the project during construction and operation on amenity and in the context of the Wylfa Newydd SPG.

Table 4.1 SWOT Analysis

Strengths	Weaknesses
<ul style="list-style-type: none">• Good air quality and limited noise pollution across the Island; and• High environmental quality which reflects and is partly dependent upon absence of air and noise pollution.	<ul style="list-style-type: none">• Absence of a detailed policy framework addressing air quality and noise issues to deal with the potential impacts of significant change; and• Road transport issues, particularly related to the A55 and A5025 corridors and associated air quality and noise impacts.

Opportunities	Threats
<ul style="list-style-type: none"> Maintain and further enhance air quality and tranquillity as part of accommodating new development; Reduce the need to use road transport through careful siting of development associated with construction and operation, such as construction workers' accommodation; Investment in transport infrastructure to help minimise impacts in specific locations and Community consultation to anticipate and advise on the impacts on the amenity of local communities. 	<ul style="list-style-type: none"> Compromising of air quality through construction and operational effects (e.g. increases in road traffic); Specific air quality impacts on sensitive habitats and species; Increased noise and vibration associated with HGV movements during construction or operation, impacting local communities and wildlife; and Light pollution associated with construction and operation from various sources impacting local communities and wildlife.

4.3 Summary of Key Matters to be addressed by the Wylfa Newydd SPG

- Emissions to the atmosphere, noise, vibration and light pollution during construction and operation;
- Specific traffic impacts relating to air pollution, noise, vibration and light pollution impacts associated with construction and operation;
- Provision of transportation infrastructure;
- Monitoring of impacts to ensure no net deterioration in air quality, noise, vibration or light pollution during construction and subsequent operation; and
- Cumulative impacts of other key issues, notably transport and waste on air quality, noise, vibration and light pollution.

4.4 How Should the Wylfa Newydd SPG Respond?

4.4.1 The Wylfa Newydd SPG will need to include guidance and detailed criteria which seek to minimise air pollution, vibration, noise and light pollution during construction and operation of the Wylfa Newydd project. More specifically, the SPG should include guidance that:

- Directs development to suitable locations so as to minimise or avoid direct and indirect impacts on air pollution, vibration, noise and light pollution. This might include workers accommodation in the vicinity of the Wylfa Newydd project;

- Directs development to locations that reduce the need to travel and seeks to reduce road traffic (e.g. through the promotion of alternatives to car use);
- Include a requirement for conditions to be attached to planning permissions for associated developments which address issues relating to air quality, noise, vibration and light pollution during construction and operation. These could cover issues such as:
 - Total number of vehicle movements;
 - Weight limits on construction traffic;
 - Routing of traffic;
 - Construction hours;
 - Sequencing of construction operations;
 - Dust and odour management; and
 - Community consultation on issues/activities likely to significantly impact upon amenity.
- Identifies where EIA and/or expert advice is likely to be required in respect of gauging the likely impacts of air, noise, vibration and light pollution on key receptors;
- Identifies key receptors (properties, communities, people, habitats, species) which could be affected by increases in air pollution, noise, vibration or light pollution, both in generic terms and as part of any locational guidance;
- Ensures that good design quality is implemented from the earliest stages of the development process to assist with anticipating and mitigating possible adverse impacts, either through construction or operation;
- Supports strategies and management plans for the mitigation of any adverse impacts on key receptors identified to ensure at least a neutral effect, or an improvement where possible;
- Identifies a potential requirement for key transportation infrastructure that may be required to address increase transport movements arising from the project (e.g. improvements to the A5025 Valley to Wylfa/Amlwch to Wylfa);
- Seeks to establish a comprehensive environmental baseline (e.g. through air quality assessments) from which change can be monitored, including identifying likely temporary and permanent effects, synergistic and cumulative impacts; and
- Establishes a structured monitoring framework to identify key impacts (e.g. on human health, habitats and species) and changes from the baseline.



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