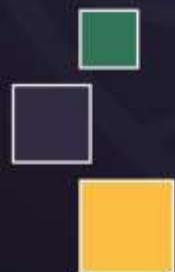


Ynys Môn THE ISLE OF Anglesey

Topic Paper 8: Infrastructure



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 the topic of infrastructure 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

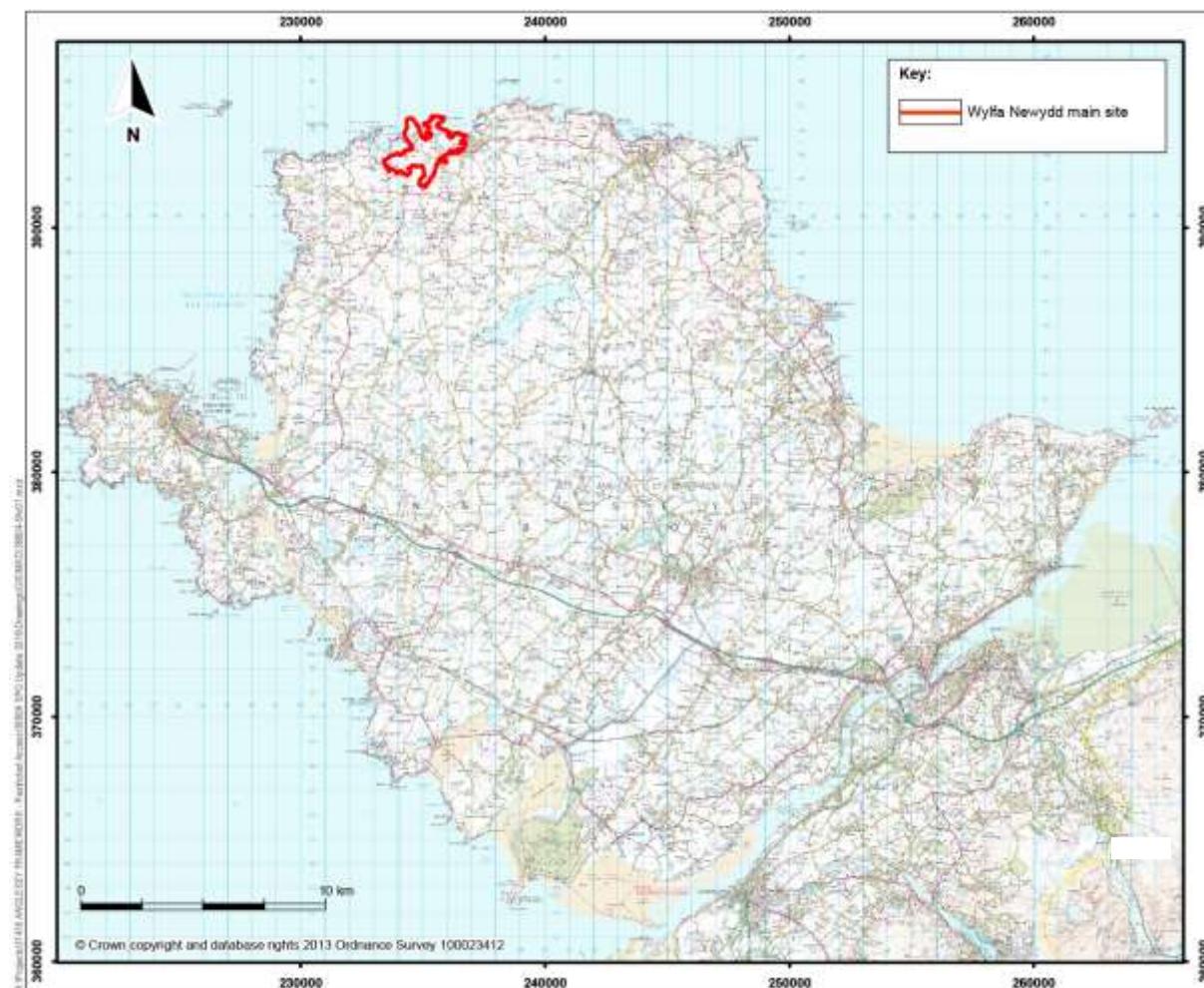
I.I.3 Ten topic papers were originally issued to support the SPG when it was first published by Isle of Anglesey County Council (the County Council) in 2014. Since that time the Anglesey and Gwynedd Joint Local Development Plan (JLDP) has been adopted which has required the topic papers to be updated 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 (the Anglesey and Gwynedd Joint Local Development Plan (JLDP)), the relevant NPSs, national (Wales) planning policy and guidance, and 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: <http://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. Although the SPG is not supplemental to the JLDP, which is currently being prepared, it does seek to be consistent with the direction of travel set out in the emerging plan.

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;
- Provide a planning framework (alongside the Development Plan 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 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 Town and Country 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 Infrastructure Overview

1.3.1 The provision of infrastructure is vital to the delivery of the Wylfa Newydd Project in a number of ways. Firstly, there will be provision (such as transport links and waste water infrastructure) that will be fundamental to the construction and operation of the new nuclear power station itself as well as associated development and in many cases, it will be necessary to ensure that this infrastructure is in place in advance of construction. Secondly, the creation of new employment and an influx of construction and operational workers will generate increased demand for important community facilities and services such as health and education as well as utilities including water and electricity that may not be met by existing provision.

1.3.2 Importantly, the investment in infrastructure generated by the Wylfa Newydd Project can also contribute to an enhancement of local community infrastructure, facilities and services, generating a lasting legacy benefit for the Island's communities, environment and economy.

² As part of the Planning Act 2008 process, the County Council will be invited to submit a Local Impact Report giving 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: <http://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 on the examination on the material differences between the main parties.

1.3.3 Infrastructure provision is therefore an important consideration in the preparation of the Wylfa Newydd SPG. An understanding of the current baseline and future capacity will help to ensure that potentially negative impacts associated with the project (such as increased pressure on existing services and facilities associated with the influx of construction workers) are minimised and positive effects (such as the potential generation of legacy benefits) are realised.

1.3.4 Infrastructure covers a wide range of components. Some elements of infrastructure provision are captured in other topic papers and in consequence are not considered here. Complementary topic papers consider:

- Green infrastructure: see Topic Paper 1;
- Transport: see Topic Paper 5;
- Renewable energy: see Topic Paper 7; and
- Waste: see Topic Paper 9.

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 infrastructure arising from a review of international/European, UK, national, regional and local strategies/policies;
- **Section 3:** Classifies different types of infrastructure as a precursor to the baseline analysis;
- **Section 4:** Presents baseline information on infrastructure provision in the Anglesey area, drawing on the evidence base; and
- **Section 5:** Identifies the key matters related to infrastructure 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 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 most relevant plans and programmes to infrastructure 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

European Sustainable Development Strategy (2006)

2.2.1 This document sets out a single, coherent strategy on how the European Union (EU) will more effectively meet its long-standing commitment to address the challenges of sustainable development. It reaffirms the need for global solidarity and recognises the importance of working with partners outside the EU, including those rapidly developing countries which will have a significant impact on global sustainable development. The overall aim of the strategy is to support and promote actions to enable the EU to achieve continuous improvement of quality of life for both current and future generations, through the creation of sustainable communities able to manage and use resources efficiently and to tap the ecological and social innovation potential of the economy, ensuring prosperity, environmental protection and social cohesion. The Sustainable Development Strategy identifies seven key challenges, with corresponding targets and actions:

- Climate change and clean energy;
- Sustainable transport;
- Sustainable consumption and production;
- Conservation and management of natural resources;
- Public health;
- Social inclusion, demography and migration; and
- Global poverty and global sustainable development challenges.

Europe 2020 (2010)

2.2.2 Europe 2020 is Europe's Growth Strategy for the decade. Its vision is for the European Union (EU) to become a smart, sustainable and inclusive economy. The aim is to deliver employment, productivity and social cohesion which is underpinned by the following objectives and associated targets.

1. Employment:

- 75% of 20-64 year-olds to be employed.

2. Research & Development (R&D):

- 3% of the EU's GDP to be invested in R&D.

3. Climate Change and Energy Sustainability:

- Greenhouse gas emissions 20% (or even 30%, if the conditions are right) lower than 1990;
- 20% of energy from renewables; and
- 20% increase in energy efficiency.

4. Education:

- Reducing the rates of early school leaving below 10%; at least 40% of 30-34 year olds completing third level education.

5. Fighting Poverty and Social Exclusion:

- At least 20 million fewer people in or at risk of poverty and social exclusion.

2.2.3 The objectives outlined above set a strong agenda to deliver both community and physical infrastructure.

EU Education and Training 2020 (2009/C 119/02)

2.2.4 Education and Training 2020 is the strategic framework for European cooperation on education and training that builds on the Education and Training work programme (2010). The main aim of the framework is to support Member States in further developing their education and training systems. It states that systems should better provide the means for all citizens to realise their potential, as well as ensure sustainable economic prosperity and employability. The conclusions to the framework put forward four strategic objectives:

- Making lifelong learning and mobility a reality;

- Improving the quality and efficiency of education and training;
- Promoting equity, social cohesion and active citizenship; and
- Enhancing creativity and innovation, including entrepreneurship, at all levels of education and training.

EU Strategic Plan 2016-2020 Health and Food safety (2016)

2.2.5 The Strategy sets out a mission to improve and protect human health and support Europe's health systems along with objectives to ensure that food, feed and medicinal products are safe, that animal health and welfare, and plant health is protected and that there is a well-functioning and fair internal market in food, feed, agricultural and medical products.

2.2.6 The Strategy includes three priorities, the first being to boost jobs, growth and investment in the EU, supporting growth, employment and social inclusion. It recognises under general Objective 1 that the single most important cause of poverty is inability to work and that ensuring that there are appropriate and effective public health policies and provision that fewer people will be excluded from the labour market.

EU Social Investment Package: Towards Social Investment for Growth and Cohesion – including implementing the European Social Fund 2014-2020 (2013)

2.2.7 The social investment package is an integrated policy framework which takes account of the social, economic and budgetary divergences between Member States. It focuses on:

Ensuring that social protection systems respond to people's needs at critical moments throughout their lives. It highlights that more needs to be done to reduce the risk of social breakdown and so avoid higher social spending in the future;

Simplified and better targeted social policies, to provide adequate and sustainable social protection systems. Some countries have better social outcomes than others despite having similar or lower budgets, demonstrating that there is room for more efficient social policy spending; and

Upgrading active inclusion strategies in the Member States. Affordable, quality childcare and education, prevention of early school leaving, training and job-search assistance, housing support and accessible health care are all policy areas with a strong social investment dimension.

EU Social Investment Package: Commission Staff Working Document - Investing in Health (2013)

2.2.8 This document complements the Commission Communication 'Towards Social Investment for Growth and Cohesion' by showing how investing in health contributes

to the Europe 2020 objective. It strengthens the link between European health policies and support for health system reforms in the context of the Europe. The document describes 'investing in health' as:

- Investing in sustainable health systems- which aims to combine innovative reforms aimed at improving cost efficiency and reconciling fiscal consolidation targets with the continued provision of sufficient levels of public services;
- Investing in people's health as human capital - which aims to illustrate how to improve the health of the population in general and reinforces employability, thus making active employment policies more effective, helping to secure adequate livelihoods and contributing to growth;
- Investing in reducing health inequalities - which the documents states contributes to social cohesion and breaks the vicious spiral of poor health contributing to, and resulting from, poverty and exclusion; and
- Investing in health through adequate support from EU funds.

EU 7th Environmental Action Plan (EAP)

2.2.9 The EU 7th Environmental Action Plan (EAP) to 2020 reviews the significant environmental challenges and provides a framework for European environmental policy up to 2012. The four priority areas are Climate Change; Nature and Biodiversity; Environment and Health; Natural Resources and Waste. The European Commission has recently consulted on the EU environment policy priorities for 2020: Towards a 7th EU Environment Action Programme. The current Environment Action Programme states that there is a concern about the effect of the environment on health, with new technologies, changing lifestyles and work and life patterns presenting new and unexpected impacts on human health.

EU Water Framework Directive (2000/60/EC)

2.2.10 The Water Framework Directive was adopted 23rd October 2000. The Water Framework Directive seeks to protect and restore clean water across Europe and ensure its long-term, sustainable use. The Directive imposes requirements for the integrated planning and management of water which has implications for land use planning in both urban and rural areas. This Directive also brings together a number of other Directives and policies to help ensure that a unified approach to water legislation, which includes Bathing Water (76/160- now replaced by 2006/7), Drinking Water (80/778, as amended by 98/83) and Urban Wastewater Treatment (91/271), Nitrates (91/676), Integrated Pollution Prevention and Control (96/61, codified as Directive 2008/1/EC).and Sewage Sludge (86/278). The Water Framework Directive (2000/60/EC) is implemented in river basin districts within England and Wales

through the Water Environment (Water Framework Directive) (England and Wales) Regulations 2003 (SI2003/3242).

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. The generic impacts identified in the NPS include a number of infrastructure-related issues including: flood risk management infrastructure; transportation; waste; and water resources management infrastructure. At para 5.12.13, the NPS states that assessments of socio-economic impacts should include, amongst other considerations:

- The provision of additional local services and improvements to local infrastructure, including the provision of educational and visitor facilities;
- The impact of a changing influx of workers during the different construction, operation and decommissioning phases of the energy infrastructure. This could change the local population dynamics and could alter the demand for services and facilities in the settlements nearest to the construction work (including community facilities and physical infrastructure such as energy, water, transport and waste); and
- Cumulative effects in-combination with other major projects.

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

2.3.2 NPS EN-6 is the primary decision-making framework for development consent applications for new nuclear power stations in England and Wales. Aside of the generic impact considerations outlined in EN-1 above, impacts on significant infrastructure and resources are highlighted as a key consideration. Infrastructure and resources in this context are taken to include:

- Motorways, major highways (for example A roads);
- Strategic rail network;
- Gas transmission network;
- Electricity transmission network;
- Airports;
- Ports; and

- Groundwater Source Protection Zones and Drinking Water Protected Areas.

2.4 National (Wales) Plans and Programmes

Wales Spatial Plan (2008)

2.4.1 The Wales Spatial Plan was updated to be in keeping with the One Wales: One Planet principles in 2008 and provides the context and direction of travel for local development plans and the work of local service boards. The key themes of the update are:

- Building sustainable communities;
- Promoting a sustainable economy;
- Valuing our environment;
- Achieving sustainable accessibility; and
- Respecting distinctiveness.

2.4.2 The Plan sets out that each of the six Area Groups should develop a response to climate change and the achievement of low-carbon regions. For the North West Wales region, which includes Anglesey, the Plan states that in promoting a sustainable economy a number of structural, infrastructure and functional weaknesses within the local economy need to be addressed to ensure no part of Wales loses out on the lack of prosperity. The Plan does state that there will be a need for enhancement and adequate provision of utilities infrastructure on existing sites. It also highlights the benefits of investing in information communication technology and aims for the region to expand action in waste reduction, re-use and recycling to meet the challenging targets through investment, which includes sewerage and sewage treatment plants and new technology.

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

2.4.3 Planning Policy Wales (Edition 9) sets out the policy framework for local planning authorities' development plans. The main objectives of the Welsh Government in terms of infrastructure are highlighted in **Box 2.1**.

Box 2.1 Planning Policy Wales Objectives for Infrastructure in Wales

- To protect and improve water resources through increased efficiency and demand management of water, particularly in those areas where additional water resources may not be available;
- To ensure that appropriate sewerage facilities are provided to convey, treat and dispose

of waste water in accordance with appropriate legislation and sustainability principles;

- To ensure that appropriate facilities are established to reduce, re-use, recover and, where necessary, safely dispose of waste, so as to meet the Welsh Government's objectives for waste management;
- To promote the generation and use of energy from renewable and low carbon energy sources at all scales and promote energy efficiency, especially as a means to secure zero or low carbon developments and to tackle the causes of climate change;
- To facilitate the development of an advanced broadband telecommunications infrastructure throughout Wales;
- To promote an integrated approach to the provision and renewal of environmental and telecommunications infrastructure;
- To ensure that environmental and telecommunications infrastructure is provided in such a way as to enable sustainable development objectives to be met, avoiding adverse impacts on the environment (including the natural and historic environment), local communities and health;
- To ensure that in considering environmental and telecommunications infrastructure account is taken of the impacts of climate change in the location, design, build, operation and, where appropriate, the decommissioning of new infrastructure; and
- To ensure that the vulnerability of infrastructure to severe weather events is minimised and that infrastructure is designed to cope with higher average temperatures and increasing risk of storm surges, drought and flooding.

2.4.4 Chapter 12 addresses Infrastructure and Services stating that adequate and efficient infrastructure, including services such as education and health facilities along with water supply, sewers, waste management, electricity and gas (the utilities) and telecommunications, is crucial for the economic, social and environmental sustainability of all parts of Wales. It states that "*local planning authorities should seek to maximise the use of existing infrastructure and should consider how the provision of different types of infrastructure can be co-ordinated.*" Paragraph 12.1.7, meanwhile, states that local planning authorities should take a strategic, long term approach to infrastructure when preparing plans. They should consult utility and infrastructure companies and the Environment Agency (now Natural Resources Wales) at an early stage in the formulation of land use policies.

2.4.5 Planning Policy Wales provides further guidance for water supply and waste water management, reducing and managing waste, renewable energy and low carbon energy and telecommunications. The guidance provides advice for both the production of local development plans and development management decisions.

Technical Advice Notes

2.4.6 There are a number of Technical Advice Notes (TANs) that, whilst not concerned with specific provision of infrastructure, do cover a range of issues that should be considered as part of its delivery. These include:

TAN 6: Planning for Sustainable Rural Communities highlights the key role the planning system has in establishing sustainable rural communities. It can ensure that there is sufficient suitable land available (if it is delivered in the right place at the right time) to provide homes and employment opportunities for local people, thereby helping to maintain rural services;

TAN 8: Renewable Energy and **TAN 12: Design** are concerned with the promotion of energy efficiency, energy conservation and renewable energy generation;

TAN 15: Development and Flood Risk requires development to manage its flood risk consequences to an acceptable level;

TAN 16: Sport, Recreation and Open Space aims to further integrate the links between health and well-being, sport and recreational activity and sustainable development in Wales;

TAN 19: Telecommunications outlines the planning procedures that should be followed when assessing telecommunications proposals; and

TAN 21: Waste requires development to contribute to self-sufficiency and the Waste Hierarchy at a national level.

TAN 23: Economic Development provides guidance on the role of land use planning in economic development and the rural economy including the approaches to be taken within development plans to the determination of employment land supply.

Wales Infrastructure Investment Plan (2012) and Annual Report (2015)

2.4.7 This document provides the context and direction for national government investment, ensuring that future capital investment is used to deliver the maximum benefits to Wales. The Plan brings together a collaborative approach, which goes beyond Government and allows a wider strategic understanding of the infrastructure needs and opportunities. The Plan includes a number of sectoral plans and priorities for the environment (including water infrastructure), economic development, energy, education and health. The progress of the Plan was recorded within the Annual Report 2015 which, as of 2017, remains the latest report published. The approach to the Plan aims to:

- Be clear about the priorities for infrastructure investment to stimulate the economy and support jobs;
- Increase transparency to delivery partners through a detailed project pipeline for the next three years (it also provides a 'direction of travel' for the longer-term);

- Outline how the Welsh Government will drive efficiency and the economy from infrastructure investment, making more efficient use of existing resources and exploring and implementing innovative finance approaches; and
- Set out the Welsh Government's approach to developing and delivering proposals that optimise public value through the use of best practice.

2.4.8 Pipeline projects relevant to Anglesey include:

- Enterprise Zone delivery;
- North Wales Residual Waste Treatment Project;
- Anglesey – Ysgol-y-Bont – New School;
- 21st Century Schools programme;
- Employment sites and premises investment (Llangefni);
- Local Government Borrowing Initiative (highways investment); and
- Physical Regeneration Scheme for 2013/14 and 14/15 (regeneration of Holyhead, Amlwch and Llangefni).

Delivering a Digital Wales: The Welsh Assembly Government's Outline Framework for Action (2010) and Digital Inclusion Framework (2010)

2.4.9 This framework sets out the five key objectives:

- An Inclusive, Sustainable and Prosperous Society;
- Skilled and Competent People;
- A Thriving and Competitive Digital Economy;
- Transforming Public Services; and
- First Class Digital Infrastructure.

2.4.10 In terms of digital infrastructure, the Framework seeks to ensure that Wales has a forward looking digital infrastructure that underpins delivery of a Digital Wales. The aim is to provide a whole range of digital infrastructure, including next generation broadband, improving mobile and wireless coverage and providing data infrastructure and enabling cloud computing. The Inclusion Framework sought to identify actions to support those who were considered digitally excluded. Progress was reported within the Digital Inclusion Delivery Plan Update 2014.

Mobile Action Plan for Wales (2017)

2.4.11 The Plan notes that the planning system has a key part to play in maximising mobile phone coverage across Wales. It references Planning Policy Wales which is states is currently being revised presenting an opportunity to review and update telecommunication elements. It sets out three actions which include the review of permitted development rights, the refresh of PPW and the potential to update TAN 19.

21st Century Schools and Education Capital Programme (2012)

2.4.12 The Capital Programme is a collaboration between the Welsh Government, the Welsh Local Government Association and local authorities. It is a major, long-term and strategic capital investment programme to create a generation of 21st century education in Wales.

2.4.13 The programme will deliver:

- Learning environments in Wales that will enable the successful implementation of strategies for improvement and better educational outcomes;
- Greater economy and efficiency through better use of resources to improve the cost-effectiveness of the education estate; and
- A sustainable education system in Wales, from schools to higher education. To meet national building standards and reduce the recurrent costs and carbon footprint of the public estate.

Policy Statement on Higher Education (2013)

2.4.14 This policy statement seeks to set a new vision for higher education in Wales upto 2020. Building on the successes of recent years and the strengths of Welsh higher education, it establishes a clear set of priorities for the years ahead. It sets out a vision in which higher education providers:

- Interact with businesses to stimulate innovation and economic growth;
- Work to enhance the employability of all graduates, whatever their age, background or course of study;
- Work in partnership with the Welsh Government to development international links;
- Collaborate with further education providers to ensure that opportunities to progress are available to learners;
- Make best use of opportunities to exploit new technologies;

- Strive to provide the highest quality learning experience to all those with the potential to benefit;
- Develop the sector's reputation for excellence in research;
- Continue to support the development of Welsh-medium higher education; and
- Develop more flexible models of provision to build a more successful and sustainable future.

Social Services and Well-being (Wales) Act 2014

2.4.15 The Act came into force in April 2016. It provides a legal framework for improving the well-being of people who need care and support. It requires local authorities, health boards and NHS trusts to work closely together to ensure better integration of health and social care and to identify what services are needed. In addition local authorities are required to provide bi-lingual information, advice and assistance services and to promote social enterprises and co-operatives which involve people who need care and support.

The Strategy for Older People in Wales 2013-2023, Welsh Government (2013)

2.4.16 This Strategy emphasises the importance of the engagement, participation and empowerment of older people. One key aim is to ensure equality and dignity and identify ways of remedying the unfairness that is often experienced in later life. One of the four themes the strategy concentrates on is 'Well Being and Independence'. With this it attempts to improve the health and well-being of older people through initiatives to promote health, as well as high quality, responsive and appropriately regulated health, social care and housing services. These will enable older people to live as actively and independently as possible in a suitable and safe environment of their choice.

Programme for Government: Taking Wales Forward (2016)

2.4.17 The Programme for Government: Taking Wales Forward 2016-2021 sets out how the Welsh Government will deliver more and better jobs through a strong and fair economy, with improved public services and within a connected, united and sustainable Wales. Amongst many actions and initiatives the programme calls for skills development, community energy, rural transport and broadband access and for further actions to better manage water in the Welsh environment.

2.4.18 Under the theme of Healthy and Active it sets out to improve access to GPs, to invest in community pharmacies and increase investment in facilities to reduce waiting times. For education, it includes for the investment of nearly £2 billion in new and

refurbished schools by 20124 and to prioritise schools' access to super-fast broadband within the national programme. .

One Wales: One Planet, A New Sustainable Development Scheme for Wales Sustainable Development Scheme (2009)

2.4.19 The focus of One Wales: One Planet is the vision of a sustainable Wales, to be achieved through high-level sustainable development actions and reducing the ecological footprint of Wales. Alongside living within the environmental limits of the planet, "communities which are safe, sustainable, and attractive places for people to live and work, where people have access to services, and enjoy good health" is one of the key elements of the vision. In terms of infrastructure, the document highlights that one of the main outcomes should be regeneration which involves and engages with local communities and is firmly based on sustainability principles and creating an infrastructure for the future that favours sustainable ways of living and working.

Environment Strategy for Wales (2006)

2.4.20 The Environment Strategy provides a framework up to 2026 and is aimed at achieving an environment that is clean, healthy, varied and that is respected by the people of Wales. The Strategy has five environmental themes:

- Addressing climate change;
- Sustainable resource use;
- Distinctive biodiversity, landscapes and seascapes;
- Our local environment; and
- Environmental hazards.

2.4.21 For each of these topics, the Strategy explains the issues and sets out the environmental outcomes the Welsh Government wishes to achieve, along with the associated indicators and timelines for delivery. The Strategy is currently being reviewed to ensure it reflects the relevant commitments in the Natural Resource Management Programme. The Natural Resource Management Programme has been created to take forward the policy commitments proposed in the Sustaining a Living Wales consultation.

National Transport and Finance Plan July 2015

2.4.22 The National Transport and Finance Plan sets out a series of proposed transport interventions across Wales and also sets out targeted proposals along the main movement corridors via the new Trans-European Transport Network (TEN-T⁶).

2.4.23 The most significant proposal for Anglesey is to increase the capacity of the A55 across the Menai Straits, including capacity for walkers and cyclists. Included in the Plan is a proposal to review options for the Intra-Wales air service following expiry of the contract in May 2010 through funding for the delivery of two return services a day between Anglesey Airport and Cardiff Airport. Further details are set out in the SPG Transport Topic Paper.

Libraries making a Difference: The fifth quality framework of Welsh Public Library Standards 2014 - 2017

2.4.24 Under the Public Libraries and Museums Act 1964, local authorities have a statutory duty to provide a library service and encourage both adults and children to make full use of that library service. The framework provides opportunities for libraries to deliver services in innovative ways and the flexibility to make best use of the resources available to them.

2.4.25 Library services contribute to a range of Welsh Government outcomes such as literacy, skills and learning, digital inclusion, poverty, health and well-being. Library provision spans these outcomes, offering a range of services which often support two or more of the outcomes simultaneously. The framework has therefore been themed around four core service aspects, namely:

- Customers and communities;
- Access for all;
- Learning for life; and
- Leadership and development.

Qualified for Life: An education improvement plan for 3 to 19-year-olds in Wales (2015)

2.4.26 This document sets out the strategic objectives for education for 3 to 19-year-olds in Wales to 2020. The document acknowledges the importance of digital learning and connectivity in schools.

Prosperity for All 2017

2.4.27 This strategy sets out a vision and actions covering each of the key themes in the Programme for Government, namely: Prosperous and Secure; Healthy and Active; Ambitions and Learning; and United and Connected. It also identified 5 priority areas – early years, housing, social care, mental health, and skills, which have the potential to make the greatest contribution to long-term prosperity and well-being.

2.5 Regional Plans and Programmes

Mon a Menai Strategic Framework 2011-2014 (2010)

2.5.1 The aim of the Strategy was “to influence and redefine the nature of the economy of NW Wales. This was to be achieved by embracing a sustainable social market economy, a smarter, greener economy, where prosperity will come from innovation, from more efficient use of resources and where the key input will be knowledge.”

2.5.2 The Strategy sought to facilitate projects that:

- Build a dynamic economy with a diverse and growing range of innovative businesses;
- Develop a skilled and flexible workforce to meet future economic needs;
- Provide a strong tourism offer maximising the opportunities offered by the area’s unique cultural and linguistic heritage, and its high-quality environment presenting a range of opportunities for outdoor pursuits; and
- Lead to attractive town centres and public spaces providing modern facilities for both residents and visitors.

2.5.3 A number of infrastructure projects were identified in the Strategy including water resources schemes, electricity network projects and other infrastructure projects. During the period of the framework, over £23.4 million has been invested in the area.

2.5.4 The most recent regeneration framework ‘Vibrant and Viable Places’, a 3-year funding programme between 2014 and 2017, has recently been drawn to a conclusion. A draft Targeted Regeneration Investment Programmes has been issued to local authorities and their delivery partners via the WGLA and a new capital funding programme to support regeneration activities is due to be announced⁴.

Local Public Health Strategic Framework Refresh 2012/2013 (2013) / Healthcare in North Wales Programme (2013)

2.5.4 The Betsi Cadwaladr University Health Board has adopted a triple aim to guide the development of all their strategies and action plans, these are:

- Improving the Health of our Population;
- What People Who Use the Services Experience; and
- The Cost of Delivering Services.

⁴ <http://gov.wales/topics/housing-and-regeneration/regeneration/vibrant-and-viable-places/?lang=en>

2.5.5 Using the principles set out by the Local Public Health Strategic Framework triple aims, it was identified that there was a chance to plan and develop safe and sustainable services across the whole of the region. This was consulted upon and in a written statement by the Welsh Government (Written Statement by Welsh Government: Governance Arrangements at Betsi Cadwaladr University Health), on the 17th July 2013 the first of the service change plans for North Wales was concluded successfully.

Dŵr Cymru Welsh Water Resources Management Plan 2015-2040(2014)

2.5.6 Welsh Water's strategy for managing its water resources is set out in their 'Water Resources Management Plan' (2014), with an aim of maintaining the balance between supply and demand up to 2035. The supply area is split into twenty-four Water Resource Zones (WRZ), which are defined as the largest area in which all resources can be shared. Due to geographical constraints, each of these zones is essentially self-contained.

2.5.7 The basic question in water resources planning is whether or not the supply of water, or "Water Available for Use", is expected to be sufficient to meet the demand for water (defined as Demand plus Target Headroom), and therefore whether a zone is expected to be in surplus or in deficit. Under the preferred approach to the treatment of climate change uncertainty, the North Eryri and Ynys Môn zone remains in surplus for the next 25 years. However, if the full range of UKCP09 climate scenarios is taken into account in Target Headroom, the projected surplus of 2.9 Ml/d in 2035 becomes a deficit of 4.3 Ml/d.

2.5.8 In North Eryri Ynys Môn the report sets out consideration of scenarios which include for Wylfa Newydd. These show demand rising and a number of initiatives to be taken to ensure that such demand is met. These include enhanced leakage detection, river and reservoir connections and transfers.

2.6 Local Plans and Programmes

Joint Local Development Plan (JLDP)

2.6.1 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.

2.6.2 The JLDP is underpinned by a set of strategic objectives. Those that relate to the provision of infrastructure include:

- **SO2:** Ensure that the appropriate physical or community infrastructure is in place e.g. water supply, health facilities, schools, community facilities, or that it can be

provided (e.g. by means of developer contributions) to cope with every kind of development;

- **SO6:** Minimise, adapt and mitigate the impacts of climate change. This will be achieved by:
 - Ensuring that highly vulnerable development is directed away from areas of flood risk wherever possible;
 - Reduce the need for energy and other resources in developments;
 - Promote renewable and low carbon energy production within the area;
 - Make use of suitable previously developed land and unoccupied buildings or ones that are not used to their full capacity, where available;
 - Manage, protect and enhance the quality and quantity of the water environment and reduce water consumption;
- **SO8:** Ensure that settlements are sustainable, accessible and meet the range of needs of their communities; and
- **SO18:** Encourage waste management based on the hierarchy of re-use, recovery and safe disposal.

2.6.3 Several of the JLDP Strategic Policies as well as development management policies also reference infrastructure and services. These policies are summarised in **Box 2.1**.

Box 2.1 Summary of JLDP Strategic and Development Management Policies Relevant to Infrastructure

- **Strategic Policy PS 2: Infrastructure and Developer Contributions** sets out that the Councils will expect new development to ensure sufficient provision of essential infrastructure to make the development acceptable, by means of a planning condition or obligation. Where the essential infrastructure cannot be provided on site (“in kind”), financial contributions will be requested;
- **Strategic Policy PS 8: Proposals for National Significant Infrastructure Projects and Related Developments** states that proposals for such projects should make adequate provision for infrastructure and services that contribute to a balance of positive outcomes for local communities, visitors and the environment;
- **Strategic Policy PS 9: Wylfa Newydd and Related Development** states that the siting and design of associated development should be informed by a consideration of legacy uses, so that investment in elements such as infrastructure brings long term benefits. Where community infrastructure is provided for construction workers, where feasible this should be sited and designed so that it can be made available for community use during the construction phase and ultimately, where appropriate, serve a community legacy use. Where there would be additional impacts or demands on existing facilities the Council will seek appropriate contributions for off-site facilities;
- **Policy ISA 1: Infrastructure Provision** stipulates that the Councils will only grant

Box 2.1 Summary of JLDP Strategic and Development Management Policies Relevant to Infrastructure

planning permission where adequate infrastructure capacity exists or where it is delivered in a timely manner. Where proposals generate a directly related need for new or improved infrastructure and this is not provided by a service or infrastructure company, this must be funded by the proposal. A financial contribution may be sought to secure improvements in infrastructure, facilities, services and related works, where they are necessary to make proposals acceptable. Where appropriate, contributions may be sought for a range of purposes, including:

1. Affordable housing;
2. Sports and leisure facilities;
3. Education facilities;
4. Employment and training facilities;
5. Recreation and open space;
6. Transport infrastructure including public transport;
7. Healthcare facilities;
8. Nature conservation;
9. Recycling and waste facilities;
10. Renewable and low carbon infrastructure;
11. Cultural and community facilities;
12. Welsh language measures;
13. Broadband infrastructure;
14. Public Realm
15. Flood risk management measures
16. Service and utilities infrastructure, including water supply, drainage, sewers, gas and electricity
17. Archaeological and historic assets

Proposals for utility services to improve infrastructure provision will be granted subject to detailed planning considerations.

- **Policy PS 3: Information and Communications Technology** sets out that the Councils will support infrastructure development that seek to extend or improve connectivity through existing and emerging communication technologies.

Supplementary Planning Guidance

2.6.4 A number of Supplementary Planning Guidance (SPGs) provide additional direction on specific local matters.

2.6.5 Related to broad priorities for improving quality of life, revitalising communities, enhancing opportunities for people to develop and improving levels of service, the Planning Obligations (Section 106 agreements) SPG (2008) sets out the circumstances and actions required by developers when entering into an obligation to ensure that the process of negotiating, agreeing and monitoring of obligations are fair and

transparent to all. The SPG provides a table of planning aims which relate to the potential contributions for different elements of infrastructure.

2.6.6 Design in the Urban and Rural Built Environment SPG (2008) refers to Infrastructure and Services in Guidance Note 29 which states that issues of contaminated land, flood risk, hazardous installations, noise, waste water treatment and the water environment must be clarified with the relevant bodies before starting design work, especially for large areas of land. In terms of capacity, the Guidance Note states it is vital that the relevant infrastructure is in place prior to submitting design proposal for a large commercial, industrial or retail site. SPG should be read alongside relevant policy contained within the JLDP.

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

2.6.7 The Single Integrated Plan brings together the arrangements for health, social care, community, children and safety for the next 12 years with the purpose of improving quality of life by enhancing economic, social and environmental well-being. The Plan sets out a vision as well as priorities for action. The Plan replaces the Community Strategy, the Health, Social Care and Wellbeing Strategy, the Children and Young People's Plan and the Community Safety Plan.

2.6.8 The complex nature of these challenges demands partnership involving input from partners, service users, communities and residents. The document makes specific reference to Wylfa Newydd and the impact it could have as a large infrastructure project for the Island.

Isle of Anglesey County Council Plan 2017-2022 (2017)

2.6.9 The Isle of Anglesey County Council (IACC) Plan for 2017-22 sets out the Council's ambition of working towards an Anglesey that is healthy, thriving and prosperous. The Corporate Plan recognises role that major developments have in benefitting the Anglesey economy. The aims of the Plan are:

- Creating the conditions for everyone to achieve their long-term potential;
- Support vulnerable adults and families and keep them safe, healthy and as independent as possible;
- Work in partnership with our communities to ensure that they can cope effectively with change and developments whilst protecting our natural environment.

2.6.10 Major developments and their potential to act as a catalyst for further business development are recognised as being key to the local economy. There is also the

intention to work with other North Wales Councils to attract investment to ensure the progress of local employment opportunities.

Anglesey Economic Regeneration Strategy 2004-2015

2.6.11 This sets out the economic development needs, opportunities and proposals for the county. It includes a series of aims and objectives concerning the provision of high quality infrastructure and communications, support for a strong skills base (promoting lifelong learning and enhancing lifelong learning infrastructure) and improving the facilities and capacities of communities through actions such as the provision of capital and revenue support to improve and increase the range of community assets.

Energy Island Programme

2.6.12 The Anglesey Energy Island Programme (EIP) aims to create a centre of excellence for the production, demonstration and servicing of low carbon energy bringing together low carbon energy developments ranging from nuclear to tidal arrays, biomass and offshore wind making large contributions to the local economy.

2.6.13 Low carbon energy generation is identified as of critical importance to the regeneration of the area. As well as energy industry jobs, opportunities are highlighted to improve local transport infrastructure, housing, tourism and leisure facilities.

2.7 Key Policy Messages for the Wylfa Newydd SPG

2.7.1 Based on the review of plans and programmes in this section, a number of key messages/issues relevant to infrastructure have been identified that will need to be considered in preparing the Wylfa Newydd SPG. These messages are summarised in **Box 2.3** below.

Box 2.3 Key Policy Messages for the Wylfa Newydd SPG: Infrastructure

- Infrastructure and service delivery is a key policy consideration, with increasing influence in frameworks and national targets. Infrastructure has a role to play in the adaption and mitigation of climate change, but also through the wide range of European Directives, it cuts across a range of sectors including energy, waste, water infrastructure, digital communications health, leisure and education;
- At a national level, there are a number of programmes and plans, both related to Wales and the UK, that influence the delivery of infrastructure and services. There is an ethos throughout to ensure that economic, environment and social sustainability are taken into consideration and both community and physical infrastructure are delivered;
- There is a need to ensure that the Wylfa Newydd Project does not place pressure on existing services and facilities on the Island. The provision of additional local services and

Box 2.3 Key Policy Messages for the Wylfa Newydd SPG: Infrastructure

improvements to local infrastructure that provides a lasting legacy benefit is a key consideration;

- There is a need to consider the cumulative impacts of the Wylfa Newydd Project and other major schemes on infrastructure provision;
- The loss of existing services and facilities should be resisted unless there is overcapacity that could not be met as a result of Wylfa Newydd;
- There is a need to provide a structure within which obligations can be sought through either a Section 106 legal agreement or through a Community Infrastructure Levy.

3 Classification of Infrastructure

3.1 Introduction

3.1.1 Different types of infrastructure can have different levels of importance in terms of the facilitation of development. Whilst some (e.g. schools) are critical to ensuring that sufficient services are available to meet generated needs, others may be considered to carry less importance. This section seeks to classify infrastructure typologies in order to help better inform the baseline analysis (**Section 4**) and identification of key issues for the Wylfa Newydd SPG (**Section 5**).

3.2 Approach

3.2.1 Joint Local Development Plan Topic Paper 13: Community Infrastructure utilises the following classification scheme to reflect the importance of different infrastructure types:

- Fundamental – without which, development cannot take place and generally must be provided in advance;
- Necessary – usually essential to achieving sustainable growth although its timing and phasing are less critical and need not be provided in advance; and
- Preferred – provision is preferred although the timing and phasing is not essential.

3.2.2 This approach has been adopted for purposes of this topic paper to ensure consistency.

3.3 Outcome

3.3.1 **Table 3.1** identifies and categorises the main types of infrastructure required as part of development, in accordance with the approach adopted in support of the JLD. The degree to which each is required will depend upon existing baseline provision, expected trends and the impact from the development. The table also indicates, for each type of infrastructure, in which topic paper this has been considered.

Table 3.1 Infrastructure Classification

Type	Item	Classification	Addressed in this Topic Paper?
Education	Primary Schools	Necessary	Yes
	Secondary Schools	Necessary	Yes
Health	Hospitals	Necessary	Yes
	GPs	Necessary	Yes
	Dentists	Necessary	Yes
Utilities	Electricity	Fundamental	Yes
	Renewable Energy	Necessary	Addressed in the Topic Paper 7 Climate Change
	Gas	Fundamental	Yes
	Potable Water	Fundamental	Yes. Also addressed in Topic Paper I: Natural Environment.
Waste	Waste	Fundamental	Addressed in the Topic Paper 9: Waste
	Recycling	Fundamental	Addressed in the Topic Paper 9: Waste
Waste water and sewerage	Sewerage	Fundamental	Yes
	Wastewater treatment	Fundamental	Yes
Transport	Road	Fundamental	Addressed in the Topic Paper 5: Transport
	Public Transport	Fundamental	Addressed in the Topic Paper 5: Transport
Community Infrastructure	Libraries	Preferred	Yes
	Community Centres	Preferred	Yes
	Built Sports Facilities	Preferred	Yes
Green	Playing Fields /	Preferred	Yes

Type	Item	Classification	Addressed in this Topic Paper?
Infrastructure	Outdoor Sports		
	Open Space / Parks	Preferred	Yes
	Allotments	Preferred	Yes
	Playgrounds	Preferred	Yes
Emergency Services	Police	Preferred	Yes
	Fire Service	Preferred	Yes
	Ambulance	Preferred	Yes

4 Baseline Information and Future Trends

4.1 Introduction

4.1.1 This section describes the existing baseline characteristics of Anglesey in respect of infrastructure and identifies how this baseline could change in the future, taking into account the proposed Wylfa Newydd Project. 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 the emerging Socio Economic Baseline information prepared by the project promoter and emerging Community Infrastructure Study prepared by Amec Foster Wheeler as well as the following studies prepared in support of the emerging JLDP:

- Topic Paper 5: Developing the Spatial Strategy (2013);
- Topic Paper 13: Community Infrastructure (under preparation);
- Gwynedd and Anglesey Joint Local Development Plan Equality Impact Assessment (2013); and
- Gwynedd and Anglesey Joint Local Development Plan Health Impact Assessment (2013).

4.1.2 It should be noted that a separate Community Infrastructure Study, a Waste Management Study, and a Water Cycle Study were prepared to inform the 2014 SPG and that much of the information contained within those documents remains relevant.

4.2 General Baseline and Trends

Current Baseline

4.2.1 Anglesey has a population density of 98 persons per square kilometre which is much lower than the national average of 148 persons per square kilometre but greater than that of Gwynedd (48 persons per square kilometre). The distribution of the population across urban and rural areas is set out in **Table 4.1** and serves to further demonstrate the rural character of Anglesey with 83.6% of the population living in areas defined as 'rural'.

Table 4.1 Population Distribution - Urban and Rural Areas⁵

Category	Type of Area (wards)	Sub- category	No. of Wards	Population Size		Percentage of the Population		Percentage of the Population (urban/ rural)
Urban	Urban	Sparse	7	11,43		16.4%		16.4%
Rural	Town and fringe	Less sparse	5	8,42	22,82	12.1%	31.9%	83.6%
		Sparse	8	13,86		19.9%		
	Villages, hamlets & isolated dwellings	Less sparse	6	11,45	36,04	16.4%	51.7%	83.6%
		Sparse	14	24,59		35.3%		

Source: Stats Wales

4.2.2 At the 2011 Census the resident population of Anglesey was 69,750, representing 10.1% of the 687,940 people in North Wales and 2.3% of the 3,063,450 people in Wales. According to mid-2011 population estimates the population has risen slightly to 69,913, an increase of 3.1% since 2001 when the population stood at 67,806.

4.2.3 As at 2011, a total of 20,336 people resided in the Island's urban service centres (Amlwch, Holyhead and Llangefni, as defined in the JLDP). This represents 29.1% of the total population. Holyhead has the largest population at 11,431 followed by Llangegni (5,116) and Amlwch (3,789).

4.2.4 The dispersed and rural nature of the Island's populations means that the delivery of services has to factor in problems concerning accessibility and remoteness from its users. The provision of services involves choices between decentralised services nearer to consumers and the improvement of access to more centralised facilities.

4.2.5 Out of the 22 Welsh authorities, the Island's population has relatively high access to a car (ranking sixth) even though disposable income is relatively low. This indicates the necessity for personal transport to access key services. This pattern is evidenced by the variations in the mode of travel to work drawn from the 2011 Census (see **Table 4.2**).

⁵ Based on the definition of 'urban' and 'rural' areas as noted in the joint project between DEFRA, the Office for National Statistics, the Countryside Council for Wales and the Wales Assembly Government (2004). The definition was delivered by the Rural Evidence Research Centre at Birbeck College.

Table 4.2 Transport Modes

Mode	Anglesey %	Wales %	% Variation
Train	0.7	2.0	-65%
Bus	2.7	4.6	-41%
Bicycle	1.6	1.4	14%
Walking	9.5	10.6	-10%
Car / Van / Motorcycle	77.6	75.3	3%
Working from Home	6.8	5.4	26%

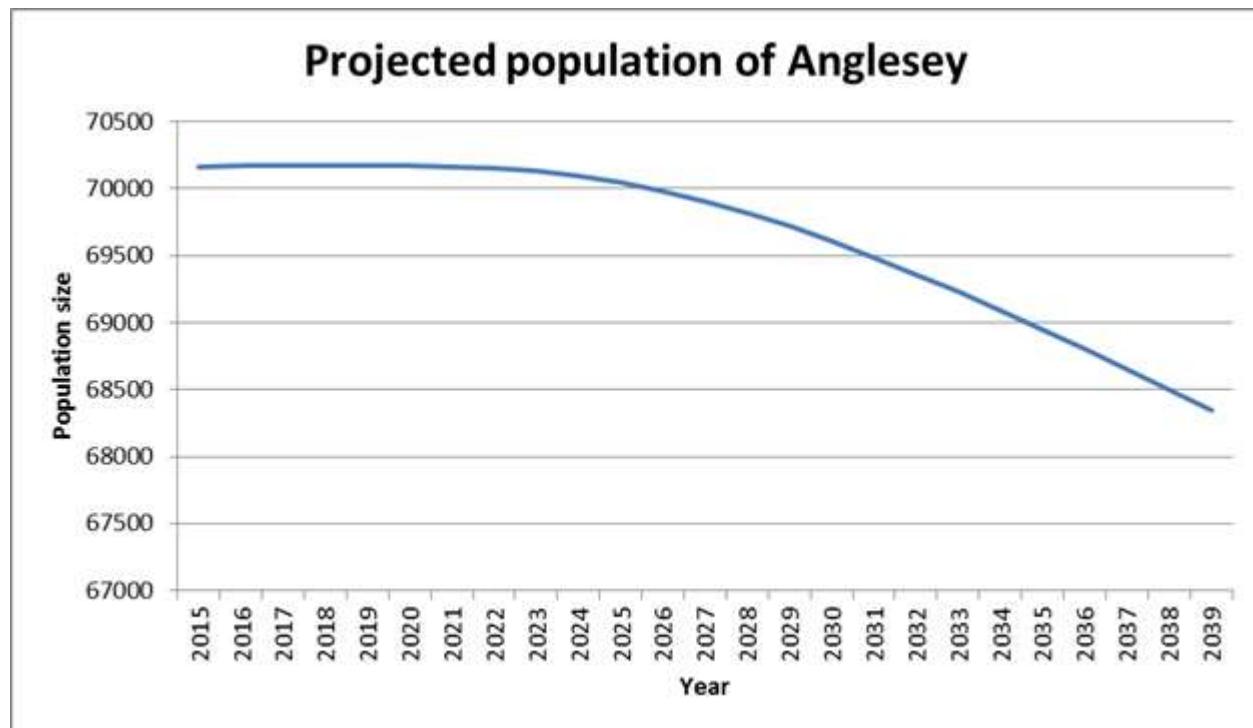
Source: ONS (2011) Census 2011

4.2.6 A decentralised model of service delivery implies higher costs to maintain a larger asset base across a greater number of dispersed sites. Historic data for corporate asset management for the authority in 2009⁶ showed that 46% of its assets were classed as “poor” or “bad” compared to a Wales average of 33%. In addition, the value of required maintenance had increased by just over 100%.

Future Trends

4.2.7 **Figure 4.1** shows population projections to 2039. It highlights that the population of the Island is forecast to peak at 70,176, before heading on a downward trajectory. It should be noted that population trends are based upon historic data concerning births, deaths and migration and do not consider the potential uplift associated with major economic revival such as that potentially associated with the Energy island Programme.

⁶ http://www.anglesey.gov.uk/journals/public/attachments/115/asset_management_plan_2009.pdf

Figure 4.1 Population Projections (2011-2039)

Source: Local Authority Population Projections for Wales (2014-based) (Statistics for Wales, 2016)

4.2.8 For three important age groups: 0-15 years, 16-64 years and 65+ years, **Table 4.3** details their proportions and change over the period 2001-2011. The key trend to note is the progressive fall in the proportion of 0-15 year olds and the increase in the 65+ age group, whilst the economically active sector of the population (16-64 year olds) has declined slightly.

Table 4.3 Distribution and Change (2001-2016) of Key Age Groups

Year		Total Population	Aged 0 to 15	Aged 16 to 64	Aged 65+
2006	Number	69,388	12,460	42,926	14,002
	Percentage		18.0%	61.9%	20.2%
2007	Number	69,700	12,230	43,161	14,309
	Percentage		17.5%	61.9%	20.5%
2008	Number	69,916	12,069	43,117	14,730
	Percentage		17.3%	61.7%	21.1%
2009	Number	69,884	11,992	42,794	15,098
	Percentage		17.2%	61.2%	21.6%
2010	Number	69,833	11,956	42,450	15,427

Year		Total Population	Aged 0 to 15	Aged 16 to 64	Aged 65+
	Percentage		17.1%	60.8%	22.1%
2011	Number	69,913	11,890	42,294	15,729
	Percentage		17.0%	60.5%	22.5%
2012	Number	70,049	12,013	41,789	16,247
	Percentage		17.1%	59.7%	23.2%
2013	Number	70,091	12,053	41,459	16,579
	Percentage		17.2%	59.2%	23.7%
2014	Number	70,169	12,065	41,141	16,963
	Percentage		17.2%	58.6%	24.2%
2015	Number	69,979	11,992	40,729	17,258
	Percentage		17.1%	58.2%	24.7%
2016	Number	69,723	11,995	40,190	17,538
	Percentage		17.2%	57.6%	25.2%
2006 to 2016 change		0.5%	-3.7%	-6.4%	25.3%

Source: Population Estimates – local authority based by a single year of age (ONS, 2017)

4.2.9 2014-based projections to 2039 indicate that there is likely to be a significant increase in the older population cohort, whilst the younger age cohort remains broadly static (see **Table 4.4** and **Table 4.5**).

Table 4.4 Population Change (numbers) in Two Age Groups to 2033

	2014	2019	2024	2029	2034	2039
Children (0-15 years old)	12,065	12,379	12,488	11,984	11,632	11,393
Population 65 years old and over	16,963	18,255	19,508	20,872	22,005	22,530
Population total	70,169	70,174	70,094	69,718	69,093	68,348

Source: Stats Wales

Table 4.5 Population Change (percentages) in Two Age Groups to 2033

	Period to 2039	2019	2024	2029	2034	2039
Children (0-15 years old)	33%	7.6%	6.9%	7.0%	5.4%	2.4%
Population 65 years old and over	-6%	2.6%	0.9%	-4.0%	-2.9%	-2.1%
Population total	-3%	0.0%	-0.1%	-0.5%	-0.9%	-1.1%

Source: Population projections by local authority and year (2014-base) (Stats Wales, 2017)

4.2.10 The projected changes in the structure of the population are important for service delivery generally, healthcare planning in particular, where a significant proportion of the over 75s are likely to have a long-term health condition, for example.

Future Quantum and Distribution of Development

4.2.11 Strategic Objective SO5 of the adopted JLDP acknowledges the challenge to ensure *“that development in the Plan area supports the principles of sustainable development and creates sustainable communities whilst respecting the varied role and character of the centres, villages and countryside”*. This is further articulated by Strategic Objection SO8 to *“Ensure that settlements are sustainable, accessible and meet all the needs of their communities in accordance with their role in the settlement hierarchy”*.

4.2.12 The JLDP Housing Strategy specifies a target of 3,817 dwellings over the plan period including a 10% slippage allowance. The Plan's spatial approach is to distribute this development in accordance with the settlement hierarchy as defined in Strategic Policy PS17: Settlement Strategy):

- Urban Service Centres: In Anglesey, these are Amlwch, Holyhead and Llangefni;
- Local Service Centres: In Anglesey these are Beaumaris, Benllech, Bodedern, Cemaes, Gaerwen, Llanfairpwll, Menai Bridge, Pentraeth, Rhosneigr, Y Fali; and
- Villages: Including the service villages of Gwalchmai, Newborough and Llanerchymedd) as well as the lower order local villages and coast/rural villages.

4.3 Education Services: Primary and Secondary

Current Baseline

4.3.1 The location of current education provision is denoted at **Appendix A**. Following the closure of six schools at the end of 2017 and their replacement by new provision at Llanfaethlu and Holyhead, Anglesey's education provision will consist of 44 primary schools (including one independent school) and five secondary schools which in 2016/17 were serving 5,234 pupils. Existing provision accounts for 2.1% of both primary and secondary schools in Wales.

4.3.2 The spatial split in the provision of education across three areas – north, south and west – of the Island is set in **Table 4.6**.

Table 4.6 Distribution of Education Provision 2017/2018 Academic Year

Type	North	South	West
Primary School	9	21	13
Secondary School	1	2	2
Special School	-	1	-

4.3.3 One secondary school and nine primary schools are located in the north of the Island and therefore closest to the main Wylfa Newydd site. Further provision is located in the west and the south although changes are expected in the Seiriol and Aberffraw areas in the south.

4.3.4 In addition, these areas have two secondary schools each.

4.3.5 A further 64 pupils attend a special school on the Island accounting for 1.6% of all pupils attending a special school in Wales.

4.3.6 No local authority maintained nursery provision exists on the Island although there are a number of private (both profit making and not for profit) establishments with registered places. In 2015, these collectively provided 269 places mainly centred upon Holyhead and Llangefni. There are 34 places provided in the northern area of the Island.

4.3.7 It should be noted that average class sizes and pupil to teacher ratios for the Island are better than the Wales averages (see **Table 4.7**).

Table 4.7 Average Class Size and Pupil to Teacher Ratios

Indicator	Anglesey	Wales
Pupils : Teacher – Primary	19.8 : 1	21.0 : 1
Average Class Size – Primary	21.7	24.4
Pupils : Teacher – Secondary	15.4 : 1	16.4 : 1
Average Class Size – Secondary	20.0	21.2

Future Trends

- 4.3.8 IACC undertakes ongoing reviews of its schools to modernise education and to provide the best possible learning environment and facilities. Following Primary Schools Reviews in for Holyhead and an area of North West Anglesey in 2012, the Council has, through consultation, provided two new schools to open in 2017 to replace three schools in each of these areas. These changes are reflected in the figures in Table 4.6 above.
- 4.3.9 The Council has also approved with the Diocese of Bangor to close four schools at Bodorgan, Dwyran, Newborough and Llangaffo in favour of a new voluntary controlled primary school to be maintained on a site in Newborough for children aged 3-11. These changes are not reflected in Table 4.6 above.
- 4.3.10 In addition, the Council in June 2017 has undertaken non-statutory consultation on a review of primary provision in the Seiriol area which comprises the schools at Beaumaris, Llangoed and Llandegfan. This consultation has now closed although proposals will need to be subject to statutory consultation before a final decision can be made.
- 4.3.11 As a proportion of the Wylfa Newydd project's temporary and permanent workforce is expected to relocate their permanent household into the area, a proportion of these households will include children requiring school provision.

4.4 Education Services: Further and Higher Education

Current Baseline

- 4.4.1 Further and higher education establishments are denoted at Appendix A.
- 4.4.2 The Bangor University Estate Strategy covered the five years to 2017 to sets out to provide an estate which will contribute to achieving the University's mission.

- 4.4.3 This included new developments. The International Education Centre is now complete and Pontio and SEACAM provide excellent facilities for arts and culture and marine science respectively. The Strategy also sought to bring all core buildings to a good standard to support growth in the key areas identified in the Strategic Plan.
- 4.4.4 The Strategy consolidated the College of Physical and Applied Sciences (CoPAS) in upgraded facilities to allow poor performing space to be demolished with cost and carbon reductions.
- 4.4.5 The Anglesey Energy Island Framework (2010) states that significant infrastructure developments are planned as part of the programme and one of these include two major mixed use developments as part of the University which propose to include student accommodation alongside employment uses including retail, leisure, and business parks.
- 4.4.6 M-SParc (Menai Science Park), a wholly owned subsidiary of Bangor University, is presently building a science park in Gaerwen, Anglesey, to drive growth in knowledge based science, with an early focus on low carbon energy, the environment and ICT sectors. It consists of a 5,000m² three-storey building which is being constructed to BREEAM Excellence standards and when completed will comprise offices, laboratory and workshop space for up to 700 people and form the hub for the entire Parc and become an important regional centre for a range of businesses from start-ups to large corporate companies.
- 4.4.7 Coleg Menai operates from seven sites to cater for the needs of the community in the north-west region of Wales including two sites in Llangefni with a branch centre in Holyhead. Together, these provide courses in automotive engineering, health and social care, living skills, food technology and IT as well as programmes for basic skills programme, access to higher education, return to living, Learndirect, business administration and Welsh for adults. In 2015, around 3,600 students attended Coleg Menai in Llangefni for education and training.
- 4.4.8 The College has developed the Llangefni campus as its 'Technology Centre of Excellence for Gwynedd and Anglesey', building on the existing large modern construction, fabrication and energy training facilities, and the heavy plant training centre; by consolidating allied functions which are currently delivered at Bangor such as mechanical and electrical engineering, and electrical plumbing and gas-safe training.
- 4.4.9 It is also expanding its Mechanical and Electrical Engineering provision, through the investment of £10M to £15M in a state of the art Engineering Academy. Its proposals are anticipated to increase student numbers at Llangefni to between 6,000 and 7,000 by 2019. The College has already invested over £6M in an existing 'Construction Skills Centre' [2009] and a further £6M in an 'Energy Centre' [2011] which provides

a focus for local training aligned to certain of the emerging needs of the Energy Island Programme.

- 4.4.10 The College is also looking to develop land adjacent to the recently constructed Link Road as an Energy Business Park comprising Business Incubator Units to support the wider economy.
- 4.4.11 Three further education establishments – Coleg Llandrillo, Coleg Harlech and Coleg Meirion-Dwyfor – and the University of Bangor are located on the mainland and are all available to serve the residents of the Island within a reasonable travel time.

Future Trends

- 4.4.12 The University is now preparing a Development Plan to implement its Estate Strategy including a detailed assessment of the space needs of the University⁷. It includes the continuing delivery of major capital projects including 1,100 new rooms for student accommodation, a new Environment Centre and an Arts and Innovation project on the site of the existing Students' Union, Refectory and Theatre. The project will provide state of the art learning and teaching accommodation, new Students' Union facilities, a theatre, studio and cinema space. A feasibility study was due to be completed in June 2008.
- 4.4.13 The Coleg Menai sites are strategically located across Gwynedd and Anglesey and the main sites in Bangor and Llangefni are central to these areas and are accessible to the community. In 2016, Coleg Menai announced a masterplan to develop their Coleg Menai Llangefni Campus as an internationally-renowned Energy and Engineering Training Facility. Investment for this masterplan has recently been secured through partnership working with Welsh Government and Horizon.
- 4.4.14 The Coleg Menai's main Llangefni site caters for craft and vocational type courses and is suitably placed for links with the major employers in the area. Bangor concentrates on the more technical and advanced courses. It also runs hospitality / services type courses.
- 4.4.15 In 2010, the skills sector body Cogent undertook research to investigate the local availability of skills to meet the needs of a new nuclear new-build. This concluded that whilst there are sufficient numbers, there existed a lack of skills levels to meet the demands of the project. Areas of concern were:
 - Welders;

⁷ https://www.bangor.ac.uk/eo/strategic_estate_dev.php.en

- Design engineers;
- Project managers and first line supervisors;
- Planners/estimators/cost control staff;
- Manufacturing engineers; and
- Mechanical and electrical engineers with knowledge of latest technology.

4.4.16 Some specific occupations were identified:

- Programme and project managers with nuclear (or aligned) experience;
- Non-destructive examiners;
- Experienced high integrity welders;
- Control and instrumentation engineers;
- Safety case authors/engineers;
- Chemists, physicists and metallurgists; and
- Geotechnical and environmental engineers.

4.4.17 The new provision of many of these skills will have a significant lead time which to varying extents require operational and practical experience and will also depend upon the capacity of existing education and skills suppliers to respond to meet this demand. However, as part of the Anglesey Energy Island Framework (2010), major developments proposed for Llangefni includes the expansion of the Coleg Menai campus with the construction of a new Energy and Fabrication centre. The college is also in discussion with the Nuclear Decommissioning Authority to develop training facilities in preparation for the decommissioning of Wylfa power station. It is proposed that with the right resources that the building can be utilised as a centre of excellence for training in aspects of decommissioning and possibly in the long-term to develop training facilities to assist in the construction of a new power station.

4.4.18 The current portfolio of courses such as engineering, management and craft courses would be an excellent platform to cater for the additional training that may be necessary for decommissioning and construction of a new site. Notwithstanding, the college experiences issues in relation to the adequacy of the condition and functionality of its buildings it is estimated that £8.8M would be required to make all buildings “acceptable”. Shortage of space is also a significant issue.

4.5 Healthcare Provision

Current Baseline

4.5.1 Since October 2009, all the functions of the previous Local Health Boards and NHS Trusts in Wales were amalgamated into new Local Health Boards that provide the full range of primary, community, mental health and acute hospital services. In the case of Anglesey, all NHS services are provided by the Betsi Cadwaladr University Local Health Board (BCULHB) which is the largest health organisation in Wales. The Health Board employs around 18,000 staff and has a budget of around £1.1 billion.

4.5.2 Current health care facilities are denoted at **Appendix A**. There are eleven GP surgeries and health centres on the Island of which just one is located in the northern area and close to the existing Wylfa site. In addition, there are two branch surgeries in the north (at Cemaes and Llanerch-y-medd) and eight branch surgeries spread across the south and west of the Island. **Table 4.8** provides a summary of the distribution of facilities across the Island.

Table 4.8 Distribution of Healthcare Provision

Type	North	South	West	All Anglesey
GP Practices	3	9	8	20
Main Practices	1	5	4	10
Branch Surgeries	2	4	4	10
Dental Practices				23
Pharmacies				13
Opticians				6

4.5.3 These facilities provide premises for 44 GPs which amount to 39 whole time equivalents. Average list sizes of below 1,400 per GP are relatively low when compared to the North Wales region and the nation as a whole. However, GP prescriptions were nearly 9% above the national cost per person average which is probably a consequence of a relatively aged population. Of the 23 dentists (working across 12 practices) on the Island, 11 offer NHS services.

4.5.4 Secondary facilities are planned and provided across North Wales by the Betsi Cadwaladr University Health Board. The nearest acute hospital is Ysbyty Gwynedd situated south of Bangor which provides a full range of district general services including acute medical and surgical, accident and emergency, intensive care and

coronary care, psychiatric, gynaecological and obstetric services and a special care baby unit. Further secondary services are provided to Anglesey residents at sites in Llandudno, Wrexham and Aberystwyth whilst there are smaller community hospitals in Holyhead (Ysbyty Penrhos Stanley) and in Llangefni (Ysbyty Cefni).

Future Trends

4.5.5 Betsi Cadwaladr Health Board carried out a consultation on the review of health services provided in North Wales during August and October 2012. The results of this consultation informed the development of their Estates Strategy in 2014:

- No substantial changes are proposed for the main acute hospitals including Ysbyty Gwynedd. The Emergency Department, midwifery and consultant-led maternity and neo-natal services will remain. Consultant-led services for children, trauma and orthopaedics, gynaecology, and non-elective general surgery will be dependent on recruitment; and
- The main acute service will be supported by a network of community hospitals that will act as 'hubs' for their local areas providing inpatient beds, minor injuries and outpatient services, radiology, physiotherapy, occupational therapy and other therapy services. Ysbyty Penrhos Stanley is identified as such a hub.

4.6 Water

Current Baseline

Surface Water

4.6.1 Anglesey is located in the North Eryri Ynys Môn Water Resource Zone (WRZ). The Environment Agency's (EA) Ynys Môn Catchment Abstraction Management Strategy (2007) describes how water resources should be managed over the next 6 years. Ynys Môn has two major reservoirs which supply the Island with drinking water. As of the 1st April 2005, there were 5 other surface water abstraction licenses.

4.6.2 There are currently no licensed groundwater abstractions but it is extensively utilised for small, private water supplies across the Island. As a result of the Water Act 2003, the exemption of groundwater abstractions is being lifted and eventually all abstractions over 20m³/day will need to be licensed.

Wastewater

4.6.3 There are 28 Wastewater Treatment Works (WwTWs) that serve Anglesey with the sewerage and wastewater treatment services across the study area provided by Dwr Cymru Welsh Water. The main WwTW are located in the largest settlements on the island: Llangefni, Holyhead, and Almwch while smaller works, as well as

possible cess pits and septic tanks in more rural parts, serve the rest of the study area.

Sewerage Network

4.6.4 The Island is generally covered well by a sewerage network that conveys wastewater towards the treatment works, with more extensive networks covering the larger urban areas of Holyhead, Menai Bridge, Amlwch, Benllech and Llangefni. Rural areas where there are more isolated farms or homes are likely to be served by septic tanks and are not connected to the main sewerage networks. Flooding as a result of sewerage network problems has occurred in eleven WwTW catchments across Anglesey in recent years. These included the Holyhead, Llanfair and Llangefni WwTW catchment areas although in the majority of cases the problems recorded were external flooding incidents.

Future Trends

4.6.5 As noted in **Section 2** of this topic paper, Welsh Water's Water Resources Management Plan 2015-2040, identifies the 'In North Eryri Ynys Môn WRZ' as being in deficit in 2023/24 and sets out that Welsh Water intends to rezone water from a treatment works in the south of the area and transfer water from a currently mothballed river abstraction in Snowdonia to a nearby WTW, alongside improvements to reduce leakage.

4.6.6 Direct consultation with Welsh Water on the JLDP's Spatial Strategy has highlighted that in Amlwch (the closest town to the Wylfa Newydd main site) the sewerage system is generally functioning well and no major issues are envisaged with respect to the Amlwch Waste Water Treatment Works (WwTWs) in accommodating initial proposals for housing growth although isolated incidents of flooding in the public sewerage network have been recorded. Although there are records of flood events in the public sewerage network of Llangefni, no major issues are envisaged with respect with the Holyhead and Llangefni WwTWs in accommodating initial proposals for housing growth⁸.

4.7 Gas

Current Baseline

4.7.1 There are no gas transmission assets on Anglesey. Wales and West Utilities owns and operates the local gas distribution network on the Island.

⁸ <http://www.anglesey.gov.uk/Journals/2015/02/17/m/i/i/Infrastructure-Topic-Paper-260115-Heb-Addysg--S.pdf>

Future Trends

- 4.7.2 The “Wales and West Utilities 2015 Long Term Development Statement” provides an indication of the system usage and likely developments.
- 4.7.3 In 2011 National Grid UK Transmission (UKT) provided Wales and West Utilities with two demand forecast scenarios for the whole of Wales. A “Gone Green” forecast took an aggressive view on energy efficiencies and the meeting of energy targets set by the UK government. However, a “Slow Progression” model was deemed to be realistic and this suggests a 7% decrease annual gas demand nationally between 2011 and 2020 but with a 9% decrease in the North Wales region.
- 4.7.4 No new capital projects have been identified in 2011 to increase capacity in the local network.
- 4.7.5 Generally network developments to provide supplies to the local gas distribution network are as a result of overall demand growth in a region rather than site specific developments and it is noted that National Grid has stated that developments as a result of specific connection requests e.g. Wylfa Newydd are likely to require additional capacity on the network from gas shippers. Gas connection infrastructure would also be required to connect potential employment sites in the Bryn Cefni Business Park (Lledwigan & Creamery Land) to the main line.

4.8 Electricity

Current Baseline

- 4.8.1 National Grid’s high voltage electricity system, which operates at 400,000 and 275,000 volts, is made up of approximately 22,000 pylons with an overhead line route length of 4,500 miles, 420 miles of underground cable and 337 substations across Wales.
- 4.8.2 National Grid’s high voltage electricity overhead transmission lines / underground cables on the Island are limited to an EV line – 132kV route from the 400kV Wylfa substation in to Penrhos substation also on Anglesey.
- 4.8.3 Scottish Power Energy Networks owns and operates the local electricity distribution network in the Anglesey area.
- 4.8.4 The Council is aware of existing insufficient capacity within the electrical network to accommodate major development (such as housing or employment uses) in Holyhead, Llangefni and Amlwch.

Future Trends

- 4.8.5 The Energy White Paper (2007) directs significant changes to revise and update much of the UK's energy infrastructure over the period to 2020. This has required an expansion of national infrastructure such as overhead power lines, underground cables and extended substations.
- 4.8.6 The “Our Electricity Transmission Network: A Vision for 2020” (Electricity Networks Strategy Group, February 2012) identifies a net increase of 2.8 GW of generation to connect under a “Gone Green 2011” scenario by 2020. Potential transmission network reinforcements identified in the document are associated with Wylfa Newydd. Further reinforcement would be required in the form of two new transmission lines between Wylfa and Pentir and a second circuit between Pentir and Trawsfynydd. The project to deliver this infrastructure has been consulted upon by National Grid as required under the Planning Act 2008.
- 4.8.7 The ‘Scottish Power Long Term Development Statement (November 2011)’ provides information about the SP Manweb 132 kV and 33kV distribution systems and developments which may affect system capability or configuration. This will inform SP Energy Networks rolling investment project plan for the distribution network.

4.9 Libraries

Current Baseline

- 4.9.1 Current libraries are denoted at **Appendix A**. Anglesey has 10 libraries plus a mobile library service and a housebound library service. There are 1.5 libraries per 10,000 population on the Island with the Anglesey North sub-area having the highest provision at 2.4 per 10,000 against 1.7 and just 0.8 in the Anglesey South and West sub-areas respectively. With the exception of Newborough, all libraries provide internet services.

Future Trends

- 4.9.2 An Isle of Anglesey Draft Library Service Strategy 2017-2022⁹ was produced in 2017 that built upon the Council's 2013-2017 Corporate Plan which prompted a 2015 review of options¹⁰. The strategy aims to reconfigure the library service to achieve *“focused and sustainable library provision and that the aim of the Council would be...to reduce the overall costs of these services (Leisure, culture and libraries) to the Council by 60% over the period of this plan.*

⁹ <http://www.anglesey.gov.uk/Journals/p/w/n/Draft-Library-Service-Strategy-2017-2022.pdf>

¹⁰ <http://www.anglesey.gov.uk/download/47802>

4.9.3 Section 5 of the Draft Strategy states that “*In light of the ... Library Service Review, the public and stakeholder consultation undertaken to date and the Council’s vision and objectives, this draft Strategy recommends moving to a pattern of provision based on:*

- A. Area Libraries;*
- B. Authority led Community Supported Libraries;*
- C. Mobile Services (The Community Mobile, Housebound Service and Schools Library Service);*
- D. Potential community access points.”*

4.9.4 The effects of this strategy upon the provision set out in paragraph 4.9.1 are not known although should be seen in the context of the concern to continue to provide an efficient and effective service.

4.10 Community Centre and Cultural Facilities

Current Baseline

4.10.1 Post offices are key providers of community as well as cultural and leisure services. There are 33 post office branches in Anglesey (see **Appendix A**). Of these, ten are located in the Anglesey North sub-area, with fifteen in the Anglesey South sub-area, and a further eight in the Anglesey West sub-area.

4.10.2 Reflecting its rural nature, Anglesey has a high provision of post office branches at 6.6 per 10,000 population as against a Wales figure of 4.7. The Anglesey North sub-area has the highest provision on the Island at 8.2 per 10,000 against 6.3 and 6.2 in the Anglesey South and West sub-areas respectively.

4.10.3 The Anglesey Museums and Culture Service manages five sites which celebrate and explore the Island’s past: Oriel Ynys Môn, Beaumaris Court, Beaumaris Gaol, Llynnon Mill, and South Stack Lighthouse.

Future Trends

4.10.4 There are no known current strategies or plans to develop community centres or cultural facilities in Anglesey.

4.11 Sport Facilities

Current Baseline

- 4.11.1 Sport facility provision across the Island is shown at **Appendix A**. There are four Council managed Leisure Centres at Amlwch, Holyhead, Plas Arthur in Llangefni and David Hughes in Menai Bridge. There is also a community managed Leisure Centre in Beaumaris.
- 4.11.2 In addition there are three swimming pools at Amlwch, Holyhead and Plas Arthur and a public golf course at Llangefni.

Future Trends

- 4.11.3 There are no current strategies or plans to develop sports / leisure facilities in Anglesey.

4.12 Green Spaces

Current Baseline

- 4.12.1 JLD Topic Paper 14: Open Space Assessment shows irregular provision against benchmark provision thresholds for fields in trust, outdoor sports facilities, playing pitches, children's playing space and equipped playspace as follows:
 - Llangefni – adequately provision in all types of playspace;
 - Amlwch – a slight deficit in equipped playspace;
 - Holyhead, Beaumaris and Cemaes – deficits in outdoor sports facilities and playing pitches;
 - Garwen – deficits in fields in trust, outdoor sports facilities and playing pitches;
 - Menai Bridge – deficits in fields in trust, outdoor sports facilities, playing pitches and equipped playspace;
 - Benllech – deficits in all provision with the exception of children's playspace; and
 - Llanfairpwll, Rhosneigr and Valley – deficits in all provision.

Future Trends

- 4.12.2 There are no current strategies or plans to develop sports / leisure facilities in Anglesey. However, JLD development policies ISA 4 and ISA 5 seek to protect existing and provide additional open space respectively.

4.13 Emergency Services: Police

Current Baseline

4.13.1 Police stations across the Island are shown at **Appendix A**. Anglesey is covered by the North Wales Police Western Division. There are four police stations on the Island at Holyhead, Llangefni, Menai Bridge and Amlwch¹¹.

Future Trends

4.13.2 The North Wales Police's Estates Strategy 2013-16 identifies the following planned provisions:

- A new Llangefni Police Station. This has now been delivered;
- Minor improvements and renovation works at Amlwch, Benllech and Menai Bridge; and
- The future of Holyhead police stations is under review.

4.14 Emergency Services: Fire and Rescue

Current Baseline

4.14.1 The North Wales Fire and Rescue Service has approximately 130 staff based at six stations on the Island and the office in Llangefni (stations across the Island are shown at **Appendix A**). A day crewed station is based at Holyhead and retained duty stations are at Amlwch, Beaumaris, Llangefni, Menai Bridge and Rhosneigr¹².

4.14.2 These stations utilise 11 pumping appliances, 3 of which have narrow access capability. Holyhead has an Environmental Protection Unit and provides specialist firefighting at sea capability.

Future Trends

4.14.3 The North Wales Police and North Wales Fire and Rescue Service have not indicated any additional requirements to serve the needs of the Island in the near future.

¹¹ <https://www.north-wales.police.uk/contact/>

¹² <http://www.nwales-fireservice.org.uk/about-us/stations/>

4.15 Telecommunications: Broadband

Current Baseline

4.15.1 The speed of the available connection is dependent on the nature of the ICT infrastructure and the technology available within the region, mainly through the local telephone exchange. However, as a result of the Wales Infrastructure Investment Plan (2012), fibre broadband was rolled-out in 14 unitary authorities including Anglesey. Following the upgrade of exchange locations replacing copper phone lines with fibre optic cables, Anglesey now benefits from the provision of superfast broadband services with a capacity of up to 330Mbps dependent upon location.

4.15.2 Even in areas that receive service, the actual service can be diminished by a number of factors such as line quality and the numbers using the service at the same time. **Figure 4.2** identifies the comparative speed of broadband across the Island based upon speed tests. The speed in the northern and western areas of the Island is generally slower than in the south and east¹³.

¹³ <http://maps.thinkbroadband.com/#!lat=53.28812983012215&lng=-4.366000009461237&zoom=11&type=terrain&exchanges&speed-cluster>

Figure 4.2 **Broadband Speed Tests**



4.15.3 It is intended that the development of this ICT backbone will allow further expansion to provide access to the business sector and public in the future.

4.16 Key Issues for the Wylfa Newydd SPG

4.16.1 Based on the findings of the baseline analysis and evidence base, a number of key issues relevant to infrastructure have been identified that will need to be considered in preparing the Wylfa Newydd SPG. These issues are summarised in **Box 4.1** below.

Box 4.1 Key Issues for the Wylfa Newydd SPG: Infrastructure

- An ageing population may place additional demands on service provision;
- There is a need to balance new service provision associated with the Wylfa Newydd project and other development on the Island in the short to medium term with a forecast decline in population (baseline scenario) in the longer term;
- The dispersed and rural nature of the Island's populations means that the delivery of services has to factor in problems concerning accessibility and remoteness from its users;
- There is a need to prioritise the provision of fundamental infrastructure required to support the project. This includes water resources infrastructure;
- There is a need to deliver enhancement in a way that supports existing services, conforms where possible to the settlement hierarchy of the spatial strategy and joins up with the capital programmes and investment plans of other stakeholders / service providers (e.g. the expansion of the Coleg Menai campus);
- The need to ensure that appropriate land assets are retained, protected or otherwise provided to ensure that these can be delivered when required; and
- There is currently a lack of high quality skills in the local population that would allow maximum value in terms of jobs provision to be derived from the Wylfa Newydd project for existing communities.

5 Challenges and Opportunities

5.1 Introduction

5.1.1 Based on the review of plans and programmes presented in **Section 2** and analysis of the baseline and emerging evidence base in **Section 4**, this section draws together the key strengths, weaknesses, opportunities and threats related to infrastructure 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.

5.2 SWOT Analysis

5.2.1 **Table 5.1** presents an analysis of the strengths, weaknesses, opportunities and threats associated with the construction and operation of the Wylfa Newydd Project on infrastructure and in the context of the Wylfa Newydd SPG.

Table 5.1 SWOT Analysis

Strengths	Weaknesses
<ul style="list-style-type: none"> • There are well established, mature and well regarded public services provided on the Island; • Services are well related to the main centres of population and demand; and • There is some capacity in local schools and relatively low GP list sizes. 	<ul style="list-style-type: none"> • A lack of services and facilities in the rural area; • A lack of capacity in services located in the north of the Island; • A lack of high quality skills in the local population; and • Emergency services are provided some distance from the main Wylfa Newydd site.
Opportunities	Threats
<ul style="list-style-type: none"> • The Wylfa Newydd project will introduce a demand for additional infrastructure that may support significant capital investment in the short to medium term; • There may be opportunities for the development to support existing investment schemes on the Island including in respect of skills development; and • Investment could leave a legacy for the community post construction. 	<ul style="list-style-type: none"> • An ageing population may place increased pressure on services; • Service provision associated with the Wylfa Newydd project could adversely affect existing provision on the Island; • A lack of provision could delay the project programme; and • Pressure upon services to meet demand from the project may have a detrimental effect upon provision for all residents.

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

5.3.1 The following are considered to be key matters to be addressed by the Wylfa Newydd SPG in relation to infrastructure:

- The need to ensure that fundamental infrastructure is provided in time to allow the development to be delivered according to programme;
- The need to ensure that necessary infrastructure is provided to ensure that access to services and facilities for local residents is maintained once demand rises as a result of an increase in workers on the Island;
- A need to ensure that existing services and facilities are protected where demand continues to exist;
- A need to ensure that access to services for residents is improved through the provision of improved services as a legacy; and
- A need to ensure that construction worker accommodation and infrastructure provision is delivered in accordance with the JLDp where appropriate.

5.4 How should the Wylfa Newydd SPG Respond?

5.4.1 The Wylfa Newydd SPG will need to include guidance and detailed criteria which seeks to ensure that the Wylfa Newydd Project addresses the issue of infrastructure. More specifically, the SPG should:

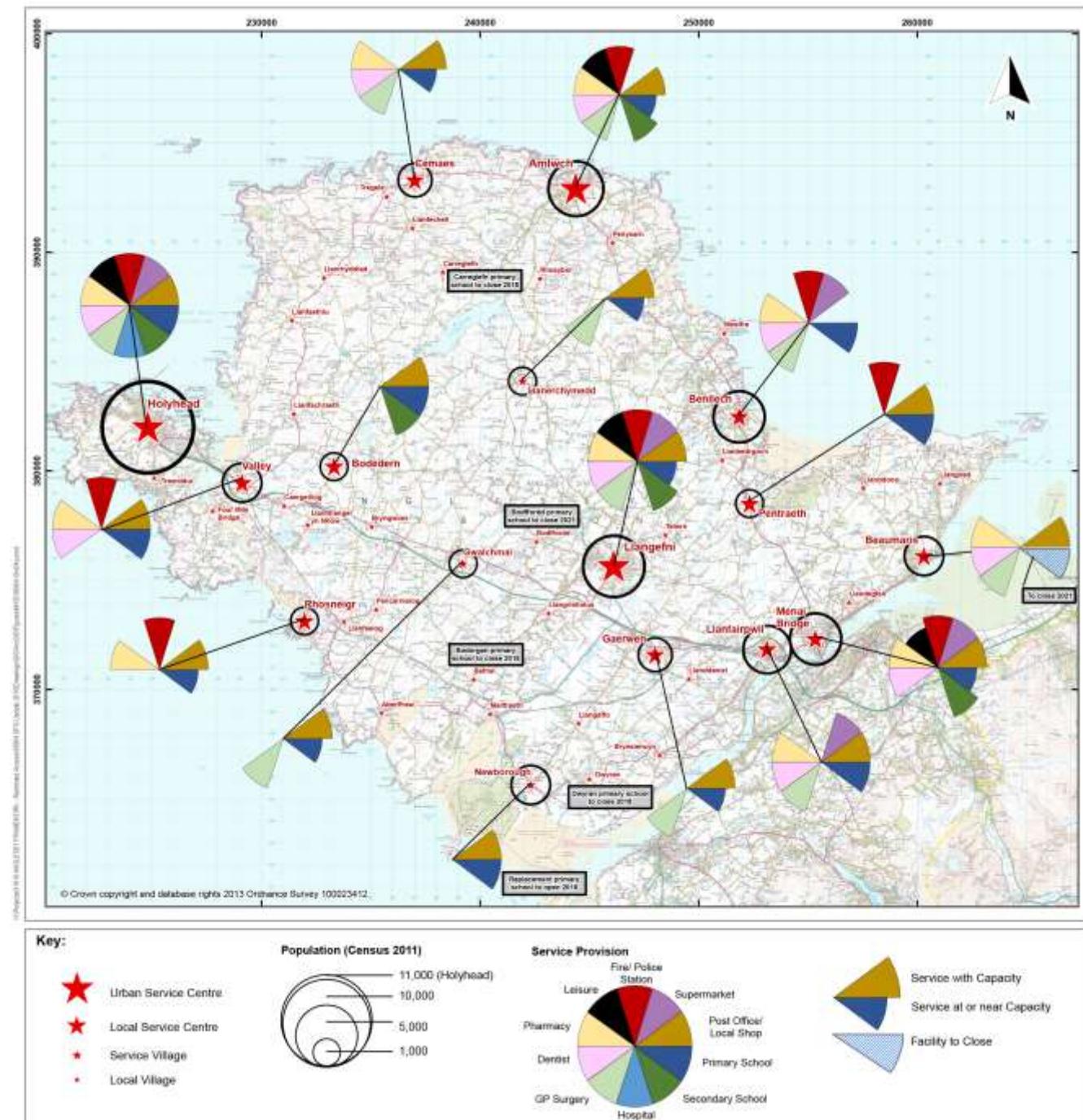
- Specify the fundamental infrastructure without which the development would be delayed. In particular power distribution, water supply and waste water infrastructure, waste, access and public transport. Dialogue with providers will need to ensure appropriate infrastructure capacity is available or is capable of being delivered in advance of growth;
- Specify the necessary educational infrastructure that will be needed to cope with the increase in population associated with the level of housing growth implied by the Wylfa Newydd Project. The SPG would need to focus on those areas where housing growth is expected but also respond to the spatial strategy and settlement hierarchy of the JLDp taking into account areas of current insufficient capacity in schools and the Council's school modernisation strategy;
- The SPG could suitable locations where any potential land assets could be brought forward to support required services should the need arise. This implies the retention or re-use of existing school sites or other land assets as the phasing of the development demands;
- The availability of primary healthcare facilities will need to respond on the demand of the construction and operational workforce. The SPG could include criteria-based guidance to ensure that existing provision is maintained, where it

is considered to be in appropriate locations, and new provision provided where demand is forecast;

- The SPG should facilitate the protection of existing health facilities and support the provision of new facilities when required, in line with the requirements of Betsi Cadwaladr University Health Board;
- Ongoing consultation with Welsh Water will be vital to identify areas where additional water infrastructure may be required;
- Although access to cultural services, libraries, community centres, sports facilities, green space, police and emergency services may not be classified as fundamental considerations, the SPG should consider the importance of access to such resources according to the settlement hierarchies and the likely needs of the Wylfa Newydd Project; and
- The requirement for developer contributions should be set out where appropriate to ensure the provision of efficient and timely resources for the population of the Island.

Appendix A

Community Facility Mapping





CYNGOR SIR
YNYS MÔN
ISLE OF ANGLESEY
COUNTY COUNCIL

www.ynysmon.gov.uk
www.anglesey.gov.uk