Revised 2018-2033 Local Development Plan

Integrated Sustainability Appraisal (ISA) Appendices (A-D)



2nd Deposit Plan February 2023



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Appendix A Review of Relevant Plans, Policies, and Programmes

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International: Plan, Policy, or Programme

Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal 1992 (UNEP)

https://www.unep.org/resources/report/basel-convention-control-transboundarymovements-hazardous-wastes

Convention concerning the Protection of the World Cultural and Natural Heritage 1972 (UNESCO)

https://whc.unesco.org/archive/convention-en.pdf

Convention on Biological Diversity 1992 (UNEP) http://www.biodiv.org/default.shtml

Convention on Environmental Impact Assessment in a Transboundary Context 2017 (UNECE)

https://unece.org/DAM/env/documents/2017/EIA/Publication/1733290_pdf_web.pdf

Convention on Migratory Species 1979 (UNEP) http://www.cms.int/

Convention on the Protection of the Underwater Cultural Heritage 2001 (UNESCO) http://unesdoc.unesco.org/images/0012/001246/124687e.pdf#page=56

EU Directive 1999/31/EC (The Landfill Directive)

https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A31999L0031

This Directive intends to help drive waste up the hierarchy through waste minimisation and increased levels of recycling and recovery. The Directive's overall aim is *"to prevent or reduce as far as possible negative effects on the environment, in particular the pollution of surface water, groundwater, soil and air, and on the global environment, including the greenhouse effect, as well as any resulting risk to human health, from the landfilling of waste, during the whole life-cycle of the landfill".* The Directive has provisions covering location of landfills, and technical and engineering requirements for aspects such as water control and leachate management, protection of soil and water and methane emissions control. The Directive sets stringent targets on reducing the amount of biodegradable municipal waste that is sent to landfill.

EU Directive 2000/60/EC (Water Framework Directive)

https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32000L0060

This Directive establishes a framework for the protection and management of surface waters, including rivers, lakes, intertidal/coastal waters, and ground waters in the EU. It's objectives are to prevent further deterioration and enhance the aquatic environment; achieve good ecological and chemical water quality for all surface waters and ground waters unless it is impossible or prohibitively expensive; and promote sustainable water management based on long-term protection of water resources.

EU Directive 2001/42/EC (Strategic Environmental Assessment Directive)

https://www.legislation.gov.uk/eudr/2001/42

The UK has published <u>practical guidance</u> on applying this Directive to the assessment of the effects of certain plans and programmes on the environment.

EU Directive 2006/118/EC (Groundwater Directive)

http://eur-

lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2006:372:0019:0031:EN:PDF

EU Directive 2006/7/EC (Bathing Waters Directive)

https://eur-lex.europa.eu/legal-content/GA/TXT/?uri=CELEX:32006L0007

EU Directive 2008/50/EC (New Air Quality Framework Directive) http://ec.europa.eu/environment/air/quality/legislation/existing_leg.htm

EU Directive 2008/98/EC (Waste Framework Directive) http://ec.europa.eu/environment/waste/framework/index.htm

EU Directive 2009/147/EC (Birds Directive)

(http://ec.europa.eu/environment/nature/legislation/birdsdirective/index_en.htm

This Directive is the EU's oldest piece of nature legislation and one of the most important, creating a comprehensive scheme of protection for all wild bird species naturally occurring in the EU. It was adopted as a response to increasing concern about the declines in Europe's wild bird populations resulting from pollution, loss of habitats as well as unsustainable use. The Directive recognises that habitat loss and degradation are the most serious threats to the conservation of wild birds. It therefore places great emphasis on the protection of habitats for endangered as well as migratory species, particularly through the establishment of a network of Special Protection Areas (SPAs) comprising all the most suitable territories for these species.

EU Directive 91/271/EEC (Urban Waste Water Treatment Directive)

http://ec.europa.eu/environment/water/water-urbanwaste/index_en.html

EU Directive 91/676/EEC (Nitrates Directive)

http://ec.europa.eu/environment/water/water-nitrates/directiv.html

This Directive concerns the protection of waters against pollution caused by nitrates from agricultural sources with the intention of redirecting agriculture toward greater sustainability. The Directive aims to protect fresh, intertidal/coastal, and marine waters against pollution caused by nitrates. It requires Member States to identify waters, either actually or potentially affected by diffuse nitrate pollution. These include:

- surface waters, particularly those for the abstraction of drinking water, where nitrate concentrations exceed 50 mg/l nitrate;
- o groundwaters actually or potentially containing more than 50 mg/l nitrate; and
- freshwater lakes, other freshwater bodies, estuaries, coastal waters, and marine waters which are, or may in the future be, eutrophic.

Member States had to designate all areas draining into such waters as nitrate vulnerable zones by 19 December 1993 and establish Action Programmes to control the timing and date of application of manure and chemical fertilisers in these zones.

EU Directive 92/43/CEE (Habitats Directive)

http://ec.europa.eu/environment/nature/legislation/habitatsdirective/index_en.htm

This Directive is one of the most significant pieces of legislation driving Europe's conservation policies adopted following the Berne Convention (1982). It aims to protect identified species and habitats of nature conservation importance at the European level and led to the establishment of a network of Special Areas of Conservation. Together with the Special Protection Areas set up under the Conservation of Wild Birds Directive (1979), these sites make up the European network of protected sites known as Natura 2000 sites. The aim of the network is to assure the long-term survival of Europe's most valuable and threatened species and habitats.

European Landscape Convention: Florence Convention 2000

https://www.gov.uk/government/publications/european-landscape-convention-florence-20october-2000

General Union Environment Action Programme to 2020

https://op.europa.eu/en/publication-detail/-/publication/1d861dfb-ae0c-4638-83ab-69b234bde376

Glasgow Climate Pact

https://unfccc.int/sites/default/files/resource/cma2021_10_add1_adv.pdf

Kyoto Protocol 1997 (United Nations)

http://unfccc.int/kyoto_protocol/items/2830.php

Paris Agreement 2016 (United Nations)

https://unfccc.int/sites/default/files/english_paris_agreement.pdf

Post-2020 Global Biodiversity Framework (Draft)

https://www.cbd.int/doc/c/abb5/591f/2e46096d3f0330b08ce87a45/wg2020-03-03-en.pdf The draft framework will be presented for consideration at UN Convention on Biological Diversity (CBD) next meeting of its 196 Parties at COP-15, December 2022.

Ramsar Convention on Wetlands 1971 (UNESCO)

http://www.ramsar.org/

Rio Declaration on Environment and Development 1992 (UNEP)

http://www.unep.org/Documents.multilingual/Default.asp?DocumentID=78&ArticleID=116 3&I=en

Transforming Our World: the 2030 Agenda for Sustainable Development 2015

This <u>Agenda</u> is a plan of action for people, planet, and prosperity. It also seeks to strengthen universal peace in larger freedom. The contained 17 Sustainable Development Goals (SDGs) were adopted by all 193 United Nations Member States in 2015. SDGs seek to tackle a wide range of issues facing both developed and developing countries, and include poverty, inequality, climate change, inclusive societies and access to health and education.

United Nations Conference on Housing and Sustainable Urban Development 2016 https://habitat3.org/wp-content/uploads/A-RES-66-207_88100.pdf

United Nations Framework Convention on Climate Change 1994 https://unfccc.int/files/essential_background/background_publications_htmlpdf/application/ pdf/conveng.pdf

UK: Plan, Policy, or Programme

Air Quality: UK National Air Pollution Control Programme 2019

https://www.gov.uk/government/publications/air-quality-uk-national-air-pollution-controlprogramme

As required by the revised National Emission Ceilings Directive 2016/2284/EU, the National Air Pollution Control Programme (NAPCP) sets out measures and analysis for the legally binding 2020 and 2030 emission reduction commitments (see Section A1e.5), and how this can be met across the UK.

Ancient Monuments & Archaeological Areas Act 1979

https://www.legislation.gov.uk/ukpga/1979/46

The means by which Scheduled Ancient Monuments (SAMs) are afforded legal protection, however, this falls short of protecting the settings and surroundings of monuments. In addition, the Act allows for certain damaging operations to continue under certain circumstances.

Conservation of Habitats and Species Regulations 2017

https://www.legislation.gov.uk/uksi/2017/1012

These Regulations implement Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (EC Habitats Directive). The Regulations provide for the designation and protection of 'European sites (Special Areas of Conservation)', the protection of 'European protected species', and the adaptation of planning and other controls for the protection of European Sites. A further objective is to preserve, maintain and re-establish sufficient diversity and area of habitat for wild birds in the UK and to avoid any pollution or deterioration of habitats of wild birds in exercising of all relevant functions. There are many sites of ecological / geological importance in the county and in this regard, Carmarthenshire has several sites considered to be of international importance for nature conservation. These Special Protection Areas (SPA) and Special Areas of Conservation (SAC) are designated under European legislation, and within Carmarthenshire include:

- SPA: Burry Inlet (also a Ramsar site), Carmarthen Bay, and Elenydd Mallaen.
- <u>SAC:</u> Afon Teifi, Afon Tywi, Carmarthen Bay and Estuaries, Carmarthen Bay Dunes, Cwm Doethie - Mynydd Mallaen, Caeau Mynydd Mawr, Cernydd Carmel, and Bristol Channel Approaches.

Countryside and Rights of Way Act (CRoW) 2000

https://www.legislation.gov.uk/ukpga/2000/37

This Act provides for public access on foot to certain types of land, amends the law relating to public rights of way, increases protection for Sites of Special Scientific Interest (SSSI) and strengthens wildlife enforcement legislation, and provides for better management of Areas of Outstanding Natural Beauty (AONB). There are 81 Sites of Special Scientific Interest (SSSI) in the county (excluding the area within the Brecon Beacons National Park) ranging in size from small fields to large areas of mountain sides and long rivers, covering a combined total of 17,088 hectares. They cover approximately 7.2 % of the county. SSSI are the best wildlife and geological sites in the country. They include habitats such as ancient woodland, flower-rich meadows, wetlands as well as disused guarries and support plant and animal species which are not often seen in the wider countryside. SSSIs are statutorily protected under the Wildlife & Countryside Act 1981 (as amended by the Countryside & Rights of Way Act 2000). Natural Resources Wales (NRW) has responsibility for identifying, notifying, and protecting SSSIs. The Act also places a duty on all highway authorities to produce a Rights of Way Improvement Plan (ROWIP) for their area. Carmarthenshire has six Local Nature Reserves (LNRs). LNRs are designated by local authorities and are places which support a rich variety of wildlife or geological features, and which are important to local people, by enabling contact with the natural environment. The LNRs in the county are managed with the conservation of wildlife as the top priority. They are Pembrey Burrows and Saltings, Ashpits Pond and Pwll Lagoon, North Dock Dunes, Morfa Berwick (all in the Llanelli coastal area), Carreg Cennen and Glan-yr-Afon, Kidwelly.

Environment Act 1995

https://www.legislation.gov.uk/ukpga/1995/25

This Act sort the establishment of sponsored bodies (e.g., NRW) within each of the four countries (as revised). It provides for the transfer of rights, property, and liabilities, with specific regard to the environment. Such responsibilities include making provisions with respect to the control of pollution, the conservation of natural resources and the conservation or enhancement of the environment; National Parks; contaminated land and abandoned mines; and fisheries. The Act also places a duty on the Council to periodically review and assess air quality within its locality. The Air Quality Objectives are set out in the Air Quality Standards (Wales) Regulations 2010. The Environment Act 2021 is part of a new legal framework for environmental protection post-Brexit, and aims to improve air and water quality, protect wildlife, increase recycling and reduce plastic waste.

Environmental Protection Act 1990

https://www.legislation.gov.uk/ukpga/1990/43

This Act seeks to improve the protection of the environment through several provisions including the control of pollution arising from certain industrial and other processes, imposing duties to keep public places clear of litter and clean, and to amend the law relating to the control of hazardous substances on, over or under land. In relation to contaminated land, the County has a rich and diverse industrial legacy, including a wide range of industries such as mining, tin plate manufacturing, gas works, tanneries etc. All these processes have the potential to have caused contamination of the ground, ground waters or other sensitive receptors. A Contaminated Land Inspection Strategy is in the process of being reviewed and updated by the Council.

Flood and Water Management Act 2010

https://www.legislation.gov.uk/ukpga/2010/29/

This Act changes the way that coping with the increasing pressures posed by climate change, notably water management. Reference is made to Schedule 3 (January 2019) which mandates Sustainable Drainage Systems (SuDS) on all developments over 100m². The Council is a designated Lead Local Flood Authority (LLFA) under the Act.

Marine & Coastal Access Act 2009

https://www.legislation.gov.uk/ukpga/2009/23

This Act provides new powers to assist in achieving the vision set out in the UK High Level Marine Objectives. The new powers provided by this act include:

- A new system for marine planning that will cover all the key marine activities;
- Marine Licensing powers were delegated to NRW in 2011. These licensing powers replace the licensing regimes that were previously covered under: Food and Environment Act 1985, Coast Protection Act 1949 and Environmental Impact Assessment (extraction of minerals and dredging (Wales) Regulations 2007.
- Facilitate the creation of Marine Conservation Zones (MCZs) to assist in the conservation of marine plants and animals or geological/geomorphological features.

Nature Positive 2030

https://jncc.gov.uk/our-role/the-uk/nature-positive-2030/

Nature Positive 2030 has been produced by the Joint Nature Conservation Committee, Natural England, NRW, NatureScot and the Northern Ireland Environment Agency; and

consists of two reports – <u>a Summary Report</u> and <u>an Evidence Report</u>. Several significant commitments have been made response to the crisis of biodiversity loss, notably through the Leaders' Pledge for Nature launched at the United Nations General Assembly in 2020, and the 30by30 commitment to protect 30% of our land and seas for nature by 2030. Through *Nature Positive 2030*, the five statutory nature conservation bodies of the UK have come together to identify how the UK can succeed in achieving these commitments along with ensuring that nature recovery plays its critical role in achieving net zero.

Securing the Future: Delivery UK Sustainable Development Strategy 2005

http://www.defra.gov.uk/publications/2011/03/25/securing-the-future-pb10589/

The UK Sustainable Development Strategy covers the period up to 2020 and is based upon five principles which are living within environmental limits; ensuring a strong, healthy, and just society; achieving a sustainable economy; promoting good governance; and using sound science responsibly.

Town and Country Planning (Environmental Impact Assessment) (Wales) Regulations 2017

https://www.legislation.gov.uk/wsi/2017/567

These Regulations require certain developments to be subject to an assessment of their environmental impact before planning permission can be determined.

Town and Country Planning Act 1990

https://www.legislation.gov.uk/ukpga/1990/8/

There are numerous related Welsh Statutory Instruments that amend the Town and Country Planning Act (TCPA) including <u>TCPA (Use Classes) (Amendment) (Wales) Order 2022</u> and <u>TCPA (General Permitted Development etc.) (Amendment) (Wales) Order 2022</u>.

UK Climate Change Programme 2006

http://jncc.defra.gov.uk/page-4000

This Programme sets out the UK's policies and priorities for action on climate change in the UK and internationally and sets out the approach to strengthening the role that individuals can play in tackling climate change.

UK Post-2010 Biodiversity Framework

http://jncc.defra.gov.uk/page-6189

This Framework was developed in response to the Convention on Biological Diversity's (CBD's) Strategic Plan for Biodiversity 2011-2020 and the EU Biodiversity Strategy (EUBS) 2011. The former of these, alongside the Aichi Targets, have now expired and the post-2020 is expected to be discussed in December 2022.

Voluntary National Review of progress towards the Sustainable Development Goals (2019)

https://www.gov.uk/government/publications/uks-voluntary-national-review-of-thesustainable-development-goals

The UK's first Voluntary National Review sets out clearly and comprehensively collective efforts on the 17 Sustainable Development Goals since their adoption in 2015. National frameworks capture government priorities in relation to the Goals, with work taking place on multiple levels to strengthen delivery across the UK. This approach recognises and respects the devolution settlements in Scotland, Wales, and Northern Ireland. Each is responsible for implementing its own policies in areas of devolved competence, resulting in approaches that respond to national and local needs.

Water Environment (Water Framework Directive) (England and Wales) Regulations 2017

https://www.legislation.gov.uk/uksi/2017/407/

These Regulations transpose Directive 2000/60/EC in national law. The WFD required all inland and coastal waters to reach "good status" by 2015. It establishes a river basin district structure with ecological targets for surface waters and other environmental indicators. It also places various functions and duties on NRW and the Welsh Government to regulate the water environment and it is complemented by other directives including the Urban Waste Water Treatment Directive and the Nitrates Directive, both adopted in 1991, and the Bathing Waters Directive, revised in 2006.

Wildlife and Countryside Act 1981

https://www.legislation.gov.uk/ukpga/1981/69

The Act covers protection of wildlife, the countryside, the prevention invasive species and the designation of protected areas including Sites of Special Scientific Interest (SSSIs) that are identified for their flora, fauna, geological or physiographical features.

National: Plan, Policy, or Programme

Active Travel (Wales) Act 2013

https://www.legislation.gov.uk/anaw/2013/7/contents

The Act requires local authorities in Wales to produce active travel maps and deliver year on year improvements in active travel routes and facilities. It requires highways authorities in Wales to make enhancements to routes and facilities for pedestrians and cyclists in all new road schemes and to have regard to the needs of walkers and cyclists in a range of other highway authority functions. As part of its commitment to make it easier to walk and cycle, the Council has prepared maps that identify current walking and cycling routes. These maps were created following public consultation as well as its own research in 2015. The routes identified on the maps meet current Welsh Government standards for walking and cycling routes in Wales.

Agriculture (Wales) Bill (2022 Draft)

https://senedd.wales/media/51ncc5s0/pri-ld15330-e.pdf

This Bill will underpin the delivery of the Sustainable Land Management (SLM) agriculture framework in Wales. A full explanation of the SLM objectives and monitoring process is given in the Bill's explanatory notes. The Bill will also alter the Forestry Act 1967 to give NRW the power to add conditions to amend, suspend or revoke felling licenses to prevent felling that would contradict other environmental legislation, and bans the use of snares and glue traps.

All Wales Plan 2021–2025: Working Together to Reach Net Zero (2022)

https://gov.wales/working-together-reach-net-zero-all-wales-plan

The Plan showcases commitments to action which have been made across Wales. <u>Welsh</u> <u>Government has also published other documents on Net Zero.</u>

Beyond Recycling Circular Economy Strategy 2021

https://gov.wales/sites/default/files/publications/2021-03/beyond-recycling-strategydocument.pdf

A Strategy which set to make the circular economy in Wales a reality through responsible resources management. It also references the integrated assessment on the impact of the Beyond Recycling strategy on Well-being of Future Generations Act and specifically children's rights.

Environment (Wales) Act 2016

https://www.legislation.gov.uk/anaw/2016/3

The Act ensures we have a joined-up legislative approach to enable the sustainable management of our natural resources. Some of the specific provisions in the Act include:

- Helping to plan and manage Wales' natural resources at a national and local level, through a State of Natural Resources Report, a National Natural Resources Policy and area statements.
- Providing NRW with a purpose that aligns fully with the statutory principles for the sustainable management of natural resources.
- Providing NRW with powers to undertake land management agreements and experimental schemes.
- Providing public authorities with a reshaped requirement to seek to maintain and enhance biodiversity and promote resilience of ecosystems.
- Placing statutory emission reduction targets and carbon budgeting.
- \circ Enabling improvements to the existing scheme for single use carrier bags.
- Providing the Welsh Ministers with powers to take action to achieve higher levels of recycling for business waste, food waste treatment and energy recovery.

• Clarifying the law for several existing environmental regulatory regimes including marine licensing, and land drainage and flood risk management.

<u>Section 6</u> of the Act places a legal obligation on public bodies to 'maintain and enhance biodiversity' in the exercise of their functions. <u>Section 7</u> of that Act requires Welsh Ministers to publish and maintain lists of species and habitats of 'principal importance' for the purpose of maintaining and enhancing that biodiversity. Awareness of the presence of any priority habitat or species is of importance in the consideration of land for development within the local authority planning process to discharge its duty to conserve biodiversity.

Future Wales: The National Plan 2040 (2021)

https://gov.wales/future-wales-national-plan-2040

Future Wales is the development plan for Wales. It influences all levels of the planning system in Wales and shapes both Strategic and Local Development Plans prepared by councils and national park authorities. It addresses key national priorities through the planning system, including sustaining and developing a vibrant economy, achieving decarbonisation and climate-resilience, developing strong ecosystems, and improving the health and well-being of communities.

Guidance for Outdoor Sport and Play: Beyond the Six Acre Standard (Wales) (2015) https://www.fieldsintrust.org/Upload/file/Guidance/Guidance-for-Outdoor-Sport-and-Play-Wales.pdf

This provides guidance on the planning and design of outdoor sport, play and informal space, formulated on 'a broad recommendation that 6 acres (2.4 hectares) of accessible green space per 1,000 head of population enables residents of all ages to participate'. The document was revised to reflect policy changes including the National Planning Policy Framework and now includes recommendations on the provision of amenity and natural green space.

Historic Environment (Wales) Act 2016

https://www.legislation.gov.uk/anaw/2016/4

The Act has three main aims which are to give more effective protection to listed buildings and scheduled monuments; improve the sustainable management of the historic environment; and introduce greater transparency and accountability into decisions taken on the historic environment. The Act amends the Ancient Monuments and Archaeological Areas Act 1979 and the Planning (Listed Buildings and Conservation Areas) Act 1990.

Historic Environment (Wales) Bill 2022

https://senedd.wales/media/qofjukzx/pri-ld15211-e.pdf

The first statue produced from the consolidation of Bill concerning the historic environment (as implemented through the Legislation (Wales) Act 2019). This Bill safeguards the effective protection and management of the historic environment so that it can continue to contribute to the well-being of Wales and its people.

Housing (Wales) Act 2014

https://www.legislation.gov.uk/anaw/2014/7

This is Wales' first ever housing Act. It aims to improve the supply, quality, and standards of housing in Wales. The Welsh Government's priorities are stated as: more homes, better quality homes and better housing-related services.

Local Development Plan Manual (Edition 3) 2020 https://gov.wales/development-plans-manual-edition-3-march-2020 The Manual proposes a more integrated approach to incorporating the sustainability appraisal, explains changes relating to candidate and alternative site procedures, as well as the tests of soundness, and expands the advice on plan review and revision.

One Wales: One Planet (2009)

http://www.wales.nhs.uk/sitesplus/documents/829/One%20Wales-%20One%20Planet%20%282009%29.pdf

This Scheme states that sustainable development is a core principle within the founding statute of the Welsh Assembly Government, and that there is a duty, under the Government of Wales Act 2006 (Section 79), that requires Welsh Ministers to make a scheme setting out how they propose, in the exercise of their functions, to promote sustainable development. A supplementary ecological footprint calculator and practice guidance has also been published.

People, Places, Futures: The Wales Spatial Plan 2008 (update)

https://gov.wales/sites/default/files/publications/2019-05/people-places-future-the-walesspatial-plan-update-2008.pdf

The Wales Spatial Plan (WSP) provides an overarching policy context for spatial planning and development in Wales by establishing cross-cutting national priorities over the next 20 years. Carmarthenshire is situated within three of the six sub areas identified in the WSP.

Planning (Wales) Act 2015

http://gov.wales/topics/planning/legislation/planning-wales-act-2015/?lang=en

This Act aims to modernise and improve the planning system to facilitate the delivery of homes, jobs, and infrastructure. It also seeks to:

- reinforce the role of the Welsh Government as the active stewards of the planning system in Wales;
- promote a cultural change in planning to help make it more positive and support appropriate development more effectively; and
- promote partnership working between Local Planning Authorities.
- The below is also noted in terms of potential implications:
 - Introduction of a National Development Framework (NDF) land-use planning issues at the national level, identifying key locations for infrastructure development and setting the national framework for planning.
 - Introduction of Sub-Regional Plans Strategic Development Plans (SDPs) with specific reference made to the Cardiff, Swansea and the A55 corridor.
 - Retention of Local Development Plans however these will need to be reviewed to ensure that they are consistent with the National Development Framework (and SDPs where appropriate).
 - Increased powers for the Welsh Ministers, whilst in some circumstances applicants will be able to apply directly to the Welsh Government.

The LDP will need to be reviewed and prepared in line with this Act as well other primary and secondary legislative documents.

Planning Policy Wales: Edition 11 (2021)

https://gov.wales/planning-policy-wales

Planning Policy Wales (PPW) is the national land-use planning policy document for Wales. It is used by Local Planning Authorities to inform policies and land-use allocations LDPs and it is a material consideration for decision makers in determining individual planning applications. PPW sets out the land use policies of the Welsh Government and provides the context for land use planning in Wales. The policy is supplemented by Technical Advice Notes (TAN), circulars, and policy clarification letters, and together they provide our national planning policy framework.

PPW Minerals Technical Advice Note (MTAN) 1: Aggregates (2004)

https://gov.wales/sites/default/files/publications/2018-09/mtan1-aggregates.pdf

MTAN1 states that the overarching objective in planning for aggregates provision is to ensure supply is managed in a sustainable way so that the best balance between environmental, economic and social considerations is struck, while making sure that the environmental and amenity impacts of any necessary extraction are kept to a level that avoids causing demonstrable harm to interests of acknowledged importance. The MTAN is structured to reflect the following five key principles:

- To provide aggregate resources in a sustainable way to meet society's needs for construction materials;
- To protect areas of importance;
- To reduce the impact of aggregates production;
- To achieve a high standard of restoration and aftercare, and provide for a beneficial after-use; and
- To encourage the efficient use of minerals and maximizing the potential use of alternative materials as aggregates.

PPW Minerals Technical Advice Note (MTAN) 2: Coal (2009)

https://gov.wales/minerals-technical-advice-note-mtan-wales-2-coal

MTAN2 sets out detailed advice on the mechanisms for delivering the policy for coal extraction through surface and underground working and provides advice on best practice. It also identifies how impacts should be assessed, what mitigation measures should be adopted, and the environmental and social costs of operations so that they are properly met by the operator.

PPW Technical Advice Note 1: Joint Housing Land Availability Studies (2015):

https://gov.wales/sites/default/files/publications/2018-09/tan1-joint-housing-landavailability-studies.pdf

TAN1 provides guidance for the undertaking of Joint Housing Land Availability Studies. These studies seek to monitor the provision of market and affordable housing, provide an agreed statement of residential land availability, and set out the need for action in situations where an insufficient supply is identified.

PPW Technical Advice Note 10: Tree Preservation Orders (1997)

https://gov.wales/technical-advice-note-tan-10-tree-preservation-orders

TAN10 provides guidance on where local planning authorities are to make adequate provision for the preservation and planting of trees when granting planning permission through the process of making tree Preservation Orders (TPOs). It provides advice on the process of making TPOs and the consideration of protecting trees, particularly during the development process.

PPW Technical Advice Note 11: Noise (1997)

https://gov.wales/technical-advice-note-tan-11-noise

TAN11 provides guidance on how the planning system can be used to minimise the adverse impact of noise without placing unreasonable restrictions on development. It provides advice on the consideration of noise during the development plan and control (management) processes as well as noise exposure categories for different types of activity which should be considered during the consideration of proposals for residential development.

PPW Technical Advice Note 12: Design (2016) https://gov.wales/technical-advice-note-tan-12-design The purpose of TAN12 is to equip those involved in the design of development with advice on '*Promoting sustainability through good design*' and '*Planning for sustainable buildings*' and how this may be facilitated through the planning system. Good design requires a collaborative, creative, inclusive, process of problem solving and innovation - embracing sustainability, architecture, place making, public realm, landscape, and infrastructure. TAN12 emphasises that a holistic approach to design requires everyone involved in the design process to focus from the outset on meeting a series of objectives of good design. These including ensuring ease of access for all; promoting sustainable means of travel; ensuring attractive, safe public spaces; achieving environmental sustainability; sustaining or enhancing local character.

PPW Technical Advice Note 13: Tourism, Welsh Government (1997)

https://gov.wales/technical-advice-note-tan-13-tourism

TAN13 provides guidance on tourism related issues in planning including matters relating to hotel development, holiday and touring caravans and seasonal and holiday occupancy conditions.

PPW Technical Advice Note 14: Coastal Planning (1998)

https://gov.wales/technical-advice-note-tan-14-coastal-planning

TAN14 describes the role of local planning authorities and the range of sectoral and regulatory controls with regard to marine and coastal development. TAN14 also details several issues which must be considered because of their potential effects on physical processes and ground conditions, as well as the overall balance, sensitivity, and conservation of the area. Additionally, it contains guidance around the planning considerations and issues to be included in LDPs and in the determination of planning applications.

PPW Technical Advice Note 15: Development, Flooding and Coastal Erosion (2021)

https://gov.wales/sites/default/files/publications/2018-09/tan15-development-flood-risk.pdf TAN15 provides advice on matters including the use of development advice maps to determine flood risk issues, how to assess the flooding consequences of proposed development and action that can be taken through development plans and development control (management) procedures to mitigate flood risk when planning for new development. The document supplements the Development Advice Map (DAM) published by NRW. Whilst eventually replacing the original TAN15 published in 2004, the new TAN15 and Flood Map for Planning has been suspended until 1 June 2023.

PPW Technical Advice Note 16: Sport, Recreation and Open Space (2009)

https://gov.wales/technical-advice-note-tan-16-sport-recreation-and-open-space

TAN16 sets out guidance regarding planning for sports, recreation, and open space provision as part of new development proposals. It provides advice relating to this area including on the preparation of Open Space Assessments, the keeping of existing facilities, the provision of new facilities and the planning for allotments and spaces for children's and young people's play. Additionally, TAN16 discusses development management issues regarding the design of facilities and spaces, and noise and accessibility, and also considers how planning agreements can help to ensure the provision and maintenance of facilities.

PPW Technical Advice Note 18: Transport (2007)

https://gov.wales/technical-advice-note-tan-18-transport

TAN18 describes how to integrate land use and transport planning. It explains how transport impacts should be assessed and mitigated; and includes advice on transport related issues when planning for new development.

PPW Technical Advice Note 19 Telecommunications (2002)

https://gov.wales/technical-advice-note-tan-19-telecommunications

TAN19 outlines the planning procedures that should be followed when assessing telecommunications proposals. In so doing it takes account of the growth of the telecommunications industry and technology. It also provides guidance on different forms of public communications systems and their developmental requirements and the implications for development plans and the determination of planning applications.

PPW Technical Advice Note 2: Planning and Affordable Housing (2006)

https://gov.wales/technical-advice-note-tan-2-planning-and-affordable-housing

TAN2 provides guidance on the use of the planning system in delivering affordable housing. It defines affordable housing for planning purposes and provides advice to local planning authorities on how to determine affordability. The need to work collaboratively is stressed, including the requirement for housing and planning authorities to undertake local housing market assessments in participation with key stakeholders.

PPW Technical Advice Note 20: Planning and the Welsh Language (2017):

https://gov.wales/technical-advice-note-tan-20-planning-and-welsh-language

TAN20 provides guidance on the consideration of the Welsh language as part of the Development Plan making process. The TAN provides advice on incorporating the Welsh language in development plans through Sustainability Appraisals, procedures for windfall development in areas where the language is particularly significant, and signs and advertisements. Updated in 2017, TAN20 brings together the policy advice and the practical guidance on the Welsh Language into a single document.

PPW Technical Advice Note 21: Waste (2014)

https://gov.wales/technical-advice-note-tan-21-waste

TAN21 requires monitoring to ensure sufficient landfill and treatment capacity, identify whether the spatial pattern of provision is appropriate to fill identified needs, and discover if further action is needed by local planning authorities to address unforeseen issues. Reference should be made to the annual Waste Planning Monitoring Reports (WPMRs) for the South West Wales region.

PPW Technical Advice Note 22: Sustainable Buildings (2011)

https://www.bridgend.gov.uk/media/1531/wd58.pdf

TAN22 provides the national planning policy on sustainable buildings, guidance on the standards of sustainable building assessment, design solutions to meet these standards and, additionally, guidance on low carbon buildings. The TAN also provides guidance development of policies and strategic sites.

PPW Technical Advice Note 23: Economic Development (2014)

https://gov.wales/technical-advice-note-tan-23-economic-development

TAN23 emphasises that LDPs will need to be informed by robust evidence and advises that a range of stakeholders should be engaged for their insights into the local economy. It recognises that economic issues are generally larger than local authority level, and that evidence is most appropriately collected at both regional and local scale. This will require collaboration with other planning authorities within an agreed regional grouping.

PPW Technical Advice Note 24: The Historic Environment (2017):

https://gov.wales/technical-advice-note-tan-24-historic-environment

TAN24 provides guidance on how the planning system considers the historic environment during development plan preparation and decision making on planning and listed building

applications. It provides guidance on how the following aspects of the historic environment should be considered:

- World Heritage Sites;
- Scheduled monuments;
- Archaeological remains;
- Listed buildings;
- Conservation areas;
- Historic parks and gardens;
- Historic landscapes; and
- Historic assets of special local interest.

PPW Technical Advice Note 3: Simplified Planning Zones (1996)

https://gov.wales/technical-advice-note-tan-3-simplified-planning-zones

TAN3 sets out the procedures that should be followed when designating Simplified Planning Zones. A Simplified Planning Zone is one way in which an authority can help secure development or redevelopment of part of its area, providing certainty and allowing the developer or landowner to avoid delays in the planning applications process. TAN3 provides advice on the selection of areas, extent of permission, exclusions and conditions and limitations during the process of designation.

PPW Technical Advice Note 4: Retail and Commercial Development (2016)

https://gov.wales/technical-advice-note-tan-4-retail-and-commercial-development

TAN4 provides guidance on the role of land use planning in retail and commercial development, including retail strategies, master planning and Place Plans; testing of retail need and sequential approach to development; retail impact assessments; and Local Development Orders.

PPW Technical Advice Note 5: Nature Conservation and Planning Welsh Government (2009)

https://gov.wales/technical-advice-note-tan-5-nature-conservation-and-planning

TAN5 provides advice about how the land use planning system should contribute to protecting and enhancing biodiversity and geological conservation. It provides an overview of all relevant legislation within the field and "demonstrates how local planning authorities, developers and key stakeholders in conservation can work together to deliver more sustainable development that does not result in losses from the natural heritage but instead takes every opportunity to enhance it". In 2018, there was notice published of the revised procedure regarding European Protected Species (EPS) licencing.

PPW Technical Advice Note 6: Planning for Sustainable Rural Communities (2010):

https://gov.wales/technical-advice-note-tan-6-planning-sustainable-rural-communities TAN6 provides guidance on how the planning system can support sustainable rural communities. It provides advice on areas including sustainable rural communities and economies, rural affordable housing, rural enterprise dwellings, one planet developments, sustainable rural services, and sustainable agriculture.

PPW Technical Advice Note 7: Outdoor Advertisements Control (1996)

https://gov.wales/technical-advice-note-tan-7-outdoor-advertisement-control

TAN7 describes how outdoor advertisements may be controlled to protect amenity and public safety. It provides advice on the advertisement applications process including on the criteria for dealing with such applications, advertisement control, the use of advertisements in areas of heritage interest such as conservation areas, National Assembly of Wales direction making powers and appeals for advertisements.

PPW Technical Advice Note 8: Renewable Energy (2005)

https://gov.wales/sites/default/files/publications/2018-09/tan8-renewable-energy_0.pdf

TAN8 outlines the land use planning considerations relating to renewable energy. It provides detail on how the planning system can achieve Government targets relating to renewable energy. The TAN also promotes energy efficiency and conservation. Since the publication of TAN 8 there have been some policy and legislative changes. <u>Annex A of the Chief Planning Officers (CPOs) letter 'Publication of Planning Policy Wales Edition 4, February 2011'</u> sets out these changes, and should be read alongside TAN 8.

River Basin Districts Surface Water and Groundwater Classification (Water Framework Directive) (England and Wales) Direction 2009

https://gov.wales/sites/default/files/publications/2019-07/091222direct53.pdf

The Classification Directions set out the principles and standards for classifying water bodies for the Water Framework Directive (WFD). They apply to Wales and England and were developed by the UK Technical Advisory Group (UKTAG) to support the implementation of the WFD.

Sustainable Management of Natural Resources and our Well-being (2019) https://gov.wales/sustainable-management-natural-resources-guide

This Guidance relates to improving the social, economic, environmental, and cultural wellbeing of Wales through taking an ecosystem approach to managing natural resources.

The Code of Good Agricultural Practice for the Protection of Water, Soil and Air for Wales (2011)

https://gov.wales/code-good-agricultural-practice-protection-water-soil-and-air-wales-2011-no20

This Code provides advice and guidance for farmers and land managers to minimise the risks of causing pollution. It also provides a reference source for the legal requirements for farmers and land managers with respect to air, soil, and water. It also contains references to related legal requirements such as planning, access and biodiversity.

The Future Generations Report 2020

https://www.futuregenerations.wales/wp-content/uploads/2020/05/FGC-Report-English.pdf

Under the statutory duty of the Future Generations Commissioner, the Future Generations Report provides an assessment of the improvements which public bodies should make in relation to their well-being objectives, and is published every five years.

The Future of Welsh Law: A Programme for 2021 to 2026

https://gov.wales/sites/default/files/pdf-versions/2021/9/2/1632221277/the-future-of-welshlaw-accessibility-programme-2021-to-2026.pdf

Through the enactment of the Legislation (Wales) Act 2019, this programme looks to make law more accessible in Wales. It plans to draft consolidation Bills on both the Historic Environment and Planning into individual statutes.

The National Strategy for Flood and Coastal Erosion Risk Management in Wales (FCERM) (2020)

https://gov.wales/national-strategy-flood-and-coastal-erosion-risk-management-wales

The Strategy sets out how to manage the risks from flooding and coastal erosion across Wales. It sets objectives and measures for all partners to work towards over the life of the document, which is anticipated to be 10 years unless significant policy updates are required prior to that time. Whilst measures are designed to be clear and deliverable over the next decade, the Strategy has been drafted with a longer-term, strategic view, recognising the

nature of flood and coastal erosion risk with respect to the challenges of climate change. In this way, it will work alongside other strategic plans for shoreline management, infrastructure, and planning.

The Nature Recovery Action Plan for Wales 2020–21 (refreshing The Nature Recovery Plan for Wales)

https://gov.wales/sites/default/files/publications/2020-10/nature-recovery-action-planwales-2020-2021.pdf

In Wales, the National Nature Recovery Action Plan sets out how Wales will address the Convention on Biological Diversity's Strategic Plan for Biodiversity and the associated Aichi biodiversity targets in Wales. A set of indicators will also be developed to measure the progress of the Nature Recovery Action Plan against objectives. To accompany the plan, a Nature Recovery Framework sets out the roles and responsibilities of the key players for delivery of action for biodiversity in Wales, and how they are linked together. The Nature Recovery Action Plan links to and complements The Well-being of Future Generations (Wales) Act 2015 and the Environment Act (Wales) 2016. The ambition of the plan is: 'To reverse the decline in biodiversity, for its intrinsic value, and to ensure lasting benefits to society'. The refreshed plan has 5 themes for action which are maintaining and Enhancing Resilient Ecological Networks; Increasing Knowledge and Knowledge Transfer; Realising new Investment and funding; Upskilling and capacity for delivery; and Mainstreaming, Governance and Reporting our Progress.

The Renting Homes (Wales) Act 2016 (Consequential Amendments to Secondary Legislation) Regulations 2022

https://www.legislation.gov.uk/en/wsi/2022/907

From 1 December 2022, this Act will change the way all landlords in Wales rent their properties, and will improve how residential properties are rented, managed, and lived in within Wales.

The Town and Country Planning (Local Development Plan) (Wales) (Amendment) Regulations 2015

https://www.legislation.gov.uk/wsi/2015/1598

This legislation amends the 2005 Regulations to simplify the LDP procedures. The amendments are in response to the outcomes of the LDP process refinement exercise. Further amendments seek to assist with clarity and transparency in parts of the procedure. These include setting out how the candidate site process, review report process and the initial consultation report work. Those amendments that are of relevance to the LDP include:

- Site allocation representations (also known as alternative site) stage this created confusion and did not add value to the LDP process. The amended regulations abolish the need to consult on the alternative sites following the deposit consultation stage.
- The Regulations introduced a short-form revision process for use where it appears to the LPA that the issues involved are not of sufficient significance to warrant the full procedure.
- Allowance for the review of part or parts of the plan, prior to a revision taking place.
- The Regulations introduce a requirement that the LDP sub-title indicates the end of the period in relation to which the LDP has been prepared.
- Removes the requirement to publicise matters by adverts in the local paper.

The Wales Act (2017)

This Act provides the National Assembly for Wales with the power to legislate on any subject other than those which are reserved to the UK Parliament. The Wales Act 2017 implements elements of the St David's Day agreement which required legislative changes. It is aimed

at creating a clearer and stronger settlement in Wales which is durable and long-lasting. In particular, the Wales Act amends the Government of Wales Act 2006 by moving to a reserved powers model for Wales. The 2017 Act also devolves further powers to the Assembly and the Welsh Ministers in areas where there was political consensus in support of further devolution. These include:

- Devolving greater responsibility to the Assembly to run its own affairs, including deciding its name;
- Devolving responsibility to the Assembly for ports policy, speed limits, bus registration, taxi regulation, local government elections, sewerage, and energy consenting up to 350MW (see below for additional detail);
- Devolving responsibility to Welsh Ministers for marine licensing and conservation and energy consents in the Welsh offshore region; and extending responsibility for building regulations to include excepted energy buildings;
- Devolving power over Assembly elections and the licensing of onshore oil and gas extraction;
- Aligning the devolution boundary for water and sewerage services along the border between England and Wales; and,
- Establishing in statute the President of Welsh Tribunals to oversee devolved tribunals and allowing cross-deployment of judicial office holders.

In relation to the 2017 Act and the devolution of powers, specific reference is made to matters relating to the Community Infrastructure Levy (CIL) (previously not a devolved matter). Once the Welsh Government set out their approach to CIL, local authorities will then consider how best to progress a CIL for their localities. In the meantime, authorities will continue to seek all developer contributions through Section 106.

The Water Resources (Control of Agricultural Pollution) (Wales) Regulations 2021 https://gov.wales/sites/default/files/publications/2021-01/the-water-resources-control-ofagricultural-pollution-wales-regulations-2021.pdf

These Regulations have been introduced to reduce losses of pollutants from agriculture to the environment by setting rules for certain farming practices. The Regulations also set standards for silage making, nutrient management planning, sustainable fertiliser applications, storage of silage effluent and for manure/slurry storage systems. They will apply from 1 April 2021 for an initial set of measurements, and the remainder will be phased in over a period of 3 years. These Regulations revoked The Nitrate Pollution Prevention (Wales) Regulations 2013.

The Welsh Language (Wales) Measure 2011

https://www.legislation.gov.uk/mwa/2011/1/

The measure gives the Welsh language official status in Wales. This means that Welsh should be treated no less favourably than English. It places a duty on some organisations to comply with one or more standards of conduct on their delivery of services through the Welsh language including areas such as policy making, operational activities and Welsh language promotion.

Towards Zero Waste – One Wales One Planet: The Overarching Waste Strategy for Wales (2010)

https://gov.wales/sites/default/files/publications/2019-05/towards-zero-waste-our-wastestrategy.pdf

This Strategy sets out a long-term framework for resource efficiency and waste management up to 2050. It identifies the outcomes to achieve, sets high level targets and lays out the general approach to delivering these targets and other key actions. The Strategy identifies high level outcomes, policies and targets, and forms part of a suite of documents that comprise the national waste management plan for Wales.

Wales and The Sustainable Development Goals 2019

https://gov.wales/sites/default/files/publications/2019-07/supplementary-report-to-the-uk-review-of-progress-towards-the-sustainable-development-goals-2030_0.pdf

This outlines the progress of Wales' Seven Well-being goals, the pledge to 'leave no one behind', and describes the development of working in a sustainable way.

Welcome to Wales: priorities for the visitor economy 2020 to 2025

https://gov.wales/sites/default/files/publications/2020-02/welcome-to-wales-priorities-forthe-visitor-economy-2020-2025.pdf

This document summarises the tourism industry within Wales and the associated priorities needed to support it. It reinvigorates Destination Management arrangements and identifies a key role for local authorities in contributing to the preparation of local destination plans and partnerships. It replaces the previous Welsh Government *Strategy for Tourism 'Partnership for Growth' (2013–2020),* and *'Developing the Visitor Economy' (2009).*

Well-being of Future Generations (Wales) Act 2015

https://business.senedd.wales/mglssueHistoryHome.aspx?IId=10103

The key purposes of the Act are to:

- Set a framework within which specified Welsh public authorities will seek to ensure the needs of the present are met without compromising the ability of future generations to meet their own needs (the sustainable development principle);
- Outline well-being goals which those authorities are to seek to improve for the wellbeing of both present and future generations;
- Set out how those authorities are to show they are working towards the well-being goals;
- Put Public Services Boards (PSB) and local well-being plans on a statutory basis and, in doing so, simplify current requirements as regards integrated community planning, and
- Establish a Future Generations Commissioner for Wales to be an advocate for future generations who will advise and support Welsh public authorities in carrying out their duties under the Bill.

The LDP must have regard to the 7 well-being goals set out within the Act:

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

Welsh National Marine Plan 2019

https://gov.wales/sites/default/files/publications/2019-11/welsh-national-marine-plandocument_0.pdf

The Welsh National Marine Plan (WNMP) sets policy for the next 20 years on the sustainable development of the inshore and offshore marine plan regions. It has been prepared and adopted under the Marine and Coastal Access Act (MCAA) 2009 for the purposes of Section 51 of the MCAA and in accordance with Schedule 6 (MCAA) and in conformity with the UK Marine Policy Statement (MPS)2. WNMP will be used to guide Local Authorities in decision making, and the LDP has been updated regarding the marine plan and in formulation and review of polices.

Regional: Plan, Policy, or Programme

Final Water Resources Management Plan 2020–2050 (Dŵr Cymru)

https://www.dwrcymru.com/en/our-services/water/water-resources/final-water-resourcesmanagement-plan-2019

The Plan considers what needs to be done to ensure a sustainable and affordable balance between the amount of water we take from the environment and the amount of water we require during our daily lives. It is vitally important for a water company to understand its capability to supply water and the demand for water from customers and business within its supply area. The comparison is termed the Supply Demand Balance (SDB). In relation to Carmarthenshire, it should be noted that the Tywi Gower zone is shown to be in surplus. However, Pembrokeshire and Brecon Portis zones are shown to be in deficit.

Flood Risk Management Plan for the Western Wales River Basin District (2015–2021) NRW is required to prepare Flood Risk Management Plans (FRMP) for all of Wales covering

flooding from main rivers, reservoirs, and the sea. This statutory plan has been developed to describe what measures they propose to take that will help to manage the risk of flooding to people, the environment and economic activity across the <u>Western Wales River Basin</u> District. Llanelli is identified as the community with the highest flood risk in the Carmarthen Bay and the Gower catchment and is one of the top 50 highest risk communities in Wales. Progress on updating this FRMP has been delayed, although is expected every 6 years.

Joint Local Transport Plan for South West Wales (2015–2020)

https://www.carmarthenshire.gov.wales/media/4797/joint-transport-plan-300115.pdf

This Plan sets the vision, objectives and long-term strategy for a 20-year period, alongside a five-year programme of projects. The Plan encompasses the region which fall within the administrative areas of Carmarthenshire County Council, Neath Port Talbot County Borough Council, Pembrokeshire County Council and the City and County of Swansea.

Lavernock Point to St Ann's Head Shoreline Management Plan 2 (2012)

https://www.southwalescoastalgroup.cymru/en/shoreline-management-plan-smp2/

Shoreline Management Plans (SMP) provides a large-scale assessment of the risks associated with coastal erosion and flooding. It presents policies to help sustainably mitigate risks to people and to the developed, historic, and natural environment. This document is the second-generation SMP(2) for the shoreline between Lavernock Point in the east and St Ann's Head in the west, intersecting the counties of Vale of Glamorgan, Bridgend, Neath Port Talbot, Swansea, Carmarthenshire, and Pembrokeshire; and includes the Loughor Estuary, Three Rivers Estuarine Complex (Gwendraeth, Tywi and Taf) and Milford Haven.

Natural Resources Wales Area Statements (2020)

https://naturalresources.wales/about-us/area-statements/?lang=en

Produced as a collaborative response to the Natural Resources Policy, published by the Welsh Government in 2017. Each Area Statement outlines the key challenges facing that locality, opportunities to meet those challenges, and how we can better manage our natural resources for the benefit of future generations. The themes for South West Wales are reducing health inequalities; ensuring sustainable land management reversing the decline of, and enhancing, biodiversity; and (Cross-cutting theme) Mitigating and adapting to a changing climate. Whereas the themes for the marine area statement are building resilience of marine ecosystems; nature-based solutions and adaptation at the coast; and making the most of marine planning.

South West Wales Regional Economic Delivery Plan (2021)

https://www.swansea.gov.uk/regionaleconomicdeliveryplan

Covering Carmarthenshire, Neath Port Talbot, Pembrokeshire and Swansea, this Plan aims to build on a major study that identified regional strengths and opportunities.

South West Wales Regional Plan for Regeneration

https://democracy.npt.gov.uk/documents/s46126/South%20West%20Regional%20Plan% 20for%20Regeneration%20FINAL%20VERSION.pdf

This Plan outlines the target areas and scope of activities possible under the *Welsh Government's Targeted Regeneration Investment Programme (TRIP)* commencing April 2018 for 3 years. It will support projects that promote economic regeneration (e.g., job creation, enhancing skills and employability) with a focus on individuals and areas most in need to ensure prosperity is spread to all parts of Wales. It builds upon on the Vibrant & Viable Places Funding Programme 2014–17.

Swansea Bay City Deal 2017

https://www.swanseabaycitydeal.wales/about/

The Deal will transform the economic landscape of the area, boost the local economy by £1.8 billion, and generate almost 10,000 new jobs over the next 15 years. There is reference to 11 major projects overall, with a Wellness and Life Science Village in Llanelli; and Creative industry project at Yr Egin in Carmarthen.

Swansea Bay City Region Economic Regeneration Strategy 2013–2030 (2014)

The <u>Strategy</u> sets out the strategic framework for the region aimed at supporting the area's development over the coming decades. The Vision is that by 2030, South West Wales will be "a confident, ambitious and connected city region, recognised internationally for its emerging knowledge and innovation economy".

The Clean Air Plan for Wales, Health Air, Healthy Wales (2020)

https://gov.wales/clean-air-plan-wales-healthy-air-healthy-wales

This Plan aims to improve air quality and reduce the impacts of air pollution on human health, biodiversity, the natural environment, and our economy. It supports delivery of commitments under <u>Prosperity for All: our national strategy</u>, particularly by 'reducing emissions and delivering vital improvements in air quality' to support 'healthier communities and better environments'. The Plan sets out a 10-year pathway to achieving cleaner air, and is structured around four core themes (*People, Environment, Prosperity, and Place*). These themes were designed to enable collaborative and integrated approaches to improving air quality, across a range of policy areas and sectors.

Towards A Regional Economic Framework: Mid & South West Wales Regional Office https://businesswales.gov.wales/sites/main/files/documents/Towards%20a%20Regional% 20Economic%20Framework.pdf

Published in 2020, this document still provides valuable detail and insight to support discussions on the development of Regional Economic Frameworks, through the process of engagement and co-production.

Western Wales River Basin Management Plan 2021–2027

The River Basin Management Plan (RBMP) for the <u>Western Wales River Basin District</u> is prepared under the Water Environment (Water Framework Directive) (England and Wales) Regulations 2017. It describes the current condition of the river basin district, details the Programme of Measures for improving the water environment by 2027, and provides the water body objectives. This document is part of the latest update to that plan, refreshing those published in 2009 and 2015.

Local: Plan, Policy, or Programme

Affordable Homes Delivery Plan 2016–2020 (Carmarthenshire County Council) https://www.carmarthenshire.gov.wales/media/1213902/affordable-homes-delivery-

<u>plan.pdf</u>

Council's five-year vision for maximising the supply of affordable homes. Its purpose is to provide detail on how and where more homes will be delivered and what resources will be used and how more could potentially be accessed.

Ageing Well Plan (Incorporating Strategy for Older People) 2015–2018 https://www.carmarthenshire.gov.wales/media/3345/older-people-vision.pdf

The Ageing Well in Wales initiative, which is led by the Commissioner for Older People, aims to make Wales a good place for everyone to grow older in. The initiative acknowledges that achieving this depends on people, communities and organisations taking action to improve the experience of older age, by focusing on the importance of wellbeing. Carmarthenshire's Ageing Well Plan is structured according to the five priority areas of the Ageing Well in Wales programme.

Annual Report on the Welsh Language 2020–2021

https://www.carmarthenshire.gov.wales/media/1226482/welsh-language-annual-report-2021-21.pdf

The Authority has a statutory duty to implement the Welsh Language Standards. As part of those Standards, we are required to publish an Annual Report which details our compliance and actions. The report provides examples of what has been achieved, alongside local case studies.

Cabinet Vision Statement 2022–2027 (Carmarthenshire County Council) https://www.carmarthenshire.gov.wales/home/council-democracy/strategies-andplans/cabinet-vision-statement-2022-2027/

As well as tackling climate change and poverty, the Cabinet's vision statement includes strengthening the economy and increasing prosperity, and investing in housing, education, culture, infrastructure, and the environment to make a real difference to people's lives.

Carmarthen Bay & Estuaries EMS: Memorandum of Understanding (2011) http://english.cbeems.org/wp-content/uploads/2011/05/CBEEMS_MoU_web.pdf

Carmarthenshire County Council: Corporate Strategy 2018–2023

https://www.carmarthenshire.gov.wales/media/1225816/corporate-strategy-21-22.pdf

The Corporate Strategy sets out the Council's strategic priorities and aspirations and outlines what it plans to do to achieve its vision for Carmarthenshire over the next five years, and the document was refreshed in June 2019, and again in April 2021 partly due to of the publication of '*Moving Forward in Carmarthenshire*'. The vision is for a Carmarthenshire that enables people to live healthy and fulfilled lives by working together to build strong, bilingual and sustainable communities. The strategy will be further considered as the LDP progresses through its preparatory process and within future iterations of the SA documentation.

Carmarthenshire Destination Management Plan 2015–2020

https://www.carmarthenshire.gov.wales/media/1212064/carmarthenshire-destinationmanagement-plan-2015-2020.pdf

The purpose of the Destination Management Plan (DMP) for Carmarthenshire is to clarify what is important to get right for the future, to shape policy and priorities, to steer resources and to form the basis for people, businesses, and organisations to work together to achieve

common goals. The vision of Carmarthenshire Destination Partnership is to "Develop a prosperous visitor economy in Carmarthenshire, based on its unique strengths and character, which generates higher spend and local income, enhances its image and reputation and improves the quality of life for local communities". The objectives of the DMP are to:

- Provide clear 'reasons to visit' and deliver compelling, unique, memorable, and highquality visitor experiences;
- Create a strong positioning for the county in the context of the country;
- Harness the collective strengths of all businesses and organisations that have a role in supporting the visitor economy;
- Define Carmarthenshire's unique tourism offer and attract new and existing visitors to the town through innovative and cost-effective marketing;
- Improve access to and within Carmarthenshire to encourage better visitor flow, longer stays and higher spend;
- Ensure the highest standards of customer service;
- o Maximise visitor spend and income retention to the local economy;
- Improve customer satisfaction to encourage longer and repeat visits, higher spend and levels of positive recommendation;
- Foster a culture of continuous improvement, value for money, best practice, learning and sustainability; and
- o Identifying measures of success and monitoring performance.

Carmarthenshire Economic Recovery & Delivery Plan (2021)

https://democracy.carmarthenshire.gov.wales/documents/s51856/Report.pdf

This Economic Recovery Plan which identifies some 30 actions to support the recovery of the Carmarthenshire economy from the social and economic impacts of the COVID-19 pandemic and Brexit. It sets out the authority's priorities for supporting Business, People and Place. With this support Carmarthenshire's economy can recover as quickly as possible to become one which is more productive than before, more equal, greener, healthier, and with more sustainable communities.

Carmarthenshire Employment Sectoral Study (2017)

https://www.carmarthenshire.gov.wales/media/1212564/employment-sectoral-study-finalenglish-1.pdf

The study details employment need by sector and how this will manifest itself over the short to medium term, with forecasts until 2037. It states that *'Carmarthenshire is undergoing a period of significant economic change and diversification'*.

Carmarthenshire Family Support Strategy 2018–2023

https://www.carmarthenshire.gov.wales/media/1220764/2018-23-carmarthenshire-familysupport-strategy-eng.pdf

This strategy sets out how the Authority will develop and deliver early intervention services to support Carmarthenshire's children, families, and young people at any point in a child's life, from the early years through to the teenage years.

Carmarthenshire Gypsy Travellers Accommodation Needs Assessment (2019)

https://www.carmarthenshire.gov.wales/media/1221663/carmarthenshire-gypsy-travellersaccommodation-needs-assessment-nov-2019.pdf

Emanating from the provisions of the Housing (Wales) Act 2014, a Gypsy and Traveller Accommodation Assessment (GTAA) has been undertaken for Carmarthenshire to identify if there is a need for a Gypsy and Traveller site within the County. Undertaken in accordance with statutory guidance, the assessment was submitted to Welsh Ministers for scrutiny and

approval. The Local Housing Authority received confirmation from the Welsh Minister that the content of the needs assessment was accepted on 28th March 2017.

Carmarthenshire Local Development Plan 2006-2021 (Adopted December 2014): http://www.cartogold.co.uk/CarmarthenshireLDP/english/text/00_Contents.htm

The Carmarthenshire Local Development Plan (LDP) provides the framework for all future development within the County until 2021 (excluding Brecon Beacons National Park). The LDP shapes future investment opportunities and infrastructural improvement programmes and guides the determination of any proposals or planning applications, unless material considerations indicate otherwise. The LDP is accompanied by a Sustainability Appraisal (SA) together with Habitats Regulations Assessment (HRA). A series of Supplementary Planning Guidance (SPG) was also developed to elaborate and consolidate upon the policies and provisions within the Plan; these are:

- 1. Affordable Housing;
- 2. Planning Obligations;
- 3. Caeau Mynydd Mawr;
- 4. South Llanelli Planning and Development Brief;
- 5. Pibwrlwyd Planning and Development Brief;
- 6. Adaptation and re use of rural buildings for residential use;
- 7. Welsh language;
- 8. Leisure and Open Space requirements for new developments;
- 9. Nature conservation and biodiversity;
- 10. Archaeology and development;
- 11. West Carmarthenshire Planning and Development Brief; and
- 12. Llandeilo Northern Quarter Planning and Development Brief.

On the 10th of January 2018, the Council resolved to prepare a revised LDP for Carmarthenshire. Once adopted the proposed LDP will supersede the Adopted LDP.

Carmarthenshire Local Well Being Plan 2018-2023 – Public Service Board

https://democracy.carmarthenshire.gov.wales/documents/s32300/PSB%20Annual%20Re port%202019.pdf

The Well-being of Future Generations Act 2015 puts a well-being duty on specified public bodies across Carmarthenshire to act jointly and establish a statutory Public Services Board (PSB). Carmarthenshire PSB was established in May 2016 and is tasked with improving the economic, social, environmental, and cultural well-being of Carmarthenshire. It must do so by undertaking an assessment of well-being in the County and then preparing a county Well-being Plan to outline its local objectives, the steps it proposes to take to meet them and how they contribute to the achievement of the well-being goals.

Carmarthenshire Nature Recovery Plan 2020-2030

https://www.carmarthenshire.gov.wales/media/1222448/carms-nature-recovery-plan-pt-3.pdf?v=202005071000000000

The Nature Recovery Plan produced by the Carmarthenshire Nature Partnership lists the Section 7 species and habitats found in the county and, as such, informs local planning policy. It reflects the national objectives at a local level and considers how these objectives are addressed in Carmarthenshire, the challenges, and opportunities of meeting these objectives, and informs the future work of the partners who have a common interest in protecting and enhancing our natural environment.

Carmarthenshire's Well-being Objectives (as contained within Carmarthenshire County Council - Corporate Strategy 2018–2023)

Following consultation, the Council prepared a set of Well-being/Improvement Objectives. These Objectives contribute significantly to the achievement of the National Well-being Goals and recognises that more can be done on a local government level. There are associated action plans for each of the 13 objectives (under fiver key themes), these are: Start well

- 1. Help to give every child the best start in life and improve their early life experiences
- 2. Help children live healthy lifestyles

Live well

- 3. Support and improve progress, achievement, and outcomes for all learners
- 4. Tackle poverty by doing all we can to prevent it, help people into work and improve the lives of those living in poverty
- 5. Create more jobs and growth throughout the county
- 6. Increase the availability of rented and affordable homes
- 7. Help people live healthy lives (tackling risky behaviour and obesity)
- 8. Support community cohesion, resilience & safety

<u>Age well</u>

9. Support older people to age well and maintain dignity and independence in their later years

In A Healthy, Safe & Prosperous Environment

- 10. Look after the environment now and for the future
- 11. Improve the highway and transport infrastructure and connectivity
- 12. Promote Welsh Language and Culture

Corporate governance

13. Better Governance and use of Resources

Forward Plan for Environment (Wales) Act 2016 (2019) (Carmarthenshire County Council)

https://www.carmarthenshire.gov.wales/media/1218908/ccc-env-act-forward-plan.pdf

Section 6 of the Environment (Wales) Act 2016 places a duty on public authorities to 'seek to maintain and enhance biodiversity in the exercise of functions in relation to Wales, and in so doing promote the resilience of ecosystems, so far as consistent with the proper exercise of those functions.' The Act also requires public authorities to forward plan and report on how they intend to comply with the biodiversity and resilience of ecosystems duty. In Wales, the Act replaces the duty in section 40 of the Natural Environment and Rural Communities Act (NERC) Act 2006 with an additional emphasis placed on public authorities to maintain and enhance biodiversity. The public body must have regard to the list of priority species and habitats in Wales (Section 7), the State of Natural Resources Report (Section 8), and any Area Statement which the authority exercises functions (Section 11). This plan was published in February 2017 and revised in 2019. It outlines Carmarthenshire's natural resources, why they are so important and some of the activities already underway to protect them; explains the legislative background and national and local policy and plan context to this report; sets out how action plans are/will be developed; and provides detailed actions to be achieved with milestones for reporting in a separate 'live' document.

Libraries Service Update - Moving forward for 2017–2022

https://www.carmarthenshire.gov.wales/media/1214220/gd4443-librariesstrategy-en.pdf

Local Flood Risk Management Strategy (2013) (Carmarthenshire County Council) https://www.carmarthenshire.gov.wales/media/3506/flood_strategy.pdf

This document identifies the Risk Management Authorities within Carmarthenshire, the key requirements/contents of the strategy, and outlines the high-level objectives and measures for implementing the strategy. In addition, this document identifies the potential sources which could fund the implementation of the measures. The document also discusses the context within which the strategy is required to achieve wider environmental benefits.

Moving Forward in Carmarthenshire: the next 5-years (2018)

https://www.carmarthenshire.gov.wales/media/1212982/moving-forward.pdf

The Council has identified 98 priority projects, schemes, or services that it wants to deliver over the next five years to make Carmarthenshire *"the best place to live, work and visit".* The Council will be investing in key areas as it strives to improve economic, environmental, social, and cultural well-being in the county.

Moving Rural Carmarthenshire Forward (2019) (Carmarthenshire County Council) https://www.carmarthenshire.gov.wales/media/1219667/moving-rural-carms-forwardreport-final.pdf

This wide-ranging strategy was developed to help identify and focus regeneration within rural communities in Carmarthenshire.

Rights of Way Improvement Plan 2019-2029 (Carmarthenshire County Council) https://www.carmarthenshire.gov.wales/media/1222043/rowip-english.pdf

Developed in accordance with Section 60(3) of the Countryside and Rights of Way (CRoW) Act (2000), the Rights of Way Improvement Plan (ROWIP) is a decennial document which details the Authority's plan for the strategic management, development, and improvement of the County's Public Rights of Way (PRoW) network. It is critical in depicting the direction and scale of future work on access to the countryside, providing a long-term view of policies and actions. This updated the previous ROWIP originally published in 2008.

Social Care and Health: Older People's Strategy 2015–2025

https://www.carmarthenshire.gov.wales/media/3345/older-people-vision.pdf

Over the course of the next 15 years, Older People's services will come under increasing pressure in Carmarthenshire, with over ten-thousand additional older people over the age of 75 living in the county, many of whom will require care and support. This strategy aims to look in more detail at these challenges and to set out a plan for delivering more sustainable services over the next ten years.

Statutory Director of Social Care Services' Annual Report 2020–2021

https://www.carmarthenshire.gov.wales/media/1226994/0-master-dar-2020-21-v9english.pdf

There is a statutory requirement for the Director of Social Services to annually report to Council on the delivery and performance as well as plans for the improvement of the whole range of Social Services.

Transformations: A Strategic Regeneration Plan for Carmarthenshire 2015–2030 https://www.carmarthenshire.gov.wales/media/1212060/strategic-regeneration-plan-forcarmarthenshire-2015-2030-pdf.pdf

The economic landscape is evolving with Carmarthenshire's position in the new Swansea Bay City Region for which the strategy has been adopted by the Council; "*by 2030, Carmarthenshire will be a confident, ambitious and connected component of a European City Region.*"

Welsh in Education Strategic Plan 2022–2032

https://www.carmarthenshire.gov.wales/media/1229464/eng-cynllun-strategol-cymraegmewn-addysg-sir-gaerfyrddin-2022-2032cab4722fin.pdf

The purpose of Carmarthenshire's Welsh in Education Strategic Plan (WESP) is to detail how the Council aims to achieve the Welsh Government's outcomes and targets outlined in their Welsh Medium Education Strategy (WMES).

Appendix B Baseline Information

Appendix B: Baseline Information

This document provides a summary of relevant information, evidence, and data relating to the environmental, economic, and social components of Carmarthenshire. The Strategic Environmental Assessment (SEA) Directive requires the baseline to cover 'the likely evolution thereof without implementation of the plan' (Annex I (b)); and 'characteristics of areas likely to be significantly affected (Annex I (c))¹. This baseline initially forms Task A3 of the Scoping Stage; however, it has been updated to ensure the most up-to-date information available is considered - reflecting the iterative process between the development of the Sustainability Appraisal (SA) and Carmarthenshire's 2nd Revised Local Development Plan (LDP) 2018–2033 (hereinafter referred to as the 'Plan'). Amendments were made following consultation to the Scoping Report and the initial revised SA Report, and further updates were undertaken concurrent to the production of the latest SA Report and in response to the representations received during the consultation of the deposit Plan. Where possible, data has been included on historic trends and future projections with consideration of a 'business as usual' scenario (i.e., predicted effect without implementation of the Plan). Together, this information facilitates the assessment of the potential effects of implementing the Plan, helping to identify opportunities and present/future issues, support the prediction and evaluation of impacts, and set a baseline for future monitoring.

NB: Given the extensive nature of the summarised components, this document is nonexhaustive and should be considered alongside the relevant information contained within the Plans, Policies, and Programmes (PPP) reviewed in Appendix 1. For ease of reference, sources are inserted as footnotes upon the relevant page. A comprehensive list of sources can be found at the end of this document.

¹ <u>https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32001L0042&from=EN</u>

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Abbreviations

- AIR Air Information Resource
- ALC Agricultural Land Classification
- ALGE Association of Local Government Ecologists
- APIS UK Air Pollution Information System
- AQMA Air Quality Management Area
- BCT Bat Conservation Trust
- **BFEWF** Brechfa Forest East Wind Farm
- BFWWF Brechfa Forest West Wind Farm
 - BGS British Geological Survey
 - BSBI Botanical Society of the Britain & Ireland
 - **BTO** British Trust for Ornithology
 - **CAFÉ** Cleaner Air for Europe
- **CBEEMS** Carmarthen Bay and Estuaries European Marine Site
 - **CCC** Climate Change Committee
 - CCRA Climate Change Risk Assessment
 - **CIWEM** Chartered Institution of Water and Environmental Management
 - **CO2** Carbon dioxide (gaseous emission)
 - DCWW Dŵr Cymru Welsh Water
 - DUKES Digest of UK Energy Statistics
- **ERAMMP** Environment and Rural Affairs Monitoring & Modelling Programme
 - ESSC European Society for Soil Conservation
 - EU European Union
 - **HEFCW** Higher Education Funding Council for Wales
 - HER Historic Environment Records
 - HRA Habitat Regulations Assessment
 - **HSE** Health and Safety Executive
- ICOMOS International Council on Monuments and Sites (UK)
 - **IPCC** Intergovernmental Panel on Climate Change
 - **JNCC** Joint Nature Conservation Committee
 - LDP Local Development Plan (referred to as the Plan)
 - LNR(s) Local Nature Reserve(s)
- LSOA(s) Lower Super Output Area(s)
 - MoU Memorandums of Understanding
 - NAEI National Atmospheric Emissions Inventory
 - NO2 Nitrogen dioxide (gaseous emission)

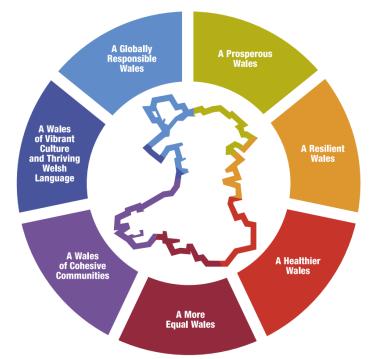
- **NRAP** Nature Recovery Action Plan
- **NRW** Natural Resources Wales
- **NSRI** National Soil Resources Institute
- **ONS** Office for National Statistics
- **PPW** Planning Policy Wales
- **PSB(s)** Public Services Board(s)
 - **RIGS** Regionally Important Geodiversity Sites
- RSPB The Royal Society for the Protection of Birds
- SACs Special Area(s) of Conservation
 - SEA Strategic Environmental Assessment
 - SD Shellfish Directives
 - **SDB** Supply Demand Balance
- SDGs Sustainable Development Goals
- **SINC(s)** Site(s) of Importance for Nature Conservation
- **SLA(s)** Special Landscape Area(s)
 - SM Scheduled Monuments
- SoNaRR State of Natural Resources Report
 - **SPAs** Special Protection Area(s)
 - SSA(s) Strategic Search Area(s)
- SSSI(s) Site(s) of Special Scientific Interest
- STEAM Scarborough Tourism Economic Activity Monitor
 - TAN Technical Advice Note
 - **UK** United Kingdom
- UKSO UK Soil Observatory
- UWWTD Urban Waste Water Treatment Directive
 - WFD Water Framework Directive
 - WIMD Wales Index of Multiple Deprivation
 - WRZ Water Resource Zone
- WWTW Wastewater Treatment Works

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1. Sustainable Development

Sustainable development is defined as development which meets the needs of the present without compromising the ability of future generations to meet their own needs ². The concept can be interpreted in many ways, but at its core is an approach to development that looks to balance different, often competing, needs against an awareness of environmental, social, economic, and cultural limitations. Environmental considerations are central to the principle of sustainable development however, it is also about ensuring a strong, healthy, and just society and meeting the needs of all people now and in the future. This includes promoting personal well-being, social cohesion and creating equal opportunities. The United Nations 2030 Agenda for Sustainable Development goals (SDGs) ³.

The Well-being of Future Generations Act defines Sustainable Development as: "The process of improving the economic, social, environmental and cultural well-being of Wales by taking action, in accordance with the sustainable development principle, aimed at achieving the wellbeing goals" ⁴. It places a duty on public bodies to carry out sustainable development and requires an improvement in the delivery of all four aspects of well-being: social, economic, environmental, and cultural; and, under the Act, local authorities are required to prepare a Local Well-being Assessment. Future Generation Report 2020 ⁵ reflects on the progress of all public bodies in terms of whether they have embraced the cultural change required by the Act and considers the progress being made on each of the 7 wellbeing goals ⁶ (Table 1).





² <u>https://www.are.admin.ch/are/en/home/media/publications/sustainable-development/brundtland-report.html</u>

³ <u>https://sdgs.un.org/goals</u>

⁴ <u>https://gov.wales/well-being-future-generations-act-essentials-html</u>

⁵ <u>https://www.futuregenerations2020.wales/</u>

⁶ <u>https://gov.wales/wellbeing-wales-2022</u>

⁷ <u>https://www.thecarmarthenshirewewant.wales/media/8285/carms-well-being-plan-final-draft-051017-</u> english.pdf

The Carmarthenshire Well-being Assessment ⁸ looked at the economic, social, environmental, and cultural wellbeing in Carmarthenshire through different life stages and provides a summary of the key findings. It is based on data, evidence and feedback from our residents and stakeholders on what matters to our communities in terms of well-being. This is the second assessment prepared by the Carmarthenshire Public Services Board (PSB). The findings of this assessment form the basis of the objectives and actions identified in the Wellbeing Plan for Carmarthenshire ⁹, which sets out what the PSB aims to focus upon over the next 5 years to improve the wellbeing of people and communities in the county, in addition to a longer-term basis of up to 20-years.

The Carmarthenshire Well-being Plan focuses on the delivery of four objectives:

- <u>Healthy Habits</u>: People have a good quality of life and make healthy choices about their lives and environment.
- <u>Early Intervention</u>: To make sure that people have the right help at the right time; as and when they need it.
- <u>Strong Connections</u>: Strongly connected people, places, and organisations that can adapt to change.
- <u>Prosperous People & Places</u>: To maximise opportunities for people and places in both urban and rural parts of our county.

Predicted Effect Without Implementation of the Plan

Development would take place in a piecemeal manner, without a coordinated approach or consideration of cumulative effects on the environment, nor the potential impact upon relevant wellbeing plans (both national and local). While subject to Planning Policy Wales ¹⁰ (PPW) and other national policy, development on a local authority level would not be directed to the most sustainable locations and there would be nothing in place to influence sustainable levels of growth, and the local needs of the communities within Carmarthenshire may not be fulfilled.

⁸ <u>https://www.thecarmarthenshirewewant.wales/media/8311/psb-wellbeing-assessment.pdf</u>

⁹ https://www.thecarmarthenshirewewant.wales/media/quipyh1k/1-well-being-assessment.pdf

¹⁰ <u>https://gov.wales/planning-policy-wales</u>

2. Biodiversity and the Natural Environment

Biodiversity is, literally, the variety of life on earth. It embraces all living plants and animals and the ecosystems on which they depend. Biodiversity is everywhere: in gardens, fields, hedgerows, mountains, rivers and in the sea. At a local level, biodiversity greatly influences the character of our landscape. Carmarthenshire is justly renowned for its magnificent coast, quiet estuaries, steep wooded valleys, and rugged uplands. Throughout much of the rest of the county there is a patchwork of woodlands and fields, bounded by the hedge-banks that are frequently of historic importance. The sea and seabed around the Carmarthenshire coast are also rich in species, some of which are of considerable economic importance. This natural beauty of the county is a major factor on which the local tourism and recreation industries depend. Biodiversity is therefore fundamental to the physical, economic, and spiritual wellbeing of all who live and work in Carmarthenshire. NB: The part of Carmarthenshire which is within the Brecon Beacons National Park has its own separate development plan.

International Sites

Carmarthenshire has significant areas of land that are designated for their international importance for nature conservation. These include:

- Special Areas of Conservation (SACs) designated under the EC Directive on the Conservation of Natural Habitats of Wild Fauna and Flora (92/43/EEC);
- Special Protection Areas (SPAs) designated under the EC Directive on the Conservation of Wild Birds (79/409EEC)
- Ramsar sites designated following the 1971 Ramsar convention on wetlands.

A list of these sites and the features for which they are designated is shown in Table 2 and are mapped in Figure 1. The most recent assessment of each feature's conservation status is also provided.

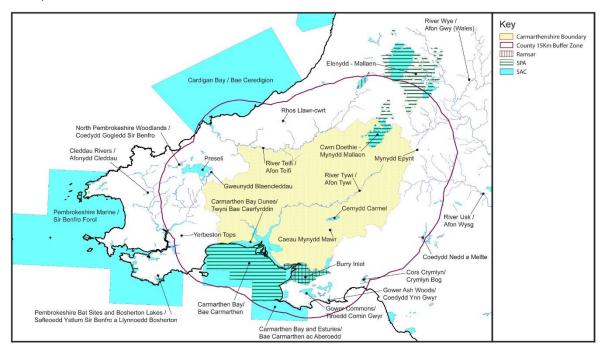


Figure 1. Location of European sites in relation to Carmarthenshire

European Site	Size (Ha)	Qualifying Feature(s)	Conservation Status (Date of assessment)
		Twaite shad	Unfavourable (May 2012)
		Otter	Favourable
		Sea lamprey	Unfavourable (Jan 2011)
Afon Tywi/ River Twyi SAC	363.45	River lamprey	Unfavourable (Jan 2011)
		Brook lamprey	Unfavourable (Jan 2011)
		Allis shad	Unfavourable (Jan 2011)
		Bullhead	Unfavourable (Jan 2011)
Caeau Mynydd Mawr SAC	25.06	<i>Molinia</i> meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinion</i> <i>caeruleae</i>)	Unfavourable (Sept 2015)
		Marsh fritillary butterfly	Unfavourable (Sept 2015)
		Turloughs	Favourable (Sept 2011)
		Northern Atlantic wet heaths with <i>Erica tetralix</i>	Favourable (Sept 2016)
Cernydd Carmel SAC	361.14	European dry heaths	Destroyed: Partially (Sept 2016)
		Active raised bogs	Unfavourable (July 2016)
		<i>Tilio-Acerion</i> forests of slopes, screes, and ravines	Favourable (July 2013)
		Embryonic shifting dunes	Favourable (July 2007)
	1206.32	Shifting dunes along the shoreline with Ammophila arenaria	Favourable (July 2007)
		Fixed dunes with herbaceous vegetation	Unfavourable (Jan 2015)
Carmarthen Bay Dunes SAC		Dunes with <i>Salix repens</i> ssp. <i>argentea</i>	Unfavourable (Aug 2007)
		Humid dune slacks	Unfavourable (Jan 2015)
		Narrow mouthed whorl snail	Unfavourable (Sept 2016)
		Petalwort	Unfavourable (May 2016)
		Fen orchid	Unfavourable (Oct 2014)
Afon Teifi/ River Teifi SAC	715.58	Water courses of plain to montane levels with <i>Ranunculion fluitantis</i> and <i>Callitricho- Batrachion</i> vegetation	Favourable (Sept 2012)
		Oligotrophic to mesotrophic standing waters with vegetation of <i>Littorelletea uniflorae</i> and/or of Isoeto-Nanojuncetea	Favourable (Sept 2003)
		Brook lamprey	Favourable (Oct 2013)
		River lamprey	Favourable (Oct 2013)
		Atlantic salmon	Favourable (Jan 2016)
		Bullhead	Unfavourable (Jan 2012)
		Otter	Favourable (March 2010)

Table 2. Designated sites within Carmarthenshire and within 15km buffer zone.

		Floating water-plantain	Favourable (Sept 2012)
		Sea lamprey	Unfavourable (Jan 2016)
		Water courses of plain to montane levels with <i>Ranunculion fluitantis</i> and <i>Callitricho- Batrachion</i> vegetation	Unfavourable (Jan 2012)
		Active raised bogs	Unfavourable (Oct 2012)
Afonydd Cleddau/ Cleddau Rivers SAC	751	Alluvial forests with Alnus glutinosa and Fraxinus excelsior	Unfavourable (Nov 2012)
		Brook lamprey	Unfavourable: Recovering (Jan 2012)
		River lamprey	Unfavourable: Recovering (Jan 2012)
		Bull head	Unfavourable (Nov 2006)
		Otter	Favourable (Mar 2010)
		Sea lamprey	Unfavourable (Jan 2012)
		Sandbanks which are slightly covered by sea water all the time	Unfavourable: Declining (Nov 2006)
		Estuaries	Favourable (Nov 2006)
		Mudflats and sandflats not covered by seawater at low tide	Favourable (Nov 2006)
		Large shallow inlets and bays	Favourable (Nov 2006)
Carmarthen Bay and Estuaries	66101.16	Salicornia and other annuals colonising mud and sand	Unfavourable (Oct 2006)
SAC		Atlantic salt meadows	Unfavourable (Jan 2012)
		Twaite shad	Unfavourable (Nov 2006)
		Sea lamprey	Unfavourable (April 2005)
		River lamprey	Unfavourable (April 2005)
		Allis shad	Unfavourable (Nov 2006)
		Otter	Favourable (Mar 2010)
Carmarthen Bay SPA	95860.36	Common scoter	No condition assessment made, for site description refer to management plan.
Cwm Doethie- Mynydd Mallaen SAC	4122.29	Old sessile oak woods with <i>llex</i> and <i>Blechnum</i> in the British Isles	Unfavourable (Aug 2012)
		European dry heaths	Unfavourable: Recovering (Sept 2012)
Flooved	30022.14	Breeding Merlin	Favourable (June 2000)
Elenydd – Mallaen SPA		Breeding Red kite	Favourable (June 2000)
		Breeding Peregrine	Favourable (June 2006)
Burry Inlet SPA	6627.99	Pintail	Favourable (March 2004)
		Northern Shoveler	Favourable (March 2004)
		Teal	Favourable (March 2004)
		Wigeon	Favourable (March 2004)
		Dunlin	Favourable (March 2004)
		Red knot	Favourable (March 2004)
		Oystercatcher	Favourable (March 2004)

		Curlew	Favourable (March 2004)
		Grey Plover	Favourable (March 2004)
		Shelduck	Favourable (March 2004)
		Redshank	Favourable (March 2004)
		Turnstone	Not Assessed
		Sandbanks which are slightly covered by sea water all the time	Not Assessed
		Reefs	Not Assessed
Cardigan Bay/ Bae Ceredigion	95860.36	Submerged or partially submerged sea caves	Favourable (Nov 2006)
SAC		Bottlenose dolphin	Favourable (Jan 2007)
		Sea lamprey	Unfavourable (April 2005)
		River lamprey	Unfavourable (April 2005)
		Grey seal	Favourable (Jan 2007)
North Pembrokeshire		Old sessile oak woods with <i>llex</i> and <i>Blechnum</i> in the British Isles	Unfavourable: Recovering (May 2010)
Woodlands / Coedydd Gogledd Sir	314.48	Alluvial forests with Alnus glutinosa and Fraxinus excelsior	Unfavourable (June 2016)
Benfro SAC		Barbastelle bat	Favourable (Aug 2012)
Yerbeston Tops	90.7	Molinia meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinion caeruleae</i>)	Unfavourable (Sept 2017)
		Marsh fritillary butterfly	Unfavourable (Sept 2017)
Rhos Llawr-cwrt SAC	45.8	Marsh fritillary butterfly	Unfavourable: Recovering (Aug 2012)
0AC		Hamatocaulis vernicosus (moss)	Unfavourable (Oct 2005)
Pembrokeshire Bat Sites and		Hard oligo-mesotrophic waters with benthic vegetation of <i>Chara spp</i> .	Unfavourable (Dec 2011)
Bosherton Lakes	400.50	Greater Horseshoe Bat	Favourable (Aug 2012)
/ Safleoedd Ystlum Sir Benfro a Llynnoedd Bosherton SAC	122.59	Lesser Horseshoe Bat	Unfavourable: Declining (Aug 2012)
		Otter	Favourable (March 2010)
Gower Ash Woods / Coedydd Ynn Gwyr SAC	233.15	<i>Tilio-Acerion</i> forests of slopes, screes, and ravines	Unfavourable (May 2016)
		Alluvial forests with Alnus glutinosa and Fraxinus excelsior	Unfavourable (Jun 2016)
Pembrokeshire Marine SAC	138069.45	Estuaries	Unfavourable (Nov 2006)
		Large shallow inlets and bays	Unfavourable: Declining (Nov 2006)
		Reefs	Unfavourable (Jul 2008)
		Sandbanks which are slightly covered by seawater all the time	Unfavourable (Dec 2006)
		Mudflats and sandflats not covered by seawater at low tide	Unfavourable: Declining (Nov 2006)
		Coastal lagoons	Favourable (Nov 2006)
		Atlantic salt meadows	Unfavourable (Oct 2006)

		Submerged/partially submerged sea caves	Favourable (Nov 2006)
		Grey seal	Favourable (Nov 2006)
		Shore dock	Favourable (Feb 2006)
		Sea lamprey	Unfavourable: Declining (Apr 2005)
		River lamprey	Unfavourable (Apr 2005)
		Allis shad	Not Assessed
		Twaite shad	Not Assessed
		Otter	Favourable (Mar 2010)
		Northern Atlantic wet heaths with <i>Erica tetralix</i>	Unfavourable (Sept 2016)
Gower		European dry heaths	Unfavourable (Sept 2008)
Commons / Tiroedd Comin Gwyr SAC	1776.72	Molinia meadows on calcareous, peaty, or clayey-silt-laden soils (<i>Molinion caeruleae</i>)	Unfavourable (Sept 2016)
		Marsh fritillary butterflies	Unfavourable (Sept 2009)
		Southern damselfly	Unfavourable (July 2017)
		Water courses of plain to montane levels with the <i>Ranunculion</i> <i>fluitantis</i> and <i>Callitricho- Batrachion</i> vegetation	Unfavourable (Jan 2012)
		Transition mires and quaking bogs	Unfavourable: Declining (July 2012)
		White clawed crayfish	Unfavourable (Sept 2016)
River Wye / Afon		Sea lamprey	Unfavourable (Jan 2012)
Gwy SAC	2234.89	Brook lamprey	Unfavourable (Jan 2012)
		River lamprey	Unfavourable (Jan 2012)
		Twaite shad	Unfavourable (Jan 2012)
		Atlantic salmon	Unfavourable (Jan 2012)
		Bullhead	Unfavourable (Dec 2016)
		Otter	Favourable: Recovered (March 2010)
		Allis shad	Unfavourable (Jan 2012)
Gweunydd Blaencleddau SAC	151	Northern Atlantic wet heaths with Erica tetralix	Unfavourable (July 2016)
		Molinia meadows on calcareous, peaty or clayey-silt-laden soils	Unfavourable (July 2016)
		Blanket bogs	Unfavourable (Jul 2016)
		Transition mires and quaking bogs	Unfavourable (July 2016)
		Alkaline fens	Unfavourable (July 2017)
		Marsh fritillary butterfly	Unfavourable (July 2016)
		Southern damselfly	Unfavourable (July 2016)
Preseli SAC	2705.9	Northern Atlantic wet heaths with Erica tetralix	Unfavourable (Jun 2012)
		European dry heaths	Unfavourable (Jun 2012)

		Depressions on peat substrates of the <i>Rhynchosporion</i>	Unfavourable: Declining (Aug 2012)
		Alkaline fens	Favourable (Dec 2004)
		Southern damselfly	Unfavourable (July 2011)
		Marsh Fritillary butterfly	Unfavourable (Sept 2011)
		Slender green feather moss	Favourable (Feb 2006)
Mynydd Epynt SAC	43.4	Slender green feather moss	Favourable (Aug 2009)
		Water courses of plain to montane levels with the <i>Ranunculion</i> <i>fluitantis</i> and <i>Callitricho- Batrachion</i> vegetation	Unfavourable (Jan 2012)
		Sea lamprey	Unfavourable (Nov 2012)
		Brook lamprey	Unfavourable (Nov 2012)
River Usk. Afon	1008.26	River lamprey	Unfavourable (Nov 2012)
Wysg SAC		Twaite shad	Unfavourable (Jan 2012)
		Atlantic salmon	Unfavourable (Jan 2012)
		Bullhead	Unfavourable (Jan 2012)
		Otter	Favourable: Recovered (Mar 2010)
		Allis shad	Unfavourable (Jan 2012)
Burry Inlet SPA/Ramsar	2,200	Burry Inlet is a large estuarine complex located between the Gower Peninsula and Llanelli in South Wales. It includes extensive areas of intertidal sand and mud flats, together with large sand dune systems at the mouth of the estuary. The site contains the largest continuous area of saltmarsh in Wales (2,200 ha). The Burry Inlet regularly supports large numbers of wildfowl and waders.	No condition assessment made, for site description refer to management plan.
Bristol Channel Approaches SAC	584,994	Harbour porpoise	Favourable

Sites of Special Scientific Interest

There are 81 Sites of Special Scientific Interest (SSSI) in the county (excluding the area within the Brecon Beacons National Park) covering 17,088 Ha. They cover approximately 7.2 % of the county and range in size from small fields to large areas of mountain sides and long rivers. SSSI are the best wildlife and geological sites in the country. They include habitats such as ancient woodland, flower-rich meadows, wetlands as well as disused quarries and support plant and animal species which are not often seen in the wider countryside. SSSIs are statutorily protected under the Wildlife & Countryside Act 1981 (as amended by the Countryside & Rights of Way Act 2000). The Natural Resources Wales (NRW) has responsibility for identifying, notifying and protecting SSSIs.

Local Nature Reserves

There are six Local Nature Reserves (LNR) in Carmarthenshire: Pembrey Burrows and Saltings, Ashpits Pond and Pwll Lagoon, North Dock Dunes, Carreg Cennen, Glan-yr-Afon, Kidwelly, and Morfa Berwig, Bynea. There are several LNR throughout the County managed by other organisations.

National Nature Reserves

The following National Nature Reserves are also situated in Carmarthenshire:

- Carmel;
- Allt Rhyd y Groes;
- Dinefwr; and Waun Las (National Botanic Garden of Wales farm)

Sites of Importance for Nature Conservation

At the time of writing, no Sites of Importance for Nature Conservation (SINCs) have been formally identified within Carmarthenshire

Carmarthenshire Nature Recovery Plan

In 2020, the Nature Recovery Action Plan (NRAP) for Wales was refreshed to consider the growing evidence around the scale of the loss of biodiversity and the changing policy context in Wales.¹¹ Previously published in December 2015 as the Nature Recovery Plan, it addresses the Convention on Biological Diversity's Strategic Plan for Biodiversity¹² and the associated Aichi biodiversity targets¹³ in Wales (NB: Post-2020 Biodiversity Framework is yet to be implemented¹⁴). A set of indicators will also be developed to measure the progress of the Nature Recovery Action Plan against objectives. To accompany the NRAP, a Nature Recovery Framework sets out the roles and responsibilities of the key players for delivery of action for biodiversity in Wales, and how they are linked together. NRAP complements The Well-being of Future Generations (Wales) Act 2015 and the Environment Act (Wales) 2016. The ambition of the plan is: 'To reverse the decline in biodiversity, for its intrinsic value, and to ensure lasting benefits to society'. The objectives of the NRAP are:

- 1. Engage and support participation and understanding to embed biodiversity throughout decision making at all levels.
- 2. Safeguard species and habitats of principal importance and improve their management
- **3.** Increase the resilience of our natural environment by restoring degraded habitats and habitat creation
- 4. Tackle key pressures on species and habitats
- 5. Improve our evidence, understanding and monitoring
- 6. Put in place a framework of governance and support for delivery

¹¹ <u>https://gov.wales/sites/default/files/publications/2020-10/nature-recovery-action-plan-wales-2020-2021.pdf</u>

¹² <u>https://www.cbd.int/sp/</u>

¹³ https://www.cbd.int/sp/targets/

¹⁴ https://www.cbd.int/conferences/post2020

Locally, we have the Carmarthenshire Nature Recovery Plan ¹⁵ produced by the Carmarthenshire Nature Partnership, which the Council facilitates. This plan reflects the national objectives at a local level and considers how we will address these objectives in Carmarthenshire, the challenges and opportunities of meeting these objectives, and informs the future work of the partners within the Carmarthenshire Nature Partnership (who all have a common interest in protecting and enhancing our natural environment). It lists the Section 7 species and habitats found in the county and as such should inform local planning policy.

The Environment (Wales) Act 2016

The Environment Act 2016¹⁶ aims to build greater resilience into our ecosystems. Biodiversity and well-functioning ecosystems provide natural solutions that build resilience, which in turn help society create jobs, support livelihoods and human well-being, adapt to the adverse impacts of climate change and contribute to sustainable development. Part 1 of the Environment Act sets out Wales' approach to planning and managing natural resources at a national and local level with a general purpose linked to statutory *'principles of sustainable management of natural resources'* defined within the Act. There are 3 main constituents to Part 1 of the Environment Act:

- The State of Natural Resources Report (SoNaRR) A report produced by NRW that gives an assessment of natural resources and how well Wales is doing to manage them in a sustainable way ¹⁷.
- Natural Resources Policy A policy produced by Welsh Government that sets out the priorities, risks, and opportunities for managing natural resources sustainably ¹⁸. The policy considers the findings of the SoNaRR.
- Area Statements A local evidence base produced by NRW which helps to implement the priorities, risks and opportunities identified in the National Policy and how NRW intends to address these ¹⁹.

Section 6 – Biodiversity and resilience of ecosystems duty

Section 6 under Part 1 of the Environment (Wales) Act 2016 ²⁰ introduced an enhanced biodiversity and resilience of ecosystems duty (the S6 duty) for public authorities in the exercise of functions in relation to Wales. The S6 duty requires that public authorities must seek to maintain and enhance biodiversity so far as consistent with the proper exercise of their functions and in so doing promote the resilience of ecosystems.

Section 7 - Biodiversity lists and duty to take steps to maintain and enhance biodiversity

This section replaces the duty in section 42 of the Natural Environment and Rural Communities (NERC) Act 2006²¹. The Welsh Ministers will publish, review and revise lists of living organisms and types of habitats in Wales, which they consider are of key significance to

¹⁵ <u>https://www.carmarthenshire.gov.wales/home/council-</u> services/planning/biodiversity/carmarthenshire-nature-partnership/#.YzxHttjMKUI

¹⁶ https://www.legislation.gov.uk/anaw/2016/3/contents/enacted

¹⁷ https://naturalresources.wales/sonarr2020?lang=en

¹⁸ https://gov.wales/natural-resources-policy

¹⁹ <u>https://naturalresources.wales/about-us/area-statements/?lang=en</u>

²⁰ https://www.legislation.gov.uk/anaw/2016/3/contents/enacted

²¹ https://www.legislation.gov.uk/ukpga/2006/16/contents

sustain and improve biodiversity in relation to Wales. The Welsh Ministers must also take all reasonable steps to maintain and enhance the living organisms and types of habitats included in any list published under this section and encourage others to take such steps.

Carmarthenshire County Council Environment Act Forward Plan

Section 6 of the Environment (Wales) Act 2016 which places a duty on public authorities to "seek to maintain and enhance biodiversity in the exercise of functions in relation to Wales, and in so doing promote the resilience of ecosystems, so far as consistent with the proper exercise of those functions".²² The Act requires public authorities to forward plan and report on how they intend to comply with the biodiversity and resilience of ecosystems duty. The Act replaces the duty in section 40 of the NERC Act 2006 in relation to Wales, with a duty on public authorities to seek to maintain and enhance biodiversity. Additionally, public bodies must have regard to the list of priority species and habitats in Wales published in Section 7 of the Act, the State of Natural Resources Report published under Section 8 and any Area Statement published under Section 11 for an area that includes all or part of an area in relation to which the authority exercises functions. Carmarthenshire County Council's Forward Plan²³ was published in February 2017 and revised and reported on in 2019. It outlines Carmarthenshire's natural resources, why they are so important and some of the activities already underway to protect them; explains the legislative background and national and local policy and plan context to this report; sets out how action plans are/will be developed; provide detailed actions to be achieved with milestones for reporting in a separate 'live' document.

Predicted Effect Without Implementation of the Plan

As the current LDP allocations are built out and housing land supply falls, development pressure will begin to encroach onto open countryside in a sporadic and uncoordinated manner. Designated sites and protected habitats and species should be safeguarded through other legislation. However, each development proposal that could impact on a European site would require a separate Habitat Regulations Assessment (HRA), which would need to look at all potentially affected European sites and cumulative impacts. This would significantly delay the planning application process and could lead to inconsistent assessments with disregard to the appreciation of potential culminative effects.

²² <u>https://www.biodiversitywales.org.uk/Section-6</u>

²³https://democracy.carmarthenshire.gov.wales/documents/s12501/Summary%20Environment%20Ac t.pdf#:~:text=The%20preparation%20of%20an%20Environment%20Act%20Forward%20Plan,the%20 Welsh%20Government%20by%2031stMarch%202017.%203.%20Finance

3. Air Quality

The Environment Act 1995 ²⁴ places a duty on the Council to periodically review and assess air quality within its area. There are key pollutants that should be considered, and they are set out in legislation. Each of the key pollutants has a standard that should not be breached. The standards (or objectives) have been set at levels based on current scientific information which are designed to protect health and the environment. The Air Quality Objectives are set out in the Air Quality Standards (Wales) Regulations 2010 ²⁵. Government statistics estimate that "air pollution in the UK reduces the life expectancy of every person by an average of 7–8 months, with an associated cost of up to £20 billion each year" ²⁶.

NRW regulates emissions to air from larger industrial operations (Part A1 under the Environmental Permitting Regulations (EPR) 2016²⁷), such as power stations, refineries, and incinerators, to meet the requirements of the Industrial Emissions Directive 2010²⁸. Inherent in this is the need to prevent, or minimise, emissions from the sites we regulate by applying the national and European standards set to protect health and the environment. We are also required to produce an annual Pollution Inventory for emissions. Under the Environment (Wales) Act 2016, NRW also has a duty to report on the state of air quality in Wales as part of the SoNaRR and considers localised environmental priorities in Area Statements. Welsh Government is the competent authority, under the Air Quality Standards (Wales) Regulations 2010, for implementing the requirements of the 2008 directive on ambient air quality and Cleaner Air for Europe (CAFÉ)²⁹. Under the Environment Act 1995, Local Authorities have responsibility for the assessment and management of local air quality, designating Air Quality Management Areas and implementing action plans where there is a failure to meet the required standards. Local Authorities also regulate emissions to air from smaller industries (Part A2 and B under EPR).

https://airquality.gov.wales/about-air-

²⁴ <u>https://www.legislation.gov.uk/ukpga/1995/25/contents</u>

²⁵ https://www.legislation.gov.uk/wsi/2010/1433/contents/made

quality#:~:text=Air%20pollution%20results%20from%20the%20introduction%20of%20a,at%20any%2 0time%20since%20before%20the%20Industrial%20Revolution.

²⁷ <u>https://www.legislation.gov.uk/uksi/2016/1154/contents/made</u>

²⁸ https://ec.europa.eu/environment/industry/stationary/ied/legislation.htm

²⁹ https://www.eea.europa.eu/ds_resolveuid/6fd9d15aebcd6e683fccbf3264b86170

Current State

Air quality in Wales has improved, with statutory emissions controls and a decreasing industrial base leading to a reduction in industrial emissions. However ambient air quality targets for nitrogen dioxide, particulate matter, nickel, and polycyclic aromatic hydrocarbons are still being breached in Wales. Although industry remains a significant source of pollutants other sources, generally smaller or more diffuse and subject to less or no regulation, have now become more prominent. The Air Pollution in the UK Compliance Assessment Summary 2017³⁰ summarises the state of the UK's Air Quality annually, and the compliance of each air quality zone against EU Directives. For the South Wales zone, annual mean NO2 levels were shown to be above the limit value for human health. Ozone was also shown to exceed the long-term objective limit value for human health. The results of the air quality assessment for 2021 ³¹ are summarised in Table 3.

Table 3. Results of Air Quality Assessment with South Wales, under a range of pollutants. LV = limit value, TV = target value, LTO = long-term objective, (s only) indicates the compliance or exceedance was determined by supplementary assessment only. Adapted from Air Pollution in the UK 2021 Compliance Assessment Summary.

Pollutant (including parameter)	Result
NO2 LV for health (1hr mean)	ОК
NO2 LV for health (Annual mean)	>LV
PM10 LV (daily mean)	ОК
PM10 LV (annual mean)	ОК
PM2.5 Stage 1 limit value (annual mean, 1st Jan 2015)	ОК
PM2.5 Stage 2 limit value (annual mean, 1st Jan 2020)	ОК
O3 TV and LTO for health (8hr mean)	Met TV, > LTO
O3 TV and LTO for vegetation (AOT40)	ОК
Arsenic TV	ОК
Cadmium TV	ОК
Nickle TV	> TV (s only)
Benzo[a]pyrene TV	> TV (s only)

³⁰ <u>https://uk-air.defra.gov.uk/library/annualreport/</u> 31

https://uk-

air.defra.gov.uk/library/annualreport/assets/documents/annualreport/air_pollution_uk_2021_Complian ce_Assessment_Summary_Issue1.pdf#:~:text=For%20the%20purposes%20of%20air%20quality%20 monitoring%20and,met%20the%20limit%20value%20for%20annual%20mean%20NO

Air Pollution in Carmarthenshire

The Council submits regular air quality reports to Welsh Government on Carmarthenshire's air quality. Further information on air quality reports can be downloaded from the Defra website. All Local Authorities in Wales update details about their monitoring locations and sampling results on the Welsh Air Quality Forum website ³². The Council has identified that the key pollutant most relevant to Carmarthenshire is Nitrogen Dioxide (NO2). The main source of NO2 emissions in Carmarthenshire is road traffic. The Council has developed a monitoring network that follows some of our busiest roads and most congested streets. An interact map with current emissions data can be accessed throught the National Atmospheric Emissions Inventory ³³.

Llandeilo AQMA

An Air Quality Management Area (AQMA) was designated for part of Llandeilo in 2011 ³⁴. This is because standards for NO2 in the area are being breached. Although NO2 levels in the area are not sufficiently high to be causing immediate health effects, they are at levels that could result in health issues over the long term, especially for people who already suffer from respiratory conditions such as asthma and chronic obstructive pulmonary disease (Figure 2). The Council is working closely with colleagues at external agencies to help identify and implement solutions to improve air quality in the area.

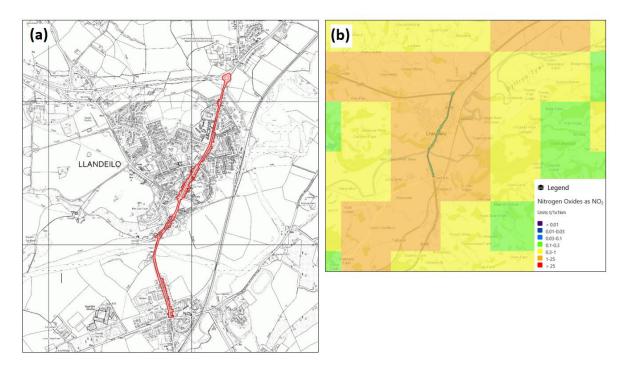


Figure 2. (a) Map of Llandeilo AQMA with (b) modelled NO2 levels. More recent maps can be accessed via UK National Atmospheric Emissions Inventory 35. NB: The same source is used for the following related figures.

³² https://airquality.gov.wales/

³³ https://naei.beis.gov.uk/emissionsapp/

³⁴ <u>https://uk-air.defra.gov.uk/aqma/details?aqma_ref=1479</u>

³⁵ https://naei.beis.gov.uk/emissionsapp/

Carmarthen AQMA

An AQMA was designated for a specific area of Carmarthen in August 2016. The reason is due to emissions from road traffic sources. Levels of Nitrogen Dioxide (NO2), currently breach legal levels in localised hotspots within the AQMA, and the Council is working with partners within and outside of the Council to reduce these levels where it can. Although NO2 levels in the area are not sufficiently high to be causing immediate health effects, they are at levels that could result in health issues over the long term, for people who are exposed for sufficient periods of time and who already suffer from respiratory conditions, such as asthma, COPD (chronic obstructive pulmonary disease) etc (Figure 3). The Council is in the process of formulating an Action Plan, which will identify measures that could help improve Air Quality in the area.

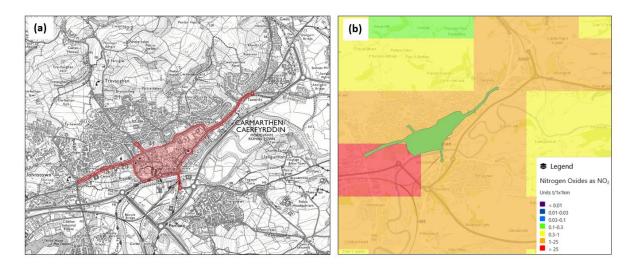


Figure 3. (a) Map of Carmarthen AQMA with (b) modelled NO2 levels.

Llanelli AQMA

An AQMA was designated for a specific area of Llanelli in August 2016. The reason is due to emissions from road traffic sources. Levels of Nitrogen Dioxide (NO2), currently breach legal levels in localised hotspots within the AQMA, and the Council is working with partners within and outside of the Council to reduce these levels where we can. Although NO2 levels in the area are not sufficiently high to be causing immediate health effects, they are at levels that could result in health issues over the long term, for people who are exposed for sufficient periods of time and who already suffer from respiratory conditions, such as asthma, COPD (chronic obstructive pulmonary disease) etc (Figure 4). The Council is currently in the process of formulating an Action Plan, which will identify measures that could help improve Air Quality in the area.

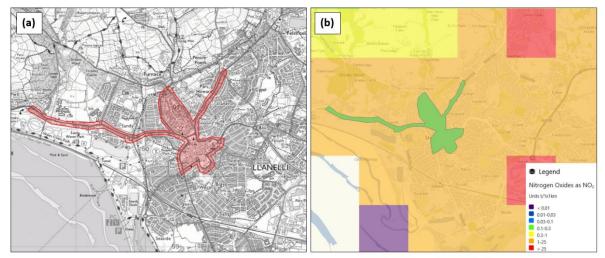


Figure 4. (a) Map of Llanelli AQMA with (b) modelled NO2 levels.

Predicted Effect Without Implementation of the Plan

Whilst all new developments would have to comply with legislation that regulates air pollution, development would take place in a piecemeal manner, without a coordinated approach or consideration of cumulative effects on air quality. This would possibly exacerbate the impact which bad air quality has on human and environmental health.

4. Climatic Factors

The Carmarthenshire Net Zero Strategy ³⁶, the current Plan, and the Well Being Assessment for Carmarthenshire all recognise the vulnerabilities (and opportunities) that face the County in relation to climate change.

Climate Change

The Paris Agreement commits the international community to reduce greenhouse gas emissions to avoid some of the most severe impacts of climate change. The risks and opportunities from climate change will vary across the UK because of geography and the policy frameworks that exist in the different countries. ^{37 38} The National Strategy for Flood and Coastal Erosion Risk Management in Wales (National Strategy)³⁹, published by the Welsh Government in November 2021, states that 245,000 properties in Wales are at risk of flooding. In addition, the Climate Change Risk Assessment (CCRA) for Wales, published by the Welsh Government in January 2012⁴⁰, indicates that approximately 23% of the 1,500km long Welsh coastline is eroding. Rising sea levels are anticipated to impact Carmarthenshire's already-at risk- from tidal and rising river level flooding, but additional properties along the county's coastal and river communities⁴¹. Conversely potential impacts such as a rise in grassland productivity and extended tourist seasons are also likely to impact Carmarthenshire. It is important to harness the positive and mitigate the negative consequences all these issues for the economic, environmental, cultural, and social well-being of individuals and communities affected.

A horizon scanning approach allows for such scenarios to be explored in spatial terms. For example, settlements and commercial interests along the Carmarthenshire coastline may be increasingly susceptible to flooding from the sea. In addition, increased flooding within river valleys is likely to put increased numbers of properties and transportation infrastructure under threat from both out-of-bank flows and surface water run-off. Climate change may also create a shift in agricultural activity/productivity and vulnerable members of the community may be at increased risk from the increased likelihood of extremes of temperature.

The total carbon footprint of Wales in 2015 was estimated at just over 34 million tonnes of carbon dioxide equivalent (t CO_{2e}), equating to 11.11 t CO_{2e} per capita ⁴². This would make the Carmarthenshire residents' carbon footprint is 11.36 tCO_{2e}, which is above the Welsh average (in the same period). More recently, Local Authority Carbon Dioxide Emissions 2019⁴³ states that "Wales' CO2 per capita emissions are higher compared to other regions due to having the highest CO2 per capita emissions from the Industrial sector (3.5 tCO2 per person),

https://www.carmarthenshire.gov.wales/media/1226871/net-carbon-zero-actionplan.pdf?v=202110291522330000

³⁶

³⁷https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment data/file/6 9487/pb13698-climate-risk-assessment.pdf

https://assets.publishing.service.gov.uk/gover nment/uploads/system/uploads/attachment_data/file/584281/uk-climate-change-risk-assess-2017.pdf ³⁹ https://gov.wales/sites/default/files/publications/2021-03/the-national-strategy-for-flood-and-coastalerosion-risk-management-in-wales.pdf

https://gov.wales/sites/default/files/publications/2019-04/a-climate-change-risk-assessment-forwales.pdf

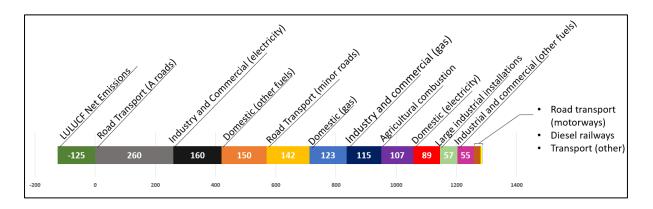
⁴¹ https://www.carmarthenshire.gov.wales/media/3506/flood_strategy.pdf

⁴² https://gov.wales/sites/default/files/publications/2019-04/ecological-and-carbon-footprint-of-walesreport.pdf

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachmen 43 t data/file/996055/2019-local-authority-co2-emissions-stats-1-page-summary.pdf

reflecting its higher level of industrial installations". This means that Wales had the largest CO2 per capita emissions in 2019 compared to any other area within the UK.

In 2016, 941 megawatts of domestic electricity and gas were consumed within Carmarthenshire. However, this represented a decrease by 4.9% since 2012. In addition, in 2015, total CO₂ emissions in Carmarthenshire were 1212.7 kilotonnes. This represents an 8.3% since 2011. Most recent figures (2016) show that total CO₂ emissions for Carmarthenshire were 1,162 kilotonnes. Total CO₂ emissions per head in Carmarthenshire are estimated at 6.6 tonnes. This figure has also decreased by 8.3% since 2011. Carmarthenshire has three large industrial installations which currently collectively emit approximately 57 kilotonnes of CO₂ per annum. However, this is comparatively low compared to vehicular use of A roads and the electricity use of the industry and commercial sector, which emits 260 kilotonnes and 160 kilotonnes respectively (Figure 5).



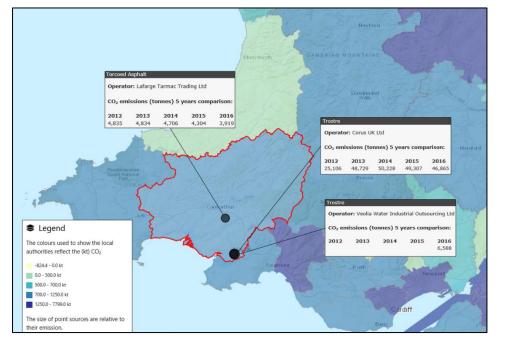


Figure 5. Total carbon emissions for 2016 by sector (top) and local authority (bottom). Points show large industrial installations and details of their carbon emissions from 2012-2016. However, more recent data (2019) shows that the overall carbon emissions for the County has declined year-on-year⁴⁴.

⁴⁴ <u>https://naei.beis.gov.uk/laco2app/</u>

The CCRA for Wales presents the findings of an assessment of climate change risks, and identifies the potentially most significant threats for Wales from climate change appear to be:

- Changes in soil conditions, biodiversity, and landscape because of warmer, drier summers.
- Reductions in river flows and water availability during the summer, affecting water supplies and the natural environment;
- Increases in flooding both on the coast and inland, affecting people, property, and infrastructure;
- Changes in coastal evolution including erosion and coastal squeeze, affecting beaches, intertidal areas, and other coastal features;
- Changes in species including a decline in native species, changes in migration patterns and increases in invasive species;
- Increases in the risk of pests and diseases affecting agriculture and forestry. The risk to livestock is a particular concern.

The potentially most significant opportunities identified for Wales from climate change appear to be:

- Increases in grass yields, allowing a potential increase in livestock production; and
- Increases in tourist numbers and a longer tourist season.

As a largely rural county, Carmarthenshire may be disproportionally affected by both positive and negative impacts of climate change as explored in the Climate Change Risk Assessment for Wales. By 2050, winter rainfall is predicted to increase by 14 per cent and summer rainfall to decrease by 16 per cent which may increase the likelihood of flooding in the county, particularly in inland rural areas already subject to flooding because of surface run off water. Even modest flooding events can significantly impact on the physical and mental wellbeing of the individuals affected for many years after the actual flooding event and the worst effects of Flooding are often felt by the more vulnerable in society. Additionally, The Climate Change (Interim Emissions Targets) (Wales) (Amendment) Regulations 2021 ⁴⁵ aims to address this, and the consideration of the impact on well-being of more ambitious climate targets are outlined with the Climate Change (Wales) Regulations 2021 integrated impact assessment ⁴⁶.

Renewable Energy

Under European Union targets1, the UK has a legally binding target to generate 15% of its energy from renewable sources by 2020. The UK Renewable Energy Strategy2 sets out the UK Government's vision to ensure that this target is met. The Welsh Government is committed to playing its part by delivering an energy programme which contributes to reducing carbon emissions as part of its approach to tackling climate change3. Current government policy and guidance is centred on reducing CO2 emissions to slow down climate change and producing electricity from renewable sources. The planning system has an important role to play in supporting, encouraging, and facilitating renewable energy schemes. The Welsh Government's targets for renewable energy were set out in TAN8: Renewable Energy 2005. TAN8 provides advice on areas including onshore renewable energy technologies, design and energy and describes how renewable energy should be accounted for as part of development plans, development management and monitoring processes. Seven Strategic Search Areas (SSAs) were identified as being suitable for large scale (over 25MW) onshore renewable wind energy (Figure 6).

⁴⁵ <u>https://www.legislation.gov.uk/wsi/2021/338/made</u>

⁴⁶ https://gov.wales/climate-change-wales-regulations-2021-integrated-impact-assessment-html



Technical Advice Note (TAN) 8 - Indicative

Figure 6. Strategic Search Areas in the South West Area as identified in TAN 8: Renewable Energy ⁴⁷.

SSA G: Brechfa Forest lies within Carmarthenshire and has been identified for large-scale wind power. Within SSA:G, Brechfa Forest West Wind Farm (BFWWF) is fully operational, with 28 turbines generating 57.4MW. In addition, Brechfa Forest East Wind Farm (BFEWF) gained planning consent in 2013, consisting of 12 turbines (3 turbines on 3rd party land) with the potential to generate 24-36MW. NRW is currently working on the best way forward for realising this development. Alltwalis Wind Farm is also operating within the SSA, having an installed generating capacity of 23MW from 10 turbines. As well as Brechfa, the County also has a small part of the Pontardawe Strategic Search Area (SSA E) within its area. Mynydd y Betws windfarm currently operates within the SSE: E, generating 34MW from 15 turbines.

47

https://lle.gov.wales/catalogue/item/TechnicalAdviceNote8PlanningForRenewableEnergyStrategicSea rchAreas/?lang=en

Ecological Footprint

Put simply, an ecological footprint can be defined as a measurement of sustainability. The ecological footprint is essentially an accounting system that recognises the impact of every good and service purchased by considering all the energy and resources used to make the product. The added value of measurement is the emphasis placed on exploring where reductions can be made through policies which influence consumption patterns and behaviour. Figure 7 depicts the ecological footprint of Wales by theme ⁴⁸. It can be clearly noted that Housing (20 per cent), Food (28 per cent) and Transport (11 per cent) take up a sizable proportion of the overall figure. These are all issues that a land use planning (alongside sustainable land management practices) can contribute towards addressing. The ecological footprint per person for Wales according to 2015 figures was 3.28 global hectares which is approximately 1.2 to 1.8 times the global average ⁴⁹.

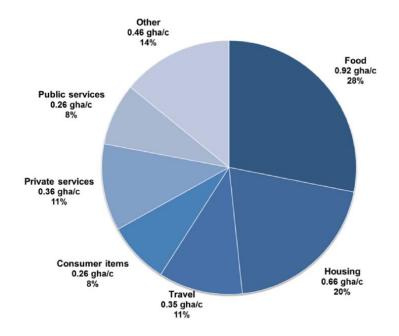


Figure 7. Ecological footprint of Wales by consumption theme.

⁴⁸ <u>https://gweddill.gov.wales/docs/desh/publications/150724-ecological-footprint-of-wales-report-en.pdf</u>

⁴⁹ Global average figure of 2.7 gha/c in 2007 published by the Global Footprint Network (GFN). Note that the GFN methodology is different to the one we have used, so the results cannot be directly compared. GFN's figure for the UK in 2007 is 4.9 gha/c.

Carmarthenshire's ecological footprint is estimated at 3.36 global hectares per person, which is above the Welsh average (Figure 8). This variation at a local level is influenced by several factors including income, demographics, patterns of household expenditure and the energy performance of housing stock.

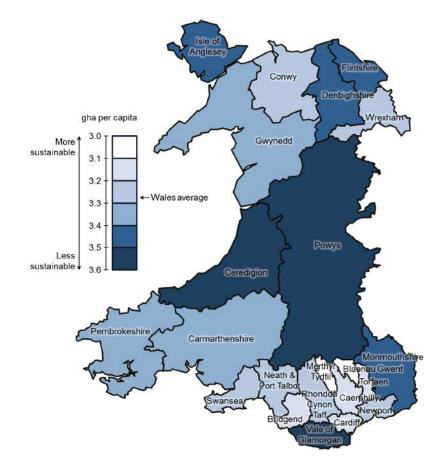


Figure 8. Ecological footprint of Wales by region.

Predicted Effect Without Implementation of the Plan

With no Plan in place, development would be piecemeal and uncoordinated. Strategic planning in the form of the LDP allows resilience to be built into developments in terms of the materials, design, and siting (e.g., in relation to flood risk) to reduce the risks from the effects of climate change. Furthermore, measures which can help reduce the risks of climate change, such as promotion of renewable energy and sustainable use of resources can be co-ordinated.

5. Water

Water Framework Directive (WFD)

The WFD (2000/60/EC) ⁵⁰ establishes a framework for the protection of surface waters (rivers, lakes, estuaries, and coastal waters) and groundwaters. Its purpose is to prevent deterioration and improve the status of aquatic ecosystems, promote sustainable water use, reduce pollution of groundwater, and contribute to mitigating the effects of floods and droughts. It requires the water quality/quantity of our rivers, lakes, groundwater, estuaries, and coastline is assessed using ecological (fish, invertebrates, plants etc.) and chemical (nutrients, pesticides, etc.) monitoring. Waterbodies are assigned a status of health and those that are classified as 'Bad', 'Poor' or 'Moderate' are failing the EU WFD standards, and these waterbodies will need to improve to at least 'Good' ecological status by 2027.

Overall water quality in the County has been improving with most rivers reaching moderate to good ecological status under the water framework directive. Many of the waterbodies within the wider Tywi catchment, in the east of the county are moderate quality due to a legacy of historic metal mining. This often coincides with areas of extensive conifer plantations in the steeper slopes of the upland, many of these are also designated acid sensitive catchments due to their low natural buffering capacity. More intensive agriculture in the valley bottoms have often compromised gains in water quality. This is especially true in catchments dominated by intensive dairy production. In addition to their regulatory role NRW locally is actively working with stakeholders to improve ecological and water quality across all water bodies including the Carmarthen Bay and estuaries. Our EU designated bathing waters are monitored from May to September for contamination from faecal indicator organisms. Bathing waters are classified annually according to the quality of the water (Excellent, Good, Sufficient, Poor). At the end of the 2015 season the beaches were classified and all designated bathing waters in Wales met the sufficient standard or above. As of 2018, Carmarthenshire is home to one Blue Flag beach in Cefn Sidan Beach ⁵¹.

Figures 9 to 13 have been extracted from the Local Evidence Pack: Carmarthenshire 4/10/2013 as produced by NRW and provide further information in relation to WFD Classifications for the County. Further reference should be had to the content of the Pack in relation to Water Quality considerations. Updated maps have also been provided displaying the results from Cycle 2 of the WFD monitoring (2015) and further updates containing the finding of Cycle 3 can be found on Watch Water Wales⁵².

⁵⁰ <u>https://water.europa.eu/freshwater/europe-freshwater/water-framework-directive</u>

⁵¹ https://www.pembreycountrypark.wales/plan-your-visit/cefn-sidan-beach/

⁵² https://waterwatchwales.naturalresourceswales.gov.uk/

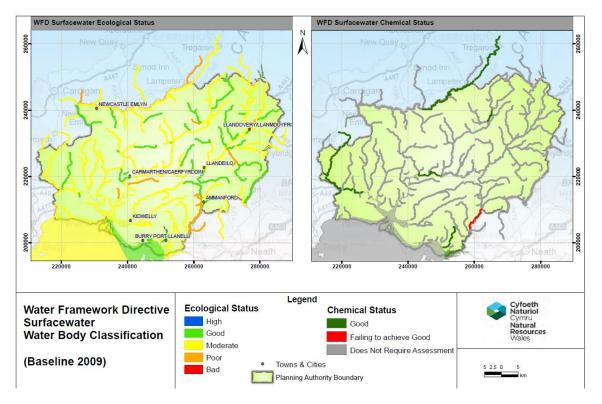


Figure 9. WFD Surface water (River, transitional and coastal) Water Body Classification Cycle 1 (Baseline 2009)

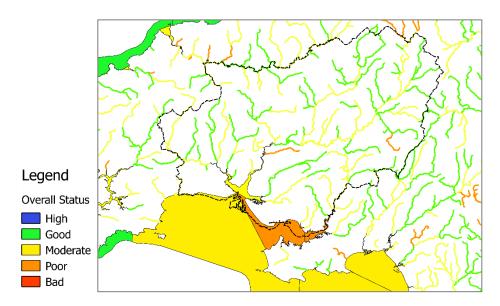


Figure 10. WFD Surface water (River, transitional and coastal) Water Body Classification Cycle 2 (2014 – 2019)

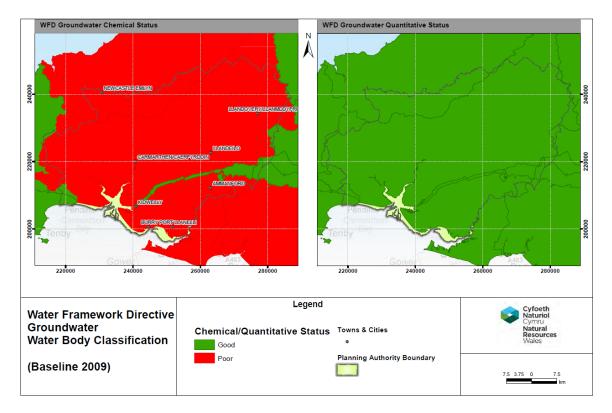


Figure 11. WFD Groundwater Classification Cycle 1 (baseline 2009)

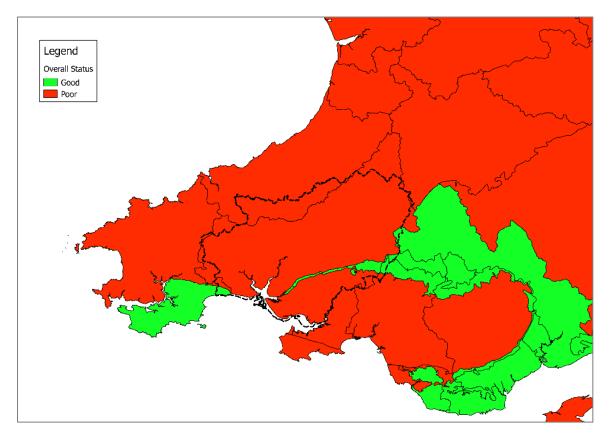
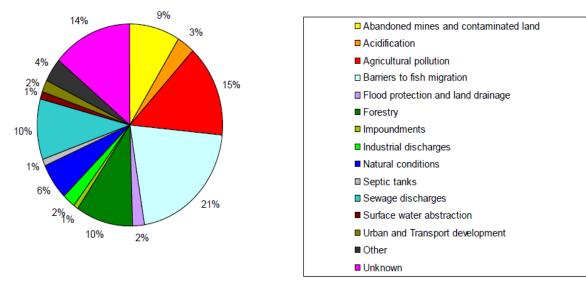


Figure 12. WFD Groundwater Classification Cycle 2 (2014 – 2019)



Reasons for Failure

Figure 13. Reasons for Failure for Water Bodies in Carmarthenshire 2009

Water Supply

The Dwr Cymru Welsh Water Resources Management Plan (2019) ⁵³ considers what needs to be done to ensure a sustainable and affordable balance between the amount of water we take from the environment and the amount of water we need for our daily lives. It is vitally important for a water company to understand its capability to supply water and the demand for water from customers and business within its supply area. The comparison is termed the Supply Demand Balance (SDB). The Tywi Conjunctive Use System is the largest Water Resource Zone (WRZ) in South West Wales, extending in the east from the Vale of Glamorgan to west of Carmarthen and stretching northwards past Llanwytrd Wells. In relation to Carmarthenshire, the Tywi Gower zone is shown to be in surplus but future forecasts predict otherwise (Figure 14).

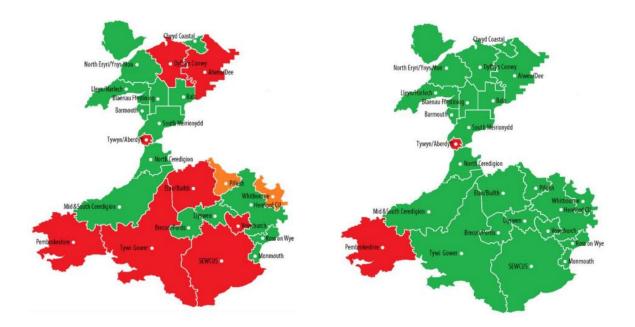


Figure 14. Forecast deficit zones in 2050 with upper quartile population growth projections for the Draft and Final Plans. Red indicates deficit, Green indicates surplus.

⁵³ <u>https://www.dwrcymru.com/en/our-services/water/water-resources/final-water-resources-</u> management-plan-2019

Flood Risk

Flood risk within Carmarthenshire affects a range of settlements and parts of the County through both fluvial and tidal inundation. Llanelli is the community with the highest flood risk in the Carmarthen Bay and Gower flood risk management catchment and is one of the top 50 highest risk communities in Wales. The community covers a large geographic area and is densely populated. The primary risk is from the watercourses that intersect the town. The rivers Dafen, Lliediand Dulaisall pose flood risk, these watercourses have been significantly altered as the town has developed. Flood walls and embankments help to mitigate the risk of flooding in some places. The river Taf is predominantly a rural catchment, the main areas of flood risk are in Whitland and St Clears, these communities have a long history of flooding. Flood alleviation schemes in the towns have afforded some protection though flood risk remains. In the vast river Towy catchment, many of the dispersed communities have some risk of flooding and the communities of Llandovery and Llandeilo are noted as having the highest flood risk. Figure 15 shows the different flood risk if there were no flood defences. These are: Flood Zone 3 – High probability of flooding. Land assessed as having a greater than 1% probability of flooding (or from the sea of greater than 0.5%) in any year. Flood zone 2 – Medium probability of flooding – 1% - 0.1%. Or annual probability of sea flooding (0.5% -0.1%) in any year.

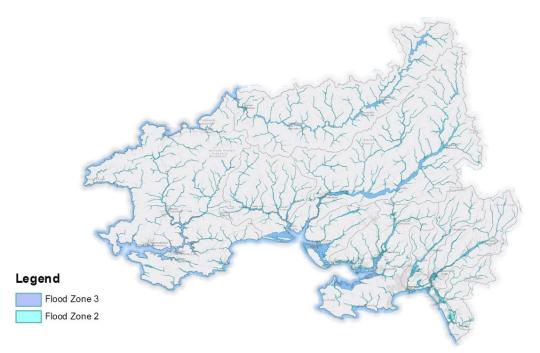


Figure 15. Flood risk zones 2 and 3 for the South West Area.

More recent Flood Risk Assessment Wales Maps can be found on NRW's website ⁵⁴. The Development Advice Map and associated planning policy *TAN15: Development and Flood Risk* is the current framework for assessing flood risk to and from new development ⁵⁵.

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https://cdr.eionet.europa.eu/gb/eu/floods2019/fhrm_2020/documents/uk10/envxo2jog/NRW_Flood_H azard_and_Risk_Mapping_2019.pdf

⁵⁵ <u>https://naturalresourceswales.gov.uk/flooding/flood-map-for-planning-development-advice-map/?lang=en</u>

Drainage Infrastructure

Dŵr Cymru Welsh Water (DCWW) has a duty under Section 94 of the Water Industry Act 1991 to accept wastewater from new development when connection to the mains sewer system is viable. To this end, if additional capacity is required in the existing systems, they are legally obliged to provide it through their normal funding mechanisms. There are well documented issues with the sewerage infrastructure draining into the Carmarthen Bay and Estuaries European Marine Site (CBEEMS) in the Burry Inlet. This area is one of the most heavily designated waterbodies in Wales and must achieve the requirements set by European Directives including the European Habitats Water Framework (WFD) and Shellfish Directives (SD). The CBEEMS is currently failing to achieve the required standards under both the WFD and SD, while the sewerage system has not met the standards required under the Urban Waste Water Treatment Directive (UWWTD). There is a potential issue under the HRA if it is assumed that either DCWW can simply accept any associated increases in wastewater irrespective of limitations in capacity, or that such capacity issues can simply be resolved by NRW consenting options which avoid adverse effects on European sites.

There are issues with the capacity of the drainage infrastructure network throughout the County and measures may be required to ensure that there is sufficient capacity within the waste water infrastructure network. This is particularly important for the Llanelli Coastal area, to reduce the number of combined sewer overflow discharges taking place into the CBEEMS. The responsibility for the sewerage infrastructure in the County rests with DCWW as the statutory sewage undertakers and will need to be addressed in DCWW's long term Asset Management Plans (AMP). The AMP5 Improvement Scheme ran from April 2010 to March 2015, the current AMP, AMP 6, runs from April 2015 to March 2020 and AMP7 will run from April 2020 to March 2025. If developers wish to accelerate the process of achieving necessary reinforcement works mechanisms are in place to allow for this. Because of the previous issues with the Llanelli WWTW, the Council has since 2009 taken a precautionary approach to processing planning applications for new development in the catchment of the Llanelli WWTW, entering into joint agency agreement or Memorandums of Understanding (MOU) with Swansea Council, DCWW, and NRW, regarding a common approach to ensuring water quality in the CBEEMS. The agreed approach centres on removing surface water from the waste water treatment infrastructure and thereby increasing the capacity for the treatment of foul water (e.g., via planning conditions on new development seeking Sustainable Urban Drainage Systems (SuDS) and achievement of a betterment/ enhancement factor). The Council has also part funded an improvement scheme at Llannant WWTW, which has facilitated the removal of sufficient phosphorous. The joint agency agreement (MoU) remains referenced in the Plan as it represents a commitment to joint working, which is necessary for the adequate provision of drainage infrastructure. The MoU will need to be updated to reflect changes in circumstances since the original MoU was agreed.

Phosphates

In 2021, NRW published an evidence package outlining phosphate levels for all river Special Areas of Conservation (SACs) across Wales ⁵⁶. Of the nine rivers SACs in Wales, those catchments which are in Carmarthenshire include the Cleddau, Teifi, and Tywi (and a very small section of catchment area supports the Wye) (Figure 16). 60 per cent of river sections on the Cleddau were failed their targets and the lower Teifi also failed to reach the standards. The Tywi passed.

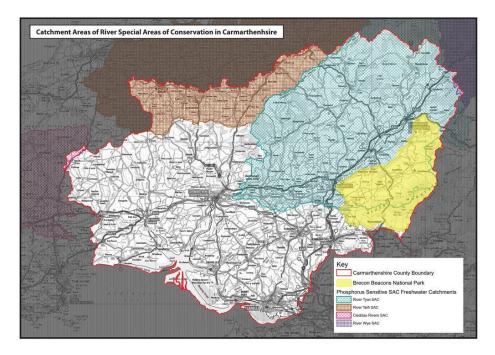


Figure 16. Catchment Areas of River SACs within Carmarthenshire (2021).

Special advice was given by NRW to planning authorities on planning applications affecting phosphorus sensitive river SACs ⁵⁷. Because of this issue, Carmarthenshire County Council have commissioned multiple reports on the subject which will feature greatly within the Plan's evidence base.

Predicted Effect Without Implementation of the Plan

If the LDP was not in place, the WFD would still have to be adhered to. However, without the Plan, development would be ad-hoc piecemeal and it would be difficult to coordinate, monitor and provide the necessary supporting infrastructure. The cumulative effects of development may not be assessed, and the utility providers may find it hard to plan for growth and expansion in their networks without a 15-year LDP to inform them where future development is proposed. This may result in delays in bringing development forward and negative impacts on water quality and our natural landscape and designated sites. The preferred growth and spatial strategy will need to be decided in alignment with the potential impacts placed on water quality and biodiversity (this may include plans for appropriate mitigation).

⁵⁶ <u>https://naturalresourceswales.gov.uk/evidence-and-data/research-and-reports/water-reports/compliance-assessment-of-welsh-river-sacs-against-phosphorus-targets/?lang=en</u>

⁵⁷ <u>https://naturalresourceswales.gov.uk/guidance-and-advice/business-sectors/planning-and-development/our-role-in-planning-and-development/advice-to-planning-authorities-for-planning-applications-affecting-phosphorus-sensitive-river-special-areas-of-conservation/?lang=en</u>

6. Material Assets

Highways and Transportation

Carmarthenshire is located on the A40, A477 and A48 trunk roads with connections to the west providing links to the Irish ferry ports, which with the M4 forms part of the Trans-European Network. The east-west link is further emphasised by the West Wales railway line which extends from Swansea (and the wider rail network) through to Pembrokeshire via Carmarthen and Llanelli. The West Wales line also forms part of the Trans-European Network linking to and from the Irish Ferry Ports in Pembrokeshire. The Heart of Wales railway line extending from Swansea through eastern parts of the County through to Shrewsbury offers additional transport benefits albeit based on a limited service. The principal highway network within the Plan area includes the A48 trunk road leading to and from the M4 motorway and its connections through South East Wales and beyond. The A40 and A483 trunk roads offer links through the County to Mid and North Wales as well as to the Midlands and the North of England. Further access to the north of the County is also served by several A-roads as well as numerous B-classified roads each representing important components of the highway network (Figure 17).

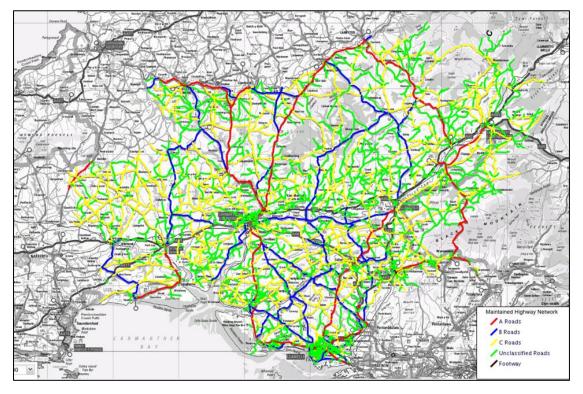


Figure 17. Carmarthenshire Road Network.

Table 4 illustrates the length (km) of the road network in Carmarthenshire, which represents some 44% of the regional network and illustrates the amount of the County accessed by B and lower classification roads. This reflects the rural extent of the County and emphasises the challenges to delivering a sustainable integrated strategy for the area (especially in terms of green transport and provision of services).

 Table 4. Carmarthenshire Road Network. Source: Adopted Carmarthenshire Local Development

 Plan ⁵⁸.

Classification	Road Length (km)
M4	5
Class A (Trunk)	147
Class A (County)	247
Class B and C	1,579
Minor Surfaced	1,496
Total	3,474

In relation to car availability within Carmarthenshire as of 27th March 2011, only 18.8 per cent of households within the County did not have access to a car or van whilst 43.5 per cent, 27.6 per cent and 10.2 per cent had access to one, two or three (or more) cars or vans respectively ⁵⁹. In terms of traffic volumes, the County in recent years has seen a year-on-year increase since 2012 until 2019 (2.21), although levels in 2020 have dropped to 1.68 ⁶⁰. Some 38 per cent of this volume utilises the County's Trunk Road Network, with 34 per cent of the volume through 'minor' classified roads, reflecting the rural nature of large parts of the County ⁶¹.

Waste

Carmarthenshire falls within the South West Wales regional area for waste management. Industrial & commercial waste makes up the most significant proportion of the total controlled waste stream within the region – 252,000 tonnes of residual (non-recycled) waste produced in 2012. Controlled waste includes municipal solid waste, commercial and industrial waste, construction, and demolition waste, hazardous waste, and the controlled fraction of agricultural waste. 135,000 tonnes of residual construction and demolition waste was produced in 2012. More up to date data is available for municipal solid waste, of which 161,000 tonnes of residual waste was produced in the 2016/17 period. In terms of hazardous waste, the rates produced have generally remained at a similar level in recent years. Whilst Wales does not have any hazardous waste landfill sites, the country is well served by other types of facilities that deal with such waste. There is no recent data available for agricultural waste.

The proportion of municipal waste recycled or composted in Carmarthenshire for 2016/17 was 66.2 per cent ⁶³. In 2020/21 it was 66.3 per cent which is above the national average of 65.4 per cent. The reliance upon landfill for residual waste has been steadily decreasing over recent years from 30,022 tonnes in 2012/13 to 3,960 tonnes in 2016/17. However, in the most recent surveys, this has increased slightly to 17,523 tonnes, largely due to changes in the recycling

⁵⁸ <u>http://www.cartogold.co.uk/CarmarthenshireLDP/english/text/00_Contents.htm</u>

⁵⁹ <u>http://wales.gov.uk/statistics-and-research/people-vehicle-licensing-ownership/?lang=en</u> 60<u>https://statswales.gov.wales/Catalogue/Transport/Roads/Road-Traffic/volumeofroadtraffic-by-</u> localauthority-year

⁶¹ <u>https://statswales.gov.wales/Catalogue/Transport/Roads/Road-Traffic/volumeofroadtraffic-by-</u> localauthority-roadclassification

⁶² <u>https://statswales.gov.wales/Catalogue/Environment-and-Countryside/Waste-Management/Local-</u> <u>Authority-Municipal-Waste/annualwastegenerated-by-source-year</u>

⁶³ https://statswales.gov.wales/Catalogue/Environment-and-Countryside/Waste-Management

market (Figure 20). This general trend towards increasing recycling rates and decreasing waste to landfill is an encouraging sign and is in accordance with national targets as set out in the national waste strategy *Towards Zero Waste* ⁶⁴.

According to NRW (2012), the SW Wales region has the highest preparation for re-use, recycling & composting rates for industrial & commercial waste (67%). However, landfill was found to be the second highest method of waste management (21%). For commercial & industrial waste, landfill was the predominant waste management method in SW Wales (57%) with recycling being second (31%). Due to the decreasing amounts of waste going to landfill, the remaining void space for the region lies above the threshold set out in TAN21 (7 years). However, parts of the SW Wales region are reliant on utilising areas outside the region to cater for residual waste (including contracts with facilities abroad). There is a noticeable lack of alternative facilities to deal with residual waste within the region and this is an issue that will need to be monitored closely over the coming years.

Predicted Effect Without Implementation of the LDP

If the LDP was not in place, National Policy and Legislation will require that proposed developments push waste up the hierarchy and regional collaboration between authorities. However, identification of a residual waste facility when required would be difficult with a development plan in place. Additionally, If development were to take place without a coordinated approach, alteration of traffic and road use could have cumulative effects on the environment and resident.

⁶⁴ https://gov.wales/sites/default/files/publications/2019-05/towards-zero-waste-our-wastestrategy.pdf#:~:text=Towards%20Zero%20Waste%20is%20the%20new%20overarching%20waste,eff iciency%20and%20waste%20management%20between%20now%20and%202050

7. Soils

Soil Quality

Soils are an important carbon sink and, therefore, soil conservation can contribute to buffering the predicted effects of climate change. In Wales, there is a high incidence of sensitive habitats exceeding critical loads with respect to acidification (acid deposition) and eutrophication (nutrient enrichment). Critical values represent levels above which pollutants are considered to cause significant harm with respect to acidification and eutrophication (National Assembly for Wales 2007b). It should be noted that the trends identified for acidification rates of sensitive habitats is likely to be associated with the fact that soils in upland areas have a poor neutralising capacity and are therefore more vulnerable to the effects of acidification.

In Wales, the area of habitats with exceedance of critical loads for eutrophication has decreased by less than 10% (98% to 90.3%) between 1995 and 2013, but the magnitude of the average exceedance has declined by 44%, from 15.8 kg N ha-1 year-1 in 1995 to 8.9 kg N ha-1 year-1 in 201384. In Wales, the percentage area of habitats with exceedance of acidity critical loads (see NOx) has decreased from 90% in 1995 to 74% in 2013. Over the same period, the magnitude of the average acidity exceedance has reduced by 65% (from 1.36 keq ha-1 year-1 to 0.45 kq ha-1 year-1.⁶⁵ Data on critical loads in soils is predicted to reduce, however that critical loadings will still be breached in parts of Carmarthenshire in 2015 ⁶⁶. Similarly, critical loadings by acid deposition in soils are predicted to decrease by 2010, though areas will remain where critical loads are still exceeded (Figure 18).

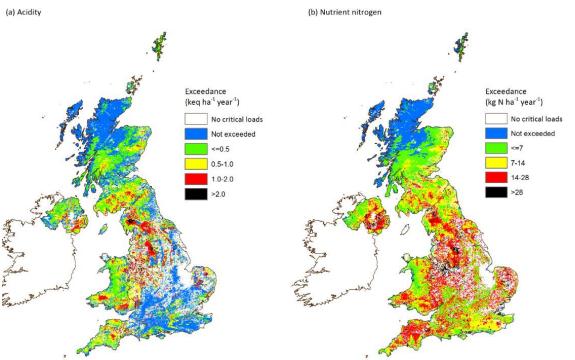


Figure 18. Average Accumulated Exceedance of critical loads 2013–2015 67 (for all habitats and environments including soils and waterbodies).

https://naturalresources.wales/evidence-and-data/research-and-reports/the-state-of-natural-resources-report-assessment-of-the-sustainable-management-of-natural-resources/?lang=en
 http://www.cldm.ceh.ac.uk/content/methods-calculation-critical-loads-and-their-exceedances-uk

⁶⁷ http://www.cldm.ceh.ac.uk/critical-loads/data

Geology

The solid and drift geology of the County can be split into several broad categories (Figure 19):

- The Silurian series present in the northernmost part of the County.
- Surrounding the Silurian series is the Ordovician series which constitutes the dominant strata of the County.
- Old Red Sandstone is present and extends in a broad band from west to east in the central areas of the county.
- Carboniferous Limestone is present around Pendine and in a narrow band from Kidwelly in the south and extends eastwards to the north of Ammanford and into the Brecon Beacons National Park.
- Millstone Grit Series is also present in a narrow band and overlies the carboniferous limestone series.
- The middle and lower coal measures are present in the South East of the County.
- Alluvium is present in the River valleys of the Tywi, Teifi, and Loughor as well as the low-lying coastal areas around Pendine, Pembrey, and Llanelli.

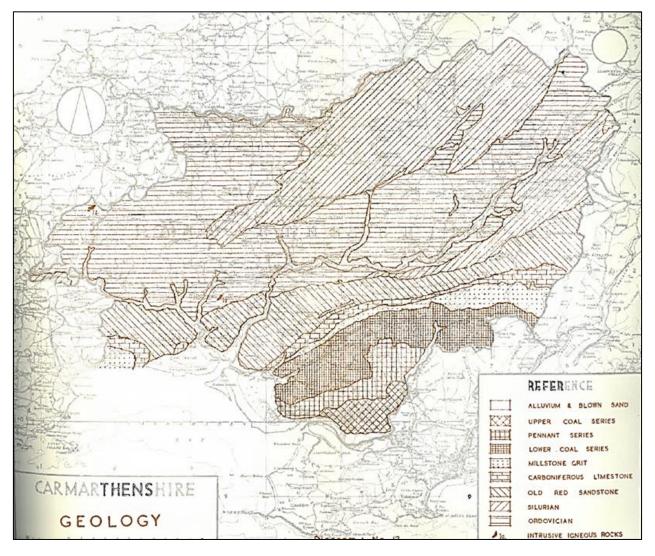


Figure 19. Geology of Carmarthenshire

Geodiversity and Geoconservation

The importance of conserving sites which reflect the geodiversity of the UK landscape and natural environment is now recognised as being of major importance in the context of sustainable land-use planning and development. Such sites can provide access to key bedrock, superficial deposits and soil units which contain instructive evidence of previous periods of environmental change, including climate and land-use change; many chart the history of local mineral extraction and associated industrial development; others were, and remain, the only source for building stones that contribute to our architectural heritage.

Regionally Important Geodiversity Sites (RIGS)

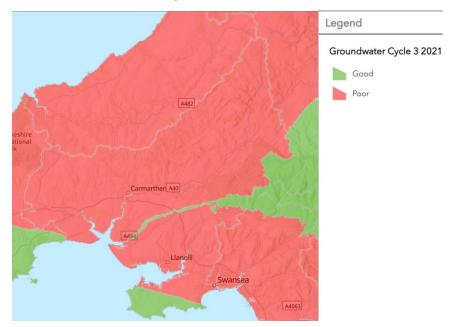
RIGS are currently the most important places for Earth Science conservation outside statutorily protected land such as Sites of Special Scientific Interest (SSSI). RIGS form a network within a county or region of geological sites that are considered worthy of protection for their Earth Science importance. They are identified by locally developed criteria which may emphasise the local educational, historical, and recreational resource rather than its national scientific significance which is the remit of SSSI status. RIGS form a network of second tier sites that supports the SSSI sites, but which do not have statutory protection. However, the designation of RIGS is one way of recognising and therefore protecting important Earth science and landscape features through the local authority planning system for the future.

RIGS within Carmarthenshire

The British Geological Survey (BGS) has provided RIGS data for Carmarthenshire as part of the South Wales RIGS audit. The data identifies 32 RIGS sites within the SE part of the County. Further sites are known to have been evaluated in other parts of the County by the South West Wales RIGS Group. The BGS will be consulted as part of the LDP review process in respect of any changes/updates to RIGS.

Hydrogeology (also relating to the section on Water)

Groundwater quality is currently deteriorating, and is often heavily polluted with nitrates, mainly from agriculture, but also impacted by leaks from domestic heating oil tanks and poorly operating sewage treatments systems. Water companies then must treat water from different sources to make it safe to drink. Groundwater is also a significant resource supplying base-flows to local rivers and wetlands ⁶⁸. The carboniferous limestone formations comprise a major aquifer that bears water that can be used to supply large abstractions for public or other purposes (such as the Carboniferous limestone at Pendine which is used for public water supply abstraction). The Old Red Sandstone and Millstone Grit rock formations are minor aquifers and are locally important sources of groundwater, although faulting may reduce the effectiveness of these rocks as aquifers. The coal measures in the southeast of the county also constitutes a minor aquifer. The alluvium deposits along the Rivers Teifi, Tywi, and Loughor are minor aquifers. In the Teifi, the alluvium gravel deposits are used extensively for public supply and agricultural purposes. Most of Carmarthenshire's groundwater resources are classified as poor (Figure 20).





Agricultural Land Classification

According to the Agricultural Land Classification (ALC) data available ⁷⁰, there is no Grade 1 land and limited Grade 2 present within Carmarthenshire. A patchwork of Grade 3 land is situated towards the south and southeast of the county following the Tywi river valley, stretching from Llandovery in the east, through Llangadog, Llandeilo and Carmarthen. Most land in Carmarthenshire is classified as Grade 4 land, with a small proportion of Grade 5 land situated towards the northeast of the County. View the Predictive Agricultural Land Classification Map 2 for further details ⁷¹.

⁶⁸ <u>https://naturalresources.wales/guidance-and-advice/environmental-topics/water-management-and-guality/how-we-can-all-help-protect-groundwater-in-wales/?lang=en</u>

⁶⁹ <u>https://waterwatchwales.naturalresourceswales.gov.uk/en/</u>

⁷⁰ <u>https://gov.wales/agricultural-land-classification</u>

⁷¹ https://datamap.gov.wales/layers/inspire-wg:wg_predictive_alc2

Predicted Effect Without Implementation of the LDP

Minerals Technical Advice Notes 1 and 2 require mineral resources to be safeguarded on LDP Proposal Maps and that areas where coal working would not be acceptable should also be mapped. In the absence of the LDP, these resources would not be mapped or safeguarded.

8. Cultural Heritage and Historic Environment

Given the relatively large distances between regional centres in Carmarthenshire, towns and villages have historically developed distinctive local identities and cultures, based around industrial and agricultural heritage.

Landscapes of Outstanding Historic Interest

PPW states that *"it is important that the planning system looks to protect, conserve and enhance the significance of historic assets. This will include consideration of the setting of an historic asset which might extend beyond its curtilage. Any change that impacts on an historic asset or its setting should be managed in a sensitive and sustainable way" (paragraph 6.1.7)*⁷². To recognise the value of historic landscapes, and to raise awareness of their importance, Cadw, in partnership with NRW and the International Council on Monuments and Sites (ICOMOS) has compiled a non-statutory Register of 58 landscapes of outstanding or special historic interest in Wales ⁷³. In respect of the above, there are seven Landscapes of Outstanding Historic Interest that fall wholly or partly within Carmarthenshire (Figure 21), and each is described below in further detail:

- Tywi Valley, Myddfai and Black Mountain (Figure 22)
- Tywi Valley (Figure 23)
- Preseli (Figure 24)
- Dolaucothi (Figure 25)
- Taf and Tywi Estuary (Figure 26)
- Drefach / Felindre (Figure 27)
- Lower Teifi Valley (Figure 28)

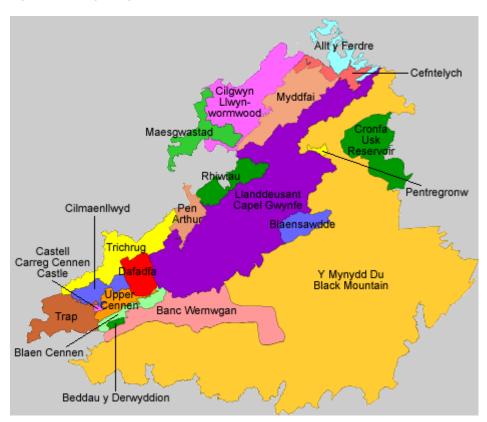


Figure 21: Overview of the historic and natural environment within South West Wales. The following related figures are also obtained from the Dyfed Archaeological Trust ⁷⁴.

⁷³ <u>https://www.dyfedarchaeology.org.uk/wp/wp-content/uploads/southwestareastatement.pdf</u>

⁷² <u>https://gov.wales/sites/default/files/publications/2021-02/planning-policy-wales-edition-11_0.pdf</u>

⁷⁴ https://www.dyfedarchaeology.org.uk/wp/



Tywi Valley, Myddfai and Black Mountain

Figure 22: Historic and natural environment within Tywi Valley, Myddfai and Black Mountain. Dyfed Archaeological Trust.

Trap character area consists of enclosed land of small irregular enclosures and pockets of larger regular enclosures. The settlement pattern is of dispersed houses and farms with a cluster of 19th century and modern dwellings at Trap.

Upper Cennen character area lies in the upper Cennen valley which has heavily wooded steep slopes, and enclosed land with dispersed farms on flatter land.

Beddau y Derwyddon character area is a small area of rough and improved pasture surrounded by a dry-stone wall separating unenclosed moorland from lower lying enclosed and settled land.

Dafadfa character area is situated on gentle north-facing slopes and consists of improved pasture divided into regular medium-sized fields. The settlement pattern is one of widely dispersed farms. Farmhouses and outbuildings are mostly 19th century in date and stone built.

Blaensawdde character area lies in the upper Sawdde valley at the foot of the Black Mountain. It consists of large, dispersed farms, small- to medium-sized fields and woodland. Farmhouses mostly date to the 18th- and 19th-century and are associated with a wide range of outbuildings.

Cilgwyn-Llwynwormwood character area contains several former estates. Some of the mansions survive, but the main influence on the historic character by the estates was the creation of a 'parkland' landscape.

Rhiwiau character area lies across a ridge. Though formerly enclosed, many of the old banks and hedges are now derelict and the landscape has an open appearance. There are no settlements.

Pen Arthur Plantation character area lies across a high ridge and the valley sides of the Afon Sawdde. It comprises of 20th century forestry which has been planted over former fields. Dwellings survive in small clearings in the plantation.

Trichrug character area lies across a ridge which rises out of an area of rich farmland. Though formerly enclosed, many of the hedges and dry-stone wall boundaries have broken down and the area is now a patchwork of improved pasture, rough grazing, moorland, and conifer plantations.

Myddfai character lies in an open valley and consists of dispersed farms and regular fields of pasture. The village of Myddfai with its medieval church provides a focus for the area.

Llanddeusant-Capel Gwynfe character area consists of rolling enclosed farmland, dispersed farms and scattered deciduous woodland which fringes open moorland of the Black Mountain.

Cefntelych character area lies across a low ridge and consists of improved pasture which has been divided into large fields. Hedges to the fields are now mostly derelict, giving an unenclosed appearance to the landscape.

Maes-gwastad character area lies across the valley bottom of the Afon Brân and comprises of large fields of improved pasture which are divided by well-kept hedges, dispersed farms, but very little woodland or trees.

Pentregronw character area lies on steep southwest-facing slopes on the edge of the Black Mountain. Though formerly enclosed by dry-stone walls and banks, this area is rapidly reverting to moorland. A deserted farmstead is situated here.

Allt y Ferdre character area lies across hills and very steep valley sides. It is entirely composed of woodland, both old deciduous and 20th century conifer plantations.

Glasfynydd Forest - Usk Reservoir character area consists of a large 20th century conifer plantation and a 20th century reservoir. Both were established over what was mainly unenclosed moorland.

Banc Wernwgan - Foel Fraith Quarries character area occupies the northern edge of the Black Mountain. The land is unenclosed moorland. The remains of the limestone quarrying industry are obvious elements of the historic landscape.

The Black Mountain - Y Mynydd Ddu character area is entirely open moorland. It includes the summits of Bannau Sir Gar/Fan Brycheiniog at over 800m, but it mostly consists of rough grazing and blanket peats between 250m and 600m.

Cilmaenllwyd character area consists of dispersed farms and cottages, and fairly regular fields of improved pasture. Boundaries comprise banks and hedges. Farmhouses and other buildings mostly date to the 19th century.

Blaen Cennen character area lies on the northern fringe of the Black Mountain and consists of dispersed farms and pasture fields.

Carreg Cennen Castle character area comprises of a craggy limestone hill on the summit of which is located the substantial remains of a medieval castle.

Tywi Valley

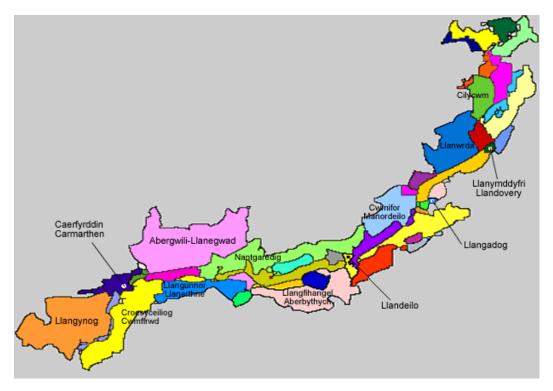


Figure 23: Historic and natural environment within Tywi Valley. Dyfed Archaeological Trust.

Llangynog Llangain character area consists of rolling landscape of small irregular fields, woodland and plantations on steep valley sides and dispersed farms, with small scale modern residential development close to Carmarthen.

Tywi Tidal Flood Plain character area is subjected to regular flooding and consequently has few historic landscape components apart from drainage ditches and fences, and navigation aids in the channel of the Tywi.

Carmarthen character area comprises the whole of the county town, including the historic core, 20th century housing development and infrastructure.

Ystrad Tywi: Carmarthen-Llandeilo character area comprises of the flood plain of the River Tywi. Widely dispersed farms on islands of marginally higher ground, and distinctive hedgerow trees lend a parkland appearance to the landscape.

Abergwili - Llanegwad Parish character area lies on the northern side of the River Tywi and essentially consists of small irregular fields of improved pasture, deciduous woodland on steep valley sides and dispersed stone-built farms.

Morfa Melyn character area is that small portion of the flood plain of the River Tywi upstream of Carmarthen that is subjected to occasional tidal inundation. It essentially consists of open pasture, with few boundaries.

Llangunnor - Llanarthne Parishes character area lies on north-facing slopes on the south side of the Tywi valley and consists of small fields, woodland and dispersed small farms.

Abergwili character area consists of a village of mainly 18th- and 19th-century houses along the A40 road (now bypassed), the medieval church, the modern Bishop's Palace of St David's, the old palace (now Carmarthen Museum) and its parkland grounds, and modern residential development.

Croesyceilog - Cwmffrwd character area is enclosed into medium-sized fields of improved pasture. Small stands of woodland are mainly confined to steep slopes. The ancient settlement pattern of dispersed farms is supplemented by more recent linear development along main roads that radiate out from Carmarthen.

The National Botanic Garden of Wales character area encompasses the old gardens and parkland of Middleton Hall. This landscape is currently undergoing restoration and renewal, including the construction of a large glasshouse.

Llanarthne character area is centred on Llanarthne village, which has an old core based on the medieval parish church, but contains much modern development, and includes the surrounding rich farmland and dispersed farms.

Llanfihangel Aberbythych character area essentially consists of rolling enclosed farmland, woodland on steep valley sides and dispersed farms. 19th- and 20th century residential development is restricted to small hamlets and linear development along main roads.

Nantgaredig - Derwen Fawr character area lies across low rolling hills on the north side of the Tywi valley and consists of large, dispersed farms in a landscape of small- to mediumsized fields. Modern linear and nucleated development is concentrated along the A40 road which passes through the area.

Llangathen character area is centred on Llangathen church and associated settlement, and Aberglasney house and gardens which are currently being restored. The overall landscape is of enclosed pasture and dispersed farms.

Golden grove/Gelli Aur character area includes the mansion, gardens and park of Gelli Aur, conifer plantation, parts of which encroach across the former park, and the estate village of Llanfihangel Aberbythych.

Allt Pant Mawr character area consists of the heavily wooded slopes of the south side of the Tywi valley. Interspersed with the woodland are smallholdings and cottages set in a distinctive system of small fields.

Dinefwr Park character area essentially consists of the 18th- and 19th-century house, gardens and park of Dinefwr together with the castle. The house and most of the park are owned by the National Trust and retain many of their historic elements.

Ystrad Tywi: Llandeilo - Llangadog character area comprises the flood plain of the river. There are no settlements and no woodland, though the plain is divided into a rather loose field system of medium- to large-sized enclosures.

Cwmifor - Manordeilo character area lies across low rolling hills on the northern side of the Tywi valley. It consists of ancient settlement pattern of dispersed farms, enclosed pasture and small stands of woodland, with 19th- and 20th-century linear and nucleated settlement along the A40 road.

Llandeilo character area is urban in character. The historic core of the town which consists mainly of 18th- and 19th -century buildings is grouped close to the A483 road and around the parish church. Later 19th-century and 20th-century development lies outside the core.

Allt Tregyb character area lies on north-facing slopes of the Tywi valley and consists of deciduous woodland interspersed with small irregular fields and dispersed small farms, smallholdings and cottages.

Felindre character area comprises of a small, nucleated settlement of mostly 19th and 20th century houses, outside of which lie several loosely dispersed small-holdings in an enclosed strip field system.

Carreg-Sawdde Common character area consists of an unenclosed common, in the centre of which lies a cluster of 19th- and 20th-century buildings - encroachments on to the common land.

Llangadog, character area, is centred on the medieval church, Church Street and a small 'square'. Buildings on the square are imposing and 18th- and 19th-century in date. Later 19th-century residential development and 20th century housing and light industrial units lie on the outskirts of the town.

Cefngornoeth character area lies across a low, hilly ridge on the north side of the Tywi valley, and consists of dispersed farms, irregular fields and small stands of woodland.

Ystrad Tywi: Llangadog-Llandovery character area consists of the flood plain and lower slopes of the Tywi valley. Large dispersed farms and a regular field system characterise the area. Distinctive trees lend a parkland appearance to the landscape.

Abermarlais character area is based on the old house, gardens and park of Abermarlais. The house has now gone and the park and gardens decayed. Situated between old deciduous woodland and conifer plantations, the open feel of the park still remains.

Llansadwrn - Llanwrda character area contains the two 19th century villages of Llansadwrn and Llanwrda which are set in a landscape of small fields and dispersed farms on low, rolling hills on the northern side of the Tywi valley.

Llandovery is an urban character area and consists of the historic core of town which includes the medieval castle and 18th- and 19th-century buildings, together with the outlying parish church, Llanfair-ar-Bryn medieval church and modern development.

Maesllydan character area developed out of an open field system. Pasture enclosed into regular fields contains traces of ridge and furrow cultivation. Settlement is predominantly of large dispersed farms.

Llwynhowell character area comprises substantial farms distributed along the lower slopes of the River Tywi set in a landscape of small irregular fields of improved pasture, and deciduous woods.

Cilycwm character area consists of the small village of Cilycwm and dispersed large farms. These are set in a landscape of irregular fields. The hedges to many fields are overgrown lending a wooded aspect to the area.

Rhandirmwyn character area lies in the upper valley. Dispersed farms and 19th century lead mining communities are the dominant settlement types. Fields are small and irregular. Woodland, overgrown hedges and conifer plantations lend this area a heavily wooded aspect.

Cwm-y-Rhaeadr character area consist of very steep valley sides. Most of the valley sides have been planted with conifer plantations, but a little open moorland is present. The area lies above the rich farmland of Cilycwm character area.

Nant-yFfin character area lies in the upper, steep-sided valley of the Tywi and its tributaries. Historic landscape components consist of dispersed farms - 19th century stone buildings - small irregular fields and deciduous woodland.

Craig Ddu character area consists of very steep, craggy valley sides and a high moorland plateau. The valley sides are cloaked with deciduous woodland interspersed with rough grazing and moorland.

Dinas character area lies in the upper Tywi valley and consists of steep valley sides covered in dense deciduous woodland, with open moorland on craggy slopes and a high plateau.

Craig y Bwch character area comprises of unenclosed upland on the eastern side of the Tywi valley. From the steep valley sides, the area levels out onto an undulating plateau of rough grazing.

Carn Goch character area consists of a low hill of open moorland on which lie the massive stone-built ramparts of a major Iron Age fort and a smaller satellite fort.

Fforest character area occupies a long ridge between the Tywi and Brân valleys. The field pattern of earth banks and hedges has now largely broken down, and wire fences provide stock-proof barriers. Land is improved or rough grazing, with scrubby woodland on steep slopes.

Dryslwyn character area consists of the earthwork and masonry remains of the medieval castle and town of Dryslywn which lie on a low hill within the Tywi valley.

Bethlehem character area lies on the south side of the Tywi valley and comprises of a landscape of small, irregular fields, small stands of deciduous woodland and dispersed farms.

Garn-wen character area lies on northwest-facing slopes above the Tywi valley. It consists of irregular fields which run out onto high ground above, and two large farms, Garn-wen and Tan-y-lan.

Cynghordy character is located on the western valley side of the Afon Brân and the eastern valley side of the Afon Tywi, the area comprises of small, irregular pasture fields, woodland, and dispersed farms.

Llanwrda Parish character area lies across rolling hills to the north of the Tywi valley and consists of small irregular fields, dispersed farms and scattered woodland.

Preseli

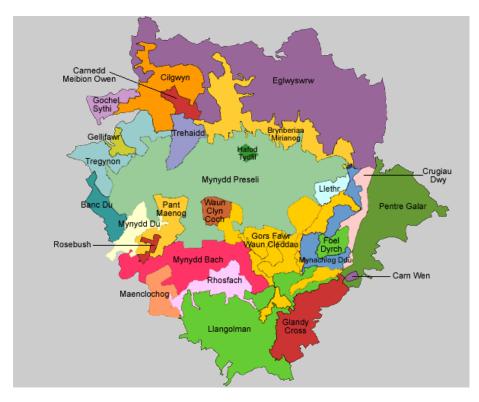


Figure 24: Historic and natural environment within Preseli. Dyfed Archaeological Trust.

The Preseli Historic Landscape transcends administrative boundaries with the following characterisation areas most directly contained either in whole or within part within Carmarthenshire.

Llangolman historic landscape character area consists of irregular fields, dispersed farms and cottages, narrow lanes and woodland on steep valley sides. Buildings are of varied character and range from large farmhouses through to single storey cottages. Stone is the traditional building material. Boundaries are of earth or earth and stone, and are topped with hedges. Pasture is the predominant agricultural land-use.

Carn Wen historic landscape character area consists of a small unenclosed hill of scrubby land. The remains of a quarry abandoned in the late 20th-century are a prominent landscape element. There are no settlements, trees or roads in this area.

Glandy Cross historic landscape character area is centred on the A478 road. A system of fairly regular fields with dispersed farms and cottages lies either side of this road. Late 20th-century linear housing and other buildings have developed at Glandy Cross and Efailwen. Prehistoric ritual and funerary monuments, including Meini Gwyr stone circle, are a characteristic of this area.

Pentre Galar historic landscape character area was open common land until it was enclosed by Act of Parliament in 1812. The regular field system, dispersed farms and roads all date to this period. Stone is the principal building material. Boundaries are of earth banks topped with hedges. Land-use is improved pasture with tracts of rougher ground.

Dolaucothi

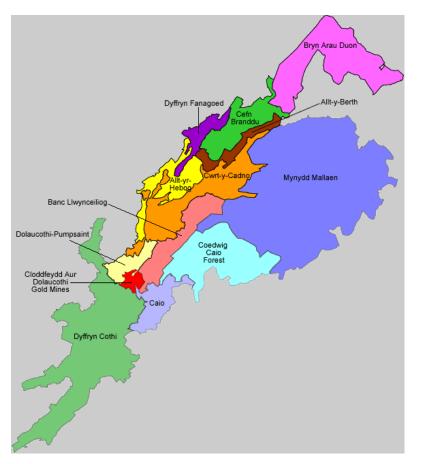


Figure 25: Historic and natural environment within Dolaucothi. Dyfed Archaeological Trust.

Dolaucothi - Pumpsaint character area lies across the valley floor of the Cothi and consists of Pumpsaint village, and the park and gardens attached to the former Dolaucothi House. The village mostly consists of 19th century buildings erected in a distinctive style by the Dolaucothi estate in the 1850s.

Cwrt-y-cadno character area lies in the upper Cothi valley. It is a landscape of dispersed farms, small fields and woodland. Many of the farms were built by the Dolaucothi estate in the 1850s in a distinctive 'pattern-book' style.

Dolaucothi Gold Mines character area consists entirely of the remains of the gold mining industry dating from Roman times to the 20th century. The National Trust own the site, and they have re-erected examples of mine buildings as visitor attractions.

Caio character area is centred on the village of Caio. However, the main components of this landscape comprise dispersed farms and irregular fields of pasture which are divided by earth banks and hedges.

Caio Forest character area consists of a large 20th century conifer plantation which has been established over unenclosed moorland.

Banc Llwynceiliog character area lies on the upper valley side of the Afon Cothi. Old enclosures of banks and hedges have now broken down and the area is essentially open improved pasture. Linear earthworks of Roman aqueducts which run along the valley side are prominent landscape elements.

Mynydd Mallaen character area comprises of a high moorland plateau which is surrounded by lower lying farms and fields and flanked by forestry.

Dyffryn Fanagoed character area lies across the floor and lower slopes of a high, open valley, and consists of dispersed farms, the buildings of which are mostly 19th century, and small irregular fields.

Allt-yr-hebog character area comprises of ancient deciduous woodland and conifer plantations on the steep sides of the upper Cothi valley.

Allt-y-Berth character area consists of deciduous woodland and a little moorland on steep, craggy slopes of the upper Cothi valley.

Cefn Branddu character area lies over a high rounded ridge. Old boundary banks have now broken down and the area is now essentially unenclosed improved pasture and moorland with bracken and deciduous woodland on the steep flanking slopes.

Bryn Arau Duon character area consists of a large 20th century forestry plantation that has been established across high moorland.

Dyffryn Cothi character area lies across the floodplain and lower valley sides of the Cothi and its tributaries. It is characterised by dispersed farms and fields of pasture. Former parkland spreads across the valley floors close to Edwinsford and Glan yr Annell.

Taf and Tywi Estuary

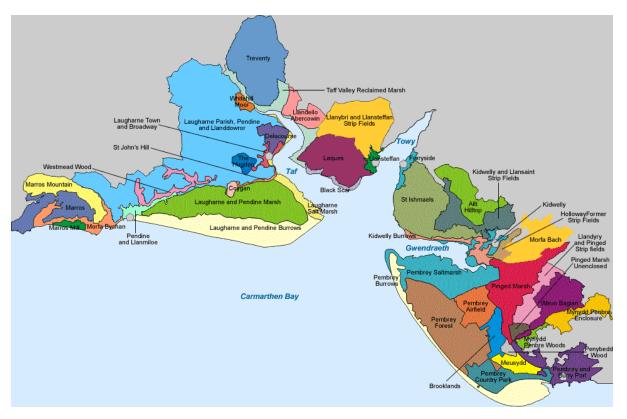


Figure 26: Historic and natural environment within the Taf and Tywi Estuary. Dyfed Archaeological Trust.

This littoral area of estuaries, coastal lowlands, sand dunes and intertidal sand bars lies across the north east side of Carmarthen Bay, on the South Wales coast. Behind the long expanses of sand dunes on the north east side of Carmarthen Bay, on the east and west sides of the estuary mouths of the Rivers Taf, Tywi and Gwendraeth, lie large areas of low-lying marsh land. The whole area contains diverse evidence of activity from the prehistoric to the recent past and includes the Hugden medieval open field system on the low coastal ridge west of Laugharne.

The present coastline is a changing one, owing to continuing sand movement, but sea walls and drains, fronted by tidally inundated morfeydd or salt marshes, safeguard the reclaimed land. Archaeological evidence, the study of relict and active features in the present landscape, and the use of aerial photographs, cartographic and documentary sources, have been successfully combined to reconstruct the evolution of this largely man-made landscape. The geological inheritance of a line of former sea cliffs with a raised beach at their base form the northern boundary of the western, or Laugharne Marsh and the Gwendraeth estuary. Although now guarried away, caves in the limestone of Coygan Bluff on this former coastline have produced Upper Palaeolithic material, and excavation of the hillfort there prior to quarrying vielded a long occupation sequence from the Neolithic to the early medieval. More research is required to establish the position of the coastline in the Roman and medieval periods, but there is no doubt that the castle towns of Kidwelly and Laugharne were much more open to the sea than at present. Many of the finds of prehistoric and medieval date from Laugharne Burrows cannot now be provenanced, but the position of shell middens within both dune systems, which have produced medieval pottery is crucial to the chronology of coastal change and enclosure. They would benefit from modern excavation.

The former Witchett Brook divided Laugharne Marsh into East and West Marsh, the latter used as saltmarsh pasture in the Middle Ages before any sea walls were built, and there may also have been medieval settlement on the slightly raised sites of some of the present day farms on East Marsh. Although partly within the present Ministry of Defence range at Pendine, traces of 17th century sea walls survive and the successive enclosures of the early 19th century are well preserved. Access from Coygan quarry to the river at Laugharne was provided by a tramway and small creek, Railsgate Pill, still well-preserved, evidence for the now vanished era of coastal trade which persisted in the small estuary ports until the Second World War.

The enclosure of Pembrey Marsh was, like Laugharne, made possible by the development of sheltering seaward sand dunes. Its industrial history and legacy is more complex with a remarkable series of early canals leading to shipping places and quays. These were developed to export the anthracite coal of the South Carmarthenshire coalfield, from the early 18th century onwards. They led across lands enclosed from the sea inland of Pembrey Burrows by the late 17th century, if not earlier. Earthwork traces of cultivation and drainage techniques in both Marshes are evident both from the air and on the ground on farmlands seen by improvers, such as Charles Hassall in the early 19th century, as test beds for modern agricultural techniques. This contrasts with the remarkable survival, in the Hugden belonging to Laugharne Corporation, of a medieval open field system, still communally apportioned and unenclosed, which has been included within the boundaries of this area.

Twentieth century changes are more evident on Pembrey Burrows, now covered in a forestry plantation of the 1920s. A variety of industrial uses in the early 20th century culminated in a wartime airfield and a Royal Ordnance Works, one of whose surviving structures is now a Scheduled Ancient Monument. Sport and leisure activities are, and have been, an important feature of 20th century uses of the area, from the land-speed record attempts by the Campbells, and Parry Thomas in 'Babs' in the 1920s along Pendine Sands, to the creation of a Country Park in Pembrey Burrows in the 1980s. Carmarthen Bar was notorious for its shipwrecks, a number of which are prominently visible and accessible at low tide, while others are revealed periodically by the ever-shifting sands. Finally, Laugharne must not be forgotten for its literary associations with the poet Dylan Thomas and his insights of life in a small Welsh community during the mid-20th century⁷⁵.

⁷⁵ Historic landscape Characterisation – Dyfed Archaeological Trust

Drefach / Felindre



Figure 27: Historic and natural environment within Drefach / Felindre. Dyfed Archaeological Trust.

Drefach – Felindre is an industrial historic landscape character area based on the woollen industry. Stone-built mills, workers' houses, owners' houses, churches and chapels clustered in several villages attest to the rapid expansion of this industry in the late 19th century and early 20th century.

Deciduous woodland on steep valley sides above the industrial settlements of Drefach and Felindre characterises the **Dyffryn Bargoed and Dyffryn Esgair** historic landscape character area.

The Afon Teifi: Newcastle Emlyn – Llandysul historic landscape character area comprises the rich pasture of the floodplain. There are no houses but two 18th century stone bridges are included.

Small regular fields created by an Act of Parliament in 1855 and deciduous woodland characterise the relatively small **Coed Mawr** historic landscape character area.

Dispersed farms within a landscape of pasture fields with deciduous woodland on steeper slopes and a few late 19th century woollen mills and workers' houses close to the Afon Teifi characterise the **Llangeler** historic landscape character area.

Although small farms, cottages and other buildings testify to its 19th century origins, the **Saron –Rhos** historic landscape character area is overwhelmingly characterised by modern linear housing development stretching for several kilometres along the main A484 road.

The **Bwlch-Clawdd – Cwmbach** historic landscape character area appears to have developed during the late 18th century when farms and small fields were established on open moorland. Most buildings in the area are modern. Two Bronze Age round barrows and the early medieval Clawdd-Mawr dyke are included in this area.

An 1866 Act of Parliament enclosing open moorland into fields created much of today's **Rhos Penboyr** historic landscape character area. Small farms, coniferous plantations, a World War 2 'stop line' and three wind turbines have been subsequently established.

The **Waunfawr** historic landscape character area largely results from an 1866 Act of Parliament enclosing moorland in regular fields and bisecting it with straight lanes. Small farms were later established. Two Bronze Age round barrows survive from a much earlier age.

A close distribution of small farms in a landscape of fields bounded by hedges on banks characterises the **Penboyr** historic landscape character area. Apart from a few modern houses, almost all the buildings in this area date to the 19th century.

Dispersed farms, fields and deciduous woodland on steep valley sides, with a scatter of late 19th century workers' houses close to Drefach-Felindre characterise the **Bwlchydomen-Pentrecagal** historic landscape character area.

Rhyddgoed is a relatively small historic landscape character area and consists of regularly shaped fields and dispersed farms. Most buildings date to the 19th century.

Henllan is a small but complex historic landscape character area comprising a 19th century village focused on an old railway (now a tourist line) and a World War 2 prisoner of war camp, now largely converted to other uses, surrounded by deciduous woodland and farmland.

Lower Teifi Valley

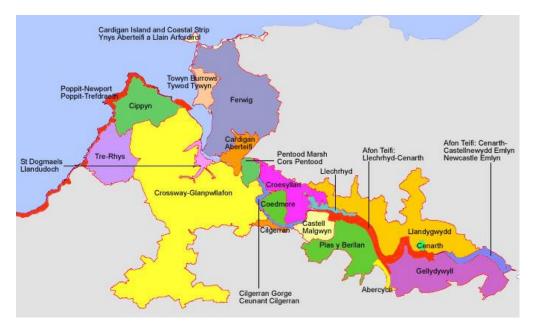


Figure 28: Historic and natural environment within the Lower Teifi Valley. Dyfed Archaeological Trust.

The Lower Teifi Valley Historic Landscape transcends administrative boundaries with the following characterisation areas the most directly related to or contained within Carmarthenshire. Pasture fields separated by overgrown hedges on the floodplain characterise the **Afon Teifi: Cenarth – Newcastle Emlyn** historic landscape character area. There are no buildings or other structures.

The older part of **Cenarth** historic landscape character area lies to the south of the historic bridge over the Teifi and comprises a loose cluster of mainly 18th and 19th century stone buildings. Most modern development lies to the north of the bridge.

Fields, dispersed farms, deciduous woodland and coniferous plantions, much on fairly steep north-facing slopes, characterise the **Gellydywyll** historic landscape character area. Farms are generally large, and include the 19th century model farm of Gelligatti.

The **Afon Teifi: Llechryd – Cenarth** historic landscape character area consists of fields and overgrown hedges across approximately 7 km of floodplain. A timber yard and a walled garden are the only structures in this character area.

Dispersed farms set in a landscape of pasture fields and deciduous woodland on the north side of the Afon Teifi characterise the **Llandygwydd** historic landscape character area. Older buildings range from Georgian gentry houses to cottages. All are stone-built and most date to the 19th century. **Abercych** is a 19th century industrial linear village spaced along a minor road on a steep valley side. Older buildings date to the 19th century and are stone-built. Modern housing infills the gaps between these older structures.

Registered Parks and Gardens

Table 5 contains registered parks and gardens are situated in Carmarthenshire.

Name	Grade	Reasons for Designation and Listed Features		
Llanmiloe House	П	Well preserved Edwardian Garden with much original planting.		
Laugharne Castle & Castle House	II	Castle garden is unusual example of picturesque garden laid out in a medieval castle. Contains remains dated to Tudor period. Main garden restored to early nineteenth layout & contains early nineteenth century gazebo with views over Taff. Castle: Guardmanship Ancient Monument; Scheduled Ancient Monument; Listed Buildings: castle; (grade I), walls (grade II), gazebo (grade II). Castle House: listed building (grade II*).		
Maesycrugiau Hall	П	Remains of extraordinary Edwardian summerhouse in neglected contemporary garden with some pre-1891 features.		
Middleton Hall	II	Survival of late eighteenth-century landscaped park in fine countryside, with main feature of lakes. The house and pleasure garden have gone. Ruined structures remain & present. There is unusual double-walled kitchen garden & preserved ice house. The core of the park now converted into National Botanic Garden of Wales. Listed building: stables (grade II)		
Aberglasney	II	Survival of structure and trees of formal gardens and informal woodland garden of long established country mansion. Most important feature is arcaded court with raised walk around probably dating to early seventeenth century. Also two walled gardens, a pond, gatehouse, yew tunnel walk & remains of woodland walks. Archaeological excavation revealed phase of building work on gardens in seventeenth century. Aberglasney undergone major programme of rebuilding & restoration work in late 1990s. Listed buildings: Aberglasney & arcaded terrace walks enclosing walled garden (grade II*); NE courtyard range, former stables, cart-shed, SE courtyard range, former bakehouse, cowsheds, former small coach house, baliffs house, gatehouse & former domestic		
Derwydd	II	A small late nineteenth century garden with surviving iron work, topiary, walled garden, walks, croquet lawn, incorporating earlier features including a pre-1809 terrace. Listed building: Derwydd (grade II*)		
Dolaucothi	II	Early nineteenth-century parkland with remnants of possible lime avenue. Walled garden partially intact. A few specimen trees. Listed building: Dolaucothi (grade II); lodge (grade II)		
Edwinsford	II	Vestiges of parkland including oak avenue possibly about 1635. Fine bridge linking utilitarian area, including walled garden, coach house, gardener's cottage to the mansion. Many of the buildings were topped with lead ornaments that depicted their function, now gone. Family associations with Sir Joseph Banks, who spent several summers at Edwinsford. Listed building: Edwinsford (grade II*); bridge (grade II)		
Glynhir	11	Early to mid-nineteenth century garden, including fine dovecot, canal, walled garden, ice house and woodland garden with picturesque walks; picturesque bridges over waterfall on the river Loughor (Llwchwr) now disappeared. Listed buildings: house (grade II); dovecot (grade II)		
Golden Grove	*	Golden Grove was for long time one of the most important estates in West Wales. Its park & gardens contain many ancient trees. It retains good quality formal terraces & an outstanding arboretum associated with the Victorian House. The walled garden is of great interest in being associated		

Table 5. Registered Park and Gardens in Carmarthenshire ⁷⁶.

⁷⁶ <u>https://cadw.gov.wales/advice-support/placemaking/legislation-guidance/registered-historic-parks-and-gardens</u>

Name	Grade	Reasons for Designation and Listed Features			
		with an earlier house & it contains a lake & canal which were probably in existence in the mid-seventeenth century. Listed buildings: house and stable block (grade II)			
Pantglas	11	Much of the Victorian gardens (including a lake), constructed to complement the Italianate mansion built around 1853, remains intact although the house has gone. Listed buildings: house (grade II); bridge (grade II); utility courtyard (grade II)			
Plas Dinefwr	1	An outstandingly beautiful & picturesque eighteenth-century landscaped park, incorporating the remains of a medieval castle. Site also includes a small lake, two walled gardens & fine sweeping drives. Lancelot (Capability) Brown is known to have visited the site & to have admired it. Listed buildings: Old Dynevor Castle (grade I); Plas Dinefwr (grade II*); inner & outer courtyard ranges (grade II*); low stone wall & gates to ha-ha (grade II); fountain in small formal garden (grade II); Dairy Cottage (grade II); Dovecot (grade II)			
Taliaris	II	The essential layout of park & appears to have been little altered in the last two hundred years, although there is evidence for some change in land use. Listed building: house (grade I)			
Parc Howard	11	Early to mid-twentieth century purpose-built municipal park, including fine gates, railings & bandstand. Mature shelter belt & small sunken garden. Listed buildings: mansion (grade II); bandstand (grade II); two sets of gates, gate piers & railings (grade II)			
Stradey Castle	11	The parkland, which was probably enclosed in late sixteenth to ear seventeenth century, retains park-like feel, although reduced in size. There is a fine terraced garden associated with the mid-nineteenth centur mansion. Within the park are some interesting water features, a good range of trees, including some early introductions & woodland walks. fine walled garden & nursery area are associated with the seventeent century house, whose site was turned into a garden in mid-nineteent century. Listed building: Castle (grade II*)			
Llechdwnni	II	The survival of an unusual & early walled garden & formal pool, associated with one of the former most historic houses in the south of the country. The large garden has a long terrace, terminated at each end by projecting round gazebos. Listed building: old house (grade II)			
Paxton's Tower	*	The tower, built as a memorial & eye catcher, forms a spectacular picturesque landmark overlooking the Tywi valley & is visible for miles around. It was the only folly designed by the well-known architect S. P. Cockerell. Listed buildings: Paxtons's Tower (grade II*); Tower Lodge (grade II)			
Llwynywormwood	II	Late eighteenth or early nineteenth-century landscaped park created out of rolling countryside. There are scenic drives which maximized the picturesque views, not only of the park, house, stream and a lake, but also of the Brecon Beacons beyond. Listed building: barn (grade II)			

Scheduled Monuments

There are also 366 Scheduled Monuments (SM) in Carmarthenshire; ranging from Prehistoric to Post-Medieval/Modern features of cultural heritage interest. Reference is also had to the content of the Historic Environment Records (HER) across the county as complied and maintained by Dyfed Archaeological Trust.

Conservation Areas

There are Conservation Areas in the following settlements in Carmarthenshire:

- Abergorlech
- Cenarth
- Cwmdu
- Kidwelly
- Laugharne
- Llanboidy
- Llanddarog
- Llandeilo
- Llandovery
- Llanelli
- Llangadog
- Llangathen
- Llansaint
- Llansteffan
- Newcastle Emlyn
- St Clears
- Talley

The following areas within Carmarthen Town are also designated as Conservation Areas:

- Carmarthen Town
- Lammas Street
- North Carmarthen
- Parcmaen Street/St Davids
- Picton Terrace/Penllwyn Park
- Pontgarreg and St Davids Hospital
- Priory Street
- The Parade/Esplanade
- The Quay/Towyside
- Water Street

Predicted Effect Without Implementation of the LDP

With no Development Plan in place, proposals would only have to comply with national legislation with regards to consideration of the implications for historic environment. This would likely have a detrimental impact on matters of local cultural heritage

9. Landscape

The Brecon Beacons National Park is one of the most important landscape and nature conservation designations in the country. The National Park is an important geological resource, as well as also being important for biodiversity, and cultural heritage. The management of development in the National Park is covered by a separate National Park Development Plan Document, and as such is not part of the Carmarthenshire LDP.

Special Landscape Areas

The County contains many areas of high and outstanding landscape quality. Following guidance from Natural Resources Wales, and using Landmap information, the LDP identifies Special Landscape Areas (SLAs). It was established that the landscapes in Carmarthenshire that are of greatest importance, and which are worthy of the protection that the designation of SLAs provides, are the:

- River valleys
- Upland landscapes
- Coastal landscapes

The SLAs have been grouped according to these landscape types and are described below.

River Valleys

Tywi Valley – The SLA includes the entire river valley apart from the Tywi estuary, which forms a part of the Carmarthen Bay and Estuaries SLA. The Tywi Valley SLA consists of the valley floor and associated slopes and includes number of different landscapes. The upper Tywi Valley, north of Rhandirmwyn is typically narrow, rising steeply on either side to the more rugged upland landscapes of Mynydd Mallaen and the North Eastern Uplands, both of which are SLAs. The upper Tywi Valley is characterised by small fields, hedgerows, woodland, traditional farms, narrow roads, and the river itself, often bordered by trees, but in places by open meadows.

Moving down stream towards Rhandirmwyn and Llandovery, the mid Tywi valley opens out more, but the valley continues to rise to the open hill land. The landscape is well wooded with a significant number of hedgerow and other individual trees. Here there is more open flat agricultural land, some small settlements - Rhandirmwyn and Cilycwm, both dominated by traditional buildings and vernacular architecture. These are harmonious unspoilt rural landscapes.

The lower Tywi valley down stream of Llandovery consists of the wide level flood plain, together with its northern and southern slopes which provide outstanding views over the valley and from the north towards the Brecon Beacons. Although dominated by agricultural land and larger fields than in the mid and upper valley, the flood plain also has a significant number of mature hedgerow and fields trees, and the valley slopes, particularly the steeper southern slopes are well wooded. Historic parklands and castles are also a feature of this part of the valley, e.g., Gelli Aur and Dinefwr Park, and Dinefwr and Dryslwyn castles. The castles in the valley have imposing locations on limestone outcrops, over-looking the valley. Traditional farms in the valley have typically expanded and often now include large agricultural buildings. Most of the settlements in this part of the valley have also grown with an element of modern building around a more traditional core. Inappropriate development continues to threaten the conservation of this outstanding landscape, hence the reason for its designation.

Bran Valley (north of Llandovery) - The SLA consists of the flood plain and the valley side. The A483(T) and the Heart of Wales railway line run along this valley making it an important gateway into Carmarthenshire and it is known for the views into the county that these routes

provide when travelling form Powys. The railway includes the viaduct at Cynghordy which is a well know landscape feature, and is visible from the main road, giving this area a strong sense of place. The main road is a feature of the area, while not particularly busy there is a constant stream of traffic and the noise associated with this.

There are few settlements other than Cynghordy and here there is some parkland. The rest of the valley is a mix of agricultural land with hedgerows and trees on the flood plain and flatter areas and significant amounts of woodland on the valley slopes creating an attractive balance. The area includes a number of well wooded tributaries to the Bran.

Liwchwr Valley - The Liwchwr valley on the Carmarthenshire/Swansea boundary has a wide and level flood plain with steeply rising valley sides. The flood plain is open and is characterised by large irregular fields and some drainage channels. In contrast the slopes on the Carmarthenshire side support an attractive mix of woodland and agricultural land, the woodland often being associated with watercourses that run down the slopes. Small irregular fields with a mix of outgrown and cut hedge boundaries are also a feature of these slopes. There is little access to the flood plain other than for farming purposes, there is no settlement in it other than Pontarddulais to the south, and Ammanford to the north. The slopes are sparsely settled with scattered farms. The railway runs along the valley (mostly in Swansea), the track making a strong line in the landscape in contrast to the meandering river. Pylons cross the valley in the south but are partly masked by the wooded slopes to the west.

Cwm Cathan - Cwn Cathan is an impressive and steep sided river valley running from the upland area of Mynydd Betws to the lowland Llwchwr valley. It is well wooded with seminatural broadleaved woodland - including area of birch woodland, as well as semi-improved grasslands as well as scrub and bracken areas. The variety of vegetation here provides texture in this landscape and creates a network of semi-natural habitats across the area. Some hedgerows are becoming lines of trees, and these also contribute to the enclosed and well-wooded appearance of the area. Holly-rich hedges are a feature. This is an intimate enclosed, unspoilt and natural landscape, and not without views of the surrounding areas. With narrow twisty roads and being sparsely settled, this quiet area feels some distance from Ammanford.

Teifi Valley - The source of the Teifi is in Ceredigion, and the middle course of this river flows along the Carmarthenshire county boundary between Lampeter and Llechryd. Within Ceredigion the Teifi valley is also recognised as a SLA. The Carmarthenshire section of the Teifi runs through a well wooded valley. As the river flows west so the flood plain becomes broader. The valley immediately west of Lampeter is noted for the number of hedgerow and field trees it contains, although there is less woodland in this part of the valley than further downstream.

As the river flows through Maesycrugiau it becomes very narrow and gorge like. The river and its valley dominate this landscape and the area feels secluded. This section of the valley is well wooded. There is little new development in this section of the valley. Small farms and traditional houses including road side cottages are the dominant types of settlement.

The Teifi valley between Maesycrugiau and Llechryd is characterised by a particularly attractive balance between woodland (mostly broadleaved) with some conifer woodland) and open fields, notably in the flood plain, with mature trees. The river is frequently visible and with the roads that run either side of the river and this gives the area a feeling of movement in each direction. Views are restricted to the valley floor and its slopes, so there is a sense of being within the valley at all times. Development consists of scattered farms, some small settlements along the roads, and also includes the larger settlements of Newcastle Emlyn and Pentrecwrt.

Cothi Valley - The Cothi Valley can be described in four parts.

As the Cothi runs between Mynydd Mallaen and the North Eastern Uplands Special Landscape Areas the valley is upland in character. The slopes rise from 160m to just over 400m on Mynydd Mallaen. The valley sides are well wooded with an attractive and balanced

mix of broadleaves and some conifers, as well as enclosed and unenclosed grazing, and fridd. Where there is field boundaries these tend to be fairly weak, with some hedge lines becoming lines of trees. Fences are not un-common where hedges have disappeared. In contrast the valley floor is more intensively farmed, with frequent views of the fast-flowing river throughout the area. Farms tend to be positioned at the base of the steep valley sides, at the break of slope. Towards Pumsaint the landscape has an estate character to it - visible in some of the building styles. The road is narrow, the farms scattered, and vernacular styles dominate the building design. There is very little new development in the area.

The Llansawel Basin contains the confluence of the Cothi with a few other rivers - the Marlais, Melinddwr and Twrch. The narrow upland valley in the surrounding area opens out in this section into a much larger river basin creating a much more open lowland landscape. Shingle banks are a feature of this section. The area combines gently rolling land with flatter valley bottom land, the majority of which is improved agricultural land, with a small amount of woodland. The hedgerows and hedgerow trees create the impression of a significant amount of tree cover. At the Glan yr Rannell Hotel there are some elements of a planned parkland landscape. Llansawel is the largest settlement and there are numerous scattered farms.

Between Edwinsford and Brechfa the Cothi valley is well wooded, and downstream of Abergorlech it passes through the Brechfa Forest. This section of the valley is more enclosed that the Llansawel Basin. The lower lying pasture land here is characterised by well-developed hedgerows, and hedgerow and field trees. There are few views of the river itself as its banks are frequently tree lined. The B road runs through the area and passes through the small settlements of Abergorlech and Brechfa.

Down-stream of Brechfa the valley is narrower and more V-shaped than the river upstream of the village - rather more like an upland river. It appears that the Cothi changed its course, having previously followed what is now the Gwili valley to the west of Brechfa. South of Brechfa the deeply incised valley rises steeply to the hills on either side. The valley slopes are a mix of bracken, woodland, new woodland planting and farmland. There are views of the river at a number of places along the valley, particularly where the road and footpath run close to it. Farmland and woodland dominate the lower lying land. This area provides a clear contrast with the more open Mid Cothi valley to the north, and the Llansawel Basin and the Tywi Valley to the south, as the river and more gorge-like, and the valley sides steeper. This section of the valley is sparsely settled with few farms. The course of the river is varied and includes open and shallow areas as well as cuttings through dark rocks. Much of the river bank in this stretch is wooded.

Lower Taf Valley - The SLA includes the river valley from the railway crossing east of Whitland to the estuary, so effectively the lower reaches of the Taf. Much of the area is secluded, and there is little access to. Settlements are restricted to the valley sides. The valley feels empty despite being so close to the main roads. The valleys sides of this stretch of the river are well wooded and contribute to its scenic qualities. Downstream of the A477 the river is tidal, and at the A4066 it enters the estuary where the slopes are less wooded, and the landscape becomes more open, and the character of the landscape changes from being that associated with a river valley to that of an estuary, with areas of salt marsh mud flats. This SLA abuts the Carmarthen Bay and Estuaries SLA

Drefach Velindre - Both the visual and sensory and the historic environment layers of LANDMAP recognise the distinctive landscape of this area. A network of steep well wooded valleys, with linear settlements with a distinct vernacular style - typically small road side terraced cottages, made from locally quarried stone, and larger riverside mills and chapels that reflect the former woollen industry that was thriving here (and in parts of the Teifi Valley) in the 19th and early 20th century. Narrow roads run along each of these valleys. The area has a sense of being very enclosed, sheltered and tucked away, it has a unique character in Carmarthenshire. Agricultural fields are typically small and surrounded by woodland.

Swiss Valley - The landscape of Swiss Valley is an attractive mix of woodland and water. The reservoirs have a natural feel to them and support a variety of aquatic vegetation, the area provides an attractive interface between woodland and water. Swiss valley is easily accessible on foot and cycle from Llanelli and is used for recreation but with the minimum of infrastructure (this does include a cycle path). There are very attractive internal views over the water, and along the river. The valley has a sense of enclosure and feels remote from the busier landscapes that surround them. The woodland in Swiss valley is mostly broad-leaved. The valley is peaceful and unspoilt. While there is no settlement in the valley, it is overlooked by farms in the surrounding countryside.

Talley - The historic part of the village of Talley, centred on the abbey, enjoys an attractive lake side setting that is unique in the county. It has an attractive backdrop of fairly steep slopes that are used either for agricultural or forestry. The Special Landscape Area includes the abbey, church and surrounding dwellings, the lakes and the land that surrounds these features and provides a setting for them. The two connected lakes are an unusual feature and known throughout the county. There are very few lakes in Carmarthenshire. The two lakes are designated as a Site of Special Scientific Interest for the aquatic habitats and species they support. The B road runs through the more modern part of the village and traffic on it can be heard most of the time.

Gwendraeth Levels - These are the low-lying flood plain grazing meadows on former marsh land that are often flooded in the winter months. Despite being relatively wet this area continues to be managed largely for agricultural. The rectilinear fields are broken up by wide tall hedges and drainage ditches. In places these tall hedges create a feeling of enclosure, elsewhere these landscapes usually appear very open, and wind swept (e.g. Gwent Levels). There are few dwellings, few roads, other than the main road, and where these occur, they tend to be straight. In addition to the agricultural land, the area includes a variety of wetland habitats, ponds, fens giving the area a more naturalistic appearance, and the capacity to support wildlife. Largely un-spoilt, the area remains rural in character. There is an important historic dimension to this landscape as it was created as a result of draining wetlands and constructing sea defences to hold back the sea water that began in 1609 and continues into the mid19th century with the enclosure of fields. The Gwendreath Levels SLA abuts Pembrey Mountain SLA and this area provides an important and unspoilt backdrop to the levels

Uplands

North Eastern Uplands - An extensive area of rolling upland area characterised by unenclosed grazing land and some large coniferous forestry blocks, which are considered to be an integral part of this landscape. The area also includes small pockets of enclosed improved land near the isolated farms, but the majority remains unenclosed. The mix of habitats and vegetation cover within these open unenclosed areas provides texture in this landscape, and includes marshy grasslands, wetland vegetation in the shallow river valleys, bracken on the steeper land, some fridd habitat, small areas of heath land habitat etc. Small rocky outcrops occur throughout the area, adding further variety. There are few broad-leaved trees, and these are more frequent in the shallow river valleys. These different elements add variety to the area. There are only a few small roads in the area and farm tracks, barely any settlement. As an area it feels sparsely populated. North of Ffarmers there are areas where, unusually in Carmarthenshire, some of the field boundaries are stone walls. There is relatively little new development here, other than new agricultural barns. There are extensive views within the area and into the surrounding valleys; there are also longer views to the Brecon Beacons. The area feels remote, exposed, and elevated and largely empty of people. On the county boundary Llyn Brianne forms a part of this Special Landscape Area.

Mynydd Mallaen - Mynydd Mallaen is an exposed area of un-enclosed grazed upland plateau, dominated by heathland and wetland plant communities with, bilberry, heather and wet heath mosaic. The plateau drops down into the surrounding valleys through fridd habitats, grassland,

rocky scree in places and woodland. The area is Common Land with open access. The plateau is marked by one or two cairns; otherwise, it creates a very gently almost level skyline. There are tracks across the area. There are no trees, nor field boundaries, but several rocky outcrops and wet depressions. There area provides extensive views in all direction, and feels extremely exposed, wild, empty and isolated.

Llanllwni Mountain – This is an area of unenclosed heather moorland, positioned on a rolling plateau positioned along the watershed between the Teifi and the Cothi valleys. Bronze aged burial mounds are discernable on the main ridge and provide a sense of our impact on this landscape over millennia. There are extensive views in all directions from the plateau, particularly notable are the views north-west over the Teifi Valley and south east towards the Brecon Beacons. The areas is Common Land with open access, and is grazed by sheep and ponies, and regularly burnt. The roads that cross the area are used infrequently, and while they permit easy access to the mountain, it has a feeling of being exposed, and of being wild, and empty. The farms that abut the mountain are positioned below it on the enclosed land. It is one of few areas in the county that is devoid of settlement.

Carmarthenshire Limestone Ridge - This undulating ridge (reaching 280m AOD) of higher exposed upland is the only extensive area of limestone in Carmarthenshire. The ridge has a distinct and varied landscape, which includes unenclosed common land e.g., Mynydd Llangynderine and Mynydd y Garreg, with bracken and heather and rock exposures, the limestone quarries at Crwbin and Cilyrchen, and extensive areas of small fields, mature hedges and woodland e.g. Carmel (which include Carmel Woods NNR). Llyn Lech Owain Country Park lies on the ridge. The ridge provides views over the adjacent valleys and over much of south Carmarthenshire. It is crossed by several roads, the busiest being the A48(T) but is also very tranquil in parts, e.g Myndd y Cerrig. Settlements include scattered farms and linear settlements that are often related to the quarries, and this is reflected in the vernacular architecture.

Pembrey Mountain - Pembrey Mountain rises steeply from the Gwendreath Levels forming and important back drop to this area, and hence its recognition as a Special Landscape Area. The slopes are now mostly wooded with a mix of broadleaves and conifers, and from the ridge (100m AOD) there are extensive views over the levels and Carmarthen Bay towards Caldy Island. When the sea encroached further inland over the Gwendreath Levels, the slopes of Pembrey Mountain would have formed the coastal cliffs. The mountain has a rich and diverse archaeology, that includes iron-age hill forts, possible bronze-age barrows, evidence of Medieval ridge and furrow as well as quarries and coal pits.

Mynydd y Betws - This is an extensive area of exposed undulating upland moorland extending into the Swansea. It is an area of unenclosed, grazed common land, with a mix of grasses and some smaller areas of heather, and wetland habitats. There are impressive views from Mynydd y Betws over south-east Carmarthenshire and towards the Brecon Beacons. The area is interrupted by the road that crosses the mountain and where this enters the common on its northern side at Scot's Pine, by the telegraph poles and larger pylons and a mast. These elements detract from the integrity of the area, but this is restricted to this small part of the whole. Elsewhere within the area there is a considerable degree of unity and little interrupts the rest of this landscape. It is one of five extensive area of unenclosed moorland in the county. There are no trees or shrubs in this area and there is a striking difference between this area and the enclosed land at lower elevations on the northern slopes. Today there are no settlements here, but the area is rich in archaeology, with several sites clearly discernable on the ground, illustrating the history of this area.

Carmarthen Bay and Estuaries

This SLA contains several distinct landscapes, which should be considered as a continuum. The SLA wraps around Carmarthen Bay and includes:

Coastal Hills: Marros – Pendine, Llanybri, Llansaint and Pembrey Coastal hills:

Coastal slopes: Marros to Wharley Point and St Ishmael's coastal slopes:

Estuary slopes: the slopes above the estuaries i.e. the slopes on either side of the Taf and Tywi rivers where they are within the estuary:

River estuaries: the rivers channels, and associated mud flats at low tide:

Coastal grazing marsh: West Marsh, East Marsh south of Laugharne, south of Kidwelly;

Sandy beaches: Marros, Pendine and Cefn Sidan;

Sand dunes: Pendine and part of Cefn Sidan;

Salt marsh: This occurs in several areas within the estuaries, and near the coast e.g Pembrey Saltings;

Settlements: Pendine, Laugharne, Llansteffan and Ferryside.

The Carmarthen Bay and Estuaries SLA includes all the landscapes that contribute to our coastal and estuary landscapes. It is often the juxtaposition of one landscape with another such as salt marsh and the river, or the wooded estuary slope and the river channel that together create a landscape of high scenic quality.

The coastal hills provide the backdrop to the bay and the estuaries, and from them there are fine views over the sea. Being close to the coast, and elevated these hills are exposed, and this is demonstrated by the windswept trees.

The coastal slopes are usually characterised by rough non-agricultural land with bracken and scrub, again often sculpted by the wind. They are exposed, and usually face the sea. They are located between the hills and the lower lying beaches or marshes.

The estuary slopes are the more sheltered slopes between the hills and the river estuaries. In the Tywi estuary they tend to be particularly well wooded, but also include some agricultural land. The river estuaries include the river channel. These are tidal and at low tide include mud flats. East and West Marsh are the largest areas of coastal grazing marsh in Carmarthenshire. West Marsh has been developed for military purposes and so is relatively disrupted and has scrubbed up somewhat because of becoming drier. East Marsh is still managed in a traditional way for grazing but has also been subject to some development. It is more open, windswept, and empty than West Marsh. These landscapes are typically open windswept and empty, are of importance for the biodiversity they support. They are also of historic interest as well as these areas only came into existence once land could be drained. The three beaches are some of the longest in Wales. Pendine and Cefn Sidan are well known as holiday destinations. When the tide is out there are extensive areas of sand, and views out to see and along the coast.

The sand dunes about the beaches and their landscape is typical of any dune system. Efforts are being made to control the sea buckthorn has been spreading within the Cefn Sidan dune system. The salt marsh is an integral and distinctive part of the estuary and coastal landscape, and one which provides a free and natural sea defence. The salt marsh usually abuts mud flats which are exposed at low tide. The salt marshes are typically dissected by muddy creeks and support plants that can tolerate the saline conditions, and these are two of the features of the salt marsh that make this landscape so distinctive. Salt marshes are exposed and windy places, with no shelter. The three settlements – Laugharne, Llansteffan and Ferryside within

the SLA each have a distinct character. Ferryside is the only one on the railway, which is a feature of the Tywi estuary. Laugharne is the most urban of the three, and has developed around its castle, whereas the castle at Llansteffan is in an elevated position above the village.

Predicted Effect Without Implementation of the LDP

As the current LDP allocations are built out and housing land supply falls, development pressure will begin to encroach onto currently designated open countryside in a sporadic and uncoordinated manner. Designated sites and protected habitats and species should be safeguarded through other legislation. In the absence of LDP policy, multi-functional benefits or ecosystem services of the wider landscape and its connectivity would not necessarily be recognised or safeguarded. This could have significant consequences through jeopardising the effective management of the impacts of climate change and result in habitat fragmentation which is very damaging for biodiversity. Currently, new development should be integrated with the landscape and seascape as this is a requirement of LDP Policy, however the Plan's status weakens once the Plan period expires.

10. Population

Population estimates are produced by the Office for National Statistics (ONS), and consider births, deaths, and an estimate of migration between the last census and the middle of the current year. In 2017, the population of Carmarthenshire is estimated at 186,452, accounting for 5.96 per cent of the Welsh population. By 2020, both these figures increased with the population of Carmarthenshire is estimated at 190,073, accounting for 5.99 per cent of the Welsh population. The age profile of the local population is shown in Table 6.

_	Carmarthenshire		Wales 2018		Carmarthenshire		Wales 2020	
Age Band (Yrs)	Population	%	Population	%	Population	%	Population	%
0-4	9,621	5.2	170,709	5.5	9,259	4.9	161,341	5.1
5-15	23,274	12.5	388,551	12.4	23,897	12.6	401,389	12.7
16-24	17,520	9.4	359,361	11.5	17,430	9.2	345,604	10.9
25-44	40,302	21.6	742,574	23.8	41,070	21.6	763,589	24.1
45-64	52,264	28.0	827,015	26.5	52,724	27.7	829,073	26.2
65-74	24,224	13.0	356,622	11.4	24,841	13.1	361,841	11.4
75+	19,247	10.3	286,647	9.2	20,852	11.0	306,749	9.7
Total	186,452	100	3,125,165	100	190,073	100	3,169,586	100

Population Projections

Projections estimating the future population of Carmarthenshire vary greatly yet remain an important factor in informing and justifying the preferred growth strategy of the Plan. This ensures that the needs of future generations are considered and properly met. StatsWales states that "population projections provide estimates of the size of the future population, and are based on assumptions about births, deaths, and migration. The assumptions are based on past trends. Projections only indicate what may happen should the recent trends continue. Projections done in this way do not make allowances for the effects of local or central government policies on future population levels, distribution, and change" ⁷⁸. The fifth set of population projections published by Welsh Government provides projections from the base year of 2018, through the projection period to 2043 (Figure 29).

https://statswales.gov.wales/Catalogue/Population-and-

⁷⁷

Migration/Population/Estimates/nationallevelpopulationestimates-by-year-age-ukcountry https://statswales.gov.wales/Catalogue/Population-and-Migration/Population/Projections/Local-Authority/2018-based/populationprojections-by-localauthority-variant-year

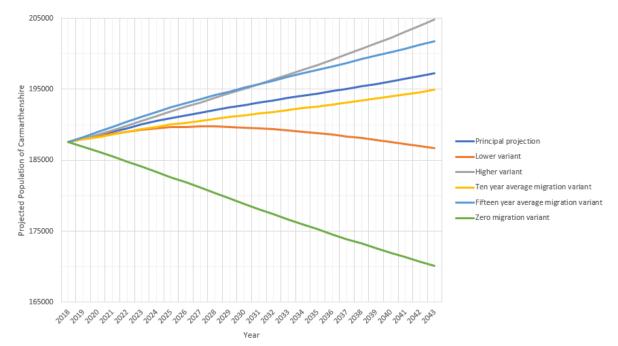


Figure 29. 2018-based population projections for Carmarthenshire, 2018 to 2043, using different variants ⁶⁷.

The publication of the 2014 Local Authority-based population provided the first indication of population change at a sub national level since the 2011 census. Figure # indicates and compares the latest projections for the plan period for the Revised LDP with that produced as part of the current LDP and the original Welsh Government local authority-based projections in 2006. The 2011 and 2014 based projections indicated a projected population of 193,874 and 187,079 respectively at 2021. This limited level of population change is projected to continue through the lifetime of the revised LDP with 2033 indicating a County population of 189,317. These projections indicate a downward trend in population growth compared to the previous 2006-based and 2008-based projections. The future pattern of demographic change will be subject to further evidence gathering as part of the revised LDP ⁷⁹ (Figure 30).

⁷⁹ Stats Wales <u>https://statswales.gov.wales/Catalogue/Population-and</u> <u>Migration/Population/Projections/Local-Authority/2014-</u> based/populationprojectioncomponentsofchange-by-localauthority-year

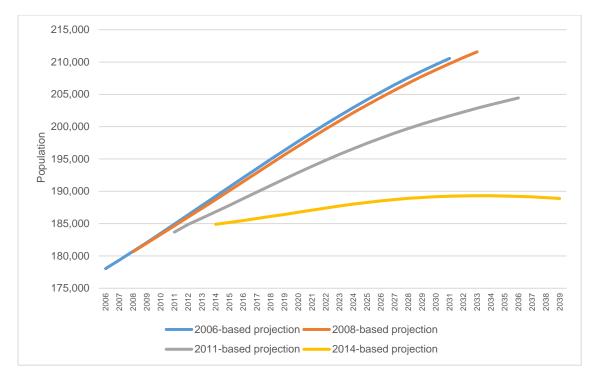


Figure 30. Variance in Carmarthenshire's Population Projections as contained within Carmarthenshire Local Development Plan Review Report.

In consideration of the proposed Plan of 2018–2033, the principal projections within the 2014 based population projection suggests an increase in the population of 3,207 persons. These projections will need to be given careful consideration and reflect other relevant factors which impact upon the future development and housing needs, not least the household projections for the County. The 2011-based and 2014-based household projections have indicated a significant reduction in household numbers from that projected within both the 2006 and 2008 based projections.

NB: Due to the variances described, a specific report has been commissioned by Carmarthenshire County Council to provide further clarity on the matter.

Population Density

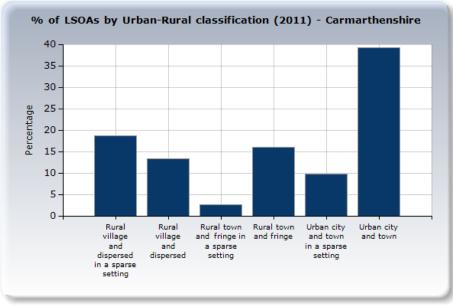
Population density provides a measure of the number of people living in an area. This varies across the County with higher densities in the urban areas than the rural areas with Carmarthenshire having a total land area of 2370km². This makes it the third largest local authority by area in Wales. However, the average density for Carmarthenshire is 78.3 persons per square kilometre, which makes it the fifth lowest in Wales. This is significantly lower than the Welsh average of 150.1 persons per kilometre square⁸⁰. There are three major towns in Carmarthenshire which form a pivotal role at the centre of the Plan's Growth Areas. The three towns of Llanelli, Carmarthen and Ammanford are home to 25% of the County's population. 60% of the population live in rural areas, which form 53% of the County⁸¹. 39.3% of Lower Super Output Areas (LSOAs) within the local authority of Carmarthenshire are classed as 'Urban city and town' in the 2011 urban-rural classification of small area geographies, this is

 ⁸⁰ Stats
 Wales:
 <u>https://statswales.gov.wales/Catalogue/Population-and-Migration/Population/Density/populationdensity-by-localauthority-year</u>

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 Carmarthenshire
 Draft
 Wellbeing
 Plan:

 http://www.thecarmarthenshirewewant.wales/media/8285/carms-well-being-plan-final-draft-051017english.pdf
 Example 1

the highest proportion within Carmarthenshire. The County has no LSOAs in Deep-Rooted Deprivation ⁸² (Figure 31).



Source: Office for National Statistics

Figure 31: Migration between Carmarthenshire and the rest of the UK by flow and period of change ⁸³.

Migration

The following illustrates the role migration plays within Carmarthenshire with as a rule in migration from the rest of the UK compensating in numerical terms for ongoing issues in terms of out migration. The following illustrates the migration pattern between 2007 and 2020 (Table 7 and 8).

Table 7: Migration between Carmarthenshire and the rest of the UK by flow and period of change	
84	

Period	Inward (+)	Outward (-)	Net Migration (-/+)
2006 to 2007	6780	5250	1540
2007 to 2008	6190	5180	1010
2008 to 2009	5920	5520	400
2009 to 2010	5690	5490	200
2010 to 2011	6020	5190	820
2011 to 2012	6472	6001	471
2012 to 2013	6220	5881	339
2013 to 2014	6286	6078	208

 https://statswales.gov.wales/Catalogue/Community-Safety-and-Social-Inclusion/Welsh-Index-of-Multiple-Deprivation/Deep-rooted-Deprivation/Isoasindeeprooteddeprivation
 ⁸³https://statswales.gov.wales/Catalogue/Population-and-Migration/Migration/Internal/ migrationbetweenwalesandrestofuk-by-localauthority-flow-periodofchange
 ⁸⁴https://statswales.gov.wales/Catalogue/Population-and-Migration/Migration/Internal/ migrationbetweenwalesandrestofuk-by-localauthority-flow-periodofchange

2014 to 2015	6318	5768	550
2015 to 2016	6702	6080	622
2016 to 2017	6931	6047	884
2017 to 2018	7241	5672	1569
2018 to 2019	7409	5919	1490
2019 to 2020	6609	4847	1762
14-year Total	90788	78923	11865

 Table 8: Migration ages within Carmarthenshire in the year 2019–2020⁸⁵.

Age	Inward (+)	Outward (-)	Net Migration (-/+)
0 to 14	785	557	228
15 to 29	2360	2063	297
30 to 44	1235	963	272
45 to 64	1484	790	694
65+	745	474	271
2019–2020 Total	6609	4847	1762

Housing Stock

Figure 32 indicates the dwelling stock estimates by tenure within Carmarthenshire.

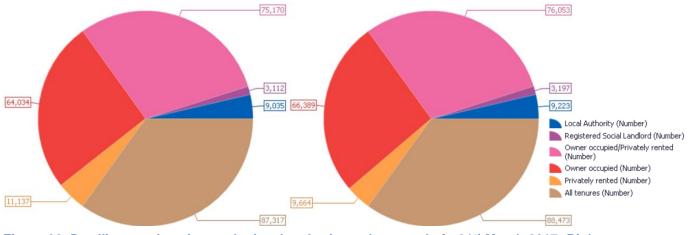


Figure 32. Dwelling stock estimates by local authority and tenure. Left: 31st March 2017; Right: 31st March 2020 ⁸⁶.

⁸⁵

https://statswales.gov.wales/Catalogue/Population-and-Migration/Migration/Internal/migrationbetweenwalesandrestofuk-by-localauthority-flow-sex-age ⁸⁶ https://statswales.gov.wales/Catalogue/Housing/Dwelling-Stock-Estimates/dwellingstockestimatesby-localauthority-tenure

Predicted Effect Without Implementation of the LDP

There would be no allocated land for housing, and once the current LDP housing supply is exhausted, development would take place in an uncoordinated piecemeal manner. There would be a lack of adaptation to the predicted changes in population and social structure, which may threaten the cohesion and well-being of communities and the viability of schools, businesses, and services. There would likely be unsustainable housing development on Greenfield sites away from existing education facilities and community services, badly served by public and Active Transport routes which may lead to less social activity and greater social exclusion. It is likely that existing deprived areas would experience little regeneration or any of the community benefits linked to new development. The provision of affordable housing would remain low and the increase in demand for affordable homes, particularly for the elderly would not be met. Increasing population will put pressure on education services and ad hoc development may result in residential areas not being served by existing educational facilities and contributions from developers to fund new provision may not result in facilities being developed at an appropriate stage of development.

11. The Welsh Language

The Welsh language plays an important role in the social, cultural, and economic life of Carmarthenshire's residents and visitors. The Welsh Language (Wales) Measure 2011 is the legislation that created the Welsh language standards which promote and facilitate the Welsh language, and ensure that the Welsh language is not treated less favourably than the English language in Wales⁸⁷. The 2011 Census indicated that there were 78,048 Welsh speakers amongst Carmarthenshire's population. Carmarthenshire has the highest number of Welsh speakers in Wales and has the fourth highest proportion of Welsh speakers at 43.9% (2011 Census data). There is a significant variation in the numbers and proportions of Welsh speakers across Wales but on average 29.1% of people aged three or over were able to speak Welsh (as of March 2021)⁸⁸. During the period between the 1991, 2001 and 2011 Censuses, the percentage of Welsh speakers in Carmarthenshire has decreased from 54.9% to 43.9%. Carmarthenshire also experienced the second largest decrease in the percentage of Welsh speakers decrease of 7.1%). In the time between 2001 and 2011 Carmarthenshire experienced the highest decrease at 6.4%.

The Welsh Language Use Survey 2015 contains information by local authority on Welsh language ability and usage. The survey notes that 80,700 of Carmarthenshire's population noted that they could speak Welsh. This has increased since the 2011 Census results which showed that 78,048 of the population could speak Welsh. The decline in the proportion of Welsh speakers since 1991 is not unique to Carmarthenshire and the decrease in Welsh speakers is a trend witnessed throughout the majority of Wales but in particular in the areas of Wales traditionally known as the Welsh heartlands ('Y Fro Gymraeg'). Other areas in the traditional heartlands such as Anglesey, Gwynedd and Ceredigion have also seen a decrease in Welsh speakers and the Welsh Government have raised concerns over the sustainability of the language in these traditionally Welsh-speaking areas. Avenues of language transmission are explored within the latest Welsh language use survey (Welsh in the home and in education: July 2019 to March 2020)⁸⁹. For the year ending 31 December 2021, the Annual Population Survey reported that 29.5% of people aged three or older were able to speak Welsh. This number equates to around 892,200 people (Figure 33). This is 0.4 percentage points higher than the previous year (year ending 31 December 2020), equating to around 9,200 more people 90 .

 ⁸⁷ <u>https://www.welshlanguagecommissioner.wales/public-organisations/welsh-language-standards</u>
 ⁸⁸ <u>https://statswales.gov.wales/Catalogue/Welsh-Language/Annual-Population-Survey-Welsh-Language</u>

⁸⁹ <u>https://gov.wales/welsh-home-and-education-welsh-language-use-survey-july-2019-march-2020-</u> html

⁹⁰https://gov.wales/welsh-language-data-annual-population-survey-

^{2021#:~:}text=For%20the%20year%20ending%2031%20December%202021%2C%20the,December%202020%29%2C%20equating%20to%20around%209%2C200%20more%20people.

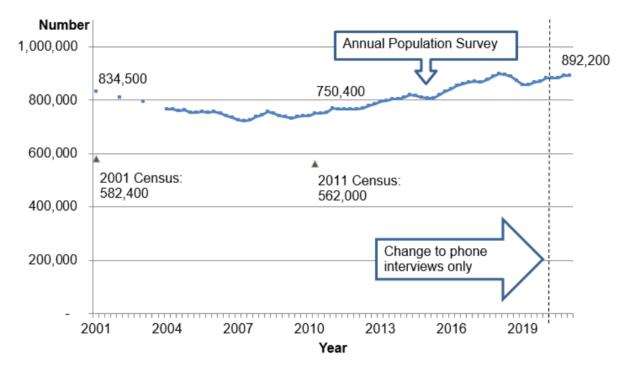


Figure 33. Number of people aged three or older able to speak Welsh, 2001 to December 2021 ⁹¹.

The proportion of Welsh speakers varies across Carmarthenshire. Figure 34 shows a breakdown of the proportion of Welsh speakers in each electoral Ward as indicated in the 2011 Census. NB: At time of writing, the lastest data on the Wlesh lanagage obtained from the most recent census is yet to be published.

⁹¹https://gov.wales/welsh-language-data-annual-population-survey-

^{2021#:~:}text=For%20the%20year%20ending%2031%20December%202021%2C%20the,December %202020%29%2C%20equating%20to%20around%209%2C200%20more%20people.

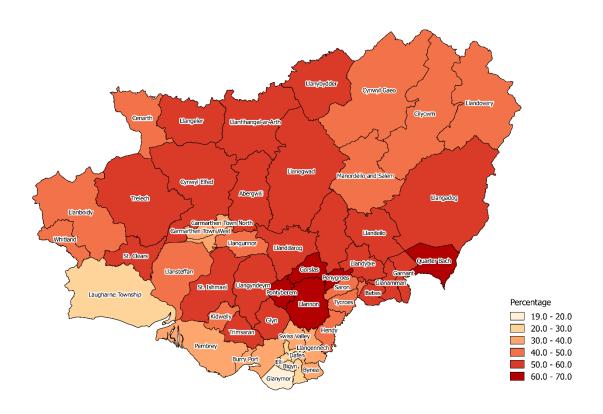


Figure 34. Percentage Welsh speakers by ward ⁹².

The Welsh Government's Welsh language strategy, Cymraeg 2050: A million Welsh speakers, notes the Government's ambition of reaching a million Welsh speakers by 2050⁹³. A projection of the number of Welsh speakers aged three and over up to 2050 was produced as part of the strategy. In addition to this, a trajectory was developed to demonstrate one possible path of reaching a million Welsh speakers by 2050, based on the policy intentions of the strategy⁹⁴.

Predicted Effect Without Implementation of the LDP

The adopted LDP defines Language Sensitive Areas which are communities with a significant proportion of Welsh speakers where proposals for the provision of housing and employment will have the most impact upon the future vitality and viability of the Welsh language. The Language Sensitive Areas in the LDP are based on the 2001 Census and do not reflect the most recent Census Data which shows a general decline in areas where there is a high concentration of Welsh speakers, particularly in the traditional Welsh speaking heartlands. There is however an increase in the overall number of Welsh speakers, particularly in school age children. National legislation and PPW ensures the impact of development on the Welsh language is considered when assessing planning applications, but without the Plan there would be no local policy which specifically requires developers to consider the impact of the social fabric.

⁹²https://statswales.gov.wales/Catalogue/Welsh-Language/Census-Welsh-Language/welshspeakersby-ediv-2011census

⁹³ https://gov.wales/cymraeg-2050-welsh-language-strategy

⁹⁴ https://statswales.gov.wales/Download/File?fileId=539

12. Health and Well-being

Review of the Carmarthenshire Well Being Assessment 2017

Carmarthenshire is the third worst county in Wales for levels of childhood obesity with 30.7% of 4–5-year-olds being overweight or obese, almost 5 percentage points higher than the Welsh average of 26.2%. Projections suggest an increase in trends for childhood obesity going forward with figures showing males between the ages of 2 – 15 being at greatest risk. There is a strong link between childhood and adulthood obesity and many of the associated chronic health problems such as Type 2 diabetes and coronary heart disease are likely to continue to also increase in the future therefore posing threats to the well-being of children now and in later life.

Obesity is more prevalent in disadvantaged communities and European research suggests increased prevalence in rural areas, although research in the UK has found no significant association. However, there is some evidence that people who do engage in the natural environment are less likely to be overweight. Given Carmarthenshire's extensive natural assets and the additional positive effects on psychological and cultural well-being the environment offers, the promotion of opportunities to engage in the natural environment may be an area which can help improve well-being.

A fundamental means of tackling levels of obesity is engaging children in physical activity. Assessment engagement activity with primary school children showed being physically active to be the second most important factor for positive well-being of children aged 6–11, after connections with family and friends. The Carmarthenshire school sports survey 2015 identified similarly high levels of Engagement in sport suggesting a positive relationship with physical activity. It is noted that the Carmarthenshire Play Sufficiency Assessment reported that 90% of children stated that playing makes them feel happy and 49% reported that play made them feel active

It is stated that throughout adolescence, as curiosity meets opportunity, there are various experiences on offer to young people, not all of which can have positive outcomes or effects on well-being. It is noted that the highest reports of young people currently smoking at least weekly in Carmarthenshire were 8 per cent of boys in year 9 and 19 per cent of girls in year 11. Smoking amongst boys was more persistent throughout secondary school. In addition, the highest number of students reporting having tried electronic cigarettes was over a third of girls aged 14–16. Although there has been national concern about levels of alcohol related crimes and incidents involving young people, Carmarthenshire has seen a steady decline in the number of such reported incidents from 87 in 2014 to 49 in 2016. From January to November 2016, 16% of drug offences in Carmarthenshire involved an offender under the age of 18 with most offences (102 crimes) relating to possession of cannabis.

28% of Carmarthenshire's adults suffer from mental health issues, slightly above the Welsh average of 26%. Poor psychological and emotional wellbeing can act as a barrier to full participation in society. For example, issues such as confidence, anxiety, fatigue, and stigma can limit an individual's capacity to interact with others or to find work. It is stated that health has a significant effect on wellbeing. The 2011 census indicates that 16% of Carmarthenshire residents described their health as 'fair', 6% as 'bad' and 2% as 'very bad'. The 2017 survey probed this further by looking at impacts and found that, of those with a health issue affecting their well-being, 64% said they could not do the things they enjoy'; 41% said they need or rely on help to manage day to day and 32% said it 'puts a strain on their personal relationships'. In 2013, the number of Carmarthenshire residents aged 65 and over diagnosed with dementia was 2,783. By 2030, it is predicted that this number will reach 4,371, a rise of 1,588, (57%) in line with the Welsh average.

Although the life-expectancy rate in Carmarthenshire is in line with the Wales average, there is a significant gap of 18.5 years between those from the least and most deprived areas. Likewise, as with infant mortality rates, premature death (under the age of 75) is substantially more common in deprived communities. This is particularly the case for males who have a 33% excess death rate compared to those from affluent communities. This demonstrates the impact of deprivation on physical well-being throughout life. Responses to the assessment survey indicate that good health is the single most important factor to overall happiness, contentment, and life satisfaction. Almost 8 in 10 (79%) respondents said it was important now, and 61% thought it would be important to them in the future.

Since 2011, the Office for National Statistics (ONS) has asked personal well-being questions to adults aged 16 years and over in the UK to better understand how they feel about their lives⁹⁵. The well-being questions are: Overall, how satisfied are you with your life nowadays?; Overall, to what extent do you feel the things you do in your life are worthwhile?; Overall, how happy did you feel yesterday?; Overall, how anxious did you feel yesterday?.

People are asked to respond on a scale of 0 to 10, where 0 is "not at all" and 10 is "completely". In Carmarthenshire, 2017/18 survey results show that responses with average response in terms of anxiety has dropped from 3.2 in 2011/12 to 2.8 in 2017/18 (Figure 35). Happiness was shown to increase over the same period from 7.2 to 7.7 (Figure 36). This trend is also mirrored by life satisfaction (7.3 to 7.7) (Figure 37) and feeling things in life were worthwhile (7.6 to 7.9) (Figure 38) over the same period.

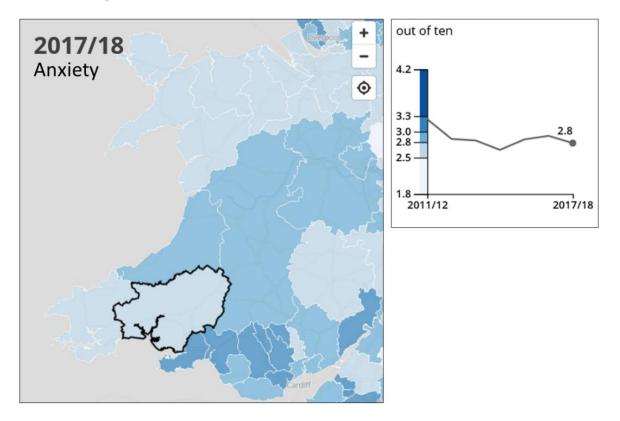


Figure 35. Personal well-being map of responses to the question 'Overall, how anxious did you feel yesterday?' displaying weighted mean averages March 2018

95

https://www.ons.gov.uk/peoplepopulationandcommunity/wellbeing/bulletins/measuringnationalwellbeing/july2017tojune2018

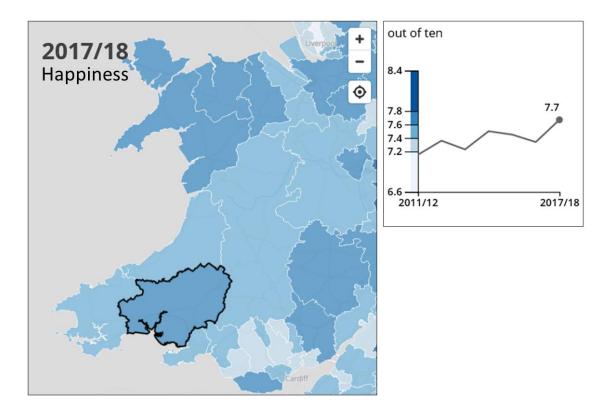


Figure 36. Personal well-being map of responses to the question 'Overall, how happy did you feel yesterday?' displaying weighted mean averages March 2018

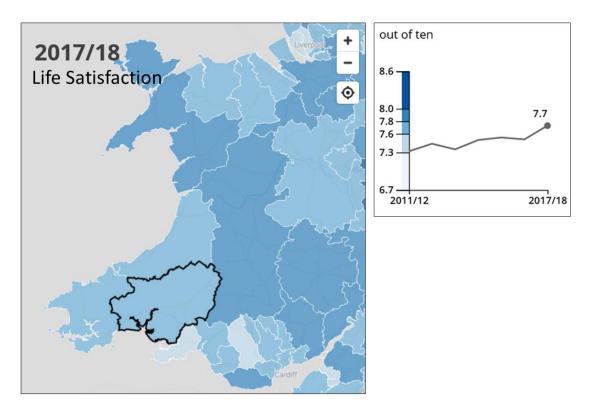


Figure 37. Personal well-being map of responses to the question 'Overall, how satisfied are you with your life nowadays?' displaying weighted mean averages March 2018

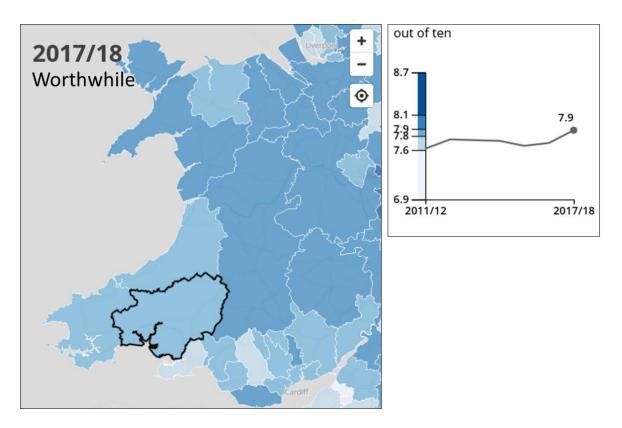


Figure 38. Personal well-being map of responses to the question 'Overall, to what extent do you feel the things you do in your life are worthwhile?' displaying weighted mean averages March 2018

South West Area Statement – Mental Health

The south west area statement reports a clear divide in mental health between Pembrokeshire, where most LSOAs are in the lowest score quintile (0 - 0.25), West/Mid Carmarthenshire, where the majority of LSOAs are in the mid score quintile (0.5 - 0.75), and North/South East Carmarthenshire, South West Swansea, and South East Neath Port Talbot where the majority of LSOAs are in the higher score quintile 1. Research and reports on mental health have underlined a strong correlation between low levels of mental health and high levels of deprivation. Research on factors of low mental health have also underlined subjective personal deprivation as an influential factor of low levels of subjective personal deprivation and low levels of education, household earnings and social support. Studies have also shown a correlation between low levels of mental health as low levels of decision latitude and social support in one's job, and lack of access to greenspace. The prevalence of these factors is higher in more deprived areas, compared to less deprived areas (Figure 39).

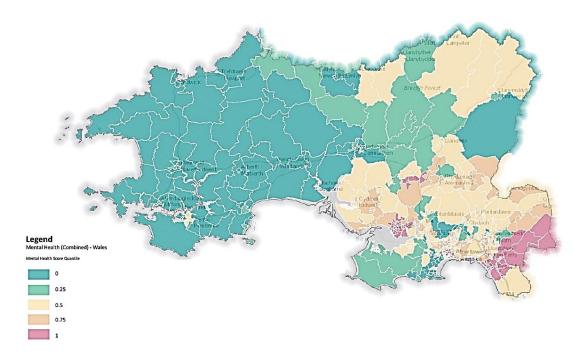


Figure 39. 2 Mental Health Score Quantile for South West Area. Source South West Area Statement, NRW.

South West Area Statement – Physical Health

Maps for both mental health scores and physical health scores follow a similar trend, however, one major difference between mental and physical health scores can be observed in the north of the area, between Llandovery, the Brechfa Forest, and Llanybydder, where two Lower Super Output Areas (LSOAs) which scored in the highest quintile for mental health, now score on the lower quintiles 0 and 0.25 - for physical health score. No discrepancy can be observed between mental health and physical health scores, and both scores seem to be correlated with each other, as studies mentioned earlier suggest (Figure 40).

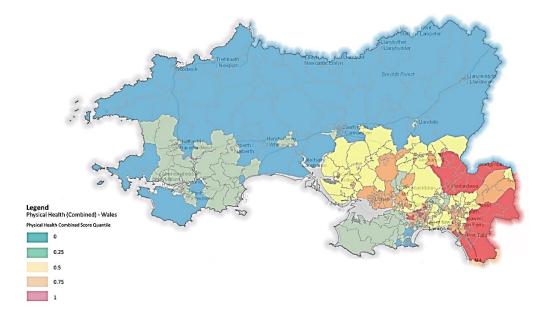


Figure 40. Physical Health Score Quantile for South West Area. Source South West Area Statement, NRW.

Potential reasons for lower for physical health. Potential factors for such low scores include a higher proportion of older population (aged 55+) in Pembrokeshire, compared to the other three local authorities, and the whole of Wales. Studies have shown that morbidity and presence of physical health problems were more prominent in population aged 64+ and increased over time. Other factors include lack of access to greenspace, and rural exclusion linking to 'access to service' deprivation.

Predicted Effect Without Implementation of the LDP

There would be no allocated land for housing, and once the current LDP housing supply is exhausted, development would take place in an uncoordinated piecemeal manner. There would be a lack of adaptation to the predicted changes in population and social structure, which may threaten the cohesion and well-being of communities. There would likely be unsustainable housing development on sites away from existing health facilities, open space provision and community services. There would also be no consideration of access to Active Transport routes which may lead to less physical activity. Increasing population will put pressure on health and well-being services and ad hoc development may result in residential areas not being served by existing facilities and contributions from developers to fund new provision may not result in facilities being developed at an appropriate stage of development.

13. Education and Skills

Review of the Carmarthenshire Well Being Assessment 2017

Research by The Institute of Education suggests that attending a good preschool and primary school can have more impact on children's academic progress than their gender or family background. Three quarters (76%) of Carmarthenshire's primary schools are classed as "green" (best performing in Wales) or "yellow" (effective) schools under the Welsh Government's School Categorisation with none in the red (in need of improvement) category. 87% of children achieved expected outcomes at Foundation phase and 89% at Key Stage Two. Studies have shown that emotional well-being and good attention skills are important factors in academic progression at primary school level and into the future. Carmarthenshire is the 7th highest performing authority in Wales for pupils achieving at least 5 GCSE's A*-C however there continues to be significance is parity between the performance of pupils eligible for Free School Meals (FSM) and the general cohort. Likewise, just 46% of LAC attained the same qualifications. This highlights the potentially negative effect poor socioeconomic and/or adverse childhood circumstances can have on young person's outcomes. 12.5% of Carmarthenshire's working age population currently have no qualifications however in the last three years no children have left compulsory education, training or work-based learning without an approved external qualification in Carmarthenshire. Despite this 69-year 11 school leavers in 2016 were recorded as not in employment, education or training (NEET), which is an increase of 0.4% on the previous year. This demonstrates the importance of linking education to demands of the local labour market; details of which can be found in the Regional Employment and Skills Plan 2016.

Retention of youth is a fundamental cornerstone of a sustainable economy and communities. However, more young people aged 15–29 left Carmarthenshire than entered in 2014-15, despite the County's university and further education campuses. This could be in part due to the sense of a lack of suitable job opportunities for young people in the County identified through the assessment survey. 50% of respondents aged 16–24 disagreed that there were suitable job opportunities for them in the local area. Young people participating in the Youth Council Forum expressed a desire for more apprenticeships and companies taking on young people with a view to developing and training them. This stresses the significance of creating sustainable and progressive jobs in Carmarthenshire to retain and attract young people to the County and which recognise that learning and development doesn't stop when you leave the school environment.

Predicted Effect Without Implementation of the LDP

Increasing population will put pressure on education services and ad hoc development may result in residential areas not being served by existing educational facilities and contributions from developers to fund new provision may not result in facilities being developed at an appropriate stage of development.

14. Economy

In 2016, 84,700 people were employed in Carmarthenshire. This was the second year in succession where the total had risen by 4% compared to the previous year. The trend in total employment is shown in Figure 41.

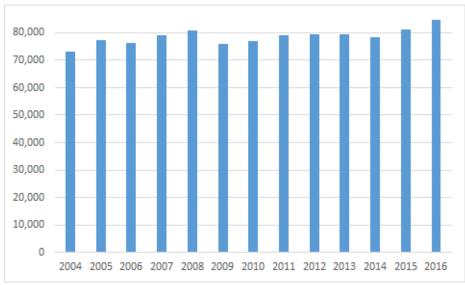


Figure 41. Employment Trends 2004 – 2016. Source: Carmarthenshire Employment Sectoral Needs Study. Years bottom, Employment Left.

The Office for National Statistics data for 2016 on employee jobs by industry for both Carmarthenshire and Wales are set out in Table 9.

Industry	Carmarthenshire (%)	Wales (%)
B: Mining and quarrying	0.0	0.2
C: Manufacturing	11.9	11.4
D: Electricity, gas, steam and air conditioning supply	0.4	0.6
E: Water supply; sewerage, waste management and remediation activities	0.4	0.9
F: Construction	6.0	5.5
G: Wholesale and retail trade; repair of motor vehicles and motorcycles	16.4	15.1
H: Transportation and storage	3.0	2.9
I: Accommodation and food service activities	9.0	8.9
J: Information and communication	1.2	2.3
K: Financial and insurance activities	0.9	2.3
L: Real estate activities	1.3	1.6
M: Professional, scientific and technical activities	3.0	4.2

Table 9. Employee Jobs by Industry – Carmarthenshire and Wales ⁹⁶

⁹⁶ <u>https://www.nomisweb.co.uk/reports/Imp/Ia/1946157392/report.aspx</u>

N: Administrative and support service activities	5.2	6.6
O: Public administration and defence; compulsory social security	6.7	6.8
P: Education	10.4	10.1
Q: Human health and social work activities	19.4	16.1
R: Arts, entertainment and recreation	2.2	2.5
S: Other service activities	1.3	1.5

In 2016, over 30% of the total were employed in the public sector (e.g., in public administration, education, health and social services). 8,000 positions (11.9% of the total) were in the manufacturing sector and 11,000 (16.4% of the total) were employed in the wholesale and retail sector. Self-employment also forms a high proportion of the total in Carmarthenshire with over 15,200 people categorised as self-employed in both 2015 and 2016. This trend towards small or 'micro' businesses is reflected in the ONS NOMIS data. The figure clearly shows that over 90% of private sector businesses / enterprise in the county have 9 or fewer employees. Statistics collated on the types of businesses in Carmarthenshire indicate that 'agriculture, forestry and fishing' still dominates with 28% of all businesses being in this category.

The Visitor Economy

Tourism is a key component of Carmarthenshire's economy and a major source of employment and revenue supporting over 5,600 full time equivalent jobs either directly or indirectly and generating over £369m revenue to the County's economy annually (STEAM (Scarborough Tourism Economic Activity) Trend Report 2016 97) (Table 10).

% Change on 2015 (£'s 2016)	2.7%
Total visitor days (Millions)	5.72
% change on 2015	1.2%
Staying visitor days (Millions)	3.57
% change on 2015	2.9%
Total visitor numbers (Millions)	3.08
% change on 2015	0.1%
Number of staying visitors (Millions)	0.93
% change on 2015	3.6%
Number of day visitors (Millions)	2.15
% change on 2015	-1.3%
Number of FTE jobs supported by tourism spend	5,638
% change on 2015	2.3%

Table 10. Employee Jobs by Industry – Carmarthenshire and Wales ⁹⁸

97

http://rlp.infobasecymru.net/IAS/themes/economy/tourism/ scarboroughtourismeconomicactivitymonitor(steam)assessment

⁹⁸ https://www.nomisweb.co.uk/reports/Imp/Ia/1946157392/report.aspx

In terms of tourism challenges for Carmarthenshire, the Destination Management Plan (DMP) outlines a range of issues, including a lack of a reasonable range of wet weather and entertainment facilities. The DMP outlines a range of opportunities, including the fact that Carmarthenshire is a strategic location as the gateway to the West of Wales and it has potential as a tourism base for South West Wales. The DMP sets realistic targets for economic impact and seeks to prioritise scarce resources so that they can be used to best effect. It sets out a phased programme of projects and actions that are needed to overcome the weaknesses and threats, whilst capitalising on the strengths and opportunities to achieve sustainable growth in tourism. The steering group have responsibilities and accountabilities to deliver the 4 key priorities:

Cycling – The cycling market is growing rapidly and as demand rises, Carmarthenshire is taking advantage by providing new routes and facilities for potential visitors and has made significant developments in improving the opportunities for cyclists.

Heritage and Culture – Carmarthenshire coast and country is steeped in heritage and culture.

Skills and training – As part of the South West Wales Tourism Business Skills & Development Programme the Carmarthenshire Tourism Association (CTA) are arranging a wide range of workshops, one-to-one sessions, and events – all tailored to the needs of the region's tourism industry.

Events – The County works hard to address seasonality and encourage tourism in shoulder season periods. The vast proportion of economic impact stated in the county's 2015 STEAM figure of £355 million was generated during peak holiday months rather than spread over twelve months.

Tourism has a spatial dimension within Carmarthenshire, with the post – industrial coastal area (including access to the All-Wales Coastal Path) being home to larger scale regional attractions such as the Millennium Coastal Park and further inland, Ffos Las Racecourse and the northern ruralised areas such as the Brechfa Forest renowned for smaller scale high quality outdoor activity offers such as mountain biking. The south west (e.g., Pendine/Llansteffan) is characterised by coastal accommodation offer.

Predicted Effect Without Implementation of the LDP

To meet local and regional economic objectives, a step change in the economy is required. Without the LDP, existing rates of employment growth in the same sectors would be likely to continue without the positive intervention of policies encouraging growth in higher value sectors. There would also be no long-term coordination of housing provision to support employment growth and no coordination of new attractive employment space provision with supporting infrastructure to accommodate and attract inward investment. This would jeopardise the economic objectives of the wider City Region.

15. Social Fabric

Review of the Carmarthenshire Well Being Assessment 2017

Of the 22 local authority areas in Wales, Carmarthenshire continues to have one of the lowest number of crimes per 1,000 population, ranking 5th again with a rate of 43.78 crimes per 1,000 population. Feeling safe was considered a very important factor for social well-being by assessment survey respondents with 93% stating that feeling safe in their home was 'very important' to well-being and 89% that feeling safe in the community was likewise. The survey identified a strong relationship between residents' well-being and their surrounding environment although the exact nature of the relationship varies across age groups and community areas from providing recreational opportunities, to psychological positivity, health benefits and a connection to heritage and culture, all of which will be explored throughout this report. However, rurality can also pose challenges to wellbeing such as access to services and digital access which can impact both social and economic well-being. 36% of households across the county can be said to be living in poverty based on the Welsh Government definition of poverty as "households with less than 60% of the GB median income", making Carmarthenshire levels the 8th highest in Wales. In addition, measures of the Wales Index of Multiple Deprivation (WIMD) 2019 indicate significant variance in the level of deprivation experienced across community areas.

Ward Profiles

Carmarthenshire is a diverse County in terms of its people and its geography. Historically, the county has been made up of 58 electoral wards with 74 elected members. However, following a significant review of electoral boundaries conducted by the Boundary Commission for Wales from the May 2022 local elections the county will consist of 51 wards and 75 members⁹⁹. Electoral Ward & County Profiles¹⁰⁰ provide a summary of the key characteristics of the ward as well as valuable local information. They draw upon a wide array of data sources, and their standardised layout enables the quick and easy comparison of areas, an investigation of patterns, and identification of variations. The latest versions of the profiles published May 2021 incorporate several new or updated information sources, including:

- 2019 Mid-Year Population Estimates (Office of National Statistics, ONS)
- Population characteristics, household composition and economic activity status (2011 Census)
- Housing type and tenure statistics (2011 Census)
- Household Income estimates (CACI 'Paycheck' data 2020)
- Ns-SeC data (socio-economic position based on occupation, 2011 Census)
- Updated labour market and benefit statistics
- Recorded crime statistics for 2020-2021 (Dyfed Powys Police)

A summary containing the above on a County level was published by the Research and Information Unit ¹⁰¹.

⁹⁹

https://www.carmarthenshire.gov.wales/home/council-services/in-my-

area/?map=Electoral_Divisions

¹⁰⁰ <u>https://www.carmarthenshire.gov.wales/home/council-democracy/research-statistics/electoral-ward-county-profiles/#.Yz6tutjMI2x</u>

¹⁰¹ <u>https://www.carmarthenshire.gov.wales/media/1224912/county-</u> profile.pdf?v=202103251255350000

Wales Index of Mulitple Deprivation 2014

The WIMD 2014 is based on fine-grained geography of Lower Super Output Areas (LSOAs) and compiled from eight domains: Income; Employment; Health, Education; Housing; Access to Services; Physical Environment; and Community Safety and is published at LSOAs of which there are 112 in Carmarthenshire. 59 of these 112 LSOAs are within the 50% most deprived within Wales. Of the 10% most deprived wards within Wales, 5 are within Carmarthenshire – namely Tyisha 2, Bigyn 4, Llwynhendy 3, Glanymor 4 and Tyisha 3. WIMD maps have been updated in 2019¹⁰².

Fuel Poverty

Information from the Department of Energy and Climate Change shows that 21% of households in Carmarthenshire are not connected to a mains gas supply which is traditionally used as a measure of fuel poverty. This is particularly prevalent in rural areas of the county. In some smaller, more remote rural communities this increases to 98% of households ¹⁰³. As a result, rural residents often have higher dependency on more expensive sources of fuel such as oil, which is still the main source of fuel for 20,194 homes across the county (Census, 2011) and can be particularly expensive in older homes with insufficient insulation. In addition, 1821 households in Carmarthenshire are without any central heating system (Census, 2011). It is stated that living in fuel poverty can not only have detrimental impact on economic well-being but also on physical health with increasing numbers of excess winter deaths relating to cardiovascular and respiratory diseases being predominantly linked to the cold.

Predicted Effect Without Implementation of the LDP

There would be no allocated land for housing, and once the current LDP housing supply is exhausted, development would take place in an uncoordinated piecemeal manner. There would be a lack of adaptation to the predicted changes in population and social structure, which may threaten the cohesion and well-being of communities and the viability of schools, businesses, and services. There would likely be unsustainable housing development on Greenfield sites away from existing education facilities and community services, badly served by public and Active Transport routes which may lead to less social activity and greater social exclusion. It is likely that existing deprived areas would experience little regeneration or any of the community benefits linked to new development. The provision of affordable housing would remain low and the increase in demand for affordable homes, particularly for the elderly would not be met. Increasing population will put pressure on education services and ad hoc development may result in residential areas not being served by existing educational facilities and contributions from developers to fund new provision may not result in facilities being developed at an appropriate stage of development.

¹⁰² <u>https://statswales.gov.wales/Catalogue/Community-Safety-and-Social-Inclusion/Welsh-Index-of-</u> Multiple-Deprivation/WIMD-maps-2019

¹⁰³ https://www.carmarthenshire.gov.wales/media/1212315/rdp-local-development-strategysummary.pdf

16. Sources of Baseline Information

The tables below list the sources of information that were referred upon to inform the baseline. Planning officers were consulted to ensure that all possible sources of information were considered, alongside those responsible for undertaking the SA. Within Table 11, the first section contains sources that cover multiple topics (general), whereas the preceding sources specifically cover topics that mirror the headings used above. Table 12 refers to the evidence base that was specifically created to help identify emerging policy areas and best inform the policies within the Plan.

NB: Website addresses were correct at time of deposit. Whilst comprehensive, this list does not claim to be exhaustive.

Table 11 - Sources of baseline information

Source of Information	Description of relevant information obtained
General	
Comisiwn Dylunio Cymru / Design Commission for Wales <u>https://dcfw.org/</u>	Publications, case studies, and reports on a range of topics including sustainable design, renewable energy, practical guidance, and annual report. Also produced Placemaking charter (in collaboration with the Placemaking Wales Partnership).
Cyfoeth Naturiol Cymru / Natural Resources Wales https://naturalresourceswales.gov.uk/ Also see: <u>https://naturalresources.wales/guidance-and-advice/business-sectors/planning-and-development/?lang=en</u>	Guidance, statements, and planning advice on issues concerning the environment (e.g., waste management, flood mapping for planning/development (TAN15), and wildlife and biodiversity). Business sector advice for forestry, fisheries, farming, development (including marine), and education. NB: NRW is also a statutory consultee within the planning system.
Cyngor Sir Gaerfyrddin / Carmarthenshire County Council https://www.carmarthenshire.gov.wales/ Also see: https://www.carmarthenshire.gov.wales /home/council-democracy/strategies-and- plans/	Official council website containing published strategies, relevant plans, annual reports, and corporate policies.
Department for Environment Food & Rural Affairs (DEFRA) <u>http://www.defra.gov.uk/</u> Also see: <u>https://www.gov.uk/guidance/habitats-</u> <u>regulations-assessments-protecting-a-</u> <u>european-site</u> <u>https://magic.defra.gov.uk/</u>	Information on assessing environmental impact, access and rights of way, climate change agreements (UK level), energy infrastructure, environmental planning (inc. biodiversity metrics) and risk management, land management (habitats regulations assessment), and more. <u>MagicMap</u> also provides geospatial data (GB level).
Gymdeithas Llywodraeth Leol Cymru / Welsh Local Government Association <u>https://www.wlga.wales/</u>	Publications on relevant topics (e.g., communities, economic growth, housing and planning, transport and social care, health, and integration) in Wales.
Legislation.gov.uk https://www.legislation.gov.uk/	Collation of legislation (e.g., Acts, Bills, Statutory Instruments) and their accompanying explanatory documents relevant to Wales, the UK and EU.

Source of Information	Description of relevant information obtained
Also see: https://senedd.wales/senedd- business/legislation/	Progress of Senedd Bills alongside Acts of Senedd Cymru which have received Royal Assent.
Lle Geo-Portal http://lle.gov.wales/ Also see: https://datamap.gov.wales/	Through Welsh Government and NRW, Lle is a hub for data and information covering a myriad of topics including active travel, climate change, agriculture, flooding, protected sites, soils, heritage, waste, and forestry. From 2022, Lle is being migrated to DataMapWales.
Llywodraeth Cymru / Welsh Government https://gov.wales/ Also see: https://law.gov.wales/	Official national government website which includes the provision of guidance on laws related to <u>planning</u> , <u>health</u> , and <u>well-being</u> . Numerous relevant sub-topics (e.g., <u>land management</u> , <u>guidance for professionals</u>)
	Official guidance for Welsh law.
Local Government Association https://www.local.gov.uk/	Publications on relevant topics (e.g., communities, economic growth, housing and planning, transport and social care, health and integration) (UK-level).
Office for National Statistics (ONS) https://www.ons.gov.uk/	Social (e.g., population trends, census data) and economic (e.g., inflation, employment) data.
	Official statistics and research for UK.
Royal Town Planning Institute https://www.rtpi.org.uk/	Publications on current planning-related topics and research.
Sefydliad Materion Cymreig / Institute of Welsh Affairs <u>https://www.iwa.wales/</u>	Publications including scoping reports on a range of issues (e.g., <u>Landscape</u> , Decarbonising, <u>Places</u> <u>Charter</u> , and Economics)
StatsCymru / StatsWales https://statswales.gov.wales/	Detailed official data on Wales including the National Survey for Wales, housing, sustainable development, and population and migration.
Also see: <u>https://gov.wales/statistics-and-</u> <u>research?lang=en</u> <u>https://www.gov.uk/search/research-and-</u> <u>statistics</u>	Official statistics and research for Wales.
The National Archives: Case Law <u>https://www.nationalarchives.gov.uk/</u> Also see: <u>https://www.gov.uk/courts-tribunals/planning-</u> <u>court</u>	Case law and judicial reviews of decisions made by planning authorities, and other challenges to planning decisions including appeals/applications relating to planning permission, development consent, compulsory purchase orders, highways and other rights of way, and decisions under EU environmental legislation.
Sustainable Development	
Comisiwn Seilwaith Cenedalaethol Cymru / National Infrastructure Commission <u>https://gov.wales/national-infrastructure-</u> <u>commission-wales</u>	Annual report supplying advice on the infrastructure which Wales needs.
Comisiynydd Cenedlaethau'r Dyfodol Cymru / Future Generations Commissioner for Wales	The Well-being of Future Generations Act, Five Ways of Working, The Future Generations Report,

Source of Information	Description of relevant information obtained
https://www.futuregenerations.wales/ Also see: https://gov.wales/sustainable-development- legislation	and Priority Areas where the Commissioner decided it would be best to dedicate additionally resources.
Food and Agriculture Organization https://www.fao.org/ Also see: https://www.fao.org/climate-smart-agriculture- sourcebook/production-resources/module-b7- soil/chapter-b7-1/en/	Global statistics on a range of topics (e.g., Climate Change, SDG indicators, trade, investment, agriculture, and food production). For defining key concepts in sustainable soil and land management.
Institute of Environmental Management & Assessment <u>https://www.iema.net/</u>	Professional body supplying resources, tools, knowledge, and research for those interested in environment and sustainability.
United Nations Department of Economic and Social Affairs Sustainable Development <u>https://sdgs.un.org/goals</u>	The 2030 Agenda for Sustainable Development, 17 Sustainable Development Goals (SDGs), Implementation Progress.
Biodiversity	
Aderyn <u>http://aderyn.lercwales.org.uk/</u> Also see: <u>https://www.lercwales.org.uk/</u>	Aderyn is a Local Environmental Records Centres (LERC) Wales system, developed and supported by the Biodiversity Information Service (BIS). Species distribution maps (nationally).
Association of Local Government Ecologists (ALGE) https://www.alge.org.uk/	Biodiversity reports and publications.
Bartneriaeth Bioamrywiaeth Cymru / Wales Biodiversity Partnership <u>https://www.biodiversitywales.org.uk/</u>	Carmarthenshire Biodiversity Partnership Report. Objectives of stakeholders concerned with wildlife, and list of current projects being undertaken locally.
Bat Conservation Trust (BCT) <u>https://www.bats.org.uk/</u> Also see: <u>https://cdn.naturalresources.wales/</u> <u>media/5436/gpg-3-nrw-approach-to-</u> <u>bats-and-planning-english.pdf</u>	Information related to bats. Guidance on planning and bat species (EPS)
Botanical Society of the Britain & Ireland (BSBI) <u>https://bsbi.org/</u>	Information related to flora.
British Trust for Ornithology (BTO) https://www.bto.org/	Information related to birds.
Buglife - The Invertebrate Conservation Trust https://www.buglife.org.uk/	Information related to invertebrate.
Butterfly Conservation Society https://butterfly-conservation.org/	Information related to butterflies.
Canolfan Gwybodaeth Bioamrywiaeth Gorllewin Cymru / West Wales Biodiversity Information Centre <u>https://www.wwbic.org.uk/</u>	Biodiversity records (locally).

Source of Information	Description of relevant information obtained
Conservation Evidence https://www.conservationevidence.com/	Authoritative information resource that supports decision-making whilst maintaining/restoring biodiversity.
Grŵp Llywio lechyd Coed Cymru / Wales Tree Health Steering Group <u>https://gov.wales/wales-tree-health-steering-</u> group	Advise on pests and diseases affecting trees (i.e., <u>Chalara Dieback of Ash</u>)
Menter ar Gyfer Cadwraeth Natur Cymru / Initiative for Nature Conservation Cymru (INCC) <u>https://www.natureconservation.wales/</u>	Information on protected species and habitat conservation projects. Associated links.
Joint Nature Conservation Committee (JNCC) <u>https://jncc.gov.uk/</u> Also see: <u>https://www.eea.europa.eu/ds_reso</u> <u>lveuid/MHWUY6J40Z</u>	Advisory on nature conservation to UK and devolved governments. Provision of advice on UK Biodiversity Indicators, evaluating land- use/Climate Change, and monitoring species and habitats.
	European Protected Species (EPS).
National Biodiversity Network Trust https://nbn.org.uk/	Biodiversity records (UK).
The Royal Society for the Protection of Birds (RSPB) https://www.rspb.org.uk/	Information related to birds.
Air Quality	
Ansawdd Aer Cymru / Air Quality in Wales <u>https://airquality.gov.wales/</u> Also see: <u>https://gov.wales/air-pollution</u> <u>https://uk-air.defra.gov.uk/air-pollution/</u>	Related reports and seminars, maps, trends, emissions (greenhouse gases, National Air Quality), Local Area Quality Management Areas (LAQM).
https://naturalresources.wales/about-us/what- we-do/air-quality/air-quality-modelling-and- risk-assessment-team	Air Quality Modelling and Risk Assessment Team (AQMRAT) within NRW, air modelling and risk assessment.
Environmental Protection UK https://www.environmental-protection.org.uk/	Charity with published information and research on air quality and planning, alongside its associated issues on transport, public health and well-being, and review of legislations.
Institute of Air Quality Management <u>https://iaqm.co.uk/</u>	Guidance and resources on air quality.
UK Air Pollution Information System (APIS) <u>https://www.apis.ac.uk/</u>	Database and information on pollutants and their impacts on habitats and species.
Climactic Factors	
Air Information Resource (AIR) UK https://uk-air.defra.gov.uk/	Concentrations of air pollutants, research, and modelling. Air Quality Management Areas (AQMAs).
Climate Change Committee (CCC) https://www.theccc.org.uk/	Publications relating to Climate Change risk assessment, Net Zero, carbon budget, Wales specific reports, and more.

Source of Information	Description of relevant information obtained
Climate Cymru https://climate.cymru/	Information promoting local council advocacy, and Welsh nature as a solution towards Climate Change.
Intergovernmental Panel on Climate Change (IPCC) <u>https://www.ipcc.ch/</u> Also see:	The IPCC is the United Nations body for assessing the science related to climate change. Synthesis reports, technical papers, and other world-leading materials containing future projections (and likelihoods), impacts and risks, and
https://gov.wales/climate-change	measures/targets needed, and more. Welsh government policy and guidance on Climate Change.
National Atmospheric Emissions Inventory (NAEI) UK https://naei.beis.gov.uk/	Greenhouse Gas Inventories, UK emission data, information about pollutants and important trends.
Water	
Afonydd Cymru <u>https://afonyddcymru.org/</u>	Umbrella organisation representing river trusts within Wales
British Geological Survey https://www.bgs.ac.uk/	Catchment (catchment stability) and sub- catchment level (geological runoff potential, morphology, designated sites, flood accommodation, urban coverage) geographical, riverine-based datasets.
Canolfan Ecoleg a Hydroleg y DU / UK Centre for Ecology & Hydrology https://www.ceh.ac.uk/	Relevant scientific research and case studies on natural resource management, flood resilience, impact of climate change.
Dŵr Cymru / Welsh Water <u>https://www.dwrcymru.com/</u> Also see: <u>https://naturalresources.wales/quidance-and-</u>	Drainage And Wastewater Management Plan (DWMP), Water Resources Management Plan (WRMP), information and trends on housing, development, and pollution related to the provision of drinking water and waste management.
advice/business-sectors/planning-and- development/our-role-in-planning-and- development/advice-to-planning-authorities- for-planning-applications-affecting- phosphorus-sensitive-river-special-areas-of- conservation/?lang=en	NRW's advice to planning authorities for planning applications affecting phosphorus sensitive river Special Areas of Conservation.
The Chartered Institution of Water and Environmental Management (CIWEM) <u>https://www.ciwem.org/publications/</u>	Charted body for professionals dedicated to sustainable environmental management. Published guidance and information on flood risk management, water quality, river pollution, storm overflows, development, and more.
West Wales Rivers Trust https://westwalesriverstrust.org/	River mapping and biodiversity issues.
Y Pwyllgor Llifogydd ac Erydu Arfordirol / Flood and Coastal Erosion Committee <u>https://gov.wales/flood-coastal-erosion-</u> <u>committee</u>	Advice on flood and coastal risk management in Wales.
See also: https://gov.wales/planning-policy-and- guidance-water-air-soundscape-and-light	Welsh government planning policy and guidance on water (in addition to air, soundscape, and light).

Source of Information	Description of relevant information obtained
<u>https://gov.wales/planning-policy-and-</u> guidance-flooding	Welsh government planning policy and guidance on flooding.
Material Assets	
Carbon Trust https://www.carbontrust.com/	Strategy and advice on Net Zero and local climate action planning.
Digest of UK Energy Statistics (DUKES): renewable sources of energy <u>https://www.gov.uk/government/</u> <u>statistics/renewable-sources-of-energy-</u> <u>chapter-6-digest-of-united-kingdom-energy-</u> <u>statistics-dukes</u>	Renewable energy sites, capacity, and generation within the UK (both on and offshore).
Also see: https://gov.wales/planning-policy-and- guidance-waste	Welsh government planning policy and guidance on waste management.
https://gov.wales/planning-policy-and- guidance-minerals-and-mining	Welsh government planning policy and guidance on minerals and mining.
Datblygwr Ynni Adnewyddadwy i Gymru / Renewable Energy Developer for Wales <u>https://gov.wales/renewable-energy-</u> <u>developer-wales</u>	Welsh Government plans to establish a Renewable Energy Developer for Wales to develop large scale solar and wind projects on public land.
Soil	
British Society for Soil Science https://soils.org.uk/	Scientific research and publications on soil science/conservation (UK).
Also see: https://gov.wales/sites/default/ files/publications/2020-11/asses sment-soil-issues-in-context.pdf	Soil Policy Evidence Programme (Assessment of Welsh Soil Issues in Context) describing the impact which development places on soils (amongst other pressures).
European Society for Soil Conservation (ESSC) http://www.soilconservation.eu/	Publications, guidance, and science notes on soil science/conservation (internationally).
National Soil Resources Institute (NSRI) https://www.cranfield.ac.uk/centres/centre-for- soil-agrifood-and-biosciences/research- groups/national-soil-resources-instituteb	Sustainable management of soil and land resources (including <u>Soilscape mapping</u>)
Also see: https://cdn.cyfoethnaturiol.cymru /media/693310/sonarr2020-theme-land-use- and-soils.pdf	NRW SoNaRR2020 Land-use and soil chapter assesses sustainable management of natural resources by considering the pressures/threats to soils within agriculture, woodland, and urban land uses.
	0303:
UK Soil Observatory (UKSO) http://www.ukso.org/	A collaboration of institutions supplying information and geo-resources on UK soils.

Source of Information	Description of relevant information obtained
Cadw https://cadw.gov.wales/	Advice and support on historical assets (including Cof Cymru), placemaking, climate change, and legislation. Laws relating to Conservation Areas.
Also see: <u>https://gov.wales/planning-policy-and-</u> <u>guidance-historic-environment</u>	
Comisiwn Seilwaith Cenedlaethol Cymru / Royal Commission on the Ancient and Historical Monuments of Wales <u>https://rcahmw.gov.uk/</u>	Record of Welsh archaeological sites, architecture, monuments (Coflein), strategic frameworks, planning legislation and historic environment strategy, and more.
Also see: https://gov.wales/planning-policy-and- guidance-advertisements	Welsh government planning policy and guidance on advertisement (including Conservation Areas).
Visit Wales https://www.visitwales.com/	History and heritage attractions, tourism, top places to visit within Wales.
Also see: https://gov.wales/planning-policy-and- guidance-tourism	Welsh Government planning policy and guidance on tourism.
Landscape	
Monitro a Modelu'r Amgylchedd a Materion Gwledig / Environment and Rural Affairs Monitoring & Modelling Programme (ERAMMP) <u>https://erammp.wales/</u>	Reports on the Welsh landscape and monitoring/modelling any changes to their impact.
Sefydliad Tirwedd / Landscape Institute https://www.landscapeinstitute.org/	Charted body for landscape professionals, advice on green infrastructure, conservation of the natural and built environmental, alongside relevant technical notes.
The James Hutton Institute https://www.hutton.ac.uk/	Scientific research and publications on issues affecting upon the natural landscape.
Population	
Census 2021 (ONS) https://census.gov.uk/census-2021-results	Data and supporting commentary on the population and households in England and Wales from Census 2021.
Also see: <u>https://statswales.gov.wales/Catalogue</u> <u>/Population-and-Migration/Population</u>	Demographic data for Wales.
The Welsh Language	
Comisiynydd y Gymraeg / Welsh Language Commissioner <u>https://www.welshlanguage</u> <u>commissioner.wales/</u>	Welsh language standards, policy and advice, annual reports, and position statements.
Also see: https://gov.wales/planning-policy-and- guidance-welsh-language	Welsh government planning policy and guidance on the Welsh Language.
https://gov.wales/subnational-population- projections	Subnational population projections for local authorities within Wales.

Source of Information	Description of relevant information obtained
https://statswales.gov.wales/Catalogue/Welsh- Language	
laith <u>https://www.iaith.cymru/en</u>	Information on the development of the Language Policy and Planning. Relevant projects include the Welsh Language Planning Wales.
Also see: https://gov.wales/cymraeg-2050-work- programme-2021-2026-html	
Health and Well-being	
Bwrdd Gwasanaethau Cyhoeddus Sir Gâr / Carmarthenshire Public Services Board <u>https://www.thecarmarthenshire</u> <u>wewant.wales/</u>	Our local PSB. Published Well-being Assessment and Well-being Plan.
Also see: https://gov.wales/public-services-boards	
Chief Medical Officer (Wales) https://gov.wales/chief-medical-officer-annual- report-2021-2022	Statistics on health (e.g., mortality, respiratory diseases, sexual health, physical activity), life expectancy and population change (including post-COVID).
Also see: https://gov.wales/health-social-care-strategy	Welsh government strategy, reports, projects, and assessments relating to health.
Fields in Trust https://www.fieldsintrust.org/ Also see:	Knowledge base, policy, and research on open spaces, Green Infrastructure (GI), recreation, and sport. Statistics (Green Space Index) on Great Britain's green space provision.
https://gov.wales/planning-policy-and- guidance-green-infrastructure	Welsh government planning policy and guidance on GI.
https://lucmaps.co.uk/Carmarthenshir eDigitalReport/	Carmarthenshire County Council GI Strategy (8 Towns)
GIG Cymru / NHS Wales http://www.wales.nhs.uk/researchand resources	Links to resources and research (including strategies, policy, health, well-being).
Also see: <u>https://naturalresourceswales.gov.uk/about-us/area-statements/south-west-wales-area-statement/reducing-health-inequalities/?lang=en</u>	NRW Area statement – reducing health inequalities.
lechyd Cyhoeddus Cymru / Public Health Wales <u>https://phw.nhs.wales/</u>	Health data, statistics, health-related publications, and links.
Uned Gymorth Asesu'r Effaith ar lechyd Cymru / Wales Health Impact Assessment Support Unit (WHIASU) https://phwwhocc.co.uk/whiasu/	Information and evidence relating to Health Impact Assessment (HIA).
Yr Awdurdod Gweithredol lechyd a Diogelwch / Health and Safety Executive (HSE)	Workplace health and safety statistics for Wales.

Source of Information	Description of relevant information obtained
https://www.hse.gov.uk/statistics/regions/wales-statistics.pdf	
Education and Skills	
Cyngor Cyllido Addysg Uwch Cymru / Higher Education Funding Council for Wales (HEFCW) https://www.hefcw.ac.uk/	Statistics and data on higher education within Wales. Publications on innovating Welsh higher education, graduate employment sector, and economic and social prosperity.
Also see: https://gov.wales/tertiary-education-and- research-commission	The Commission for Tertiary Education and Research (CTER) will replace HEFCW in 2023.
Economy	
Pwyllgor yr Economi, Masnach a Materion Gwledig / Economy, Trade, and Rural Affairs Committee	Committee minutes and bulletin containing reviews and reports on business, economic development, skills, international trade, agriculture, fisheries, and food.
Also see: <u>https://gov.wales/local-development-plans-</u> <u>guidance-economic-development</u>	Local development plans: guidance on economic development
Sefydliad Ymchwil Cymdeithasol ac Economaidd a Data Cymru / Wales Institute of Social and Economic Research and Data <u>https://wiserd.ac.uk/research/</u>	Interdisciplinary research on economics, sociology, geography, and political science within Wales. Links to other research centres.
Social Fabric	
Onward UK https://www.ukonward.com/reports/the-state- of-our-social-fabric/	Thinktank supplying information on the changing nature of communities within the UK, and advice on how to measure the strength of the social fabric (via relationships, civic institutions, norms and behaviours, physical infrastructure, and economic value)

Table 12 lists documents that were commissioned to inform the policies within the Plan and, together, form the Plan's evidence base. Relevant baseline information which is more topical and specialised to our locality (and the challenges it faces) can also be found within these documents, alongside a substantive number of related plans, data sources, and policies which should also be considered.

NB: Many of the collective reports, topic papers and other strategies will be finalised and published upon examination. Most will have cross-cutting themes and, therefore, do no follow the baseline headings mentioned above.

Table 12 - Sources of baseline information (obtainable from the Plan's evidence base)
Advisory Panel Minute Book – Volume 1
Advisory Panel Minute Book Volume 2
Advisory Panel Minute Book Volume 3
Arcadis. Interim Action Plan. November 2022. (Commissioned by CCC)

Caeau Mynydd Mawr SAC – Revised SPG – Evidence Paper – Defining the SPG Area (Dec 19)

Caeau Mynydd Mawr SAC – Revised SPG – Evidence Paper – Habitat Management Specification & Monitoring Success (Dec 19)

Caeau Mynydd Mawr SAC – Revised SPG – Evidence Paper – Mitigation Payment Calculation (Dec 19)

Carmarthenshire & Pembrokeshire Stage 1 Strateguce Flood Consequence Assessment (SFCA)

Carmarthenshire Demographic Forecasts (Edge Analytics 2018

Carmarthenshire Draft Deposit LDP Welsh Language Impact Assessment (Dec 19)

Carmarthenshire Gypsy Travellers Accommodation Needs Assessment Nov 2019

Carmarthenshire Rural Needs Study 2019

Covid-19 Assessment

Edge Analytics Demographic Forecast (Addendum-Sept 2019)

Employment Land Review 2016

Employment Land Review 2017

Employment Land Review 2018

Employment Land Review 2019

Employment Land Review 2022

Equality Impact Assessment Caeau Mynydd Mawr Draft SPG Jan 20

Equality Impact Assessment Draft SPG Bury Inlet Jan 2020

Green Infrastructure Assessment

Housing Market Summary for Carmarthenshire (Dec 19)

Key Stakeholder Forum Meeting 23 May

Key Stakeholder Forum Meeting 13 Sept 2018

Minerals Topic Paper (update November 2022)

Open Space Assessment

Preliminary Report on Financial Viability (Nove 19)

Renewable & Lowe Energy Carbon Energy Assessment Maps 2019

Renewable Energy Assessment

Retail Study Update

Ricardo. Nutrient Budget Calculator Technical Guide. (Commissioned by CCC)

Ricardo. Nutrient Mitigation Options Technical Review. (Commissioned by CCC)

RLDP Topic Paper – Minerals Oct 19

RLDP Topic Paper – Waste Oct 19

SFCA Existing LDP Allocation Maps

SFCA of Candidate Sites

SFCA of Candidate Sites Maps

SFCA of Existing LDP Allocations

Stabe 1b SFCA for Llanelli, Burry Port & Surrounding Areas – Site Specific Reports

Stabe 1b SFCA for Llanelli, Burry Port & Surrounding Areas – Site Specific Reports – Appendix 1

Stabe 1b SFCA for Llanelli, Burry Port & Surrounding Areas – Site Specific Reports – Appendix 2

Topic Paper – Development Limits (Dec 28)

Topic Paper – Issues, Vision & Objectives Version 2 (Dec 19)

Topic Paper – Population & Houshold Projections (Dec 28)

Topic Paper – Role and Function Paper Dec 18

Topic Paper – Spatial Framework & Housing Supply Jan 2020

Topic Paper – Spatial Options

Topic Paper (Updated) Population & Household Projections Sept 2019

Topic Paper (Updated) Role and Function Jan 2020

Topic Paper Infrastructure Assessment Jan 2020

Topic Paper The Welsh Language Aug 19

Town & Community Council Workshop 30 July 18

Town Centre Retail Audit 2018

Town Centre Retail Audit 2019

Town Centre Retail Audit 2020

Town Centre Retail Audit 2020 September Update

Town Centre Retail Audit December Update

Transport Background Paper Jan 20

Two County Economic Study 2020-21 Update Review of the 2019-based Interventions

(January, 2021) (Commissioned by CCC and PCC)

Two County Economic Study for Carmarthenshire & Pembrokeshire 2020-21 Update

Two County Economic Study for Carmarthenshire & Pembrokeshire Final Report (October 19)

Two County Economic Study for Carmarthenshire & Pembrokeshire Summary Report (October 2019)

Waste Topic Paper (update November 2022)

Appendix C

ISA Framework

Appendix C: ISA Framework

This document forms the Integrated Sustainability Appraisal (ISA) Framework for Carmarthenshire County Council's Deposit Revised Local Development Plan (rLDP) 2018–2033. It draws together the sustainability themes, related objectives, and assessment questions which will be used to inform decision-making and evaluate the potential socio-economic and environmental issues associated with the vision, strategic objectives, options, and specific policies contained within the rLDP.

Whilst the context of the ISA Framework remains unchanged following the consultation of the SA Scoping Report¹, an *integrated* approach now highlights the pre-existing overlap between the joint Sustainability Appraisal (SA) and Strategic Environmental Assessment (SEA), and the Well-being of Future Generations Act (WBFGA) 2015, Equality Impact Assessment (EqIA), Health Impact Assessment (HIA), and Welsh Language requirements under TAN 20². A Habitats Regulations Assessment (HRA) is undertaken parallel to the SA process but is not integrated within the ISA as it uses a different precautionary testing mechanism. However, the ISA will summarise the HRA findings as part of its assessment of the effects placed on biodiversity.

¹ Carmarthenshire Draft SA Scoping Report. July 2018.

² <u>https://gov.wales/technical-advice-note-tan-20-planning-and-welsh-language</u>

ISA Objectives	Decision Making Influences	Relevant Wellbeing Goals
1 Sustainable Development		
 1-1 To live within environmental limits. 1-2 To ensure a strong, healthy, and just society. 1-3 To achieve a sustainable economy. 1-4 To remove barriers and promoting opportunities for behavioural change. 	 Will the LDP contribute to reducing resource consumption? Will the LDP encourage needs to be met locally? Will the LDP encourage individuals, companies, and businesses to make more sustainable choices? 	A prosperous Wales. A resilient Wales. A healthier Wales. A more equal Wales. A Wales of cohesive communities. A globally responsible Wales.
2 Biodiversity		
2-1 To maintain and enhance and promote resilience of ecosystems by avoiding the damage or fragmentation of designated sites, habitats, and protected species and to encourage connectivity.	Are there any designated or non-statutory nature conservation sites that may be affected by the LDP?	A healthier Wales. A resilient Wales. A Wales of cohesive communities.

2-2 To maintain, protect, enhance, and create	Is there monitoring to meet the requirements of	A globally responsible Wales.
appropriate wildlife habitats and wider	the Environment Act Section 6 duty to maintain	
biodiversity in urban and rural areas.	and enhance section 7 Habitats and Species?	
	Is there any ovidence of protected appairs that	
	Is there any evidence of protected species that	
	may be affected?	
	Will there be any opportunities for enhancing	
	or recovering wildlife resources?	
	Will there be any opportunities to create new	
	habitats?	
	Is the implementation of the proposed policy	
	likely to have any significant direct positive or	
	negative effects on the expected future state of	
	the environment in the study area?	
	Is the implementation of the proposed policy	
	likely to significantly alter drivers or trends in	
	the key issues?	
3 Air Quality		
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 3-1 To maintain and improve the levels of the UK National Air Quality pollutants. 3-2 To improve levels of ground level ozone. 3-3 To reduce the need to travel, through appropriate siting of new developments and provision of public transport infrastructure. 4 Climactic Factors 	 Will the LDP have a positive or negative impact on the existing air quality baseline? Will the LDP increase or decrease the emissions of air pollutants from developments? Will the LDP increase or decrease the emissions of air pollutants from transport? 	A more equal Wales. A healthier Wales. A resilient Wales. A Wales of cohesive communities. A globally responsible Wales.
 4-1 To reduce the emission of greenhouse gases. 4-2 To minimise the vulnerability of Carmarthenshire to the effects of climate change through making space for water, coastal retreat and shifting habitat distribution patterns. 4-3 To encourage all new developments to be climate resilient. 	 Will the LDP have a positive or negative impact on the emissions of carbon dioxide from new development in the County? Will the LDP contribute to a reduction in carbon dioxide emissions from traditional forms of energy generation? Will the LDP put a larger number of residents at risk of flooding? Are new developments climate resilient? 	A more equal Wales. A healthier Wales. A resilient Wales. A Wales of cohesive communities. A globally responsible Wales.

 4-4 To encourage energy conservation and higher energy efficiency. 4-5 To minimise energy consumption and promote renewable energy sources. 	Does the LDP leave room for habitat adjustment and coastal and fluvial flood water? Is the implementation of the proposed policy likely to have any significant direct positive or negative effects on the expected future state of the environment in the study area? Is the implementation of the proposed policy likely to significantly alter drivers or trends in the key issues?	
 5 Water 5-1 To ensure water quality of rivers, lakes, groundwater, and coastal areas is improved and ensure that the hydromorphological quality of water bodies is maximised. 5-2 To protect and maintain water resources in the public supply chain and ensure enough 	Will there be an increase or decrease in the discharge of pollutants to water? Will there be an increase or decrease in water consumption from development? Will the LDP have a positive or negative effect on water quality and hydromorphology?	A more equal Wales. A healthier Wales. A resilient Wales. A Wales of cohesive communities. A globally responsible Wales.

 water is available for the environment at all times of year. 5-3 To minimise diffuse pollution from urban and rural areas. 5-4 To increase water efficiency in new and refurbished developments. 5-5 To make space for water and minimise and reduce flood risk. 	Will it contribute to an increase in flood risk? Will it contribute to a reduction in flood risk?	
6 Material Assets		
 6-1 Minimise the use of finite resources and promote higher resource efficiency and the use of secondary and recycled materials. 6-2 Promote the waste hierarchy of reduce, reuse, and recycle. 6-3 Encourage needs to be met locally. 	Will the LDP contribute to increased rates of recycling and higher resource efficiency?Will the LDP ensure that needs can be met locally?Will the LDP allow people to make more sustainable transport choices?	 A Wales of vibrant culture and thriving Welsh language. A prosperous Wales. A more equal Wales. A healthier Wales. A resilient Wales.

 6-4 Promote the use of more sustainable resources. 6-5 Improve the integration of different modes of transport. 6-6 Promote the use of more sustainable modes of transport (e.g., cycling and walking). 		A Wales of cohesive communities. A globally responsible Wales.
7 Soil		
 7-1 To promote the regeneration of contaminated land. 7-2 To avoid loss of soils to non-permeable surfaces and minimise soil erosion. 7-3 To reduce SO2 and NOX emissions and nitrate pollution from agriculture. 	Will the LDP increase or decrease land contamination?Will the LDP result in an increase or loss of good quality soil resources?Will the LDP improve or degrade soil quality?Will the LDP involve development on previously used land?	A healthier Wales. A resilient Wales. A Wales of cohesive communities. A globally responsible Wales.
8 Cultural Heritage and Historic Environment		

 8-1 To protect historic and cultural assets and local distinctiveness from negative effects of development/regeneration and support their enhancement. 8-2 To promote high quality design reflecting local character and distinctiveness. 	Are there any sites of archaeological importance that can be positively or negatively affected by the LDP? Are there any historic landscapes that can be positively or negatively affected by the LDP? Are there any listed buildings that can be positively or negatively affected by the LDP?	A Wales of vibrant culture and thriving Welsh language. A prosperous Wales. A Wales of cohesive communities. A globally responsible Wales.
9 Landscape		
 9.1 To protect and enhance landscape/townscape from negative effects of land use change. 9-2 To take sensitive locations into account when siting development and to promote high quality design. 9-3 To encourage appropriate future use of derelict land. 	Will the LDP have a positive or negative impact on landscapes or townscapes?Will the LDP have a positive or negative impact on designated landscapes?Will the LDP encourage the redevelopment of previously developed land?	language.

		A globally responsible Wales.
10 Population		
 10-1 Ensure suitable, affordable housing stock with access to education and employment facilities. 10-2 Promote the retention of younger people. 10-3 Promote inclusion of disadvantaged and minority groups into society. 	Will the LDP increase the provision of affordable housing in Carmarthenshire?Will the LDP contribute to promoting the retention of young people in the county?Will the LDP contribute to social inclusion?	A Wales of vibrant culture and thriving Welsh language. A prosperous Wales. A more equal Wales. A healthier Wales. A resilient Wales. A Wales of cohesive communities. A globally responsible Wales.
11 The Welsh language		
11-1 Encourage growth of the Welsh language and culture.	Will the LDP encourage the growth of the Welsh language and culture?	A Wales of vibrant culture and thriving Welsh language.

		A Wales of cohesive communities.
12 Health and Well-being		
 12-1 Create opportunities for people to live active, healthy lifestyles through planning activities. 12-2 Provide access to health and recreation facilities and services. 12-3 Encourage walking or cycling as alternative means of transportation. 12-4 Promote access to Wales' natural and cultural heritage. 	human health? Will access to health services and recreation facilities including natural heritage features be increased?	A Wales of vibrant culture and thriving Welsh language. A more equal Wales. A healthier Wales. A resilient Wales. A Wales of cohesive communities.
13 Education and Skills		
13-1 Provide accessible educational and training facilities which meet the future needs of the area.	Ũ	A Wales of vibrant culture and thriving Welsh language.

13-2 Increase levels of literacy (in English and Welsh) and numeracy.13-3 Promote lifelong learning.	Will the LDP promote access to education facilities for all member s of the community? Will the LDP contribute to increasing literacy and numeracy levels?	A prosperous Wales. A more equal Wales. A resilient Wales. A Wales of cohesive communities.
14 Economy		
 14-1 To promote sustainable economic growth. 14-2 To provide good quality employment opportunities for all sections of the population. 14-3 To promote sustainable businesses in Wales. 	Will there be any adverse economic impacts on land and premises in employment use? Will there by a positive or negative impact on jobs opportunities because of the LDP?	A prosperous Wales. A more equal Wales. A resilient Wales. A Wales of cohesive communities.
15 Social Fabric		
15-1 Improve safety and security for people and property.	Will the LDP contribute to making housing more affordable?	A Wales of vibrant culture and thriving Welsh language.

15-2 Promote the design of settlements that improve social fabric by removing barriers and creating opportunities for positive interactions.15-3 Promote the delivery of affordable housing.	Will the LDP contribute to creating settlements that are safe and of a high-quality urban fabric? Will the LDP contribute to creating healthier homes?	A prosperous Wales. A more equal Wales. A healthier Wales. A resilient Wales.
15-4 Improve accessibility to services, particularly for disadvantaged sections of society.	Will the LDP maximise access to services and facilities for all members of the community by different modes of transport?	A resilient Wales. A Wales of cohesive communities.

Appendix D

ISA Strategic Objectives

Appendix D: ISA Strategic Objectives

rLDP Strategic Objectives	ISA Commentary
Healthy Habits - People have a good	d quality of life, and make healthy choices about their lives and environment.
SO1 To ensure that the natural environment, including habitats and species, are safeguarded and enhanced.	Directly supports the protection of biodiversity, habitats and species (ISA2). Aligns positively with improving air quality (ISA3) and resilience to climatic factors (ISA4) by safeguarding green spaces, trees and other natural vegetation that contribute to air purification and reduction of greenhouse gases. Ensuring the safeguarding and enhancement of species and habitats, of which there are many riverine, estuarine, coastal and marine examples in Carmarthenshire. Their protection should require that water quality be improved which aligns positively with ISA5. Encouraging sustainability and sustainable modes of transport (ISA6) aligns positively with reducing transport and congestion related impacts on species and habitats. Protection of the natural environment increases access to green spaces for the purposes of wellbeing (ISA12) and urban fabric (therefore influencing social fabric, ISA15), however this could encourage unsustainable recreational pressures to habitats and species that are highly sensitive to external pressures.
	Aligns positively with ISA7 considering the secondary effect from the protection of natural spaces (of which soil is typically a major component). The promotion of regeneration of contaminated land as assess in the framework would safeguard soil assets (including high rated ALC).

	The natural environment is strongly linked with cultural heritage (ISA8) and tourism (ISA14).
SO2 To assist with widening and promoting wellbeing opportunities through access to community, leisure and recreational facilities as well as the countryside.	 Biodiversity and its protection and enhancement in rural and urban areas (ISA2) increases access to the natural environment for recreational and wellbeing purposes. However, this may lead to unsustainable recreational pressures to habitats and species that are highly sensitive to external pressures. Similar issue is raised with ISA8. Maintaining a high level of water quality (ISA5) ensures water based community, leisure and recreational facilities are accessible at a high standard. However, increased recreational use of water resources could place increase pollution pressures on sensitive water bodies. Promotion and integration of different modes of transport (in particular cycling and walking) (ISA6) is positively aligned with SO2. SO2 contributes positively to promoting social inclusion of disadvantaged and minority groups in society thorough promotion of access to wellbeing opportunities and facilities (ISA10/ISA15). This objective directly aligns with ISA12. Increased provision or service of recreational facilities (and alike) by the community may increase skillset and knowledge (including that of the countryside and the wider natural environment) (ISA13).
SO5 To safeguard and enhance the built and historic environment and promote the appropriate reuse of redundant buildings.	This objective directly aligns with ISA8. Both SO4 and ISA9 promote the reuse of derelict land and redundant buildings and the enhancement of local townscapes.

	This objective also aligns with ISA7 as it offers potential to ensure brownfield sites are redeveloped, and minimises development of greenfield sites and river corridors where soils of high agricultural value are located Safeguarding and enhancement of the built and historic environment ensures that Welsh cultural assets are protected (ISA11) and are accessible to people in Carmarthenshire for wellbeing purposes (ISA12).
	The natural environment is strongly linked with the historic environment (ISA2). A potential secondary effect through protection of the historic environment may increases access to green spaces for the purposes of wellbeing (ISA12) and urban fabric (therefore influencing social fabric, ISA15), however this could encourage unsustainable recreational pressures to habitats and species that are highly sensitive to external pressures. Additionally, safeguarding the historic environment provides opportunities for associated education (ISA13) and tourism (ISA14).
Early Intervention - To make sure th	at people have the right help at the right time; as and when they need it.
SO3 To assist in widening and promoting education and skills training opportunities for all.	Aligns positively with the inclusion of disadvantaged and minority groups, as well as promoting the retention of young people in the community (ISA10/ISA12/ISA15) by promoting access to education and skills training opportunities for all. Carmarthenshire supports both Welsh and English medium learning facilities, and their promotion will align positively with the promoting of the Welsh Language throughout the County (ISA11).
	The objective directly aligns with ISA13. Supporting a more educated and skilled population positively supports a sustainable economy with good employment opportunities (ISA14).

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SO4 To ensure that the principles of	Ensuring services and facilities are accessible as well as promoting vibrant town centres encourages needs to be met
equal opportunities and social	locally, reducing the distances people will be required to travel and increasing access to public transport (ISA3/ISA4/ISA6)
inclusion are upheld by promoting access to a high quality and diverse mix of public services, healthcare,	Equal opportunities and social inclusion align positively with ISA10 and ISA15. Additional promotes access to healthcare (ISA12)
shops, leisure facilities and work opportunities, as well as vibrant town	Establishing vibrant town centres with a diverse mix of facilities supports the enhancement of townscapes (ISA9).
centres.	Access to services and facilities provides encouragement for the retention of young people (ISA10) and Welsh speakers
	(ISA11) within the County, and supports sustainable economic growth throughout Carmarthenshire (ISA14).
Strong Connections - Strongly conr	ected people, places and organisations that are able to adapt to change.

SO7 To make a significant contribution towards tackling the cause and adapting to the effect of climate change, including promoting renewable energy and the efficient use and safeguarding of resources.	The objective directly aligns with ISA4. Tackling the causes of climate change aligns positively with promoting access to alternative transportation and public transport infrastructure (ISA6) and as a result can have positive effects on other elements such as air quality (ISA3). Adapting to the effects of climate change includes making space for water and minimising flood risks (ISA5). Promotion of efficient use and safeguarding of resources also aligns positively with ISA6. Climate change and the natural environment are strongly linked (ISA2), and there are possible linked to soil carbon (ISA7). Tackling climate change has a positive impact upon the physical and mental health (ISA12) of present and future generations. As a secondary effect, this may promote more green jobs (ISA13, ISA14), and increase the resilience of the
SO8 To contribute to the delivery of an accessible integrated and sustainable transport system, including links to alternative transport methods.	urban fabric (and therefore, ISA15). Establishing an accessible and sustainable transport system, including alternative transport methods aligns positively with improving air quality (ISA3) and reducing greenhouse gas emissions (ISA4) The objective aligns directly with ISA6 Access to public transport promotes the inclusion of disadvantaged groups in society (ISA10, ISA15), allowing them to access facilities and services regardless of social situation. Encouragement of alternative methods of transportation (e.g., walking and cycling) aligns positively with ISA12.

Prosperous People and Places - To	maximise opportunities for people and places in both urban and rural parts of our county.
SO9 To protect and enhance the diverse character, distinctiveness, safety and vibrancy of the County's communities by promoting a place making approach and a sense of place.	Carmarthenshire's biodiversity, natural environment (ISA2), cultural heritage (ISA8) and unique landscape (ISA9) all contribute to a sense of place and should be protected. Creating a strong sense of place and vibrant communities within Carmarthenshire are important the retention of young people in the county (ISA10). The County has a strong Welsh identity that must be protected and enhanced (ISA11) to maintain Carmarthenshire's distinctiveness and character. Placemaking should improve social fabric by removing barriers and creating opportunities for positive interactions, especially for disadvantaged and minority groups in society (ISA10, ISA15). This would synergistically benefit mental and physical health through create opportunities for people to live active, healthy lifestyles (ISA12).
SO10 To make provision for an appropriate number and mix of quality homes across the County based around the principles of sustainable socio-economic development and equality of opportunities.	Provision for a mix of high-quality homes across the county aligns positively with both ISA8 and ISA9. Equality of opportunities will ensure that disadvantaged and minority groups as well as young people are given the opportunity to access suitable housing across the county (ISA10, ISA15), which may also lead to the retention of Welsh speaking residents in the County (ISA11).Provision of new homes and the economy are strongly linked (ISA14).
SO11 To assist in protecting, enhancing, and promoting the Welsh	This objective directly aligns with ISA8, ISA11 and ISA15.

Language and the County's unique cultural identity, assets and social fabric.	Aligns positively with ISA10, as Carmarthenshire's population has a strong Welsh identity, with a high proportion of the population born in Wales. Promotion of the Welsh language will positively impact on levels of Welsh literacy (ISA13). There is a potential link between 'unique assets' and biodiversity (ISA2)
SO12 To encourage investment & innovation in rural and urban areas by making adequate provision to meet employment need and to contribute at a regional level to the delivery of the Swansea Bay City Deal.	Proposed plans for the support the regional delivery of the Swansea Bay City deal focusses new developments in Llanelli and Carmarthen, both of which have a number of sensitive biodiversity (ISA2) and air quality (ISA3) and water quality (ISA5) areas which could be negatively impacted. Soil and cultural heritage could also be affected in this manner (ISA7, ISA8) Creation of employment opportunities in both rural and urban areas throughout the county may lead to a positive reduction in the requirement for private car use for outward commuting (ISA4/ISA6). However, initial plans for developments situated in Carmarthen and Llanelli do not currently support this.
	It is difficult to determine what effect this objective will have on ISA11 as economic development, and the resulting job creation has the potential to retain skilled Welsh speaking residents in the County. However, this may also encourage an inward migration of non-Welsh speakers to the county, which could dilute the Welsh speaking culture in Carmarthenshire. This objective will have a positive effect on job creation, which in turn will promote economic growth and sustainable business in Wales (ISA14).

	This will also contribute towards the education, upskilling and retention of young people and professionals within Carmarthenshire (ISA10/ISA13) as good quality employment opportunities are made available for all sections of the population (ISA15). The plans for a life science and wellbeing village as part of the Swansea Bay City deal will be a strong positive driver of Health and wellbeing throughout Carmarthenshire.
SO13 To make provision for sustainable & high quality all year- round tourism related initiatives.	Increasing levels of tourism in the county has the potential to increase recreational pressure on some of Carmarthenshire's biodiversity and cultural heritage designated sites, in particular coastal and marine sites with high recreational value (ISA2/ISA5/ISA8). The increasing traffic pressures associated with tourism is likely to have a negative impact on areas with existing air quality issues (potentially increase greenhouse gases ISA4) as well as habitats/species that are sensitive to such pressures (ISA2/ISA3). Provision for year-round tourism related initiatives is likely to result in an increase in employment and associated education, skills and training opportunities (ISA13), which in turn will have a positive effect on the local economy (ISA14) and the retention of young people in the county (ISA10)
SO14 To reflect the requirements associated with the delivery of new development, both in terms of hard and soft infrastructure (including broadband).	Ensuring new development is supported by sufficient hard and soft infrastructure ensures that water resources are used sustainably and that systems have sufficient capacity to deal with sewerage and diffuse pollution. (ISA5) It is also likely that SO14 will positively align with ISA3, ISA4 and ISA6 in encouraging needs to be met locally and reducing the need to travel to access facilities and services.

This objective is likely to have a positive alignment with increased access to services, in particular for those disadvantaged or minority groups in society (ISA10/ISA15).
It is also likely to support access to wellbeing facilities and services (ISA12) as well as education, skills and training facilities and quality employment opportunities (ISA14).

Revised 2018-2033 Local Development Plan

Integrated Sustainability Appraisal (ISA)

2nd Deposit Plan February 2023

