

APPENDIX 1 - SUMMARY OF RELEVANT PLANS, POLICIES AND PROGRAMMES

GLOBAL CONTEXT

Other plan/ Programme	Headlines	Application to Programme
The Convention on Wetlands of International Importance especially as Waterfowl Habitat (1971) Convention on Biological Diversity	<p>Aims to halt and reverse the worldwide loss of wetlands through wise use and management.</p> <p>Objectives are the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources. Refers to environmental impact assessment and to the ecosystem approach</p>	<p>Programme to ensure that projects have no adverse effect on Ramsar sites and aim to enhance them where possible. Signatories to the Convention agree to take action to meet biodiversity targets. Programme policies support objectives.</p>

COUNCIL OF EUROPE CONTEXT

Aarhus Convention	<p>Grants the public rights and imposes on Parties and public authorities obligations regarding access to information and public participation and access to justice in environmental matters.</p>	<p>Ensuring that the SEA process reflects the aim of the convention:</p> <ul style="list-style-type: none"> • stakeholders have adequate information in a timely manner • consultation is undertaken at appropriate times and involves all relevant stakeholders.
European Landscape Convention	<p>Recognises the significance, value and role of all European landscapes and seascapes. Asserts that all landscapes matters, and that appropriate</p>	<p>Ensure that decisions recognise the implications for landscapes -</p>

measures are put in place to protect and enhance their diverse character and qualities. Promotes a landscape approach to spatial planning and management at a range of scales.

avoiding economic and social, as well as environmental impacts and seeking to restore degraded landscapes, their features and connectivity. Ensure that adequate consideration is given to landscape in project level EIA.

EUROPEAN COMMUNITY/UNION CONTEXT

Air Quality Framework Directive and Daughter Directives

Directive 96/62/EC sets a framework for how member-states must monitor and report ambient levels of air pollutants.
 Directive 99/30/EC sets ambient air limit values for nitrogen dioxide and oxides of nitrogen, sulphur dioxide, lead and particulate matter.
 Directive 2000/69/EC sets ambient air limit values for benzene and carbon monoxide.
 Directive 2002/3/EC sets ambient air limit values for ozone.

Programme policies should support the objectives

Council Directive 75/442/EEC on waste, as amended by Council Directive 2008/98/EC (Waste Framework Directive)

Establishes a framework for the management of waste across the EU.
 To ensure that waste is recovered or disposed of without risk to the air, water or soil, without creating a nuisance in the form of odours or noise, and without adversely affecting the countryside.

Programme policies to ensure compliance

Directive (2001/42/EC) on the Assessment of the Effects of Certain Plans and Programmes on the Environment (SEA)

Establishes the basis for an integrated waste management strategy
 Ensures that environmental consequences of certain plans and programmes are identified and assessed during their preparation and before their adoption.
 Ensures that the environmental implications of decisions are taken into account before the decisions are made.
 Entails analysis, recording and reporting on the likely effects on the

SEA to be carried out alongside proposed OP

Directive)	<p>environment, in consultation with the public.</p> <p>Decision making must take into account the comments and the report, and inform the public about that decision.</p> <p><i>'to provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans and programmes with a view to promoting sustainable development'</i> (Article 1).</p>	
Directive 2002/49/EC on Environmental Noise (END)	<p>Defines a common approach with the intention of avoiding, preventing or reducing on a prioritised basis the harmful effects, including annoyance, due to exposure to environmental noise.</p> <p>Requires member states to draw up noise maps for large agglomerations, busy roads/railways and large airports within their territories and to develop action plans to deal with noise levels in those areas.</p> <p>Provides for the development and use of common noise indicators and requires the public to be fully involved in the implementation of the directive.</p>	Programme to reflect the objectives/requirements of the directive
Directive 2002/96/EC on waste electrical and electronic equipment (WEEE)	<p>Aims to minimise the impacts of electrical and electronic equipment on the environment during their lifetimes and when they become waste.</p> <p>Encourages and sets criteria for the collection, treatment, recycling and recovery of waste electrical and electronic equipment.</p> <p>Defines producer responsibility for financing most waste treatment activities.</p> <p>Enables private householders to return WEEE without charge.</p>	In promoting development of ICT in particular, programme to ensure compliance with the requirements of the directive
Directive 2008/1/EC concerning integrated pollution prevention and control (the IPPC Directive)	<p>Aims:</p> <ul style="list-style-type: none"> • to minimise pollution from various industrial sources; • to achieve a high level of protection of the environment through measures; • to prevent or, where that is not practicable, to reduce emissions to air, water and land from activities listed in Annex I. <p>Member States must put into place a system requiring operators of certain industrial installations to prevent, or reduce pollution from their operation.</p>	Programme policies to ensure compliance with directive

Directive 97/11/EC of 3 March 1997 amending Directive 85/337/EEC of 27 June 1985 on the assessment of the effects of certain public and private projects on the environment (EIA Directive)	Ensures that environmental consequences of projects are identified and assessed before authorisation is given. Public information and consultation is mandatory, all results are taken into account in project decision making. Defines project categories and themes subject to EIA, content and procedures.	Environmental Report to highlight potential requirements for EIA for specific projects resulting from OP proposals
EC Directive 2000/53/EC on end-of life vehicles (ELV)	Aims to reduce, or prevent, the amount of waste produced from ELVs and increase the recovery and recycling of ELVs. Arrangements for ELVs collection systems free of charge from 1 January 2007 at the latest; Producers (vehicle manufacturers or professional importers) to pay 'all or a significant part' of the costs of recovery of ELVs; Rising targets for re-use, recycling and recovery to be achieved by economic operators by January 2006 and 2015.	Programme to ensure compliance if necessary
EC Directive 79/409/EEC on the conservation of wild birds	Provides a framework for the conservation and management of, and human interactions with, wild birds. Main provisions include: <ul style="list-style-type: none"> • Maintenance of the favourable conservation status of all wild bird species across their distributional range • Identification and classification of Special Protection Areas for rare or vulnerable species listed in Annex I of the Directive, as well as for all regularly occurring migratory species • Establishment of a general scheme of protection for all wild birds 	The programme leads to projects that have no adverse effect on the integrity of protected areas and protected species, and where possible enhance their conservation status.

EC Directive 92/43/EEC on the Conservation of natural habitats and of wild fauna and flora	<p>Aims to promote the maintenance of biodiversity by requiring Member States to take measures to designate, maintain or restore natural habitats (SACs) and to maintain wild species at a favourable conservation status, introducing robust protection for those habitats and species of European importance.</p> <p>Requires appropriate assessment of programmes/projects likely to have a significant effect on SACs</p>	<p>The programme leads to projects that have no adverse effect on the integrity of protected areas, and when possible help to achieve favourable conservation status.</p> <p>Appropriate Assessment of projects likely to impact on European sites</p>
Directive 2000/60/EC Water Framework Directive	<p>Sets out environmental objectives for water status based on:</p> <ul style="list-style-type: none"> • ecological and chemical parameters; • common monitoring and assessment strategies; • arrangement for river basin administration and planning; and • a programme of measures in order to meet the objectives. 	<p>The programme leads to projects that have no adverse effect on the aquatic environment, and where possible help to achieve the objectives for water status.</p> <p>Ensuring general protection of aquatic ecology, specific protection of important habitats, protection of drinking water resources, and protection of bathing water.</p>
EC Freshwater Fish Directive (78/659/EEC)	<p>Seeks to protect those fresh water bodies identified by Member States as waters suitable for sustaining fish populations</p>	<p>The programme leads to projects that have no adverse effect on the integrity of fresh water bodies, and when possible help to achieve the directive's physical and chemical water quality objectives for salmonid waters and cyprinid waters.</p>

EU Directive 2002/91/EC on the Energy Performance of Buildings	<p>Promotes the improvement of energy performance of buildings, taking into account outdoor climatic and local conditions, as well as indoor climate requirements and cost-effectiveness.</p> <p>Measures include:</p> <ul style="list-style-type: none"> • methodology for calculating the energy performance of buildings; • application of performance standards on new and existing buildings; • certification schemes for all buildings; • regular inspection and assessment of boilers/heating and cooling installations. 	Programme policies must support/reflect objectives of the directive
EU's Sustainable Development Strategy (reviewed 2005)	<p>Provides a policy framework to deliver sustainable development. Rests on three interrelated and mutually reinforcing pillars - economic, social and environmental.</p> <p>Focuses on four key-priorities:</p> <ul style="list-style-type: none"> • limiting climate change and increasing the use of clean energy; • addressing threats to public health; • managing natural resources more responsibly; and • improving the transport system and land use 	Programme policies to support/reflect the objectives of the ESDS
European Biodiversity Strategy (EBS)	<p>Developed around four major themes:</p> <ul style="list-style-type: none"> • conservation and sustainable use of biological diversity • sharing of benefits arising out of the use of genetic resources • research, identification, monitoring and exchange of information • education, training and awareness 	Programme policies to support/reflect the objectives of the EBS
Sixth Environment Action Programme (EAP) Review and 7th EAP proposals	<p>6th EAP identified five environmental areas for priority actions</p> <ul style="list-style-type: none"> • climate change – to stabilise the atmospheric concentrations of greenhouse gases at a level that will not cause unnatural variations of the earth's climate; • nature and biodiversity – to protect and restore the functioning of natural systems and halt the loss of biodiversity; 	Proposals for 7 th EAP to be taken into account in development of policies and programmes

- soils - to protect them from erosion and pollution
- environment and health and quality of life – to achieve a quality of the environment where the levels of man-made contaminants, including different types of radiation, do not give rise to significant impacts on or risks to human health
- natural resources and waste – to ensure the consumption of renewable and non-renewable resources does not exceed the carrying capacity of the environment. To achieve a de-coupling of resource use from economic growth through significantly improved resource efficiency, dematerialization of the economy, and waste prevention.

EC Treaty 2006

Title XIX refers specifically to the Environment. Article 6 states:
'Environmental protection requirements must be integrated into the definition and implementation of the Community policies and activities referred to in Article 3, in particular with a view to promoting sustainable development.'
Article 174 stresses the need to base environmental protection on the principles of precaution and of preventative action.

The OP and subsequent programmes, plans and projects to ensure environmental protection; precautionary principle to be incorporated into e.g. EIA and decision making.

Lisbon Treaty (2007/C 306/01)

Reinforces its objective to work towards sustainable development (article 2.3), indicating a balanced approach to addressing economic, social and environmental priorities. A new energy title (Title XX) is introduced, *'with regard for the need to preserve and improve the environment.'* Article 176A(c) refers to the need to promote energy efficiency and renewables.

Programme objectives to be in line with the objectives of the Treaty, aiming to promote sustainable development

Proposed Common Programming Regulation
CPR - COM(2011) 615
final/2

States (Article 8) that: *'The Member States and the Commission shall ensure that environmental protection requirements, resource efficiency, climate change mitigation and adaptation, disaster resilience and risk prevention and management are promoted in the preparation and implementation of Partnership Contracts and Programmes.'*

Article 87/3(i) states: *'Each operational programme...shall include a description of specific actions to take into account environmental protection requirements,*

OP to comply with the Regulation (as finally adopted) in regard to environmental protection and integration.

resource efficiency, climate change mitigation and adaptation, disaster resilience and risk prevention and management, in the selection of operations.'

Directive 2003/35/EC Public participation in relation to plans and programmes	<p>Objective is to contribute to the implementation of the obligations arising under the Aarhus Convention in particular by:</p> <ul style="list-style-type: none"> • providing for public participation in respect of the drawing up of certain plans and programmes relating to the environment • improving the public participation and providing for provisions on access to justice within Council Directives 85/337/EEC and 96/61/EC 	SEA and ex-ante evaluation form part of consultation on proposed OP. Ensure appropriate process for consultation.
Directive 2004/35/EC Environmental liability	<p>Establishes a framework for environmental liability based on the "polluter pays" principle, with a view to preventing and remedying environmental damage. The principle of liability applies to environmental damage and imminent threat of damage resulting from occupational activities, where it is possible to establish a causal link between the damage and the activity in question.</p>	Programme to have regard to the provisions of the directive in ensuring adequate monitoring of environmental effects.
Directive 94/62/EC Packaging and packaging waste	<p>Harmonises differing national measures concerning the management of packaging and packaging waste. The main objectives are to:</p> <ul style="list-style-type: none"> • prevent impacts on the environment or to reduce impacts from the packaging of waste • ensure the functioning of the internal market and avoid obstacles to trade • to limit distortion and restriction of competition within the Community 	OP to promote directive & ensure compliance with its objectives through, e.g. EMS & guidance
Directive 2006/118/EC Protection of groundwater	<p>This Directive is designed to prevent and combat groundwater pollution and deterioration. Its provisions include:</p> <ul style="list-style-type: none"> • criteria for assessing the chemical status of groundwater; • criteria for identifying significant and sustained upward trends in groundwater pollution levels, and for defining starting points for reversing 	OP to ensure compliance with the objectives of the directive.

- these trends;
- preventing and limiting indirect discharges (after percolation through soil or subsoil) of pollutants into groundwater

Directive 2007/60/EC Assessment and management of flood risk	Requires an assessment of all water courses and coast lines that are at risk from flooding and the mapping of the flood extent and assets and humans at risk in these areas and taking adequate and coordinated measures to reduce this flood risk. It also reinforces the rights of the public to access this information and to have a say in the planning process.	OP to support objectives of the directive where they coincide with its own objectives. Ensure no increased flood risk resulting from its policies.
Directive 86/278/EEC Sewage sludge in agriculture	Seeks to encourage the use of sewage sludge in agriculture and to regulate its use in such a way as to prevent harmful effects on soil, vegetation, animals and man. Its main measures are: <ul style="list-style-type: none"> • to prohibit the use of untreated sludge on agricultural land unless it is injected or incorporated into the soil • to provide protection against potential health risks from residual pathogens • to prevent grazing animals access to grassland or forage land less than three weeks after the application of sludge • to require that sludge should be used in such a way that account is taken of the nutrient requirements of plants and that the quality of the soil and of the surface and groundwater is not impaired 	Not relevant except where there is convergence with EARDF provisions.
Directive 91/676/EEC Nitrates	Aims to protect water quality across Europe by preventing nitrates from agricultural sources polluting ground and surface waters and by promoting the use of good farming practices.	Of relevance to EARDF.
Regulation 1907/2006 Registration, evaluation, authorisation and restriction of chemicals	The aim of REACH is to improve the protection of human health and the environment through the better and earlier identification of the intrinsic properties of chemical substances. At the same time, REACH aims to enhance innovation and competitiveness of the EU chemicals industry.	OP to ensure compliance with the regulation where relevant.

<p>(REACH Directive 2010/31/EU Energy efficiency in buildings Directive 2006/32/EC Energy end use and efficiency</p>	<p>Reducing energy consumption in buildings is a priority under the 20-20-20 objectives on energy efficiency. This Directive contributes to achieving this aim by proposing guiding principles regarding the energy performance of buildings. The purpose of the Directive is to make the end use of energy more economic and efficient by:</p> <ul style="list-style-type: none"> • establishing indicative targets, incentives and the institutional, financial and legal frameworks needed to eliminate market barriers and imperfections which prevent efficient end use of energy; • creating the conditions for the development and promotion of a market for energy services and for the delivery of energy-saving programmes and other measures aimed at improving end-use energy efficiency 	<p>OP to promote energy efficiency in developments. Comply with building regulations. OP to promote energy efficiency.</p>
<p>Directive 2009/28/EC Renewable energy</p>	<p>Sets targets that the EU will reach a 20% share of energy from renewable sources by 2020 and a 10% share of renewable energy specifically in the transport sector.</p>	<p>OP to promote renewable energy where appropriate. A key programming theme.</p>
<p>EU Commission thematic strategy on the sustainable use of natural resources (COM(2005)670)</p>	<p>Establishes guidelines for EU action to 2030, aimed at improving the sustainable use of natural resources whilst addressing the economic and employment objectives of the Lisbon European Council.</p>	<p>OP to support the objectives of the strategy. Promote sustainable use of natural resources.</p>
<p>7th Environmental Action Programme (in development)</p>	<p>Key themes:</p> <ul style="list-style-type: none"> • Climate change and clean energy • Sustainable transport • Sustainable production and consumption • Conservation and enhancement of natural resources • Public health 	<p>OP to take note of emerging EAP in promoting its priorities.</p>

Europe 2020 COM (2011)21	<i>'...increasing resource efficiency will be key to securing growth and jobs for Europe... It will be key in making progress to deal with climate change and to achieve our target of reducing EU greenhouse gas emissions by 80 to 95% by 2050. It is needed to protect valuable ecological assets, the services they provide and the quality of life for present and future generations. It will help us ensure that the agricultural and fisheries sectors are strong and sustainable.'</i>	Key guiding document laying down the basis for SF programming. OP to ensure its objectives are in line with those of EU2020.
Draft Common Strategic Framework	<p><u>Legislative proposals for cohesion policy during the period 2014-2020</u> were adopted by the European Commission on 6 October 2011. These will be discussed by the Council and European Parliament during 2012-2013. The new Regulations should enter into force in 2014</p> <p>The Common Strategic Framework (CSF) is intended to help in setting strategic direction for the next financial planning period from 2014 to 2020 in Member States and their regions. It will enable a far better combining of various funds to maximise the impact of EU investments. National and regional authorities will use this framework as the basis for drafting their 'Partnership Contracts' with the Commission, committing themselves to meeting Europe's growth and jobs targets for 2020.</p>	OP to provide for integration across funding streams to ensure efficient use of SF and other funds. Wales to contribute to Partnership Contract.

UK CONTEXT

Disability Discrimination Act 1995	<p>Aims to end the discrimination of disabled people.</p> <p>Provides rights in the areas of:</p> <ul style="list-style-type: none"> • employment • education • access to goods, facilities and services • buying or renting land or property <p>Allows the government to set minimum standards for public transport use</p>	Ensure compliance with Disability Discrimination Act 1995
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Environment Act 1995	This is a UK Act of Parliament that created a number of new agencies, namely the Environment Agency, The Scottish Environment Protection Agency and the National Park authorities. It also set new standards for environmental management.	Ensure compliance with provisions of the Act where appropriate.
Freedom of Information Act 2000	Provides for public access to recorded information held by public authorities in England, Northern Ireland and Wales.	Ensure compliance with Freedom of Information Act 2000. SEA/ex-ante/OP consultation + periodic reviews. Provide information as per FOI Act requirements.
Marine and Coastal Access Act 2009	Provides a framework for management within UK marine waters. Establishes marine conservation zones; fisheries planning and licensing; coastal access.	Of particular relevance to EMFF provisions. OP to take note of coastal access provisions, ensure compliance where necessary.
The Countryside and Rights of Way Act 2000 (CROW)	Extends the public's ability to enjoy the countryside whilst also providing safeguards for landowners and occupiers. Creates a statutory right of access to open country and registered common land, modernises the rights of way system, gives greater protection to Sites of Special Scientific Interest (SSSIs), enhances management arrangements for Areas of Outstanding Natural Beauty (AONBs), and strengthens wildlife enforcement legislation.	Ensure compliance with the CROW Act 2000
UK Biodiversity Action Plan, 1994	Establishes a programme for the conservation of UK biodiversity through the production of action plans aiming to achieve recovery of threatened species and habitats.	Wales Biodiversity Action plans requirements and objectives should be reflected in SEA framework.

Water Act 2003	Provides regulatory arrangements for the abstraction and impounding of water resources.	Ensure compliance with Water Act 2003
Wildlife and Countryside Act 1981 (as amended)	The principle UK wildlife protection act. Arrangements for the notification and management of SSSIs and the UK law delivering on the Convention on the Conservation of European Wildlife and Natural Habitats (the 'Bern Convention') and the European Union Directives on the Birds (79/409/EEC) and Habitats (92/43/EEC) Directives.	Ensure compliance with Wildlife and Countryside Act 1981
Road Traffic Reduction Act 1997	Requires 29 local traffic authorities to produce a report containing an assessment of existing levels of traffic on those roads for which it is the Highway Authority. These reports provide useful monitoring information at key points on the road network.	Ensure compliance with Act where appropriate.
Flood and Water Management Act 2010	<p>The Act takes forward a number of recommendations from the Pitt Review into the 2007 floods and places new responsibilities on the Environment Agency, local authorities and property developers (among others) to manage the risk of flooding.</p> <p>The Act includes the requirement for an England and Wales flood risk strategy and for local flood risk strategies.</p>	OP to ensure compliance with advice and policy on developments in flood risk areas.
Climate Change Act 2008	<p>Is a long-term legally binding framework to tackle the dangers of climate change. The main aspects of its approach to managing and responding to climate change in the UK are:</p> <ul style="list-style-type: none"> • setting ambitious, legally binding targets • taking powers to help meet these targets • strengthening the institutional framework • enhancing the UK's ability to adapt to the impact of climate change • establishing clear and regular accountability to the UK Parliament and to the devolved legislatures 	OP to promote the objectives of the Act and to comply with its provisions. A key programme theme for which targets have been set at EU and Wales levels.

Waste and Emissions Trading Act 2003	<p>The Act is intended to help the UK meet its European obligations under the Landfill Directive and gives statutory footing to penalties in the world's first economy wide emissions trading scheme.</p> <p>Part 1 of the Act provides for an allowance scheme which will help the UK to meet, in the most cost effective and efficient way, its obligations under Articles 5(1) and 5(2) of the Landfill Directive 1999/31/EC.</p> <p>Part 2 places on a statutory footing penalties for direct participants in the UK Greenhouse Gas Emissions Trading Scheme, who fail to comply with their emissions reduction targets and amends the Pollution Prevention and Control (PPC) Act to provide for the application of penalties within future emissions trading schemes.</p>	OP to ensure compliance with the provisions of the Act.
Planning and Compulsory Purchase Act 2004	The provisions introduce powers which allow for the reform and speeding up of the plans system and an increase in the predictability of planning decisions, the speeding up of the handling of major infrastructure projects and the need for simplified planning zones to be identified in the strategic plan for a region.	Developments under the OP to comply with planning policies. Wales to have its own planning act within the lifetime of the programme.
Planning and Energy Act 2008	This Act provides a legislative basis for local authorities in England and Wales to impose reasonable requirements on new development to provide a proportion of its energy from local renewable and low carbon sources of energy.	OP to comply with the provisions of the Act as necessary.
Planning Act 2008	The Act creates a new system for approving the construction of major infrastructure projects including major roads, airports and power stations .It also introduced the enabling legislation for the Community Infrastructure Levy (CIL), which could be used as a mechanism for funding community heating infrastructure linked to new development	Major infrastructure coming in under the OP will be required to comply with the provisions of the 2008 Planning Act where necessary.

UK National Strategic
Reference Framework
(DTI 2006)

'The environment in Wales is a driver of economic growth and social well being, as well as being a public good in its own right. The sector is growing in Wales and there are economic opportunities to exploit in the growing environmental goods and services sector as well as environmental protection. Wales's energy consumption is not in decline and the amount of energy not generated from fossil fuels is low. Wales's CO₂ emissions need to be reduced in order to meet the UK's commitments under the Kyoto protocol. Wales also needs to improve its management of waste and water in response to stricter EU legislation in these areas.'

New UK framework will emerge as part of the new funding arrangements. Wales to contribute.

WALES CONTEXT

Planning Policy Wales

Planning policies and proposals should:

Promote resource-efficient and climate change resilient settlement patterns that minimise land-take...and urban sprawl, especially through preference for the re-use of suitable previously developed land and buildings, wherever possible avoiding development on greenfield sites.

Locate developments so as to minimise the demand for travel, especially by private car.

Support the need to tackle the causes of climate change by moving towards a low carbon economy.

Minimise the risks...by building resilience into the natural and built environment.

...facilitate sustainable building standards (including zero carbon)...

...securing the provision of infrastructure to form the physical basis for sustainable communities...while ensuring proper assessment of their sustainability impacts

Contribute to the protection and improvement of the environment, so as to

Provides direction and guidance on planning policy to planning authorities. Developments arising from the OP will be required to comply with planning policy.

OP to support PPW provisions where appropriate.

improve the quality of life, and protect local and global ecosystems...The conservation and enhancement of statutorily designated areas and of the countryside and undeveloped coast; the conservation of biodiversity, habitats, and landscapes; the conservation of the best and most versatile agricultural land; and enhancement of the urban environment all need to be promoted.

Help to ensure the conservation of the historic environment and cultural heritage...

Maximise the use of renewable resources, including sustainable materials (recycled and renewable materials and those with a lower embodied energy)...

Encourage opportunities to reduce waste and all forms of pollution and promote good environmental management and best environmental practice...

Ensure that all local communities - both urban and rural - have sufficient good quality housing for their needs...

Promote access to employment, shopping, education, health, community, leisure and sports facilities and open and green space...In general, developments likely to support the achievement of an integrated transport system should be encouraged.

Foster social inclusion...

Promote quality, lasting, environmentally-sound and flexible employment opportunities.

Support initiative and innovation and avoid placing unnecessary burdens on enterprises...so as to enhance the economic success of both urban and rural areas, helping businesses to maximise their competitiveness.

Respect and encourage diversity in the local economy...promote a greener economy and social enterprises.

Contribute to the protection and, where possible, the improvement of people's health and well-being as a core component of sustainable development and responding to climate change.

Technical Advice Note 5 Nature Conservation and Planning (2009)	<i>'...integrate nature conservation into all planning decisions looking for development to deliver social, economic and environmental objectives together over time... look for development to provide a net benefit for biodiversity conservation with no significant loss of habitats or populations of species, locally or nationally.'</i>	Provides planning guidance on nature conservation. Relevant at project level. OP to support general provisions.
Technical Advice Note 6 Planning for Sustainable Rural Communities (2010)	<i>'Planning authorities should seek to strengthen rural communities by helping to ensure that existing residents can work and access services locally using low carbon travel and obtain a higher proportion of their energy needs from local renewable sources...The travel plan accompanying the planning application should clearly identify a preference for low or zero carbon modes of transport including walking, cycling and car sharing schemes.'</i>	Provides planning guidance on rural sustainability. Relevant at project level, and for EARDF. OP to support general provisions.
Technical Advice Note 8 Renewable Energy (2005)	<i>'...aim of the Welsh Assembly Government is to secure the right mix of secure and affordable future energy provision in Wales, whilst minimising associated environmental impacts...'</i>	Provides planning guidance on renewables. Relevant at project level. Has been subject to review. OP to take note of provisions.
Technical Advice Note 12 Design (2009)	<i>'An appraisal of an area's natural resources is a prerequisite to providing environmentally sustainable design solutions. An appraisal should identify the opportunities offered by a particular site (e.g. decentralised energy) and recognise the site's constraints (e.g. flooding, limitations of public transport links). It should focus on site assets and resources such as the development form, soils and geology, slope/topography, drainage, landscape, solar and wind energy as well as wildlife, biodiversity and natural habitats.'</i>	Provides planning guidance on green infrastructure and environmental aspects in building design. Relevant at project level. OP to support general provision.

Technical Advice Note 15 Development and Flood Risk (2004)	<i>'Guiding development to locations at little or no risk from river, tidal or coastal flooding or from run-off arising from development in any location... Making provision for future changes in flood risk, for example taking account of climate change, where they can be anticipated... setting out a precautionary framework to guide planning decisions.'</i>	Provides planning guidance on flood risk management through the planning system. Relevant at project level. OP to support general provision.
Technical Advice Note 18 Transport (2007)	<i>'Integration of land use planning and development of transport infrastructure has a key role to play in addressing the environmental aspects of sustainable development, in particular climate change and the outcomes identified in the Assembly Government's Environment Strategy.'</i>	Provides planning guidance on sustainable transport infrastructure. Relevant at project level. OP to support objectives.
Technical Advice Note 21 Waste (2001)	<i>'...provision to be made for waste resource management facilities to meet the needs of society for the re-use, recovery and disposal of waste... encourage sensitive waste management, enhance the overall quality of the environment and avoid risks to human health...have regard to the need to protect areas of designated landscape and nature conservation value from inappropriate development... minimise adverse environmental impacts resulting from the handling, processing, transport and disposal of waste... ensure that opportunities for incorporating re-use/recycling facilities in new developments are properly considered.'</i>	Provides planning guidance on waste management, including provision of facilities. Relevant at project level. OP to support objectives.
Technical Advice Note 22 Sustainable Buildings (2010)	<i>'...in the future all new buildings achieve a zero carbon standard.'</i>	Provides planning guidance on energy conservation in building design. Relevant at project level. OP to support objectives.
Waste (Wales) Measure 2010	A Measure to make provision to reduce the amount of waste and litter in Wales and contribute to the development of more effective waste management arrangements in Wales.	OP to comply with the provisions of the Measure.

The measures include:

- a power to enable the Welsh Ministers to make regulations requiring retailers to apply the net proceeds of revenues raised from the sale of single use carrier bags to specific environmental purposes or bodies
- statutory targets for local authorities for the percentage of municipal waste to be recycled, prepared for re-use and composted
- a power for the Welsh Ministers to ban or restrict the disposal of specified kinds of waste to landfill.
- a power for the Welsh Ministers to establish Site Waste Management Plans in relation to works involving construction and demolition in Wales

One Wales: One Planet
(2009)

Vision for a sustainable Wales:

- Living within environmental limits
- Supporting healthy, biologically diverse and productive ecosystems
- Building a resilient and sustainable economy
- Enjoying communities which are safe, sustainable and attractive
- Being a fair, just and bilingual nation

Provides a basis for adopting the 'ecosystem approach

OP to take note and support the provisions of the vision. Provides basis for forthcoming Sustainable Development legislation within the lifetime of the OP.

Wales Spatial Plan (2008)

Aims to deliver sustainable development through six area strategies in the context of the Welsh Assembly Government's statutory Sustainable Development Scheme, and aims to ensure that what is done in the public, private and third sectors is integrated and sustainable, and that actions within an area support each other and jointly move towards a shared vision for Wales and for the different parts of Wales.

Key document for spatial deployment of WG's sustainability agenda. Complementary to the OP proposals. OP to take note of/support the Strategy.

Environment strategy
(2006)

Contains five key themes (addressing climate change - sustainable resource use - distinctive biodiversity, landscapes and seascapes - our local environment - environmental hazards) and sets targets for key environmental performance indicators.

OP to support the strategy and its targets.

'...clear leadership on environmental issues through policies, programmes...environmental considerations are integrated ... consistent environmental evidence...better integration of delivery of environmental protection and enhancement...'

Tourism strategy (2006)	Sets out a comprehensive tourism strategy for Wales including measures to <i>'...develop and communicate a distinctive brand for Wales...raise the quality of the tourism experience...improve accessibility of Wales as a destination...encourage higher skills levels...develop effective collaboration...'</i>	OP to promote general provisions where appropriate.
Transport strategy (2008)	Sets out a comprehensive transport strategy on the basis of objectives of <i>'Reducing greenhouse gas emissions and other environmental impacts; Improving public transport and better integration between modes; Improving links and access between key settlements and sites across Wales and strategically important all-Wales links; Enhancing international connectivity; and Increasing safety and security...improved transport, especially its reliability, is cited consistently by Welsh businesses as one of their top priorities.'</i>	OP to promote principles of the strategy.
Waste strategy consultation (2009)	Commits WAG to reduce Wales' ecological footprint to 'one Wales: one planet' levels within a generation, and sets out proposals to optimise opportunities for managing waste and increasing efficiency to contribute towards a sustainable future for Wales. Aims to take a 'zero waste' approach, by designing products and services that reduce or reuse waste as far as possible, and developing a local and highly skilled economy for waste management and resource efficiency.	OP to support the aspiration to meet the targets for waste management.

Energy policy statement (2010)	Aims to promote a 'step change' in the energy efficiency performance of all housing stock in Wales, and to ensure that a significant proportion of energy will be generated locally or domestically. The policy seeks to promote the optimal use of offshore wind, geothermal and hydro power generation, as well as biomass, and to test the feasibility of using tidal power.	OP to promote principles of the strategy.
Climate change strategy (2010)	The strategy seeks to create a low carbon economy and to promote business opportunities based on innovative approaches to reducing energy use and reduction of emissions. It aims to promote sustainable transport options such as walking and cycling to reduce congestion and emissions.	OP to promote principles of the strategy.
Coastal flood erosion strategy (2011)	Provides the framework for flood and erosion risk management by: reducing the consequences for individuals, communities, businesses and the environment from flooding and coastal erosion; raising awareness of and engaging people in the response to flood and coastal erosion risk; providing an effective and sustained response to flood and coastal erosion events; and prioritising investment in the most at risk communities	OP to promote principles of the strategy.
Historic environment strategy (2012)	Establishes a framework for action based on four priorities: building towards a Heritage Bill; implementing Cadw's Tourism Heritage Tourism project; delivering Cadw heritage interpretation and learning programmes; and delivering Cadw's conservation programme for monuments and for new designations	OP to promote principles of the strategy. Heritage legislation will emerge during the lifetime of the OP.
Natural Environment Framework (Living Wales) 2010(2012)	<p>The purpose of the framework is to ensure that Wales has increasingly resilient and diverse ecosystems that deliver strategic environmental priorities. Its aims are to improve Wales' transport and telecommunications networks, and to support the development of sustainable energy. It will support investment in housing and the delivery of more efficient and economical public services, including the education estate, and will promote the development of Enterprise Zones for people</p> <ul style="list-style-type: none"> • <i>Developing a national approach to managing our natural resources</i> • <i>Developing new ways of managing natural resources at a local level</i> • <i>Increasing our emphasis on practical evidence gathering</i> • <i>Reconnecting people with their environment</i> 	<p>Provides a basis for forthcoming environmental legislation within principles of the OP by a key the ecosystem approach to natural resource management. OP to support the OP objectives.</p>

APPENDIX 2 - SOURCE DOCUMENTS FOR IDENTIFYING OBJECTIVES AND INDICATORS

1. WEFO Cross Cutting Theme Matrix

In the 2007-13 Structural Funds programmes, Environmental Sustainability is one of the two cross-cutting themes in accordance with requirements of EU General Regulation 1083/2006 Article 17.

The ERDF Operational Programmes have six environmental sustainability objectives:

- To reduce emissions of greenhouse gases to help limit the extent of climate change and help adapt to its effects;
- To promote sustainable transport;
- To promote the efficient use of resources;
- To promote the sustainable management of the land, sea and inland waters;
- To improve the quality of the local built environment and opportunities to access green space;
- To minimise the risk of pollution and other environmental hazards thereby safeguarding the health of communities and the environment.

The ERDF also provides nine 'environmental' indicators that measure part of its overall objective:

1. Environmental risk management initiatives
2. Initiatives developing the natural and/or historic environment
3. Managed access to countryside or coast (km)
4. Enterprises operating Environmental Management Systems at a level that requires monitoring of carbon emissions
5. Renewable energy generated (GWh)
6. Energy saved (GWh)
7. Reduction in greenhouse emissions (ktC)
8. Waste reduced, reused or recycled ('000kt)
9. People benefiting from flood protection measures

Some of these may be questionable as genuinely 'environmental' since they may conflict with other environmental objectives, and as genuine measures of environmental quality.

2. Programme for Government

The Programme for Government sets out a number of challenges across the various departments. The following are overtly environmental, though some may present significant challenges and conflicts with each other:

- Reduce greenhouse gas emissions in areas of devolved competence and support effective adaptation to the impacts of climate change through implementation of the Climate Change Strategy

- Review resource and energy efficiency measures and the support available to individuals, communities, businesses and the public sector.
- Continue to take action on climate change, working with the independently-chaired Climate Change Commission for Wales, developing low carbon communities and promoting changes in all aspects of life.
- Harness available resources and engage with every sector to contribute to Assembly Government's target of a 3% annual carbon emission reduction by 2011 and a 40% reduction by 2020.
- Continue to invest in adaptation to climate change, ensuring that we are prepared for the changes that might arise, such as extreme weather and flooding.
- Continue leading our work on the transition to Low Carbon Regions in each region of Wales, coordinating action on reducing emissions from transport, waste, food, land use, housing and the built environment under the leadership of the Wales Spatial Plan Area teams and key partners.
- Ensure effective implementation of European environmental legislation.
- Work to ensure we have a sustainable food and fisheries industry.
- Continue investment and procurement support for food waste and residual waste treatment, including energy from waste.
- By 2025 all sectors in Wales will be recycling 70 per cent of waste and by 2050 we will achieve zero waste.
- Introduce regulations to restrict biodegradable materials going to landfill. This will help encourage increased recycling and help cut carbon emissions.
- Develop an integrated approach to eco-system health through implementation of A Living Wales, the Natural Environment Framework.
- Implement the commons legislation to ensure the improved management of common land in Wales.
- Complete flood and coastal risk plans, including Catchment Flood Management Plans, Shoreline Management Plans and Local Flood Risk Management Strategies.
- Develop a Welsh Water Strategy
- Continue to invest in improving air and water quality, ensuring the highest possible quality for both urban and rural areas.

- Ensure we manage our resources of land, water and air over the long term
- Continue to protect our beautiful scenery and protected landscapes and create new marine conservation zones.
- Introduce higher construction standards in new housing as we move towards zero carbon building. We will work towards a 55 per cent improvement in building standards over 2006 levels by 2013. This will be three years ahead of England in introducing standards that help deliver zero carbon.
- Remain committed to improving public access to land with better access for families and young children.
- Legislate to place a duty to provide cycle routes in key areas
- ...generate up to twice as much renewable electricity annually by 2025 as we use today. By 2050, at the latest, we will meet almost all of our local energy needs, whether for heat, electrical power or vehicle transport, by low carbon electricity production.
- Provide people with the skills and opportunities to take advantage of the growth in new renewable technologies and the employment that will come with the 'greener' society.
- Deliver Cadw's conservation programme for monuments in state care, alongside the designation of further heritage assets.

3. Environment Strategy

Organised in five 'subject' themes, the strategy sets out five overriding priorities:

- minimise our greenhouse gas emissions and adapt to the impacts of climate change,
- conserve and enhance our biodiversity, while respecting the dynamics of nature,
- monitor and regulate known and emerging environmental hazards,
- tackle unsustainable practices, like waste production and disposal
- conserve and enhance our land and sea, our built environment, our natural resources and heritage, developing and using them in a sustainable and equitable way and for the long term benefit of the people of Wales.

The strategy provides a number of indicators to measure progress, including:

- Achievement and maintenance of Green Dragon level five by the Assembly Government.
- Ecological footprint (2002).

- Percentage of people taking various actions to improve the environment, from the Living in Wales Survey.
- Percentage of municipal waste recycled.
- Annual emissions of basket of greenhouse gases (by sector).
- Change in soil organic carbon.
- Quantity of municipal waste per person per annum.
- Quantity of industrial and commercial waste produced per annum.
- Public sector waste arisings.
- Proportion of municipal waste landfilled.
- Proportion of public sector waste landfilled.
- Proportion of industrial/commercial waste landfilled.
- Proportion of End of Life Vehicles waste reused and recycled in the UK.
- Proportion of packaging waste recovered in the UK.

4. Wales National Ecosystem Assessment

The assessment contains no objectives. However, it offers a useful discussion on biodiversity trends and pressures, as well as identifying the key ecosystems and assessments on their state.

On trends, its key findings are:

- plant species richness per (Countryside Survey) sample plot had declined across Wales between 1990 and 2007... reduction in the richness of butterfly larval food plants in all landscape locations sampled...No large step changes in ecological condition occurred over the 17-year period of the Survey in Wales
- Managed hedgerows saw continuing reduction in length in Wales... Forty-four per cent of Welsh hedges were in good structural condition in 2007
- more than half of UK BAP habitats are classed as in 'declining' condition. However, this decline is slowing at many sites and 65% of BAP habitats in Wales can therefore be classed as improving, remaining stable or showing signs that decline is fluctuating or slowing
- Habitats within the Marine environment exhibit the greatest deterioration, with continued or accelerated decline across 60% of marine habitats compared to only 8% for terrestrial habitats and 33% for freshwater habitats.
- 83% of Woodland habitats reported as improving. Of the terrestrial ecosystems, wetlands and coastal habitats show the greatest decline, with 25% of habitats declining at the same or an accelerated rate. For lowland

grassland and heathland the decline appears to be slowing, but neither of these habitats is stable or increasing. Similarly, no coastal BAP habitats are recorded as stable or increasing.

- Seven taxonomic groups (more than 50% of Section 74 species) show increasing, stable or fluctuating/slowng declines (lichens, mosses and liverworts, stoneworts, vascular plants, invertebrates, fish, amphibians and reptiles).
- The most notable negative trends are in the birds (34%) and invertebrates (19%)
- British Trust for Ornithology and the Royal Society for the Protection of Birds...shows no clear trend overall, with some groups having increased since 1994 (notably urban birds) while birds of farmed habitats have decreased
- The mean proportion of records of non-native species in samples of birds, mammals, plants and marine life rose by 23% during the period 1990–2007

5. EU 6th Environmental Action Plan Objectives

Climate change: emphasising climate change as an outstanding challenge of the next 10 years and beyond and contributing to the long term objective of stabilising greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. Thus a long term objective of a maximum global temperature increase of 2 °Celsius over pre-industrial levels and a CO₂ concentration below 550 ppm shall guide the Programme. In the longer term this is likely to require a global reduction in emissions of greenhouse gases by 70 % as compared to 1990 as identified by the Intergovernmental Panel on Climate Change (IPCC);

Nature and biodiversity: protecting, conserving, restoring and developing the functioning of natural systems, natural habitats, wild flora and fauna with the aim of halting desertification and the loss of biodiversity, including diversity of genetic resources, both in the European Union and on a global scale;

Environment and health: contributing to a high level of quality of life and social well being for citizens by providing an environment where the level of pollution does not give rise to harmful effects on human health and the environment and by encouraging a sustainable urban development;

Natural resources and waste: better resource efficiency and resource and waste management to bring about more sustainable production and consumption patterns, thereby decoupling the use of resources and the generation of waste from the rate of economic growth and aiming to ensure that the consumption of renewable and non-renewable resources does not exceed the carrying capacity of the environment

6. 2007-13 ERDF Strategic Environmental Assessment

Presents ten objectives, with associated sub-objectives and indicators.

Avoid damage or deterioration to habitats and valued species, and enhance where possible

- Protect internationally, nationally and locally designated nature conservation sites.
Percentage of sites in favourable condition.
Number of Geological Conservation Review sites.
- Protect Biodiversity Action Plan (BAP) habitats and species, and increase area of habitat.
Trends in key BAP habitats and species.
Number of farms in agri-environment schemes.
- Protect and enhance the salmonid and other fisheries
Input of hazardous substances into the marine environment.

Protect and enhance water quality, and the water environment

- Protect and enhance the quality of groundwater, rivers, lakes, and coastal waters.
Water quality – biological and chemical.
Bathing water quality.
- Avoid or minimise diffuse pollution.
Area of Wales designated as nitrate vulnerable zone.
- Comply with 'good' status under the Water Framework Directive (WFD).
Compliance status with WFD.
- Avoid physical disturbance to the water and waters edge environment.
Compliance status with WFD.
- Ensure that flood risk is not exacerbated and that adaptations to increased flood risk are not hindered.
New developments to incorporate SuDS.
Number of Strategic Flood Risk Assessment (SFRA) undertaken by Local Authorities.

Minimise consumption of resources (waste, materials, water, soils, minerals and aggregates)

- Minimise the amount of waste generated, and follow the waste hierarchy.
Quantity of municipal waste per annum.
Quantity of industrial and commercial waste per annum.
Proportion of municipal waste recycled or composted.
Proportion of industrial waste recycled.
- Development of markets for secondary materials, and waste management facilities and infrastructure.
Number of waste management facilities.
- Encourage the efficient use and management of water.
Leakage levels.
Per capita consumption of water.
- Protect and manage soil.
Area of agricultural land classifications.
Number of farms in agri-environment schemes.
- Protect primary resources by increasing the use of alternative materials,

secondary materials, and recycled materials.

Proportion of construction and demolition waste that is reused and recycled.

Proportion of aggregates used from secondary and recycled sources.

Minimise and/or reduce pollutant emissions to air

- Reduce air pollution in urban and rural areas.
Trends in number of days when air pollution is moderate or higher in rural zones and urban agglomerations.
Level of emissions of sulphur dioxide, ammonia, nitrogen oxides, fine particulates, and volatile organic compounds from the National Atmospheric emissions inventory.
- Encourage technology and industry targeted at reducing emissions through new processes or alternative methods.
Emissions from commerce and industry.
Number of businesses with Environmental Management Systems (EMS)
- Minimise the use of processes that produce toxic air pollutants, and incorporate extensive safety and capture processes for those that occur.
Emissions of toxic pollutants, and concentrations in the air (compared with standards).

Reduce contribution to climate change and encourage adaptation

- Provide measures to enable adaptation to climate change
Adaptation targets to be identified following the conclusion of Department for Environment, Food and Rural Affairs (Defra) work on adaptation targets.
- Minimise and reduce greenhouse gas emissions by increasing energy efficiency and reducing excess
Annual emissions of greenhouse gases by sector.
Renewable energy generation.
Ecological footprint

Protect and enhance the countryside and coastline and the associated landscapes/seascapes of the region

- Protect designated landscape areas
Area of Outstanding Natural Beauty (AONB).
Area of Heritage Coast.
Area of outstanding historic landscapes.
Area of special historic landscapes.
- Protect and enhance access to the coastline and countryside (footpaths)
Total length of rights of way.
- Avoid significant alteration to urban landscape character
Area of open space.

Protect and preserve the historical and cultural heritage.

- Protection of heritage assets

Number of Scheduled Ancient Monument (SAM), Listed Buildings, Conservation Areas, Historic Parks & Garden.
Number of SAMs in WAG care.
Number/area of World Heritage Sites.

- Encourage the use of heritage assets to preserve, protect and inform.
None identified

Improve the quality of life of all citizens

- Minimise environmental nuisance such as fly-tipping, littering, dog fouling, graffiti, noise pollution, and light pollution.
Percentage of highways and land inspected of a high or acceptable standard of cleanliness, from NAWPIs.
Trend in level of fly-tipping (Flycapture database).
Level of beach litter (Marine Conservation Society's Beachwatch surveys).
- Protect existing natural green space.
Area of open space
- Protect and enhance access to rivers and coasts where this does not affect sensitive habitats.
Total length of rights of way.

Reduce activities affecting health and safety, and increase health infrastructure

- Reduce emissions to air from industry and traffic.
Annual emissions of greenhouse gases by sector.
- Encourage the use of cycling and walking as a means of transport.
Percentage of people whose main mode of travel to work and school is cycling and walking.

Protect and enhance the material assets of the region

- Protection and enhancement of the public transport system.
Number of bus routes/passengers.
Number of rail passengers per annum
- Increase in the renewable energy infrastructure and generation.
Amount of energy produced by renewable sources.

7. Wales Spatial Plan

The plan does not provide an overall set of objectives, but is delivered through six area strategies, each of which has its priorities:

Central Wales

- Building on important key centres and improving linkages to the hinterlands and rural communities in order to spread growth and development. This aims

to enhance the attractiveness as a place to work and live and improve sustainability in the area.

- Supporting the rural economic sectors such as agriculture, non-food and food production by creating higher value production opportunities, in order to provide a sustainable future for this sector.
- By maintaining the rural integrity and diverse environment we hope to build higher value sustainable tourism to respond to climate change.
- Building on higher education and introducing new economic opportunities in order to create better paid and higher skilled jobs, to increase home grown enterprise and also attract new enterprises.
- Improving accessibility and collaboration within Wales and with our English and Irish neighbours. This will increase the choice of services available, enhance economic growth and widen employment opportunities.

North-East Wales

- Strengthening key hubs as a focus for investment in future employment, housing, retail and services, developing strong sustainable communities outside the key hubs and improving accessibility between hubs.
- Improving the quality and diversity of the economy.
- Developing the skills and education of the current and potential workforce to enable access to good job opportunities and meet the needs of local employers.
- Promoting sustainable development, which is at the heart of the strategy, to protect and enhance the heritage within the area and respond to climate change.

North-West Wales

- Appropriate and planned spatial development of the area, including facilitating a strong Menai area and various hubs in the region, to spread benefit and facilitate indigenous growth in key rural communities.
- Developing key sectors, including agriculture, manufacturing and their associated industries, facilitated by appropriate Information Communications Technology (ICT) infrastructure.
- Developing a knowledge based economy, with particular emphasis on bio sciences, geo science, environmental goods and services, marine science and renewable energy.
- Maximising the opportunities of Holyhead as a major international gateway and the A55 and E22 Trans European Networks route as a key transportation corridor between Ireland, North East Wales and beyond, whilst ensuring appropriate access to services between the hubs and rural areas.
- Capitalising on the region's outstanding environment including the coast, historical heritage and strong cultural identity, to promote and develop healthier communities and build higher-value sustainable tourism.

Pembrokeshire

- Improving strategic transport links and economic infrastructure including and maximising the potential of the Area's maritime assets and proximity to Ireland.
- Developing a more diverse, entrepreneurial knowledge-based economy, working closely with education institutions, indigenous businesses and multinational companies, in order to create enough well-paid jobs to reduce the out-migration of young skilled people.
- Increasing higher value-adding economic activities, particularly in the rural economy, by developing an all-year, high quality tourism and leisure sector.
- Developing the Area's three strategic hubs, spreading benefit and growth to the wider hinterlands and smaller rural communities.
- Raising skill levels through effective partnership working and tailoring learning to meet existing and future needs across a range of sectors.
- Sustaining and strengthening communities by taking action to address deprivation and economic inactivity.

South-East Wales

- The area will function as a networked city region, on a scale to realise its international potential, its national role and to reduce inequalities.
- A fully integrated high quality transport system is necessary for this to happen. Over the 20 year horizon of the Wales Spatial Plan, all the Area's key settlements should be linked to Cardiff or Newport by suitable high capacity public transport.
- The success of the Area relies on Cardiff developing its capital functions, together with strong and distinctive roles of other towns and cities.

Swansea Bay

- Improving accessibility. This includes improved telecommunication links as well as developing transport connections between the key settlements.
- Developing a cutting edge knowledge economy.
- Reducing economic inactivity and developing an integrated skills strategy.
- Implementing the Waterfront Masterplan to maximise opportunities along the stunning coastline.
- Developing a strong leisure and activity based tourism industry.
- Ensuring that environmental protection and enhancement are fully integrated.

8. Relevant European Commission Core Indicators

ICT	9	Population covered by broadband access of at least 30 Mbps
Transport	10	Total length of new railway line
Environment		
Solid waste	16	Additional waste recycling capacity
Water supply	17	Additional population served by improved water supply
Water supply	18	Estimated reduction of leakage in water distribution

		network
Water supply	19	Additional population served by improved wastewater treatment
Risk and prevention management	20	Population benefiting from flood protection measures
Risk and prevention management	21	Population benefiting from forest fire protection and other protection measures
Land rehabilitation	22	Total surface area of rehabilitated land
Soil sealing	23	Change in land sealed due to development
Nature and biodiversity	24	Surface of habitats in better conservation status
Renewables	31	Additional capacity of renewable energy production
Energy efficiency	32	Number of households with improved energy consumption classification
Energy efficiency	33	Decrease of primary energy consumption of public buildings
Energy efficiency	34	Number of additional energy users connected to smart grids
GHG reduction	35	Estimated decrease of GHG in CO2 equivalents
Cultural heritage	39	Number of visits at supported sites
Urban development	41	New open space in urban areas

9. Lisbon Structural Indicators

There are 89 indicators, of which 17 are labelled 'environment':

- Greenhouse gas emissions
- Energy intensity of the economy
- Combined heat and power generation
- Implicit tax rate on energy
- Electricity generated from renewable sources
- Volume of freight transport relative to GDP
- Volume of passenger transport relative to GDP
- Road share of inland freight transport
- Car share of inland passenger transport
- Urban population exposure to air pollution by ozone

- Urban population exposure to air pollution by particulate matter
- Municipal waste generation and treatment, by type of treatment method
- Resource productivity
- Fish catches from stocks outside safe biological limits: Status of fish stocks managed by the EU in the NE Atlantic
- Sufficiency of sites designated under the EU Habitats Directive
- Farmland Bird Index
- Healthy life years at birth by gender

10. Wales Sustainable Development Objectives

- Reducing greenhouse gas emissions – aim for a 30% reduction by 2020 (2011 baseline) and help to deliver the Climate Change Strategy;
- Increasing the level of renewable energy produced and reducing our dependency on fossil fuels as an energy source. By 2025, the aim is for Wales to be energy neutral, producing as much electricity from renewable sources as we consume;
- Reducing the amount of waste produced with an aim of recycling 70% of all waste by 2025 and be 'zero waste' by 2050;
- Improving water quality by reducing diffuse pollution from agriculture, acid precipitation and other sources;
- Improving the sustainability of fisheries by reducing pollution and unsustainable fishing practices;
- Promoting the sustainable management of the land, sea and inland waters;
- Improving the quality of the local built environment and opportunities to access green space;
- Better environmental management, minimising the risk of pollution and other environmental hazards, thereby safeguarding the environment and the health of communities;
- Enhance the natural and cultural environments and respect their limits – using only our fair share of the earth's resources whilst sustaining our cultural legacy
- Promote social justice and equality of opportunity through the overall sustainable development framework.
- Recognise and promote health and wellbeing as one of the cornerstones of a healthy, vibrant economy.

APPENDIX 3 - SEA OBJECTIVES AND INDICATORS

Notes:

- a) Whilst the Programme is strategic, many of its environmental impacts will be at a local level. Only by aggregating up local impacts can any higher level impacts (and their influence on higher level objectives) be assessed. This should be addressed through collaboration between the relevant bodies, operating at appropriate tiers.
- b) It can be difficult to attribute wider environmental effects to a particular programme. The approach taken here is to be inclusive in terms of objectives and indicators, although some will be less relevant than others.
- c) It is important to draw a distinction between indicators which are used to assess likely environmental impacts of the programme, and the environmental indicators that are part of the OP monitoring suite.

Protect and enhance natural and cultural heritage			
Draft Headline Objectives	Draft Sub-objectives	Draft SEA Indicators	Relationship to OP indicators (2007-13)
Protect places, landscapes and buildings of historic, cultural and archaeological value ^{2,7}	Deliver Cadw's conservation programme for monuments in state care, alongside the designation of further heritage assets ²	Initiatives developing the natural and/or historic environment ¹ Number and state of Scheduled Ancient Monument (SAM), Listed Buildings, Conservation Areas, Historic Parks & Garden ⁶ Sufficiency and condition of sites designated under the EU Habitats Directive ⁹	
Protect and enhance landscapeS, seascapes, townscapes and the countryside ^{2, 3,7}	Improve the quality of the local built environment ^{1,2,10} Develop an integrated approach to eco-system health ² Improve management of common land ²	Listed Buildings - trends in condition LDP policies promoting landscape/townscape character Conservation areas and policies Relevant planning applications/approvals	Amount of green space with native species for wildlife value

	<p>Protect and enhance access to the coastline and countryside (footpaths)⁶</p> <p>Avoid significant alteration to urban landscape character⁶</p>	<p>Area of common land under management agreements</p> <p>Length and condition of Rights of Way</p>	
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Protect and enhance biodiversity ^{3,4,5,6}	<p>Protect internationally, nationally and locally designated nature conservation sites⁴</p> <p>Protect Biodiversity Action Plan (BAP) habitats and species, increase area of habitat⁴</p>	<p>Farmland and Woodland Bird Index^{9,4}</p> <p>Proportion of sites in favourable condition.</p> <p>Trends in key BAP habitats and species⁴</p> <p>Number of Geological Conservation Review sites⁶</p> <p>Number of farms in agri-environment schemes⁶</p> <p>Sufficiency and condition of sites designated under the EU Habitats Directive⁹</p>	<p>Businesses supported in the 'environmental' sector</p> <p>Support for the delivery of Biodiversity Action Plan (BAP) targets</p> <p>Amount of green space with native species for wildlife value</p>
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Protect and conserve natural resources

Draft Headline Objectives	Draft Sub-objectives	Draft Indicators	
Protect and improve the region's water quality ^{2,10}	<p>Monitor and regulate known and emerging environmental hazards^{3,10}</p> <p>Protect and enhance the quality of groundwater, rivers, lakes, and coastal</p>	<p>Input of hazardous substances into the aquatic environment</p> <p>Water quality – biological and chemical⁶</p> <p>Bathing water quality⁶</p> <p>Area of Wales</p>	<p>Number of developments incorporating sustainable drainage systems (SuDS)</p>

	<p>waters</p> <p>Comply with 'good' status under the Water Framework Directive (WFD).</p> <p>Protect and enhance the salmonid and other fisheries⁶</p> <p>Avoid physical disturbance to the water and water edge environment⁶</p> <p>Reduce diffuse pollution from agriculture, acid precipitation and other sources¹⁰</p>	<p>designated as nitrate vulnerable zone⁶</p> <p>New developments to incorporate SuDS⁶</p> <p>Number of Strategic Flood Risk Assessment (SFRA) undertaken by Local Authorities⁶</p> <p>Additional population served by water/waste water projects⁷</p> <p>Number of water pollution incidents⁶</p>	
Protect the water resource and ensure its sustainable use ^{2,10}		<p>Leakage levels⁶</p> <p>Per capita consumption of water⁶</p>	Reductions in SME water use
Guard against land contamination, encourage reuse of existing buildings and of previously developed land of low ecological quality ¹	<p>Introduce higher construction standards in new housing²</p> <p>Monitor and regulate known and emerging environmental hazards^{3,10}</p>	<p>Environmental risk management initiatives¹</p> <p>Area rehabilitated⁷</p>	<p>Area of derelict land developed</p> <p>Sites or developments attaining a BREEAM rating of 'Very Good' or 'Excellent'</p> <p>Amount of demolition waste reused on-site or recycled off-site</p>
Minimise the requirement for energy generation use, promote efficient energy use and increase the	Generate up to twice as much renewable electricity annually by 2025 as we use today ²	<p>Renewable energy generation^{6,10}</p> <p>Enterprises operating Environmental Management Systems at a level that requires monitoring of carbon</p>	Businesses achieving quantifiable environmental improvements (Green Dragon, BS 8555 or ISO

use of energy from renewable resources		emissions ¹ Energy saved (GWh) ¹ Energy intensity of the economy ⁹	14001 certification) Jobs created in the 'environmental' sector Businesses supported in the 'environmental' sector Number of SMEs setting up in the environmental sector MWh/GWh of heat generated by renewables MWh/GWh of power generated by renewables
Minimise waste increase re-use, recycling and recovery rates ^{3,5,6}	Restrict biodegradable materials going to landfill ² Re-use materials from existing buildings	Waste reduced, reused or recycled ('000kt) ^{1,3,6,9,10} Number of waste management facilities ⁶ Proportion of End of Life Vehicles waste reused and recycled in the UK ³ Proportion of packaging waste recovered in the UK ³ Proportion of construction and demolition waste reused and recycled ⁶ Proportion of aggregates derived from secondary and recycled sources ⁶	Businesses achieving quantifiable environmental improvements (Green Dragon, BS 8555 or ISO 14001 certification) Jobs created in the 'environmental' sector Businesses supported in the 'environmental' sector Number of SMEs setting up in the environmental sector

			<p>Reductions in waste generated by SMEs</p> <p>Amount of demolition waste reused on-site or recycled off-site</p>
<p>Minimise the need to travel and provide alternatives to car use^{2,6}</p>	<p>Promote sustainable transport¹</p> <p>Protect and enhance public transport system⁶</p> <p>Legislate to place a duty to provide cycle routes in key areas²</p>	<p>Percentage of people whose main mode of travel to work and school is cycling and walking⁶</p> <p>Number of bus routes/passengers⁶</p> <p>Number of rail passengers per annum⁶</p> <p>Volume of freight transport relative to GDP⁹</p> <p>Volume of passenger transport relative to GDP⁹</p>	<p>Number of SMEs developing a green travel plan</p> <p>Businesses supported in the 'environmental' sector</p>
Maintain and improve the human environment			
Draft Headline Objectives	Draft Sub-objectives	Draft Indicators	
<p>Limit and adapt to climate change^{1, 2, 3,5,6,7}</p>	<p>Reduce emissions of greenhouse gases^{1,2, 3,10}</p> <p>Provide measures to enable adaptation to climate change⁶</p> <p>Work to ensure we have a sustainable food and fisheries industry²</p> <p>Protect and</p>	<p>Environmental risk management initiatives¹</p> <p>Change in soil organic carbon³</p> <p>Ecological footprint⁶</p> <p>Area of agricultural land classifications⁶</p> <p>Annual emissions of basket of greenhouse gases (by sector)^{1,3,6,7,9}</p>	<p>Businesses supported in the 'environmental' sector</p> <p>Number of SMEs setting up in the environmental sector</p> <p>Reductions in SME CO2 generation through reductions in</p>

	<p>manage soil⁶</p> <p>Reduce the risk of flooding⁶</p> <p>Complete flood and coastal risk plans²</p>	<p>People benefiting from flood protection measures^{1,7}</p>	<p>energy use</p> <p>MWh/GWh of heat generated by renewables</p> <p>MWh/GWh of power generated by renewables</p> <p>Number of developments incorporating sustainable drainage systems (SuDS)</p>
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Protect and improve air quality ⁶	Minimise the use of processes that produce toxic air pollutants, and incorporate extensive safety and capture processes for those that occur ⁶	<p>Trends in number of days when air pollution is moderate or higher in rural zones and urban agglomerations^{6,7}</p> <p>Level of emissions of sulphur dioxide, ammonia, nitrogen oxides, fine particulates, and volatile organic compounds from the National Atmospheric emissions inventory^{6,7}</p> <p>Number of air pollution incidents⁶</p> <p>Urban population exposure to air pollution by ozone⁹</p> <p>Emissions from commerce and industry⁶</p>	Businesses supported in the 'environmental' sector
Improve physical and mental health ¹ and reduce health	Minimise environmental nuisance such as fly-tipping, littering, dog fouling, graffiti, noise	Percentage of people taking various actions to improve the environment ³	

inequalities ⁵	<p>pollution, and light pollution⁶</p> <p>Monitor and regulate known and emerging environmental hazards^{3,10}</p> <p>Protect and enhance existing greenspace</p>	<p>Healthy life years at birth by gender⁹</p> <p>Trend in level of fly-tipping (Flycapture database)⁶</p> <p>Percentage of highways and land inspected of a high or acceptable standard of cleanliness⁶</p> <p>Amount, types and quality of greenspace</p>	
Improve public access to land ²	Improve opportunities to access green space ^{1,2,10}	<p>Managed access to countryside or coast (km)¹</p> <p>Area and type of open space and condition⁶</p>	Jobs created in the 'environmental' sector

APPENDIX 4 - PROPOSED PROGRAMME - SUMMARY OF OBJECTIVES AND INDICATORS

SME Competitiveness: West Wales and the Valleys

(1) Aim

To support the creation and growth of sustainable small and medium-sized enterprises in Wales.

Theme 1 - Access to Finance

Strategic interventions:

- Access to debt, equity and mezzanine finance
- Micro-finance investment vehicle
- Tailored business finance schemes (e.g. for key sectors or specific geographic areas)

Complementary Interventions

- Limited and targeted business grant support (focussed on growth / economically important businesses).

Theme 2 - Entrepreneurship:

Strategic interventions:

- Financial support, advice and mentoring for start-ups
- Tailored support for economically important and growth businesses (e.g. to address specific barriers to growth or supply chain development)
- Capacity building to support Welsh businesses to access procurement opportunities (including internationally)
- Support for the internationalisation of businesses and increasing exports
- Supporting the exploitation of ICT and the Digital Economy

Complementary Interventions:

- Customised delivery of support for social enterprises (e.g. to promote innovative business models and address barriers to growth)

Output Indicator	Measure
Number of enterprises receiving support	Number
<i>Of which:</i>	Number
Receiving grants	
Receiving financial support other than grants	Number
Receiving non-financial support	Number
Individuals assisted to set up a new enterprise	Number
Individuals financially supported to set up a new enterprise	Number
Result Indicator	
Number of new enterprises supported	Number
Private investment matching public support to enterprises	Euro
<i>Of which:</i>	
Grants	Euro
Non-grants	Euro
Employment increase in supported enterprises	FTE
Increase in level of export	GBP

Infrastructure: West Wales and the Valleys

(1) Aim

To improve access to markets and employment opportunities through improved connectivity, and to exploit economic opportunities through focussed investments in infrastructure.

Theme 1 – Transport and Network Bottlenecks to Growth

Strategic interventions:

- Intermodal and sustainable transport facilities that improve access to employment and education (e.g. transport hub)
- Targeted investment in the Core or Comprehensive TEN-T road and rail network
- ICT networks and mobile communications networks
- Port infrastructure and access to ports by rail and/or road (in particular where they enable the exploitation of renewable energy)

Complementary Interventions:

- Investment in the roads providing accessibility to the TEN-T network, or addressing access bottlenecks
- Alleviation of urban congestion (e.g. traffic management, developing low-carbon transport systems, promoting urban mobility)

Theme 2 – Infrastructure-led Growth

Strategic interventions:

- Economically important investments in Wales' physical infrastructure (built and natural/green). In particular those that are key parts of integrated regeneration and economic development schemes.

Complementary Interventions:

- Targeted investment in education and training infrastructure with clear economic focus
- Strategically important business sites and premises
- Local infrastructure (e.g. training or childcare facilities) supporting broader economic development investments

Output Indicator	Measure
Land developed	ha
Intermodal facilities created or improved	number
Public transport services created or improved	vehicle '000km
Footpath or cycleway created or reconstructed	km
Total length of new railway line (including TEN-T)	km
Total length of reconstructed or upgraded railway line (including TEN-T)	km
Total length of newly built roads (including TEN-T)	km
Total length of reconstructed or upgraded roads (including TEN-T)	km
Total length of new or improved tram and metro lines	km
Result Indicator	
Additional households with broadband access of at least 30 Mbps	number
Gross passenger kilometres on public transport	passenger '000km
Premises created or refurbished	M ²
Jobs accommodated	number
Participants accommodated	number
SMEs accommodated	number

Research and Innovation: West Wales and the Valleys

(1) Aim

Improve the capacity for, and economic exploitation of, innovation and research.

Theme 1 - Innovation for All

Strategic interventions:

- Support businesses to undertake innovation (e.g. demand-led or eco-innovation) and improve innovation supply chains between businesses and with academia¹
- Piloting of initiatives to test innovative approaches, products or services in areas with commercial potential

Complementary Interventions:

- Development of low-cost hubs or clusters for innovative businesses and sectors (e.g. virtual hubs for ICT, Creative or Tourism sector)
- Development and launch of innovative new uses and adaptations for existing technology, processes or services into new markets

Theme 2 - Research and Development

Strategic interventions:

- Commercialisation, protection and exploitation of research (including applied research to improve market readiness)
- Building research capacity (both physical and people-related), with a focus on areas with potential for developing or strengthening world-class excellence (e.g. identified in *Science for Wales*)
- Access to risk-capital finance and support for the creation and growth of research-intensive and innovative businesses, such as spin-outs.

Complementary Interventions:

- Capacity building directly linked to improving access to wider research funding (e.g. support to develop more competitive bids for Horizon 2020)
- Capital investments leading to open access and diffusion of key technology
- Investments in advanced manufacturing and production capabilities (e.g. first production of Key Enabling Technologies)

Output Indicator	Measure
Number of enterprises receiving support	Number
<i>Of which:</i>	
Receiving grants	Number
Receiving financial support other than grants	Number
Receiving non-financial support	Number
Number of enterprises co-operating with supported research institutions	Number
Individuals assisted	Number
Individuals financially supported	Number
Innovation centres and R&D facilities developed	M ²
Result indicator	
Number of new enterprises supported	Number
Private investment matching public support in innovation or R&D projects	Euro
Employment increase in supported enterprises	FTE
Number of new researchers in supported enterprises	FTE
Number of researchers working in improved research infrastructure facilities	Number
Number of enterprises supported to introduce new to the firm products	Number

Products, processes or services registered	Number
Enterprises accommodated	Number

Renewable Energy and Energy Efficiency: West Wales and the Valleys

(1) Aim

Support the sustainable development of the low-carbon economy in Wales and the delivery of climate change objectives.

Theme 1 - Energy Efficiency

Strategic interventions:

- Energy conservation and efficiency measures in existing housing and public buildings
- Advice, guidance and loans for businesses to improve energy efficiency and competitiveness

Complementary intervention

- Low-carbon strategies for urban areas

Theme 2 - Marine energy (tidal, wave and wind)

Strategic interventions:

- Targeted infrastructure investments to remove barriers, reduce risks and maximise investor confidence (e.g. site preparation, shore-based facilities, connections and access).
- Marine energy innovation and R&D with commercial potential including prototypes, demonstrators and pre-commercial devices and arrays.

Complementary intervention:

- Capacity building and innovation supply-chain development for institutes/ businesses engaged in marine energy research

Theme 3 - Low Carbon Transition

Strategic interventions:

- Smart living innovation and demonstration projects.
- Targeted development and deployment of emerging and transition technologies and renewable energy sources.
- Renewable energy generation schemes to improve business competitiveness in key areas (e.g. Enterprise Zones or regeneration areas).

Complementary intervention:

- Support for district heating, community renewable energy schemes and low-carbon strategies in urban areas (potential to use financial instruments and align with community benefit funding).
- Smart infrastructure (e.g. grid and digital) improvements to accelerate markets and/or address market failure where a specific opportunity is identified.

Output Indicator	Measure
Number of enterprises receiving support	Number
<i>Of which:</i>	
Receiving grants	Number
Receiving financial support other than grants	Number
Receiving non-financial support	Number
Number of enterprises co-operating with supported research institutions	Number
Result indicator	

Number of new enterprises supported	Number
Number of enterprises supported to introduce new to the firm products	Number
Number of enterprises supported to introduce new to the market products	Number
Private investment matching public support to enterprises	Euro
<i>Of which:</i>	
Grants	Euro
Non-grants	Euro
Employment increase in supported enterprises	FTE
Private investment matching public support in innovation or R&D projects	Euro
Additional capacity of renewable energy production	MW
Number of researchers in supported entities	FTE
Number of households with improved energy consumption classification	Number
Decrease of primary energy consumption of public buildings	KWh/yr
Number of energy users connected to smart grids	Number
Estimated decrease in GHG	Tons of CO ₂ eq
Energy saved	GWh

APPENDIX 5 - DETAILED ANALYSIS OF PROGRAMME AND SEA OBJECTIVES

To support the creation and growth of sustainable small and medium-sized enterprises in Wales					
Theme 1 - access to finance					
SEA Objective	SEA Indicators	1. Access to debt, equity and mezzanine finance	2. Micro-finance investment vehicle	3. Tailored business finance schemes	C1. Limited and targeted business grant support
1. Protect places, landscapes and buildings of historic, cultural and archaeological value	Initiatives developing the natural and/or historic environment	Irrelevant	Likely to be neutral overall, depending on type and location of SME being targeted for financing and investment.		
	Number and state of Scheduled Ancient Monument (SAM), Listed Buildings, Conservation Areas, Historic Parks & Gardens				
	Sufficiency and condition of sites designated under the EU Habitats Directive				

2. Protect and enhance landscapes, seascapes, townscapes and the countryside

Listed Buildings
- trends in
condition

LDP policies
promoting
landscape/town
scape character

Conservation
areas and
policies

Relevant
planning
applications/ap
provals

Area of
common land
under
management
agreements

Length and
condition of
Rights of Way

Irrelevant

Likely to be neutral overall, depending on type and location of SME being targeted for financing and investment

3. Protect and enhance biodiversity

Farmland and Woodland Bird Index

Irrelevant

Likely to be neutral overall. No explicit positives in terms of biodiversity, depending on type of SME development

Proportion of sites in favourable condition.

Trends in key BAP habitats and species

Number of Geological Conservation Review sites

Number of farms in agri-environment schemes

Sufficiency and condition of sites designated under the EU Habitats Directive

4. Protect and improve the region's water quality

Input of hazardous substances into the aquatic environment

Irrelevant

Unlikely to have any significant effect. Supported projects will be required to comply with existing regulations and meet appropriate environmental standards, which will deliver some minor local positive effects

Water quality – biological and chemical

Bathing water quality

Area of Wales designated as nitrate vulnerable zone

New developments to incorporate SuDS

Number of Strategic Flood Risk Assessment (SFRA) undertaken by Local Authorities

Additional population served by water/waste water projects

Number of water pollution incidents

**5. Protect the water resource
and ensure its sustainable use**

Leakage levels

Per capita
consumption of
water

Irrelevant

Likely to be neutral overall, though potentially an increase in use? Any such increase unlikely to be significant.

6. Guard against land contamination, encourage reuse of existing buildings and of previously developed land of low ecological quality

Environmental risk management initiatives

Dir



Area rehabilitated

L

LT/P

Possibility of a small positive, depending on locations/types of SME promoted.

Likely to be realised in LDP policies?

7. Minimise the requirement for energy generation use, promote efficient energy use and increase the use of energy from renewable resources

Renewable energy generation	Dir	Possibility of a positive effect in terms of sustainable use of energy, depending on locations/types of SME promoted.
Enterprises operating Environmental Management Systems at a level that requires monitoring of carbon emissions	✓✓	
	CS	
	L/R	
Energy saved (GWh)	LT	Likely to be realised through cross-cutting compliance.
Energy intensity of the economy		
		Overall effect likely to be minor, cumulative.

8. Minimise waste; increase re-use, recycling and recovery rates

Waste reduced, reused or recycled ('000kt)

Dir/Ind

Likely to be positive but minor/moderate.

CS

Number of waste management facilities

✓

L

Waste management is a cross-cutting and potentially a vertical theme - promoted projects likely to provide for waste management/recycling.

LT

Proportion of End of Life Vehicles waste reused and recycled in the UK

Proportion of packaging waste recovered in the UK

Proportion of construction and demolition waste reused and recycled

Proportion of aggregates derived from secondary and recycled sources

**9. Minimise the need to travel and
provide alternatives to car use**

Percentage of people whose main mode of travel to work and school is cycling and walking	Dir	Potential for a small positive effect.
	✓	
Number of bus routes/passengers	L/R	The effect is likely to be minor and be sustained over a medium to long term period without parallel measures.
	MT/LT	
Number of rail passengers per annum		
Volume of freight transport relative to GDP		
Volume of passenger transport relative to GDP		

10. Limit and adapt to climate change

Environmental risk management initiatives	Dir ✓✓	Possibility of a positive effect in terms of sustainable use of energy, depending on locations/types of SME promoted.
Change in soil organic carbon	CS	
Ecological footprint	N	
Area of agricultural land classifications	LT	Likely to be realised through cross-cutting compliance.
Annual emissions of basket of greenhouse gases (by sector)		Overall effect likely to be minor, cumulative and long term, but will contribute to national targets.
People benefiting from flood protection measures		

11. Protect and improve air quality

Trends in number of days when air pollution is moderate or higher in rural zones and urban agglomerations

Dir

✓✓

CS

L

Level of emissions of sulphur dioxide, ammonia, nitrogen oxides, fine particulates, and volatile organic compounds from the National Atmospheric emissions inventory

LT

Number of air pollution incidents

Urban population exposure to air pollution by ozone

Emissions from commerce and industry

Potential for a positive effect, dependant on achieving objectives 7 & 9.

Likely to be realised through cross-cutting compliance.

Overall effect likely to be minor, cumulative and long term, but could contribute to local air quality measures.

12. Improve physical and mental health and reduce health inequalities

Percentage of people taking various actions to improve the environment

Healthy life years at birth by gender

Trend in level of fly-tipping (Flycapture database)

Percentage of highways and land inspected of a high or acceptable standard of cleanliness

Amount, types and quality of greenspace

Irrelevant

No obvious link.

13. Improve public access to land

Managed access to countryside or coast (km)

Area and type of open space and condition

Irrelevant

No obvious link.

To support the creation and growth of sustainable small and medium-sized enterprises in Wales

Theme 2 - Entrepreneurship

1. Financial support, advice and mentoring for start-ups
2. Tailored support for economically important and growth businesses
3. Capacity building to support Welsh businesses to access procurement opportunities (including internationally)
4. Support for the internationalisation of businesses and increasing exports

SEA Objective	SEA Indicators	
1. Protect places, landscapes and buildings of historic, cultural and archaeological value	Initiatives developing the natural and/or historic environment	Irrelevant Likely to be neutral overall, depending on type and location of SME being targeted for financing and investment. No obvious link.
	Number and state of Scheduled Ancient Monument (SAM), Listed Buildings, Conservation Areas, Historic Parks & Gardens	
	Sufficiency and condition of sites designated under the EU Habitats Directive	

2. Protect and enhance landscapes, seascapes, townscape and the countryside

Listed Buildings
- trends in
condition

Dir/Ind

X

LDP policies
promoting
landscape/town
scape character

CS

Conservation
areas and
policies

LT

L/R

Relevant
planning
applications/ap
provals

Area of
common land
under
management
agreements

Length and
condition of
Rights of Way

No obvious positives - economically important/growth business with international supply chains have the potential to impact as a result of growing beyond scale of surroundings - depends on location, type and scale of SME.

Local effect could be significant without adequate forward planning & appropriate LDP policies.

3. Protect and enhance biodiversity

Farmland and Woodland Bird Index	Dir/Ind	No obvious positives - economically important/growth business with international supply chains have the potential to impact as a result of growing beyond scale of surroundings - depends on location, type and scale of SME. Local effect could be significant without adequate forward planning & appropriate LDP policies.
Proportion of sites in favourable condition.	X	
Trends in key BAP habitats and species	CS	
Number of Geological Conservation Review sites	LT	
Number of farms in agri-environment schemes	L/R	
Sufficiency and condition of sites designated under the EU Habitats Directive		

4. Protect and improve the region's water quality

Input of hazardous substances into the aquatic environment

Irrelevant

Unlikely to have any significant effect. Supported projects will be required to comply with existing regulations and meet appropriate environmental standards, which will deliver some minor local positive effects

Water quality – biological and chemical

Bathing water quality

Area of Wales designated as nitrate vulnerable zone

New developments to incorporate SuDS

Number of Strategic Flood Risk Assessment (SFRA) undertaken by Local Authorities

Additional population served by water/waste water projects

Number of water pollution incidents

**5. Protect the water resource
and ensure its sustainable use**

Leakage levels

Irrelevant

Unlikely to have any significant effect. Depends on type of SME - potential for increased water use, but local and not significant.

Per capita
consumption of
water

6. Guard against land contamination, encourage reuse of existing buildings and of previously developed land of low ecological quality

Environmental risk management initiatives

Area rehabilitated

Dir



L

LT/P

Potential positive - promotion of re-used land of low ecological quality through LDP policies.

7. Minimise the requirement for energy generation use, promote efficient energy use and increase the use of energy from renewable resources

Renewable energy generation	Dir	Growth/expansion of business with export potential is likely to increase the demand for energy. However, the potential exists for efficient use of renewables - cross-cutting compliance/ planning policies will apply.
Enterprises operating Environmental Management Systems at a level that requires monitoring of carbon emissions	CS	
	✓ x	
	L/R	
Energy saved (GWh)	LT	
Energy intensity of the economy		

8. Minimise waste; increase re-use, recycling and recovery rates

Waste reduced, reused or recycled ('000kt)	Dir/Ind	Growth/expansion of business with export potential is likely to increase use of packaging, with potential downstream impact in waste generation.
	x	
Number of waste management facilities	L>Int?	
Proportion of End of Life Vehicles waste reused and recycled in the UK	LT	Depends on type of SME.
Proportion of packaging waste recovered in the UK		
Proportion of construction and demolition waste reused and recycled		
Proportion of aggregates derived from secondary and recycled sources		

9. Minimise the need to travel and provide alternatives to car use

Percentage of people whose main mode of travel to work and school is cycling and walking

Number of bus routes/passengers

Number of rail passengers per annum

Volume of freight transport relative to GDP

Volume of passenger transport relative to GDP

Dir/Ind

x

L>Int?

LT

The need to expand and procure international markets is likely to *increase* the need to travel for client development and export.

Depends on the type of SME envisaged.

10. Limit and adapt to climate change

Environmental risk management initiatives	Dir/Ind X?	At best neutral, but increased travel and energy demand will not contribute positively to this objective without parallel/cross cutting measures.
Change in soil organic carbon	L>Int?	
Ecological footprint	LT	
Area of agricultural land classifications		
Annual emissions of basket of greenhouse gases (by sector)		
People benefiting from flood protection measures		

11. Protect and improve air quality

Trends in number of days when air pollution is moderate or higher in rural zones and urban agglomerations

Dir/Ind

✓

L

LT

Locally likely to be insignificant, though a minor positive effect might accrue.

Depends on location of SME.

Level of emissions of sulphur dioxide, ammonia, nitrogen oxides, fine particulates, and volatile organic compounds from the National Atmospheric emissions inventory

Number of air pollution incidents

Urban population exposure to air pollution by ozone

Emissions from commerce and industry

12. Improve physical and mental health and reduce health inequalities

Percentage of people taking various actions to improve the environment

Healthy life years at birth by gender

Trend in level of fly-tipping (Flycapture database)

Percentage of highways and land inspected of a high or acceptable standard of cleanliness

Amount, types and quality of greenspace

Irrelevant

No obvious link.

13. Improve public access to land

Managed access to countryside or coast (km)

Area and type of open space and condition

Irrelevant

No obvious link.

To support the creation and growth of sustainable small and medium-sized enterprises in Wales

Theme 2 - Entrepreneurship

SEA Objective	SEA Indicators	5. Supporting the exploitation of ICT and the Digital Economy	C1. Customised delivery of support for social enterprises		
1. Protect places, landscapes and buildings of historic, cultural and archaeological value	Initiatives developing the natural and/or historic environment	Irrelevant	No obvious link.	Dir ✓	Small potential for management of natural/cultural heritage through promotion social enterprises. Likely to be minor in effect, and not long term.
	Number and state of Scheduled Ancient Monument (SAM), Listed Buildings, Conservation Areas, Historic Parks & Gardens			L	
	Sufficiency and condition of sites designated under the EU Habitats Directive			ST/MT	

2. Protect and enhance landscapes, seascapes, townscapes and the countryside

Listed Buildings
- trends in
condition

Irrelevant **No obvious link.**

Dir

✓

LDP policies
promoting
landscape/town
scape character

L

ST/MT

Small potential for management of townscape/landscape/common land through promotion social enterprises and local groups.

Conservation
areas and
policies

Likely to be minor in effect, and not long term - aspects more relevant to RDP.

Relevant
planning
applications/ap
provals

Area of
common land
under
management
agreements

Length and
condition of
Rights of Way

3. Protect and enhance biodiversity

Farmland and Woodland Bird Index	Irrelevant	No obvious link.	Dir	Small potential for management of townscape/ landscape/common land through promotion social enterprises and local groups.
Proportion of sites in favourable condition.			✓	
Trends in key BAP habitats and species			L ST/MT	
Number of Geological Conservation Review sites				Likely to be minor in effect, and not long term - aspects more relevant to RDP.
Number of farms in agri-environment schemes				
Sufficiency and condition of sites designated under the EU Habitats Directive				

4. Protect and improve the region's water quality

Input of hazardous substances into the aquatic environment

Irrelevant **Unlikely to have any significant effect. Supported projects will be required to comply with existing regulations and meet appropriate environmental standards, which will deliver some minor local positive effects.**

Water quality – biological and chemical

Bathing water quality

Area of Wales designated as nitrate vulnerable zone

New developments to incorporate SuDS

Number of Strategic Flood Risk Assessment (SFRA) undertaken by Local Authorities

Additional population served by water/waste water projects

Number of water pollution incidents

**5. Protect the water resource
and ensure its sustainable use**

Leakage levels

Irrelevant Unlikely to have any significant effect.

Per capita
consumption of
water

6. Guard against land contamination, encourage reuse of existing buildings and of previously developed land of low ecological quality

Environmental risk management initiatives

Dir



Area rehabilitated

L

LT/P

**Potential positive
- promotion of re-used land of low ecological quality through LDP policies.**

7. Minimise the requirement for energy generation use, promote efficient energy use and increase the use of energy from renewable resources

Renewable energy generation

Enterprises operating Environmental Management Systems at a level that requires monitoring of carbon emissions

Energy saved (GWh)

Energy intensity of the economy

Dir

CS

✓ x

L/R

LT

Growth/expansion of business with export potential is likely to increase the demand for energy. However, the potential exists for efficient use of renewables - cross-cutting compliance/ planning policies will apply.

8. Minimise waste; increase re-use, recycling and recovery rates

Waste reduced, reused or recycled ('000kt)

Dir/Ind

x

Number of waste management facilities

L>Int?

LT

Proportion of End of Life Vehicles waste reused and recycled in the UK

Growth/expansion of business with export potential is likely to increase use of packaging, with potential downstream impact in waste generation.

Depends on type of SME.

Proportion of packaging waste recovered in the UK

Proportion of construction and demolition waste reused and recycled

Proportion of aggregates derived from secondary and recycled sources

9. Minimise the need to travel and provide alternatives to car use

Percentage of people whose main mode of travel to work and school is cycling and walking

Number of bus routes/
passengers

Number of rail passengers per annum

Volume of freight transport relative to GDP

Volume of passenger transport relative to GDP

Dir/Ind

×

L>Int?

LT

The need to expand and procure international markets is likely to *increase* the need to travel for client development and export.

Depends on the type of SME envisaged.

10. Limit and adapt to climate change

Environmental risk management initiatives

Dir/Ind

X?

Change in soil organic carbon

L>Int?

Ecological footprint

LT

Area of agricultural land classifications

Annual emissions of basket of greenhouse gases (by sector)

People benefiting from flood protection measures

At best neutral, but increased travel and energy demand will not contribute positively to this objective without parallel/cross cutting measures.

11. Protect and improve air quality

Trends in number of days when air pollution is moderate or higher in rural zones and urban agglomerations

Dir/Ind

✓

L

LT

Locally likely to be insignificant, though a minor positive effect might accrue.

Depends on location of SME.

Level of emissions of sulphur dioxide, ammonia, nitrogen oxides, fine particulates, and volatile organic compounds from the National Atmospheric emissions inventory

Number of air pollution incidents

Urban population exposure to air pollution by ozone

Emissions from commerce and industry

12. Improve physical and mental health and reduce health inequalities

Percentage of people taking various actions to improve the environment

Healthy life years at birth by gender

Trend in level of fly-tipping (Flycapture database)

Percentage of highways and land inspected of a high or acceptable standard of cleanliness

Amount, types and quality of greenspace

Irrelevant

No obvious link.

Dir



L

ST/MT

Some potential for developing opportunities through the promotion of social enterprises.

Likely to be limited, short term and not permanent.

13. Improve public access to land	Managed access to countryside or coast (km)	Irrelevant	No obvious link.	Dir	Some potential for developing opportunities through the promotion of social enterprises.
	Area and type of open space and condition			✓ L ST/MT	Likely to be limited, short term and not permanent.

To improve access to markets and employment opportunities through improved connectivity, and to exploit economic opportunities through focussed investments in infrastructure.

Theme 1 – Transport and Network Bottlenecks to Growth

		1. Intermodal and sustainable transport facilities that improve access to employment and education		2. Targeted investment in the Core or Comprehensive TEN-T road and rail network		3. ICT networks and mobile communications networks		4. Port infrastructure and access to ports by rail and/or road	
SEA Objective	SEA Indicators								
1. Protect places, landscapes and buildings of historic, cultural and archaeological value	Initiatives developing the natural and/or historic environment	Dir/Ind	Improved road/rail schemes, together with congestion alleviation could have the positive effect of improving the character of historic townscapes.	As 1.	Dir	Telecoms masts may have a visual impact. Ensure appropriate siting.	Dir/Ind	Port infrastructure might have a negative impact on coast/ seascape.	
		CS			L		CS		
		L>N			LT		L/R		
	Number and state of Scheduled Ancient Monument (SAM), Listed Buildings, Conservation Areas, Historic Parks & Gardens	LT/P			X		LT/P		
		✓			Dir/Ind	Promotion of ICT will facilitate a reduction of the need to travel to work and will promote types of SME likely to have minimal impact on the environment.	X		
		Dir/Ind	However, such schemes are likely to impact on the wider landscape/ countryside.		L/R		Dir/Ind	May result in significant local impacts from offloading and transportation of cargoes by road. Need for careful siting.	
		L/R			MT/LT		CS		
		LT/P			✓		L/R		
		X					LT/P		
							X X		

2. Protect and enhance landscapes, seascapes, townscapes and the countryside

Listed Buildings
- trends in
condition

Dir/Ind

CS

LDP policies
promoting
landscape/town
scape character

L>N

LT/P

Conservation
areas and
policies

✓

Relevant
planning
applications/ap
provals

Dir/Ind

L/R

Area of
common land
under
management
agreements

LT/P

x

Length and
condition of
Rights of Way

**Improved
road/rail
schemes,
together with
congestion
alleviation could
have the positive
effect of
improving the
character of
townscapes.**

**However, such
schemes are
likely to impact
on landscape/
countryside.**

**Unlikely to have
any positive
effect on RoWs.**

As 1.

Dir

L

LT

x

Dir/Ind

L/R

MT/LT

✓

**Telecoms masts
may have a visual
impact. Ensure
appropriate siting.**

**Promotion of ICT
will facilitate a
reduction of the
need to travel to
work and will
promote types of
SME likely to have
minimal impact on
the environment.**

Dir/Ind

CS

L/R

LT/P

x

Dir/Ind

CS

L/R

LT/P

x x

**Port
infrastructure
might have a
negative impact
on coast/
seascape.**

**May result in
significant local
impacts from
offloading and
transportation of
cargoes by road.
Need for careful
siting.**

3. Protect and enhance biodiversity

Farmland and Woodland Bird Index	Dir/Ind	Potential opportunities for small benefits to biodiversity may be offset by impacts unless adequate mitigation/compensation measures are applied.	As 1.	Dir	Some local disturbance to biodiversity may result.	Dir/Ind	Port infrastructure might have a significant negative impact on coastal/marine biodiversity
Proportion of sites in favourable condition.	R/N			L		CS	
Trends in key BAP habitats and species	LT/P			MT/LT		L/R	
Number of Geological Conservation Review sites	X	Will require appropriate assessment, EIA and other regulatory compliance.		X		LT/P	
Number of farms in agri-environment schemes						X X	
Sufficiency and condition of sites designated under the EU Habitats Directive						Dir/Ind	May result in significant local impacts on trees and roadside verges from offloading and transportation of cargoes by road.
						CS	
						L/R	
						LT/P	
						X X	Regulatory compliance.

4. Protect and improve the region's water quality

Input of hazardous substances into the aquatic environment

Water quality – biological and chemical

Bathing water quality

Area of Wales designated as nitrate vulnerable zone

New developments to incorporate SuDS

Number of Strategic Flood Risk Assessment (SFRA) undertaken by Local Authorities

Additional population served by water/waste water projects

Number of water pollution incidents

Irrelevant

No obvious link to water quality. EIA will apply and avoid/mitigate where necessary.

As 1.

As 1.

Dir/Ind

CS

R/N

LT/P

X

Port infrastructure might have a significant negative impact on quality of coastal waters.

**5. Protect the water resource
and ensure its sustainable use**

Leakage levels

Per capita
consumption of
water

Irrelevant No obvious link.

6. Guard against land contamination, encourage reuse of existing buildings and of previously developed land of low ecological quality	Environmental risk management initiatives	Dir	Likelihood of significant land take that will impact on land of potentially high ecological quality.	As 1.	Irrelevant	Unlikely to be significant.	Dir	Likelihood of significant local land take that will impact on land of potentially high ecological quality.
		CS					CS	
		R/N					R/N	
		LT/P					LT/P	
	Area rehabilitated	xx	Potential for significant rehabilitation and enhancement schemes.				xx	
		Dir/Ind						
		L/R						
		LT/P						
		✓						

7. Minimise the requirement for energy generation use, promote efficient energy use and increase the use of energy from renewable resources

Renewable energy generation

Enterprises operating Environmental Management Systems at a level that requires monitoring of carbon emissions

Energy saved (GWh)

Energy intensity of the economy

See 2.

Dir/Ind

CS

x✓

R/N

LT/P

Improvements in road networks will reduce congestion, but may increase the volume of traffic without parallel measures such as improvements in ICT and rail/bus links.

See 2.

Dir/Ind

CS

R/N

LT/P

x✓

Transportation by ship will have an impact in terms of volumes moved more efficiently, but this may be offset by the energy requirement for construction and the effects of cargo offload and transportation by road to/from ports.

**8. Minimise waste; increase re-use, recycling
and recovery rates**

Waste reduced,
reused or
recycled
(’000kt)

Irrelevant No obvious link.

Number of
waste
management
facilities

Proportion of
End of Life
Vehicles waste
reused and
recycled in the
UK

Proportion of
packaging
waste
recovered in
the UK

Proportion of
construction
and demolition
waste reused
and recycled

Proportion of
aggregates
derived from
secondary and
recycled
sources

9. Minimise the need to travel and provide alternatives to car use

Percentage of people whose main mode of travel to work and school is cycling and walking	Irrelevant	Not likely to promote cycling and walking.	As 1.	Dir/Ind	Potential to reduce the need to travel.	Dir/Ind	Not likely to impact significantly on reducing car use. May increase the use of road transportation to/ out of ports.
Number of bus routes/ passengers	CS	Improvements in road networks may increase the volume of traffic without parallel measures such as improvements in ICT and rail/bus links. The latter will have a positive effect.		CS		CS	
Number of rail passengers per annum	R/N			L/R		L/R	
Volume of freight transport relative to GDP	LT/P			LT/P		LT/P	
Volume of passenger transport relative to GDP	✓ x			✓		x ✓	

10. Limit and adapt to climate change

Environmental risk management initiatives

Dir/Ind

CS

Change in soil organic carbon

R/N

Ecological footprint

LT/P

Area of agricultural land classifications

✓ x

Annual emissions of basket of greenhouse gases (by sector)

People benefiting from flood protection measures

Improvements in road networks may increase the volume of traffic without parallel measures such as improvements in ICT and rail/bus links. The latter will have a positive effect.

As 1.

Irrelevant

Irrelevant

11. Protect and improve air quality

Trends in number of days when air pollution is moderate or higher in rural zones and urban agglomerations

Dir/Ind

CS

R/N

LT/P

Level of emissions of sulphur dioxide, ammonia, nitrogen oxides, fine particulates, and volatile organic compounds from the National Atmospheric emissions inventory

✓ x

Number of air pollution incidents

Urban population exposure to air pollution by ozone

Emissions from commerce and industry

Improvements in road networks may increase the volume of traffic without parallel measures such as improvements in ICT and rail/bus links. The latter will have a positive effect.

As 1.

Irrelevant

Irrelevant

12. Improve physical and mental health and reduce health inequalities

Percentage of people taking various actions to improve the environment

Dir

L/R

LT/P

Healthy life years at birth by gender



Trend in level of fly-tipping (Flycapture database)

Percentage of highways and land inspected of a high or acceptable standard of cleanliness

Amount, types and quality of greenspace

There could be a minor positive contribution in terms of travel-related stress reduction.

No obvious contribution in terms of health inequalities/physical health.

13. Improve public access to land

Managed access to countryside or coast (km)

Area and type of open space and condition

Irrelevant

No obvious significant link. Some small release of green space? Increase in accessibility to more remote areas?

To improve access to markets and employment opportunities through improved connectivity, and to exploit economic opportunities through focussed investments in infrastructure.

Theme 1 – Transport and Network Bottlenecks to Growth

SEA Objective	SEA Indicators	C1 Investment in the roads providing accessibility to the TEN-T network, or addressing access bottlenecks		C2 Alleviation of urban congestion	
		Dir/Ind		Dir/Ind	
1. Protect places, landscapes and buildings of historic, cultural and archaeological value	Initiatives developing the natural and/or historic environment	L/R	Improved road schemes could have the positive effect of improving the character of townscapes.	L/R	Congestion alleviation could have the positive effect of improving the character of townscapes.
	Number and state of Scheduled Ancient Monument (SAM), Listed Buildings, Conservation Areas, Historic Parks & Gardens	✓		✓	
		Dir			
		R/N			
	Sufficiency and condition of sites designated under the EU Habitats Directive	LT/P			
		✗	However, such schemes may increase overall traffic volumes and impact on historic locations.		

2. Protect and enhance landscapes, seascapes, townscapes and the countryside

Listed Buildings - trends in condition	Dir/Ind L/R	Improved road schemes could have the positive effect of	Dir/Ind L/R	Congestion alleviation could have the positive effect of
LDP policies promoting landscape/town scape character	LT/P ✓	improving the character of townscapes.	LT/P ✓	improving the character of townscapes.
Conservation areas and policies	Dir	However, such schemes may increase overall traffic volumes and will impact on the wider countryside. EIA will apply.		
Relevant planning applications/ap provals	R/N LT/P			
Area of common land under management agreements	✗			
Length and condition of Rights of Way				

3. Protect and enhance biodiversity

Farmland and Woodland Bird Index	Dir/Ind	The use of appropriate measures may contribute by providing sites and schemes for biodiversity.	Dir/Ind	Reductions in congestion will reduce emissions, which will benefit biodiversity locally.
Proportion of sites in favourable condition.	L/R		L/R	
	LT/P		LT/P	
	✓		✓	
Trends in key BAP habitats and species	Dir/Ind	However, such schemes may increase overall traffic volumes and may increase the number of road kills.	Dir/Ind	There might be opportunities to gain green space through appropriate road schemes.
Number of Geological Conservation Review sites	CS		L/R	
	R/N		LT/P	
Number of farms in agri-environment schemes	LT/P		✓	
	✗	Such schemes will also require significant land take.	Dir/Ind	However, where alleviation entails by-passes or out of town parking, there will be loss of urban fringe land - buffers and corridors.
Sufficiency and condition of sites designated under the EU Habitats Directive	Dir/Ind			
	L/R		L	
	LT/P	EIA and AA will apply.	LT/P	
	✗		✗ ✗	Need to apply parallel measures.

4. Protect and improve the region's water quality

Input of hazardous substances into the aquatic environment

Irrelevant No obvious significant link to water quality. EIA will apply and avoid/ mitigate where necessary.

Water quality – biological and chemical

Bathing water quality

Area of Wales designated as nitrate vulnerable zone

New developments to incorporate SuDS

Number of Strategic Flood Risk Assessment (SFRA) undertaken by Local Authorities

Additional population served by water/waste water projects

Number of water pollution incidents

**5. Protect the water resource
and ensure its sustainable use**

Leakage levels

Irrelevant No obvious link.

Per capita
consumption of
water

6. Guard against land contamination, encourage reuse of existing buildings and of previously developed land of low ecological quality

Environmental risk management initiatives

Area rehabilitated

Irrelevant

No obvious link at a strategic level.

Dir/Ind

L

LT



Appropriately planned schemes might optimise previously used land of low ecological quality.

7. Minimise the requirement for energy generation use, promote efficient energy use and increase the use of energy from renewable resources

Renewable energy generation	Dir/Ind	Improvements in road networks will reduce congestion, but may increase the volume of traffic without parallel measures such as improvements in ICT and rail/bus links.
Enterprises operating Environmental Management Systems at a level that requires monitoring of carbon emissions	CS	
	R/N	
	LT/P	
Energy saved (GWh)	x	As such, the overall energy requirement is likely to increase.
Energy intensity of the economy		

**8. Minimise waste; increase re-use, recycling
and recovery rates**

Waste reduced,
reused or
recycled
(’000kt)

Irrelevant No obvious link.

Number of
waste
management
facilities

Proportion of
End of Life
Vehicles waste
reused and
recycled in the
UK

Proportion of
packaging
waste
recovered in
the UK

Proportion of
construction
and demolition
waste reused
and recycled

Proportion of
aggregates
derived from
secondary and
recycled
sources

9. Minimise the need to travel and provide alternatives to car use

Percentage of people whose main mode of travel to work and school is cycling and walking	Dir/Ind	Improvements in road networks may increase the volume of traffic without parallel measures such as improvements in bus links.	Dir/Ind	Reduction in urban congestion may have two paradoxical effects. On the one hand, it may provide a more pleasant environment in which to walk/ cycle. On the other, it will ease the use of cars.
Number of bus routes/ passengers	CS		L/R	
Number of rail passengers per annum	R/N		LT	
Volume of freight transport relative to GDP	LT/P		X	
Volume of passenger transport relative to GDP	X			Depends on the individual scheme.

10. Limit and adapt to climate change

Environmental risk management initiatives	Dir/Ind CS	Improvements in road networks may increase the volume of traffic without parallel measures such as improvements in bus links, and will therefore increase the amount of emissions.	Dir/Ind L/R	Reduction in urban congestion will reduce the emissions from individual cars.
Change in soil organic carbon	R/N		LT	Some schemes may have the effect of shifting or increasing the volume of traffic.
Ecological footprint	LT/P		x ✓	
Area of agricultural land classifications	x			Depends on the individual scheme.
Annual emissions of basket of greenhouse gases (by sector)				
People benefiting from flood protection measures				

11. Protect and improve air quality

Trends in number of days when air pollution is moderate or higher in rural zones and urban agglomerations	Dir/Ind	Improvements in road networks may increase the volume of traffic without parallel measures such as improvements in bus links, and will therefore increase the amount of emissions.	Dir/Ind	Reduction in urban congestion will reduce the emissions from individual cars, which will have a positive effect locally. Some schemes may have the effect of shifting or increasing the volume of traffic.
Level of emissions of sulphur dioxide, ammonia, nitrogen oxides, fine particulates, and volatile organic compounds from the National Atmospheric emissions inventory	CS		L/R	
	L/R		LT	
	LT/P		x ✓	
	x			
Number of air pollution incidents				Depends on the individual scheme.
Urban population exposure to air pollution by ozone				
Emissions from commerce and industry				

12. Improve physical and mental health and reduce health inequalities

Percentage of people taking various actions to improve the environment	Ind	Minor benefits in terms of reductions in travel-related stress may be offset by increases in traffic volumes.	Dir	Reductions in traffic congestion are likely to have a significant effect on local urban environments and will contribute positively to healthier lives.
Healthy life years at birth by gender	L/R		CS	
	LT		L/R	
Trend in level of fly-tipping (Flycapture database)	x✓		LT	
			✓✓	
Percentage of highways and land inspected of a high or acceptable standard of cleanliness				
Amount, types and quality of greenspace				

13. Improve public access to land

Managed access to countryside or coast (km)

Dir
R/N
LT

Potential to increase accessibility to the countryside.

Area and type of open space and condition

✓

Dir
L
LT

Traffic management schemes have the potential to release urban green spaces.

✓

To improve access to markets and employment opportunities through improved connectivity, and to exploit economic opportunities through focussed investments in infrastructure.

Theme 2 - Infrastructure-led growth

SEA Objective	SEA Indicators	1. Economically important investments in Wales' physical infrastructure	C1 Targeted investment in education and training infrastructure with clear economic focus	C2 Strategically important business sites and premises	C3 Local infrastructure supporting broader economic development investments
1. Protect places, landscapes and buildings of historic, cultural and archaeological value	Initiatives developing the natural and/or historic environment	Dir	As 1.	As 1.	As 1.
		L			
		LT			
	Number and state of Scheduled Ancient Monument (SAM), Listed Buildings, Conservation Areas, Historic Parks & Gardens	✓			
	Sufficiency and condition of sites designated under the EU Habitats Directive				

2. Protect and enhance landscapes, seascapes, townscapes and the countryside

Listed Buildings
- trends in
condition

Dir

L

LDP policies
promoting
landscape/town
scape character

LT



Conservation
areas and
policies

Relevant
planning
applications/ap
provals

Area of
common land
under
management
agreements

Length and
condition of
Rights of Way

**Potential for locally
significant
enhancement to
townscapes.
Unlikely to be
significant
otherwise -
planning policies
will determine
location, design
and scale.**

As 1.

As 1.

As 1.

3. Protect and enhance biodiversity

Farmland and Woodland Bird Index

Proportion of sites in favourable condition.

Trends in key BAP habitats and species

Number of Geological Conservation Review sites

Number of farms in agri-environment schemes

Sufficiency and condition of sites designated under the EU Habitats Directive

Dir

L

LT



Potential to significantly contribute to ecologically sound green infrastructure. Could provide significant habitat within urban setting in particular.

Requires parallel measures to optimise potential.

4. Protect and improve the region's water quality

Input of hazardous substances into the aquatic environment

Dir

L

LT

Water quality – biological and chemical

✓

Has the potential to contribute to local water quality, where green infrastructure is appropriately included.

Bathing water quality

Area of Wales designated as nitrate vulnerable zone

New developments to incorporate SuDS

Number of Strategic Flood Risk Assessment (SFRA) undertaken by Local Authorities

Additional population served by water/waste water projects

Number of water pollution incidents

**5. Protect the water resource
and ensure its sustainable use**

Leakage levels

Irrelevant No significant impact envisaged.

Per capita
consumption of
water

6. Guard against land contamination, encourage reuse of existing buildings and of previously developed land of low ecological quality

Environmental risk management initiatives

Area rehabilitated

Dir

L

LT



Positive contribution to this objective, linked to improving ecological quality.

7. Minimise the requirement for energy generation use, promote efficient energy use and increase the use of energy from renewable resources

Renewable energy generation	Dir	Significant opportunity to promote energy efficiency and the use of renewables.
Enterprises operating Environmental Management Systems at a level that requires monitoring of carbon emissions	L>Int	
Energy saved (GWh)	LT/P	
Energy intensity of the economy	✓	

**8. Minimise waste; increase re-use, recycling
and recovery rates**

Waste reduced,
reused or
recycled
(’000kt)

Number of
waste
management
facilities

Proportion of
End of Life
Vehicles waste
reused and
recycled in the
UK

Proportion of
packaging
waste
recovered in
the UK

Proportion of
construction
and demolition
waste reused
and recycled

Proportion of
aggregates
derived from
secondary and
recycled
sources

Irrelevant No significant link. Compliance with CCTs applies.

9. Minimise the need to travel and provide alternatives to car use

Percentage of people whose main mode of travel to work and school is cycling and walking

Number of bus routes/passengers

Number of rail passengers per annum

Volume of freight transport relative to GDP

Volume of passenger transport relative to GDP

Dir

L/R

LT



Improved infrastructure in regeneration areas/hubs has the potential to reduce the need to travel and to provide alternatives to the car.

10. Limit and adapt to climate change

Environmental risk management initiatives

Change in soil organic carbon

Ecological footprint

Area of agricultural land classifications

Annual emissions of basket of greenhouse gases (by sector)

People benefiting from flood protection measures

Dir

L>Int

LT/P



Significant opportunity to promote energy efficiency and the use of renewables, helping towards climate change mitigation.

11. Protect and improve air quality

Trends in number of days when air pollution is moderate or higher in rural zones and urban agglomerations

Dir

L/R

LT



Level of emissions of sulphur dioxide, ammonia, nitrogen oxides, fine particulates, and volatile organic compounds from the National Atmospheric emissions inventory

Number of air pollution incidents

Urban population exposure to air pollution by ozone

Emissions from commerce and industry

Reduction in travel demand, use of renewables and enhanced green infrastructure will contribute to this objective.

12. Improve physical and mental health and reduce health inequalities

Percentage of people taking various actions to improve the environment

Dir

CS

L

Healthy life years at birth by gender

LT

Trend in level of fly-tipping (Flycapture database)



Percentage of highways and land inspected of a high or acceptable standard of cleanliness

Amount, types and quality of greenspace

Enhancement of the living and working environment has the potential to contribute to physical and mental well-being.

13. Improve public access to land

Managed access to countryside or coast (km)

Area and type of open space and condition

Dir

L

LT/P



Some potential to improve/increase accessible greenspace within development.

To improve the capacity for, and economic exploitation of, innovation and research

Theme 1 - Innovation for All

SEA Objective	SEA Indicators	1. Support businesses to undertake innovation and improve innovation supply chains between businesses and with academia	2. Piloting of initiatives to test innovative approaches, products or services in areas with commercial potential	C1 Development of low-cost hubs or clusters for innovative businesses and sectors	C2 Development and launch of innovative new uses and adaptations for existing technology, processes or services into new markets
1. Protect places, landscapes and buildings of historic, cultural and archaeological value	Initiatives developing the natural and/or historic environment	Irrelevant	Some potential linked to tourism sector is possible though not significant, otherwise no obvious link.		
	Number and state of Scheduled Ancient Monument (SAM), Listed Buildings, Conservation Areas, Historic Parks & Gardens				
	Sufficiency and condition of sites designated under the EU Habitats Directive				

2. Protect and enhance landscapes, seascapes, townscapes and the countryside

Listed Buildings
- trends in
condition

LDP policies
promoting
landscape/town
scape character

Conservation
areas and
policies

Relevant
planning
applications/ap
provals

Area of
common land
under
management
agreements

Length and
condition of
Rights of Way

Irrelevant No significant impact anticipated.

3. Protect and enhance biodiversity

Farmland and
Woodland Bird
Index

Irrelevant No significant impact anticipated.

Proportion of
sites in
favourable
condition.

Trends in key
BAP habitats
and species

Number of
Geological
Conservation
Review sites

Number of
farms in agri-
environment
schemes

Sufficiency and
condition of
sites designated
under the EU
Habitats
Directive

4. Protect and improve the region's water quality

Input of hazardous substances into the aquatic environment

Irrelevant No significant impact anticipated.

Water quality – biological and chemical

Bathing water quality

Area of Wales designated as nitrate vulnerable zone

New developments to incorporate SuDS

Number of Strategic Flood Risk Assessment (SFRA) undertaken by Local Authorities

Additional population served by water/waste water projects

Number of water pollution incidents

**5. Protect the water resource
and ensure its sustainable use**

Leakage levels

Per capita
consumption of
water

Irrelevant

No significant impact anticipated.

6. Guard against land contamination, encourage reuse of existing buildings and of previously developed land of low ecological quality

Environmental risk management initiatives

Area rehabilitated

Irrelevant

Some potential for re-use of redundant land. Otherwise no obvious significant link.

7. Minimise the requirement for energy generation use, promote efficient energy use and increase the use of energy from renewable resources

Renewable energy generation

Enterprises operating Environmental Management Systems at a level that requires monitoring of carbon emissions

Energy saved (GWh)

Energy intensity of the economy

Dir

L>Int

LT/P

✓

Significant opportunity to innovate in technological support for this objective.

**8. Minimise waste; increase re-use, recycling
and recovery rates**

Waste reduced,
reused or
recycled
(’000kt)

Irrelevant

No obvious link to the objective.

Number of
waste
management
facilities

Proportion of
End of Life
Vehicles waste
reused and
recycled in the
UK

Proportion of
packaging
waste
recovered in
the UK

Proportion of
construction
and demolition
waste reused
and recycled

Proportion of
aggregates
derived from
secondary and
recycled
sources

**9. Minimise the need to travel and
provide alternatives to car use**

Percentage of
people whose
main mode of
travel to work
and school is
cycling and
walking

Number of bus
routes/
passengers

Number of rail
passengers per
annum

Volume of
freight
transport
relative to GDP

Volume of
passenger
transport
relative to GDP

Dir

L/R

ST>LT



**Potential to
promote a
reduction in travel.
Not likely to be
significant.**

10. Limit and adapt to climate change

Environmental risk management initiatives

Change in soil organic carbon

Ecological footprint

Area of agricultural land classifications

Annual emissions of basket of greenhouse gases (by sector)

People benefiting from flood protection measures

Dir/Ind

L>int

MT/P



Based on 1-7, could contribute significantly to climate change issues.

11. Protect and improve air quality

Trends in number of days when air pollution is moderate or higher in rural zones and urban agglomerations

Level of emissions of sulphur dioxide, ammonia, nitrogen oxides, fine particulates, and volatile organic compounds from the National Atmospheric emissions inventory

Number of air pollution incidents

Urban population exposure to air pollution by ozone

Emissions from commerce and industry

Dir/Ind

L>int

MT/P



Some potential to contribute to air quality improvements – reduction in travel/innovation in relevant technology.

12. Improve physical and mental health and reduce health inequalities

Percentage of people taking various actions to improve the environment

Healthy life years at birth by gender

Trend in level of fly-tipping (Flycapture database)

Percentage of highways and land inspected of a high or acceptable standard of cleanliness

Amount, types and quality of greenspace

Irrelevant No obvious link.

13. Improve public access to land

Managed access to countryside or coast (km)

Area and type of open space and condition

Irrelevant No obvious link.

To improve the capacity for, and economic exploitation of, innovation and research

Theme 2 - Research and Development

SEA Objective	SEA Indicators	1. Commercialisation, protection and exploitation of research	2. Building research capacity, with a focus on areas with potential for developing or strengthening world-class excellence	3. Access to risk-capital finance and support for the creation and growth of research-intensive and innovative businesses, such as spin-outs	C1 Capacity building directly linked to improving access to wider research funding
1. Protect places, landscapes and buildings of historic, cultural and archaeological value	Initiatives developing the natural and/or historic environment	Irrelevant No obvious link envisaged.			
	Number and state of Scheduled Ancient Monument (SAM), Listed Buildings, Conservation Areas, Historic Parks & Gardens				
	Sufficiency and condition of sites designated under the EU Habitats Directive				

2. Protect and enhance landscapes, seascapes, townscapes and the countryside

Listed Buildings
- trends in
condition

LDP policies
promoting
landscape/town
scape character

Conservation
areas and
policies

Relevant
planning
applications/ap
provals

Area of
common land
under
management
agreements

Length and
condition of
Rights of Way

Irrelevant No obvious link envisaged.

3. Protect and enhance biodiversity

Farmland and Woodland Bird Index

Irrelevant

No obvious link envisaged.

Proportion of sites in favourable condition.

Trends in key BAP habitats and species

Number of Geological Conservation Review sites

Number of farms in agri-environment schemes

Sufficiency and condition of sites designated under the EU Habitats Directive

4. Protect and improve the region's water quality

Input of hazardous substances into the aquatic environment

Irrelevant

No obvious link envisaged.

Water quality – biological and chemical

Bathing water quality

Area of Wales designated as nitrate vulnerable zone

New developments to incorporate SuDS

Number of Strategic Flood Risk Assessment (SFRA) undertaken by Local Authorities

Additional population served by water/waste water projects

Number of water pollution incidents

**5. Protect the water resource
and ensure its sustainable use**

Leakage levels

Per capita
consumption of
water

Irrelevant No obvious link envisaged.

6. Guard against land contamination, encourage reuse of existing buildings and of previously developed land of low ecological quality

Environmental risk management initiatives

Area rehabilitated

Irrelevant No obvious link envisaged.

7. Minimise the requirement for energy generation use, promote efficient energy use and increase the use of energy from renewable resources

Renewable energy generation

Enterprises operating Environmental Management Systems at a level that requires monitoring of carbon emissions

Energy saved (GWh)

Energy intensity of the economy

Ind

Int

LT > P



Depending on the type of R&D, some potential to contribute to this objective.

8. Minimise waste; increase re-use, recycling and recovery rates

Waste reduced, reused or recycled ('000kt)

Unclear

Depending on the type of R&D, some potential to contribute to this objective.

Ind

Number of waste management facilities

Int

LT > P

Proportion of End of Life Vehicles waste reused and recycled in the UK

✓

Proportion of packaging waste recovered in the UK

Proportion of construction and demolition waste reused and recycled

Proportion of aggregates derived from secondary and recycled sources

**9. Minimise the need to travel and
provide alternatives to car use**

Percentage of people whose main mode of travel to work and school is cycling and walking

Number of bus routes/
passengers

Number of rail passengers per annum

Volume of freight transport relative to GDP

Volume of passenger transport relative to GDP

Irrelevant No obvious link envisaged.

10. Limit and adapt to climate change

Environmental risk management initiatives

Unclear

Ind

Int

LT > P



Change in soil organic carbon

Ecological footprint

Area of agricultural land classifications

Annual emissions of basket of greenhouse gases (by sector)

People benefiting from flood protection measures

Depending on the type of R&D, some potential to contribute to this objective.

11. Protect and improve air quality

Trends in number of days when air pollution is moderate or higher in rural zones and urban agglomerations

Unclear

Ind

Int

LT > P



Level of emissions of sulphur dioxide, ammonia, nitrogen oxides, fine particulates, and volatile organic compounds from the National Atmospheric emissions inventory

Number of air pollution incidents

Urban population exposure to air pollution by ozone

Emissions from commerce and industry

Depending on the type of R&D, some potential to contribute to this objective.

12. Improve physical and mental health and reduce health inequalities

Percentage of people taking various actions to improve the environment

Healthy life years at birth by gender

Trend in level of fly-tipping (Flycapture database)

Percentage of highways and land inspected of a high or acceptable standard of cleanliness

Amount, types and quality of greenspace

Irrelevant No obvious link envisaged.

13. Improve public access to land

Managed access to countryside or coast (km)

Area and type of open space and condition

Irrelevant No obvious link envisaged.

To improve the capacity for, and economic exploitation of, innovation and research

Theme 2 - Research and Development

SEA Objective	SEA Indicators	C2 Capital investments leading to open access and diffusion of key technology	C3 Investments in advanced manufacturing and production capabilities
1. Protect places, landscapes and buildings of historic, cultural and archaeological value	Initiatives developing the natural and/or historic environment	Irrelevant	No obvious link envisaged.
	Number and state of Scheduled Ancient Monument (SAM), Listed Buildings, Conservation Areas, Historic Parks & Gardens		
	Sufficiency and condition of sites designated under the EU Habitats Directive		

2. Protect and enhance landscapes, seascapes, townscapes and the countryside

Listed Buildings
- trends in
condition

LDP policies
promoting
landscape/town
scape character

Conservation
areas and
policies

Relevant
planning
applications/ap
provals

Area of
common land
under
management
agreements

Length and
condition of
Rights of Way

Irrelevant

No obvious link envisaged.

3. Protect and enhance biodiversity

Farmland and Woodland Bird Index

Irrelevant

No obvious link envisaged.

Proportion of sites in favourable condition.

Trends in key BAP habitats and species

Number of Geological Conservation Review sites

Number of farms in agri-environment schemes

Sufficiency and condition of sites designated under the EU Habitats Directive

4. Protect and improve the region's water quality

Input of hazardous substances into the aquatic environment

Irrelevant

No obvious link envisaged.

Water quality – biological and chemical

Bathing water quality

Area of Wales designated as nitrate vulnerable zone

New developments to incorporate SuDS

Number of Strategic Flood Risk Assessment (SFRA) undertaken by Local Authorities

Additional population served by water/waste water projects

Number of water pollution incidents

**5. Protect the water resource
and ensure its sustainable use**

Leakage levels

Per capita
consumption of
water

Irrelevant No obvious link envisaged.

6. Guard against land contamination, encourage reuse of existing buildings and of previously developed land of low ecological quality

Environmental risk management initiatives

Area rehabilitated

Irrelevant No obvious link envisaged.

7. Minimise the requirement for energy generation use, promote efficient energy use and increase the use of energy from renewable resources

Renewable energy generation	Unclear	Depending on the type of R&D, some potential to contribute to this objective.
Enterprises operating Environmental Management Systems at a level that requires monitoring of carbon emissions	Ind	
Energy saved (GWh)	Int	
Energy intensity of the economy	LT > P	
	✓	

8. Minimise waste; increase re-use, recycling and recovery rates

Waste reduced, reused or recycled ('000kt)

Unclear

Depending on the type of R&D, some potential to contribute to this objective.

Ind

Number of waste management facilities

Int

LT > P

Proportion of End of Life Vehicles waste reused and recycled in the UK

✓

Proportion of packaging waste recovered in the UK

Proportion of construction and demolition waste reused and recycled

Proportion of aggregates derived from secondary and recycled sources

**9. Minimise the need to travel and
provide alternatives to car use**

Percentage of people whose main mode of travel to work and school is cycling and walking

Number of bus routes/
passengers

Number of rail passengers per annum

Volume of freight transport relative to GDP

Volume of passenger transport relative to GDP

Irrelevant No obvious link envisaged.

10. Limit and adapt to climate change

Environmental risk management initiatives

Unclear

Ind

Int

LT > P



Change in soil organic carbon

Ecological footprint

Area of agricultural land classifications

Annual emissions of basket of greenhouse gases (by sector)

People benefiting from flood protection measures

Depending on the type of R&D, some potential to contribute to this objective.

11. Protect and improve air quality

Trends in number of days when air pollution is moderate or higher in rural zones and urban agglomerations

Unclear

Ind

Int

LT > P



Level of emissions of sulphur dioxide, ammonia, nitrogen oxides, fine particulates, and volatile organic compounds from the National Atmospheric emissions inventory

Number of air pollution incidents

Urban population exposure to air pollution by ozone

Emissions from commerce and industry

Depending on the type of R&D, some potential to contribute to this objective.

12. Improve physical and mental health and reduce health inequalities

Percentage of people taking various actions to improve the environment

Healthy life years at birth by gender

Trend in level of fly-tipping (Flycapture database)

Percentage of highways and land inspected of a high or acceptable standard of cleanliness

Amount, types and quality of greenspace

Irrelevant No obvious link envisaged.

13. Improve public access to land

Managed access to countryside or coast (km)

Area and type of open space and condition

Irrelevant

No obvious link envisaged.

To support the sustainable development of the low-carbon economy in Wales and the delivery of climate change objectives

Theme 1 - Energy Efficiency

SEA Objective	SEA Indicators	1. Energy conservation and efficiency measures in existing housing and public buildings	2. Advice, guidance and loans for businesses to improve energy efficiency and competitiveness	C1 Low-carbon strategies for urban areas
1. Protect places, landscapes and buildings of historic, cultural and archaeological value	Initiatives developing the natural and/or historic environment	Dir L ST>LT	No overall positive effect on this objective likely.	As 1.
	Number and state of Scheduled Ancient Monument (SAM), Listed Buildings, Conservation Areas, Historic Parks & Gardens	x	There may be some visual impact depending on the type and scale of hardware.	
	Sufficiency and condition of sites designated under the EU Habitats Directive			

2. Protect and enhance landscapes, seascapes, townscapes and the countryside

Listed Buildings - trends in condition	Unclear	Not likely to positively promote this objective without parallel measures.	As 1.	As 1.
LDP policies promoting landscape/townscape character	Dir			
	L			
	ST>LT			
Conservation areas and policies	x			
Relevant planning applications/approvals				
Area of common land under management agreements				
Length and condition of Rights of Way				

3. Protect and enhance biodiversity

Farmland and Woodland Bird Index

Dir

Proportion of sites in favourable condition.

L

ST>LT

Trends in key BAP habitats and species

✓

Number of Geological Conservation Review sites

Number of farms in agri-environment schemes

Sufficiency and condition of sites designated under the EU Habitats Directive

Some small contribution to the protection of biodiversity. With parallel measures (see B2-2) there is some opportunity to use natural systems to provide energy/cooling systems.

4. Protect and improve the region's water quality

Input of hazardous substances into the aquatic environment

Irrelevant

No obvious link envisaged.

Water quality – biological and chemical

Bathing water quality

Area of Wales designated as nitrate vulnerable zone

New developments to incorporate SuDS

Number of Strategic Flood Risk Assessment (SFRA) undertaken by Local Authorities

Additional population served by water/waste water projects

Number of water pollution incidents

**5. Protect the water resource
and ensure its sustainable use**

Leakage levels	Dir	Potential to use water capture and recycling systems together with natural heating/ cooling systems.
Per capita consumption of water	L	
	LT	
	✓	

6. Guard against land contamination, encourage reuse of existing buildings and of previously developed land of low ecological quality

Environmental risk management initiatives

Area rehabilitated

Dir

L

ST/MT



Some potential for re-use of redundant land.

7. Minimise the requirement for energy generation use, promote efficient energy use and increase the use of energy from renewable resources

Renewable energy generation

Enterprises operating Environmental Management Systems at a level that requires monitoring of carbon emissions

Energy saved (GWh)

Energy intensity of the economy

Dir

L/R

LT/P

✓

Significant opportunity to innovate in technological support for this objective

8. Minimise waste; increase re-use, recycling and recovery rates

Waste reduced, reused or recycled ('000kt)

Number of waste management facilities

Proportion of End of Life Vehicles waste reused and recycled in the UK

Proportion of packaging waste recovered in the UK

Proportion of construction and demolition waste reused and recycled

Proportion of aggregates derived from secondary and recycled sources

Unclear/ irrelevant

Some limited opportunity to minimise waste in compliance with CCTs, but overall effect likely to be minimal.

**9. Minimise the need to travel and
provide alternatives to car use**

Percentage of
people whose
main mode of
travel to work
and school is
cycling and
walking

Number of bus
routes/
passengers

Number of rail
passengers per
annum

Volume of
freight
transport
relative to GDP

Volume of
passenger
transport
relative to GDP

Dir

L/R

ST/LT



**Potential to
promote a
reduction in
travel, but not
significant.**

10. Limit and adapt to climate change

Environmental risk management initiatives

Change in soil organic carbon

Ecological footprint

Area of agricultural land classifications

Annual emissions of basket of greenhouse gases (by sector)

People benefiting from flood protection measures

Dir

L > Int

LT/P



Significant opportunity to innovate in technological support for this objective

11. Protect and improve air quality

Trends in number of days when air pollution is moderate or higher in rural zones and urban agglomerations

Dir

L

LT/P

✓

Some potential to contribute to air quality improvements – reduction in travel/innovation in relevant technology.

Level of emissions of sulphur dioxide, ammonia, nitrogen oxides, fine particulates, and volatile organic compounds from the National Atmospheric emissions inventory

Number of air pollution incidents

Urban population exposure to air pollution by ozone

Emissions from commerce and industry

12. Improve physical and mental health and reduce health inequalities

Percentage of people taking various actions to improve the environment

Healthy life years at birth by gender

Trend in level of fly-tipping (Flycapture database)

Percentage of highways and land inspected of a high or acceptable standard of cleanliness

Amount, types and quality of greenspace

Irrelevant No obvious link.

Improve public access to land

Managed access to countryside or coast (km)

Area and type of open space and condition

Irrelevant **No obvious link.**

To support the sustainable development of the low-carbon economy in Wales and the delivery of climate change objectives

Theme 2 - Marine energy (tidal, wave and wind)

SEA Objective	SEA Indicators	1. Targeted infrastructure investments to remove barriers, reduce risks and maximise investor confidence (e.g. site preparation, shore-based facilities, connections and access).	2. Marine energy innovation and R&D with commercial potential including prototypes, demonstrators and pre-commercial devices and arrays.	C1 Capacity building and innovation supply-chain development for institutes/businesses engaged in marine energy research
1. Protect places, landscapes and buildings of historic, cultural and archaeological value	Initiatives developing the natural and/or historic environment	Unclear	No obvious link. However, this depends on the location and scale of e.g. shoreside facilities, connections etc.	
	Number and state of Scheduled Ancient Monument (SAM), Listed Buildings, Conservation Areas, Historic Parks & Gardens		Will require AA and compliance with other regulations.	
	Sufficiency and condition of sites designated under the EU Habitats Directive			

2. Protect and enhance landscapes, seascapes, townscapes and the countryside

Listed Buildings - trends in condition	Dir	Potential for visual and landscape impacts from terrestrial schemes.
LDP policies promoting landscape/town scape character	L/R	
Conservation areas and policies	MT/LT	
Relevant planning applications/ap provals	x	
Area of common land under management agreements		
Length and condition of Rights of Way		

3. Protect and enhance biodiversity

Farmland and Woodland Bird Index

Proportion of sites in favourable condition.

Trends in key BAP habitats and species

Number of Geological Conservation Review sites

Number of farms in agri-environment schemes

Sufficiency and condition of sites designated under the EU Habitats Directive

Dir

L/R

MT/LT

x✓

Grid and other infrastructure may impact on habitats and/or biodiversity corridors.

Potential for biodiversity enhancement schemes.

4. Protect and improve the region's water quality

Input of hazardous substances into the aquatic environment

Irrelevant No obvious link.

Water quality – biological and chemical

Bathing water quality

Area of Wales designated as nitrate vulnerable zone

New developments to incorporate SuDS

Number of Strategic Flood Risk Assessment (SFRA) undertaken by Local Authorities

Additional population served by water/waste water projects

Number of water pollution incidents

**5. Protect the water resource
and ensure its sustainable use**

Leakage levels

Per capita
consumption of
water

Unclear

**Does not set out
to protect the
water resource,
but explicitly sets
out to exploit
sustainable use of
marine energy
potential. Beware
potential impacts
on hydrology.**

6. Guard against land contamination, encourage reuse of existing buildings and of previously developed land of low ecological quality

Environmental risk management initiatives

Area rehabilitated

Irrelevant **No obvious link. Depends on type, location and scale of development.**

7. Minimise the requirement for energy generation use, promote efficient energy use and increase the use of energy from renewable resources

Renewable energy generation	Dir/Ind	<p>Whilst it does not aim to reduce the energy requirement, an explicit purpose of the theme is to research the technological and infrastructural potential to increase the use of marine-based renewables.</p>
Enterprises operating Environmental Management Systems at a level that requires monitoring of carbon emissions	L>Int	
Energy saved (GWh)	LT/P	
Energy intensity of the economy	✓✓	

8. Minimise waste; increase re-use, recycling and recovery rates

Waste reduced, reused or recycled ('000kt)

Dir

L/R

Number of waste management facilities

LT/P



Proportion of End of Life Vehicles waste reused and recycled in the UK

Proportion of packaging waste recovered in the UK

Proportion of construction and demolition waste reused and recycled

Proportion of aggregates derived from secondary and recycled sources

Aims to reduce reliance on non-renewable resources, with resulting the waste by-products of their extraction, preparation packaging and use.

**9. Minimise the need to travel and
provide alternatives to car use**

Percentage of people whose main mode of travel to work and school is cycling and walking

Number of bus routes/
passengers

Number of rail passengers per annum

Volume of freight transport relative to GDP

Volume of passenger transport relative to GDP

Irrelevant

No obvious link.

10. Limit and adapt to climate change

Environmental risk management initiatives

Dir/Ind

L>Int

LT/P

✓✓

Linked to 2-7 and 2-8. An explicit objective of this theme is to contribute to climate change adaptation.

Change in soil organic carbon

Ecological footprint

Area of agricultural land classifications

Annual emissions of basket of greenhouse gases (by sector)

People benefiting from flood protection measures

11. Protect and improve air quality

Trends in number of days when air pollution is moderate or higher in rural zones and urban agglomerations

Level of emissions of sulphur dioxide, ammonia, nitrogen oxides, fine particulates, and volatile organic compounds from the National Atmospheric emissions inventory

Number of air pollution incidents

Urban population exposure to air pollution by ozone

Emissions from commerce and industry

Ind

L

LT/P



The theme aims to exploit alternatives to carbon-based non-renewable resources.

A local effect of this strategic theme will be to improve air quality by reducing the use of carbon-based energy and thereby its emissions.

12. Improve physical and mental health and reduce health inequalities

Percentage of people taking various actions to improve the environment

Ind

L

LT/P

Healthy life years at birth by gender



Trend in level of fly-tipping (Flycapture database)

Percentage of highways and land inspected of a high or acceptable standard of cleanliness

Amount, types and quality of greenspace

In addressing 2-11, one effect will be to improve community health through improved air quality.

13. Improve public access to land

Managed access to countryside or coast (km)

Area and type of open space and condition

Irrelevant No obvious link.

To support the sustainable development of the low-carbon economy in Wales and the delivery of climate change objectives

Theme 3 - Low Carbon Transition

SEA Objective	SEA Indicators	1. Smart living innovation and demonstration projects.	2. Targeted development and deployment of emerging and transition technologies and renewable energy sources.	3. Renewable energy generation schemes to improve business competitiveness in key areas	C1 Support for district heating, community renewable energy schemes and low-carbon strategies in urban areas
1. Protect places, landscapes and buildings of historic, cultural and archaeological value	Initiatives developing the natural and/or historic environment	Irrelevant No obvious significant link. Potential minor effect from district schemes in sensitive areas?			
	Number and state of Scheduled Ancient Monument (SAM), Listed Buildings, Conservation Areas, Historic Parks & Gardens				
	Sufficiency and condition of sites designated under the EU Habitats Directive				

2. Protect and enhance landscapes, seascapes, townscape and the countryside

Listed Buildings - trends in condition	Unclear	Potential for visual and landscape impacts from terrestrial schemes.	As 1.	As 1.	Unclear	Possible negative visual effects from community schemes
LDP policies promoting landscape/townscape character	Dir				Dir	
Conservation areas and policies	L				L	
Relevant planning applications/approvals	MT/LT	Depends on the siting, scale and type of project.			MT/LT	
Area of common land under management agreements	X?				X	
Length and condition of Rights of Way						

3. Protect and enhance biodiversity

Farmland and Woodland Bird Index	Unclear	Grid and other infrastructure may impact on habitats and/or biodiversity corridors.
Proportion of sites in favourable condition.	Dir	
Trends in key BAP habitats and species	L/R	
Number of Geological Conservation Review sites	MT/LT	
Number of farms in agri-environment schemes	✕?	Potential for negative impacts from hydro schemes?
Sufficiency and condition of sites designated under the EU Habitats Directive		Depends on siting, scale and type of project.

4. Protect and improve the region's water quality

Input of hazardous substances into the aquatic environment

Irrelevant No obvious link to water quality.

Water quality – biological and chemical

Bathing water quality

Area of Wales designated as nitrate vulnerable zone

New developments to incorporate SuDS

Number of Strategic Flood Risk Assessment (SFRA) undertaken by Local Authorities

Additional population served by water/waste water projects

Number of water pollution incidents

**5. Protect the water resource
and ensure its sustainable use**

Leakage levels	Unclear	The use of hydro systems for energy generation might have a minor negative impact. Otherwise no obvious link.
Per capita consumption of water	Dir	
	L	
	MT/LT	
	x?	

6. Guard against land contamination, encourage reuse of existing buildings and of previously developed land of low ecological quality

Environmental risk management initiatives

Area rehabilitated

Dir

L/R

MT>P



Potential to re-use redundant sites for renewable energy generation, depending on type, size and location of scheme.

7. Minimise the requirement for energy generation use, promote efficient energy use and increase the use of energy from renewable resources

Renewable energy generation

Enterprises operating Environmental Management Systems at a level that requires monitoring of carbon emissions

Energy saved (GWh)

Energy intensity of the economy

Dir/Ind

L/R

MT>P

✓✓

Will contribute significantly to the aspect of promoting efficient energy use derived from renewables.

Dir/Ind

L/R

MT>P

✓✓

Will contribute significantly to the aspect of promoting efficient energy use derived from renewables, as well as helping to minimise demand.

8. Minimise waste; increase re-use, recycling and recovery rates

Waste reduced, reused or recycled ('000kt)

Dir

L/R

Number of waste management facilities

LT/P



Proportion of End of Life Vehicles waste reused and recycled in the UK

Proportion of packaging waste recovered in the UK

Proportion of construction and demolition waste reused and recycled

Proportion of aggregates derived from secondary and recycled sources

Aims to reduce reliance on non-renewable resources, with resulting the waste by-products of their extraction, preparation packaging and use.

**9. Minimise the need to travel and
provide alternatives to car use**

Percentage of people whose main mode of travel to work and school is cycling and walking

Number of bus routes/
passengers

Number of rail passengers per annum

Volume of freight transport relative to GDP

Volume of passenger transport relative to GDP

Irrelevant No obvious link.

10. Limit and adapt to climate change

Environmental risk management initiatives

Dir/Ind

L>Int

LT/P

✓✓

Linked to 3-7 and 3-8. An explicit objective of this theme is to contribute to climate change adaptation.

Change in soil organic carbon

Ecological footprint

Area of agricultural land classifications

Annual emissions of basket of greenhouse gases (by sector)

People benefiting from flood protection measures

11. Protect and improve air quality

Trends in number of days when air pollution is moderate or higher in rural zones and urban agglomerations

Ind

L/R

LT/P



Level of emissions of sulphur dioxide, ammonia, nitrogen oxides, fine particulates, and volatile organic compounds from the National Atmospheric emissions inventory

Number of air pollution incidents

Urban population exposure to air pollution by ozone

Emissions from commerce and industry

Aims to exploit alternatives to carbon-based non-renewable resources and to achieve zero carbon energy systems.

A local and regional effect will be to improve air quality by reducing the use of carbon-based energy and thereby its emissions.

12. Improve physical and mental health and reduce health inequalities

Percentage of people taking various actions to improve the environment

Ind

L

LT/P

Healthy life years at birth by gender



Trend in level of fly-tipping (Flycapture database)

Percentage of highways and land inspected of a high or acceptable standard of cleanliness

Amount, types and quality of greenspace

A key effect of addressing 3-11 will be to improve community health through improved air quality.

13. Improve public access to land

Managed access to countryside or coast (km)

Area and type of open space and condition

Irrelevant No obvious link.

To support the sustainable development of the low-carbon economy in Wales and the delivery of climate change objectives

Theme 3 - Low Carbon Transition

SEA Objective	SEA Indicators	C2 Smart infrastructure (e.g. grid and digital) improvements to accelerate markets and/or address market failure where a specific opportunity is identified.
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1. Protect places, landscapes and buildings of historic, cultural and archaeological value

Initiatives developing the natural and/or historic environment

Number and state of Scheduled Ancient Monument (SAM), Listed Buildings, Conservation Areas, Historic Parks & Gardens

Sufficiency and condition of sites designated under the EU Habitats Directive

Unclear

Dir

L/R

MT/LT

x?

Potential for visual impacts from infrastructure.

2. Protect and enhance landscapes, seascapes, townscapes and the countryside

Listed Buildings - trends in condition	Unclear	Potential for visual impacts from infrastructure.
	Dir	
LDP policies promoting landscape/town scape character	L/R	Overgrounding vs. undergrounding?
	MT/LT	
Conservation areas and policies	X?	
Relevant planning applications/ap provals		
Area of common land under management agreements		
Length and condition of Rights of Way		

3. Protect and enhance biodiversity

Farmland and Woodland Bird Index

Proportion of sites in favourable condition.

Trends in key BAP habitats and species

Number of Geological Conservation Review sites

Number of farms in agri-environment schemes

Sufficiency and condition of sites designated under the EU Habitats Directive

Unclear

Dir

L/R

MT/LT

X?

Grid and other infrastructure may impact on habitats and/or biodiversity corridors.

Depends on the nature of the infrastructure.

Overgrounding vs. undergrounding?

4. Protect and improve the region's water quality

Input of hazardous substances into the aquatic environment

Irrelevant No obvious link to water quality.

Water quality – biological and chemical

Bathing water quality

Area of Wales designated as nitrate vulnerable zone

New developments to incorporate SuDS

Number of Strategic Flood Risk Assessment (SFRA) undertaken by Local Authorities

Additional population served by water/waste water projects

Number of water pollution incidents

5. Protect the water resource and ensure its sustainable use

Leakage levels

Per capita consumption of water

Unclear

Direction

L

MT/LT

X?

The use of hydro systems for energy generation might have a minor negative impact. by diverting resources.

Otherwise no obvious link.

6. Guard against land contamination, encourage reuse of existing buildings and of previously developed land of low ecological quality

Environmental risk management initiatives

Area rehabilitated

Dir

L/R

MT>P



Potential to re-use redundant sites for renewable energy generation, depending on type, size and location of scheme.

7. Minimise the requirement for energy generation use, promote efficient energy use and increase the use of energy from renewable resources

Renewable energy generation	Dir/Ind	Will contribute significantly to the aspect of promoting efficient energy use derived from renewables.
	L/R	
Enterprises operating Environmental Management Systems at a level that requires monitoring of carbon emissions	MT>P	
	✓✓	
Energy saved (GWh)		
Energy intensity of the economy		

8. Minimise waste; increase re-use, recycling and recovery rates

Waste reduced, reused or recycled ('000kt)

Dir

Aims to reduce reliance on non-renewable resources, with resulting the waste by-products of their extraction, preparation packaging and use.

L/R

Number of waste management facilities

LT/P



Proportion of End of Life Vehicles waste reused and recycled in the UK

Proportion of packaging waste recovered in the UK

Proportion of construction and demolition waste reused and recycled

Proportion of aggregates derived from secondary and recycled sources

9. Minimise the need to travel and provide alternatives to car use

Percentage of people whose main mode of travel to work and school is cycling and walking

Number of bus routes/
passengers

Number of rail passengers per annum

Volume of freight transport relative to GDP

Volume of passenger transport relative to GDP

Irrelevant No obvious link.

10. Limit and adapt to climate change

Environmental risk management initiatives

Dir/Ind

L>Int

LT/P

✓✓

Linked to 3-7 and 3-8. An explicit objective of this theme is to contribute to climate change adaptation.

Change in soil organic carbon

Ecological footprint

Area of agricultural land classifications

Annual emissions of basket of greenhouse gases (by sector)

People benefiting from flood protection measures

11. Protect and improve air quality

Trends in number of days when air pollution is moderate or higher in rural zones and urban agglomerations

Ind

L/R

LT/P



Level of emissions of sulphur dioxide, ammonia, nitrogen oxides, fine particulates, and volatile organic compounds from the National Atmospheric emissions inventory

Number of air pollution incidents

Urban population exposure to air pollution by ozone

Emissions from commerce and industry

Aims to exploit alternatives to carbon-based non-renewable resources and to achieve zero carbon energy systems.

A local and regional effect will be to improve air quality by reducing the use of carbon-based energy and thereby its emissions.

12. Improve physical and mental health and reduce health inequalities

Percentage of people taking various actions to improve the environment

Ind

L

LT/P

Healthy life years at birth by gender



Trend in level of fly-tipping (Flycapture database)

Percentage of highways and land inspected of a high or acceptable standard of cleanliness

Amount, types and quality of greenspace

A key effect of addressing 3-11 will be to improve community health through improved air quality.

13. Improve public access to land

Managed access to countryside or coast (km)

Area and type of open space and condition

Irrelevant No obvious link, although potential exists to dedicate land for public access? Likely to be minor only.

APPENDIX 6: ACCESSIBLE VERSIONS OF FIGURES FROM TEXT



Fig.1 West Wales and the Valleys Structural Fund area

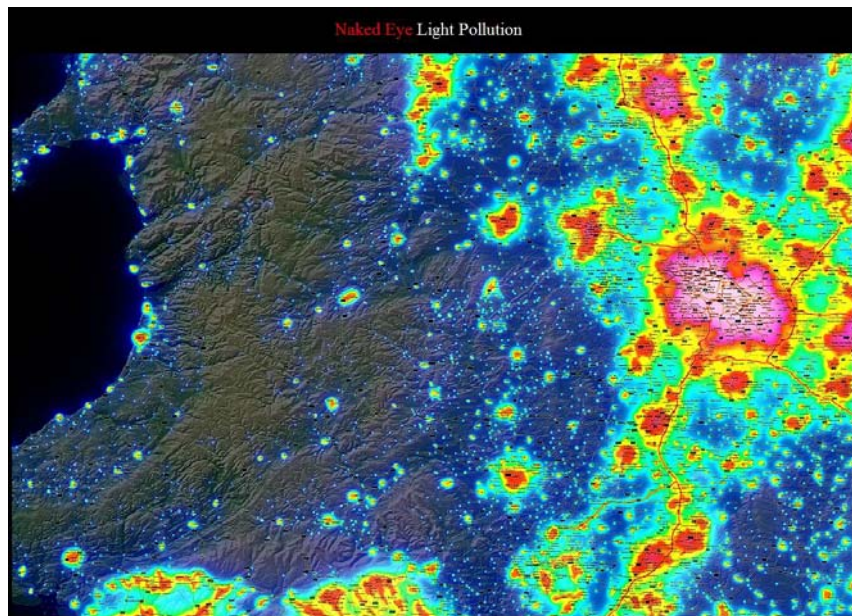
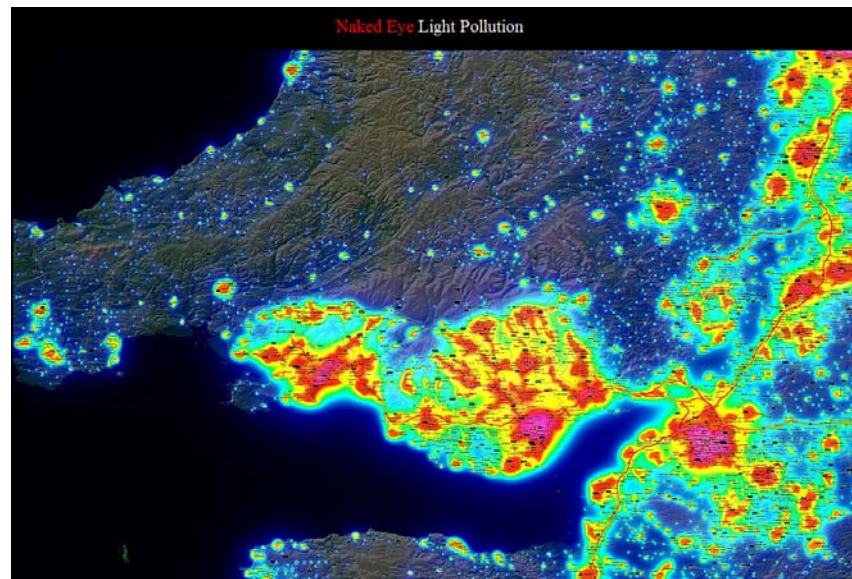


Fig 2: Light pollution in Wales. Source Stargazers Forum

Internationally Protected Sites in Wales

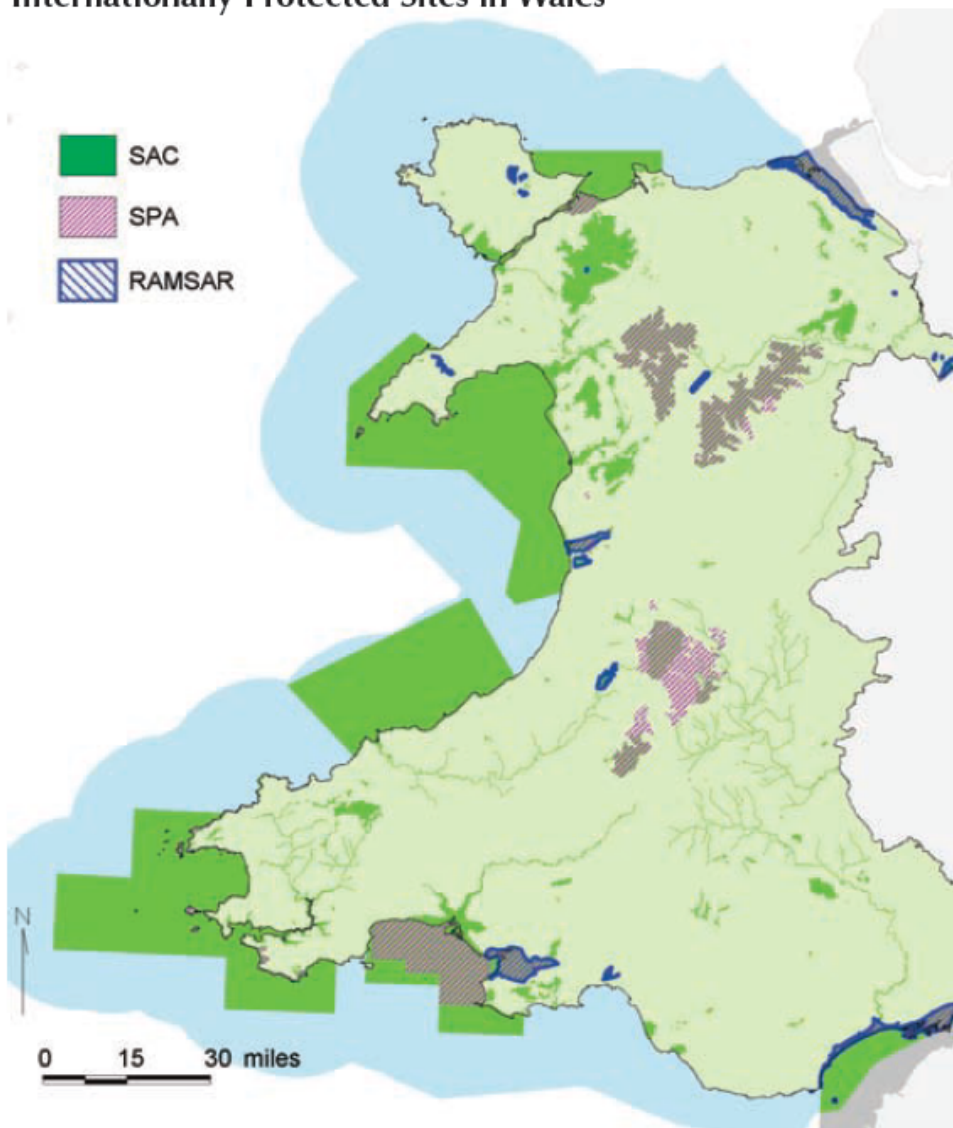


Fig 3: European and Ramsar Sites Source: Special Sites Project.

Welsh Index of Multiple Deprivation 2011
Physical Environment Domain

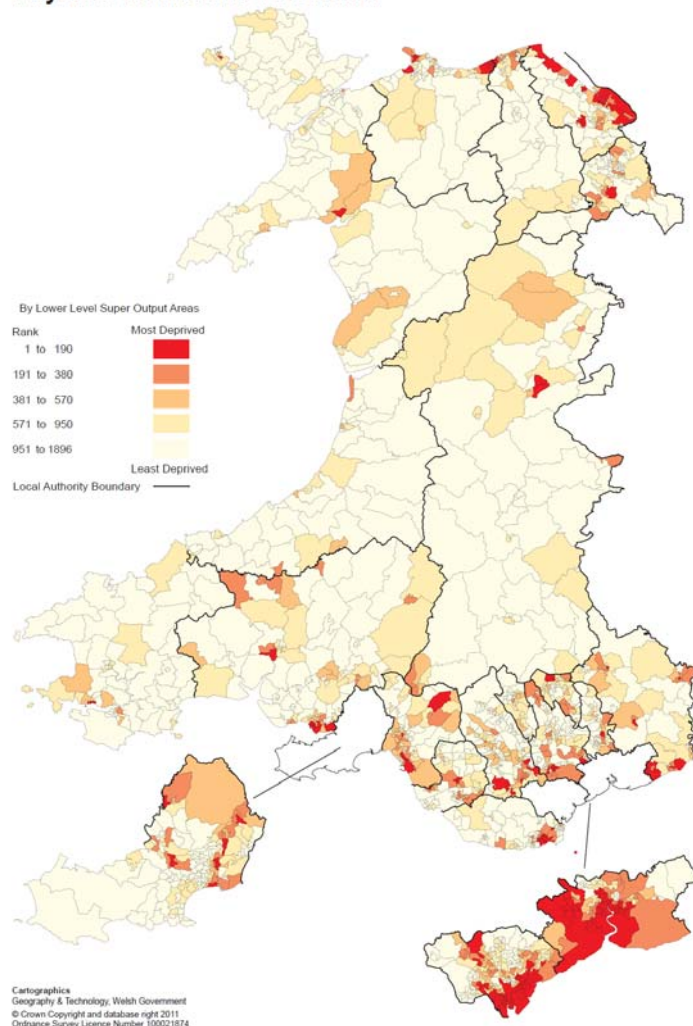


Fig 4. Index of Multiple Deprivation - physical environment

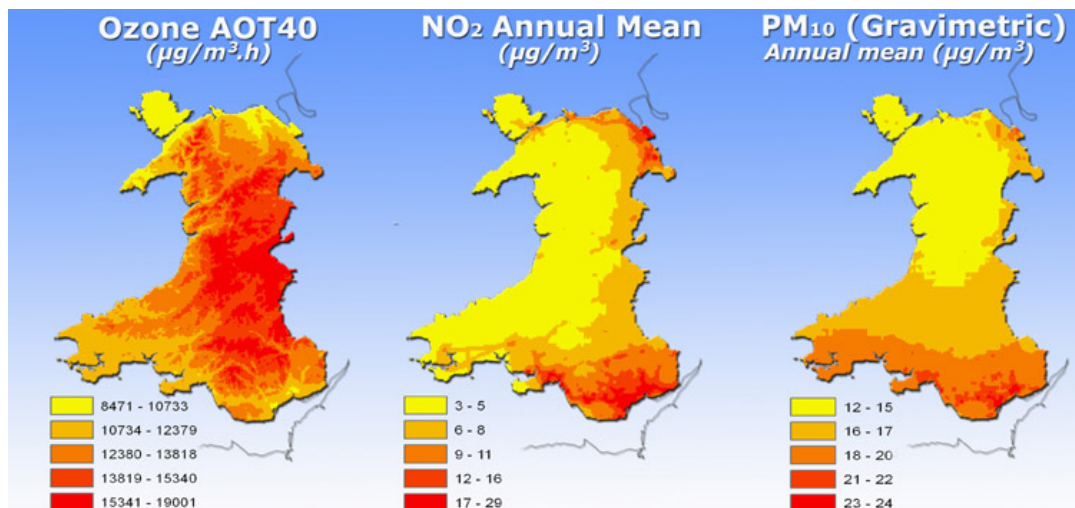


Fig 5: Air Quality in Wales



Fig 6: Historic landscapes. Source: CCW



Fig 7: Landscape character areas. Source: CCW

The red areas indicate outstanding landscape attributes, and the amber areas are of high quality

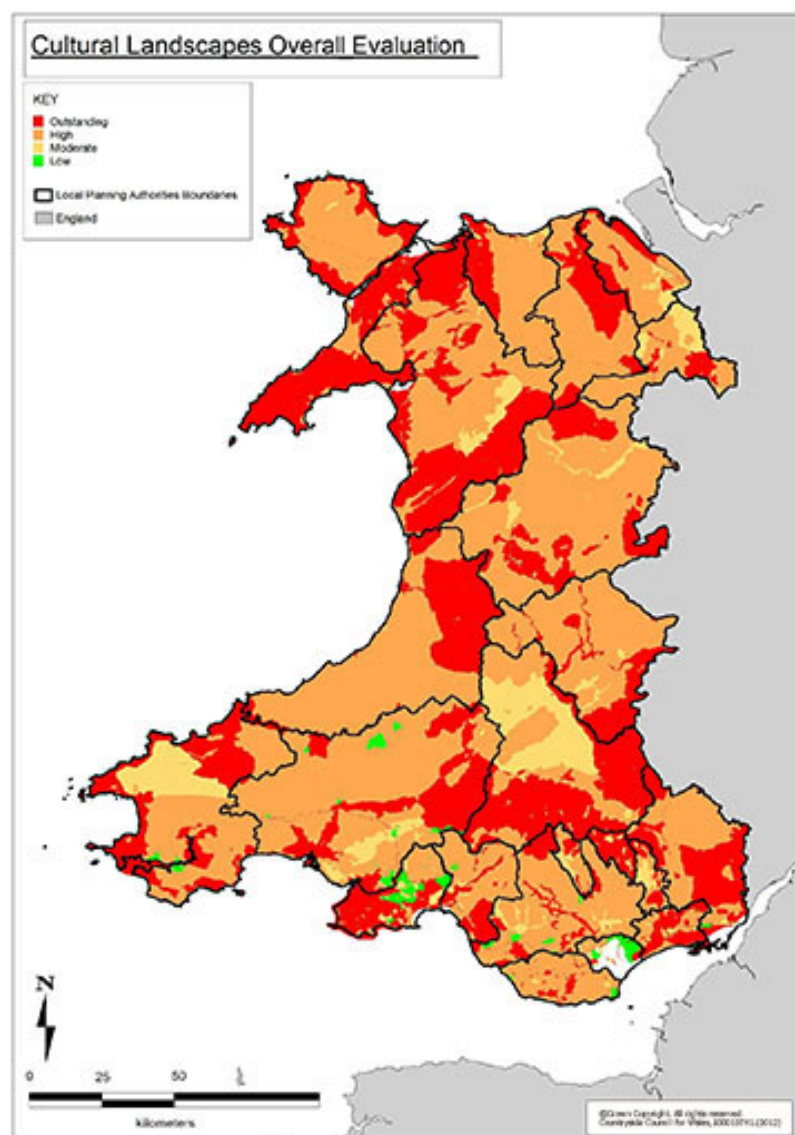


Fig 8: Cultural

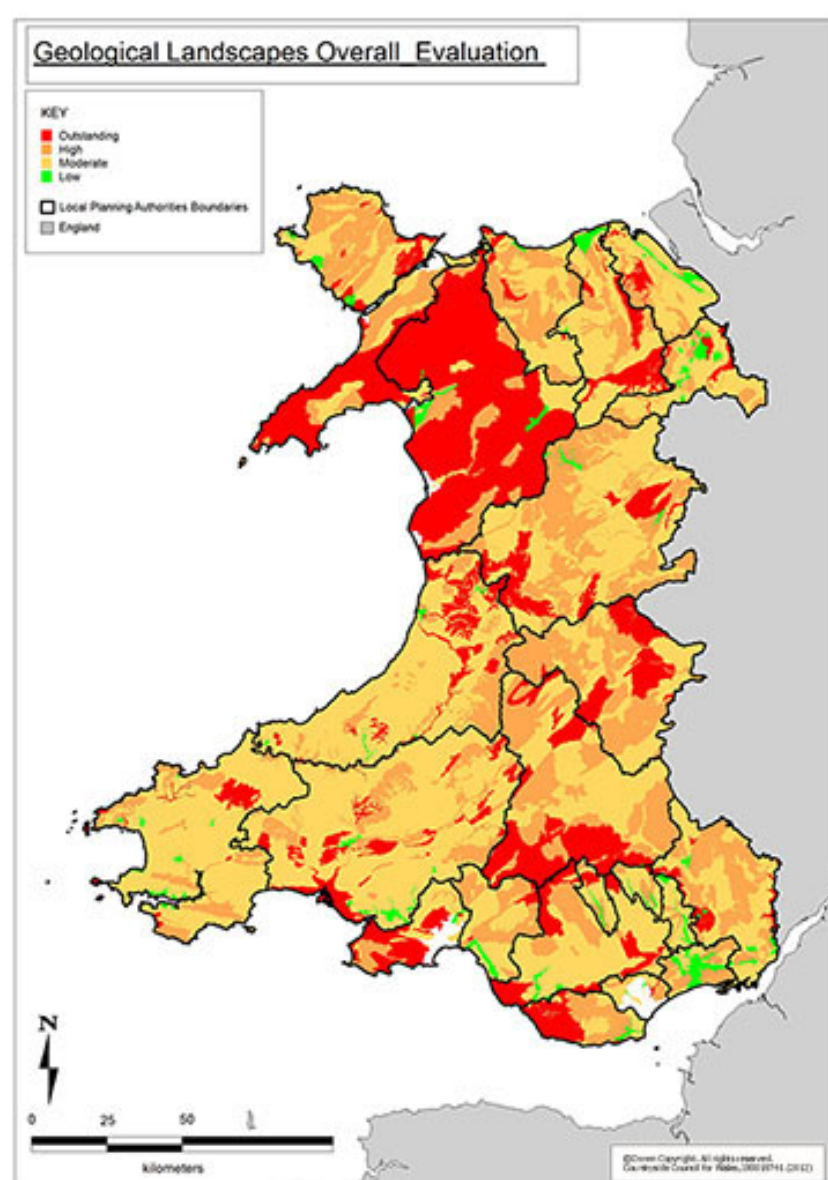


Fig 9: Geological

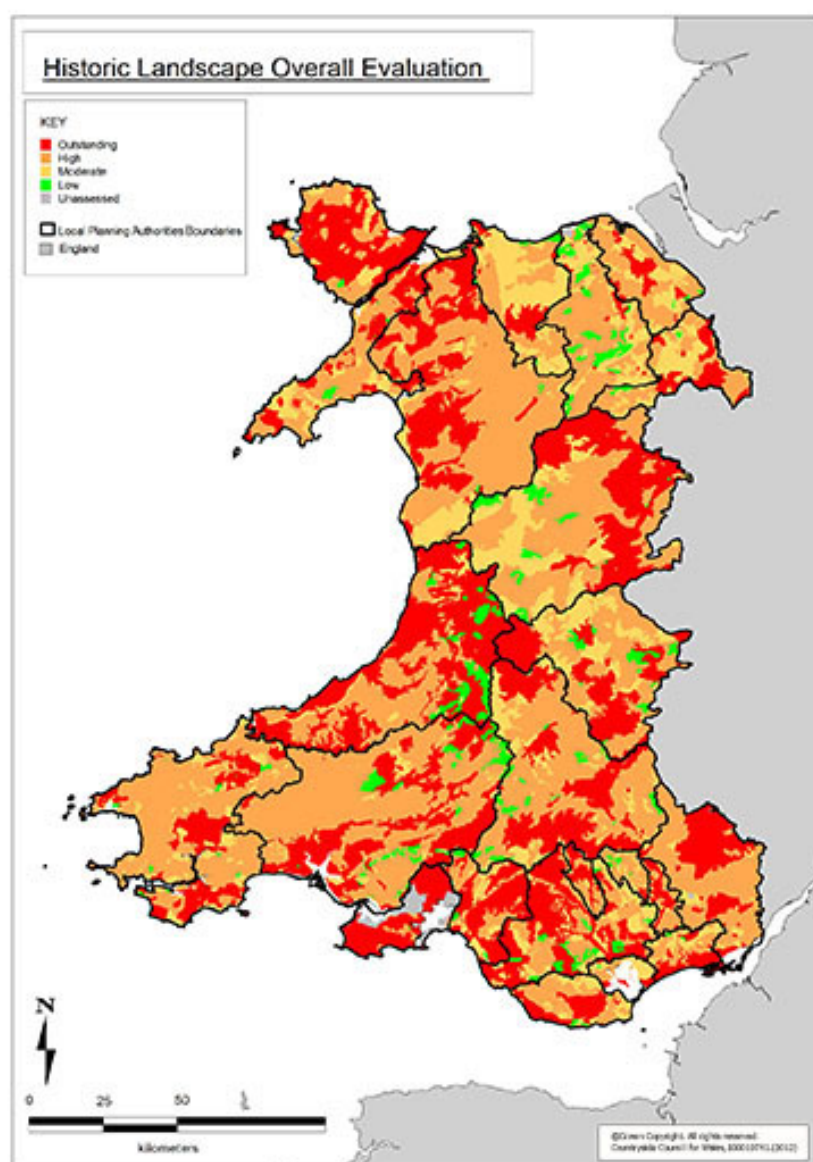


Fig 10: Historical

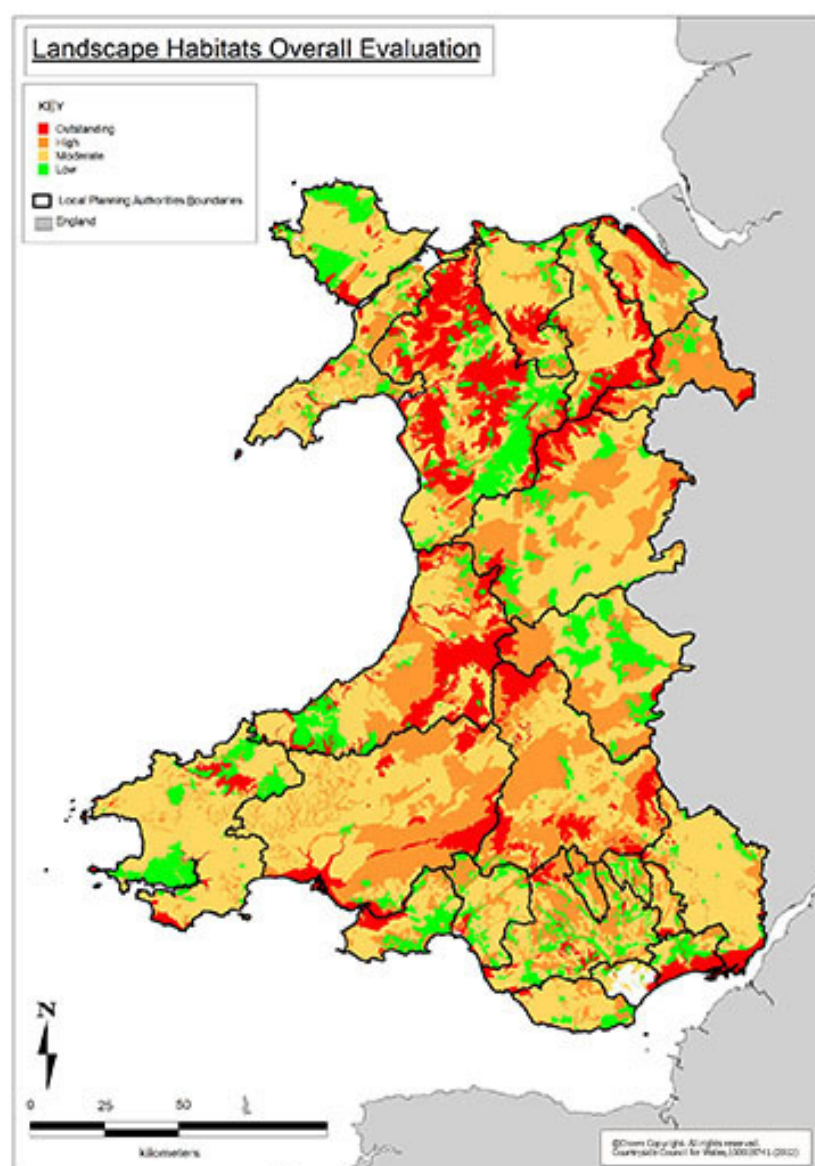


Fig 11: Landscape habitat

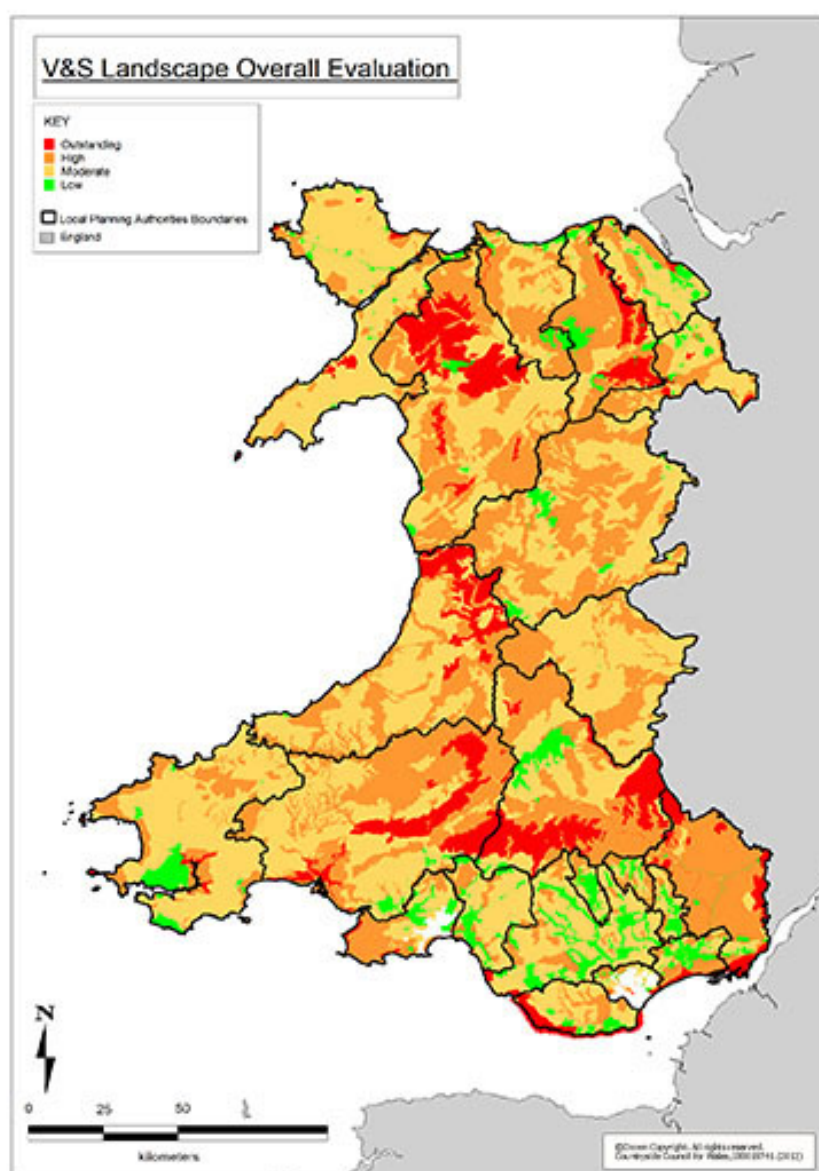


Fig 12: Visual and sensory

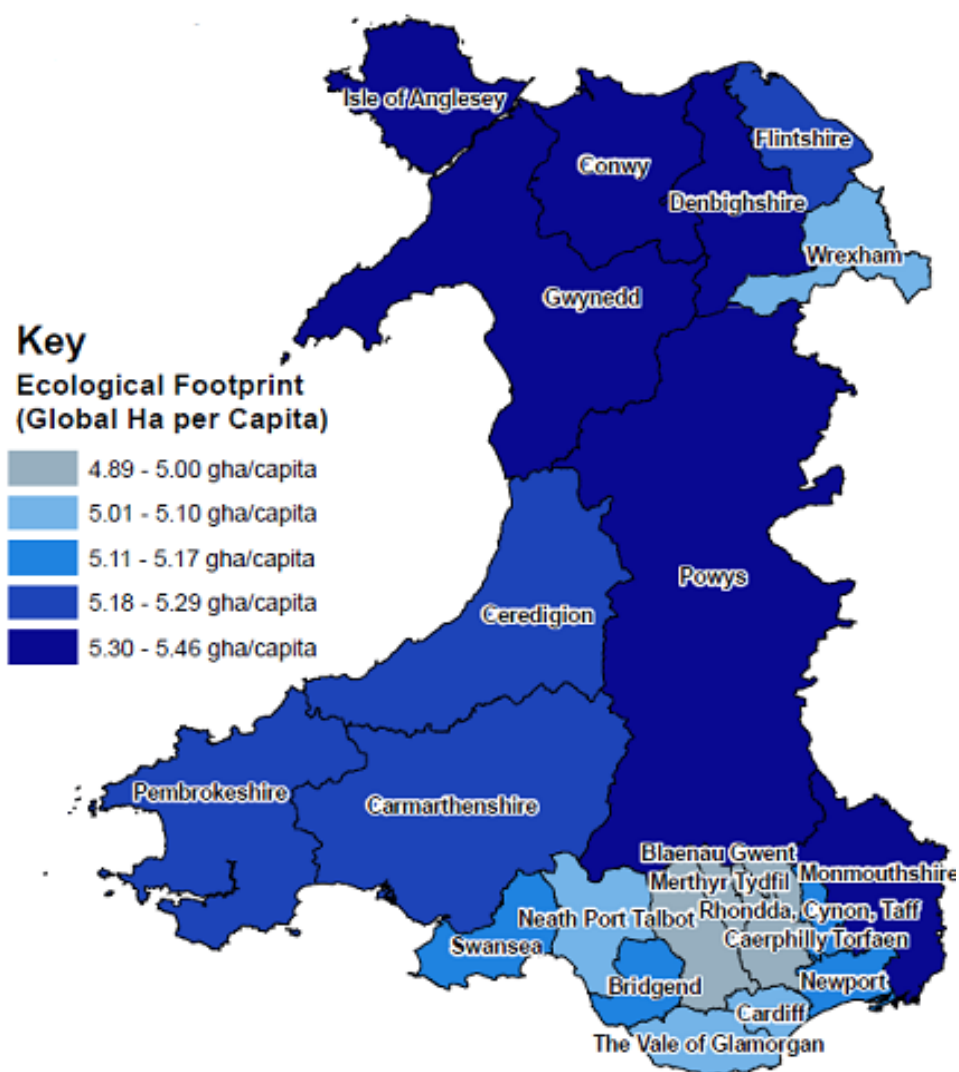


Fig 13: Wales' ecological footprint. Source Dawkins et al