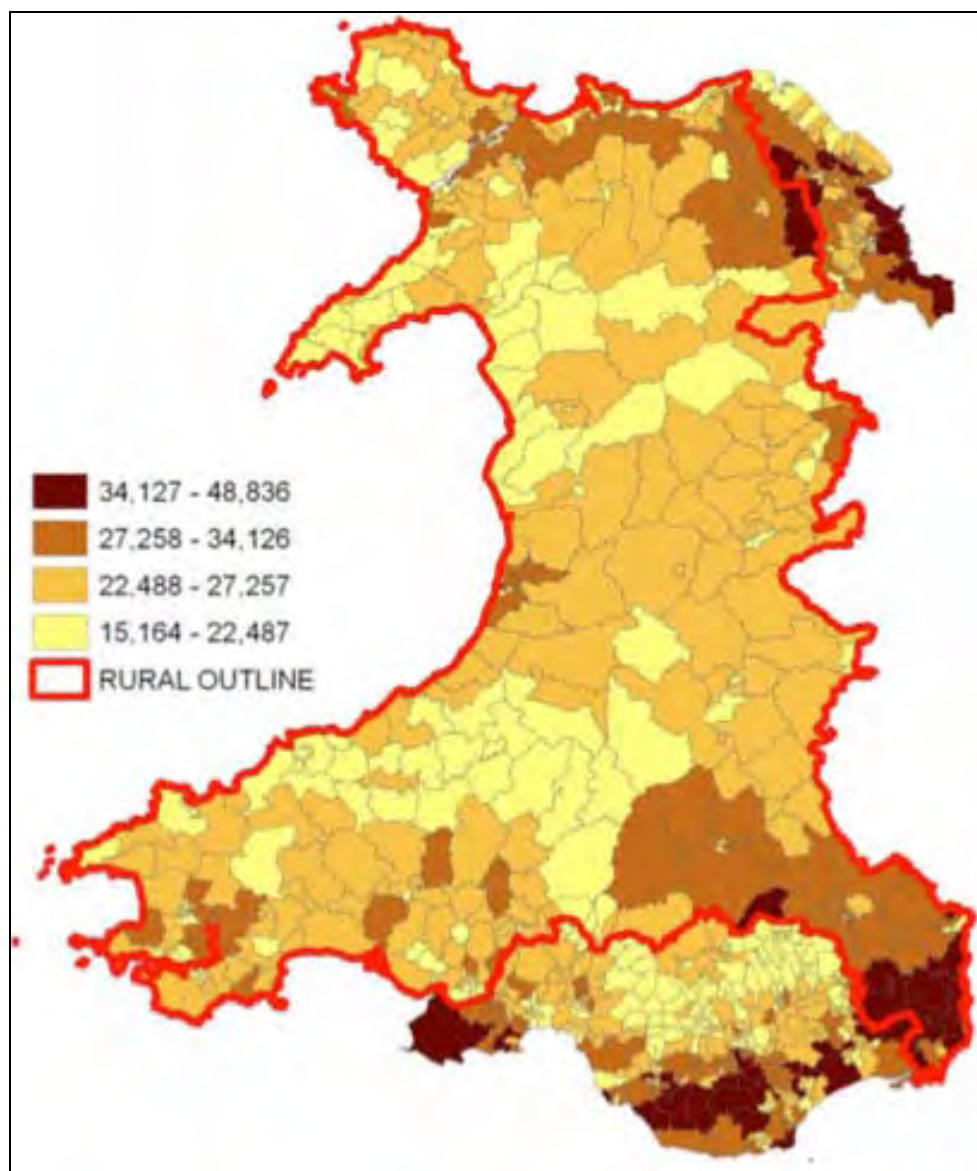
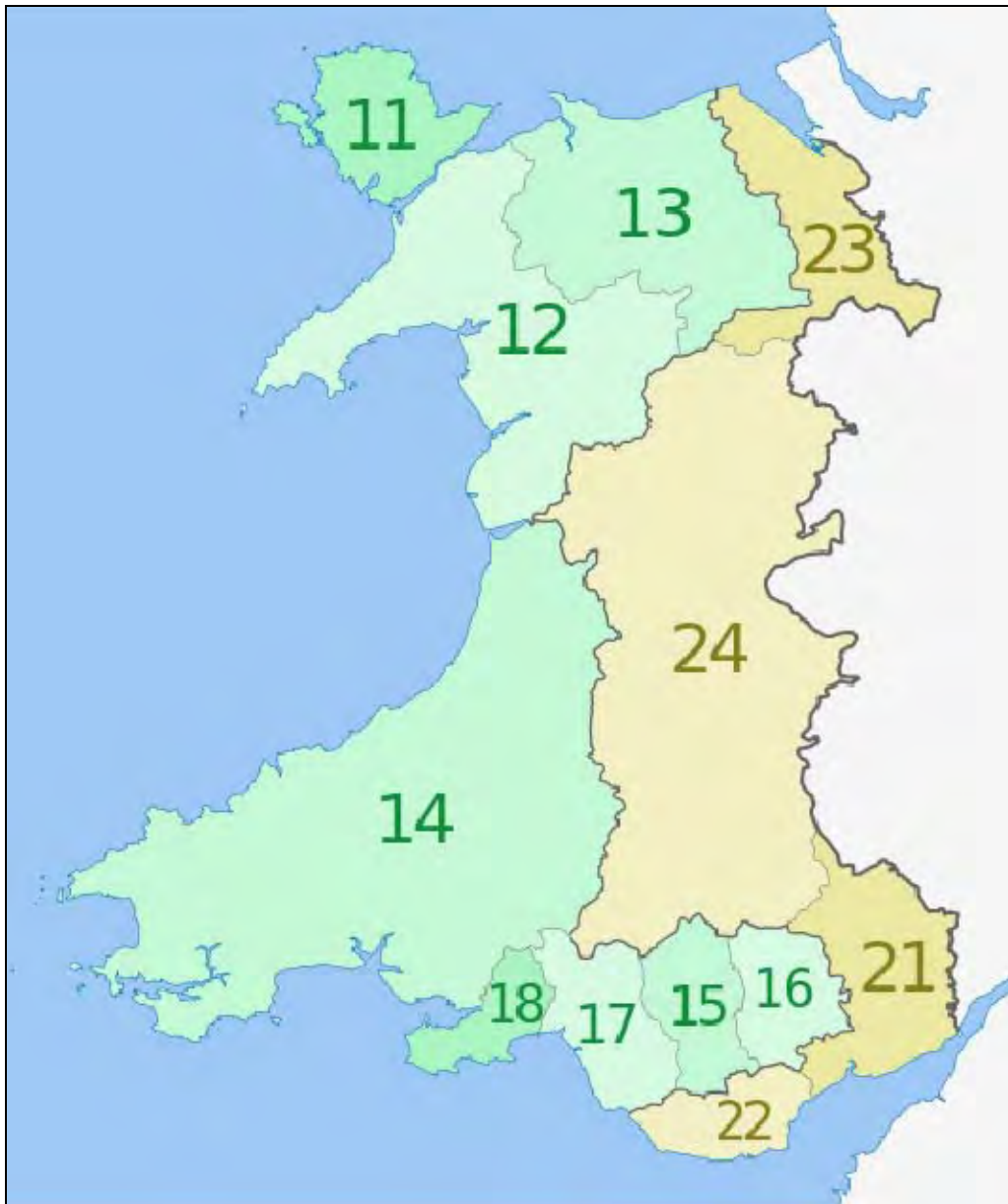


APPENDIX 1: MAPS REFERRED TO IN THE TEXT



Map 1: Rural Wales (page 19). Source Wales Rural Observatory



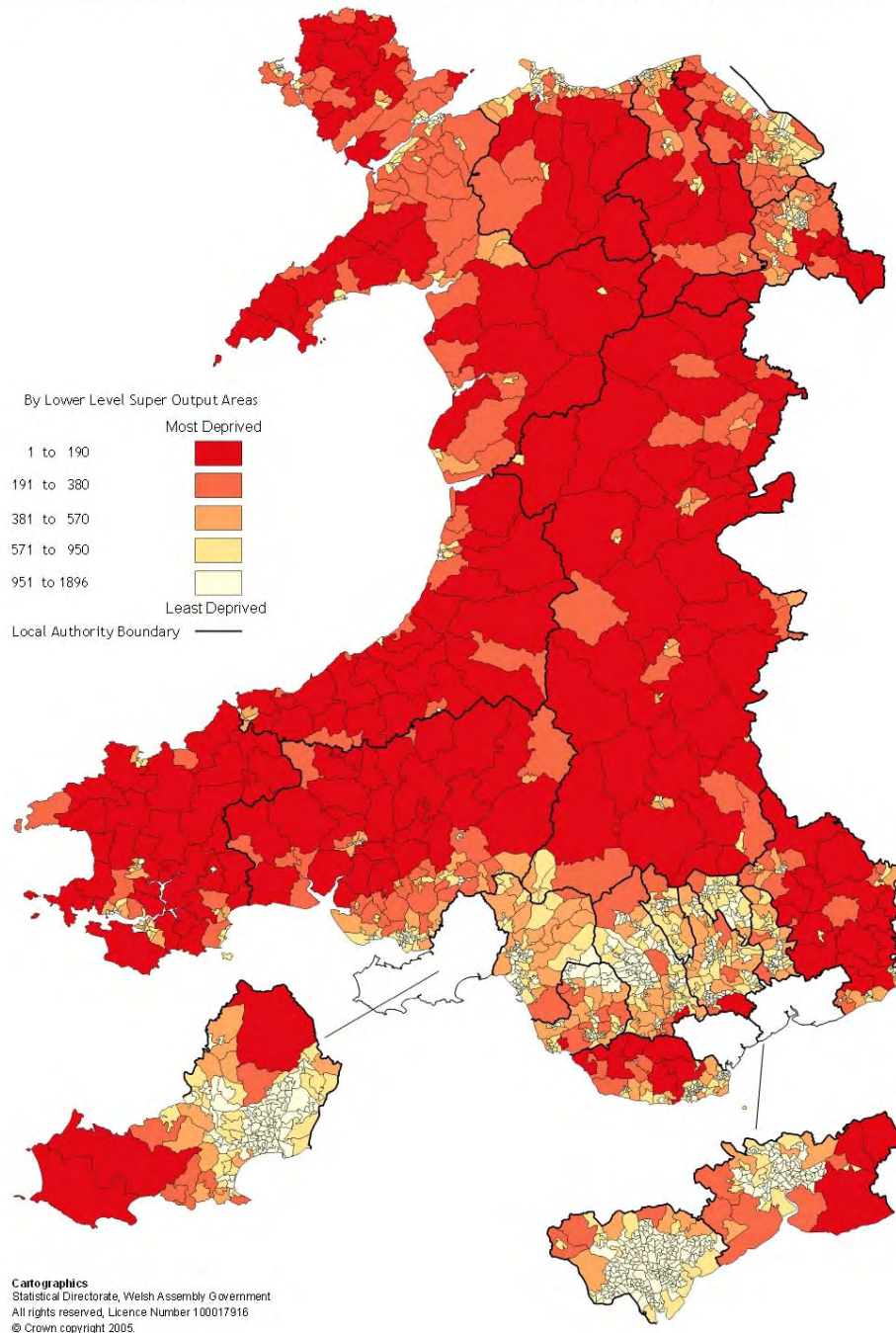
Map 2: Wales NUTS3 Areas (page 19). Source Office for National Statistics



Map 3: Less Favoured Areas (page 48). Source Welsh Government

Welsh Index of Multiple Deprivation 2005

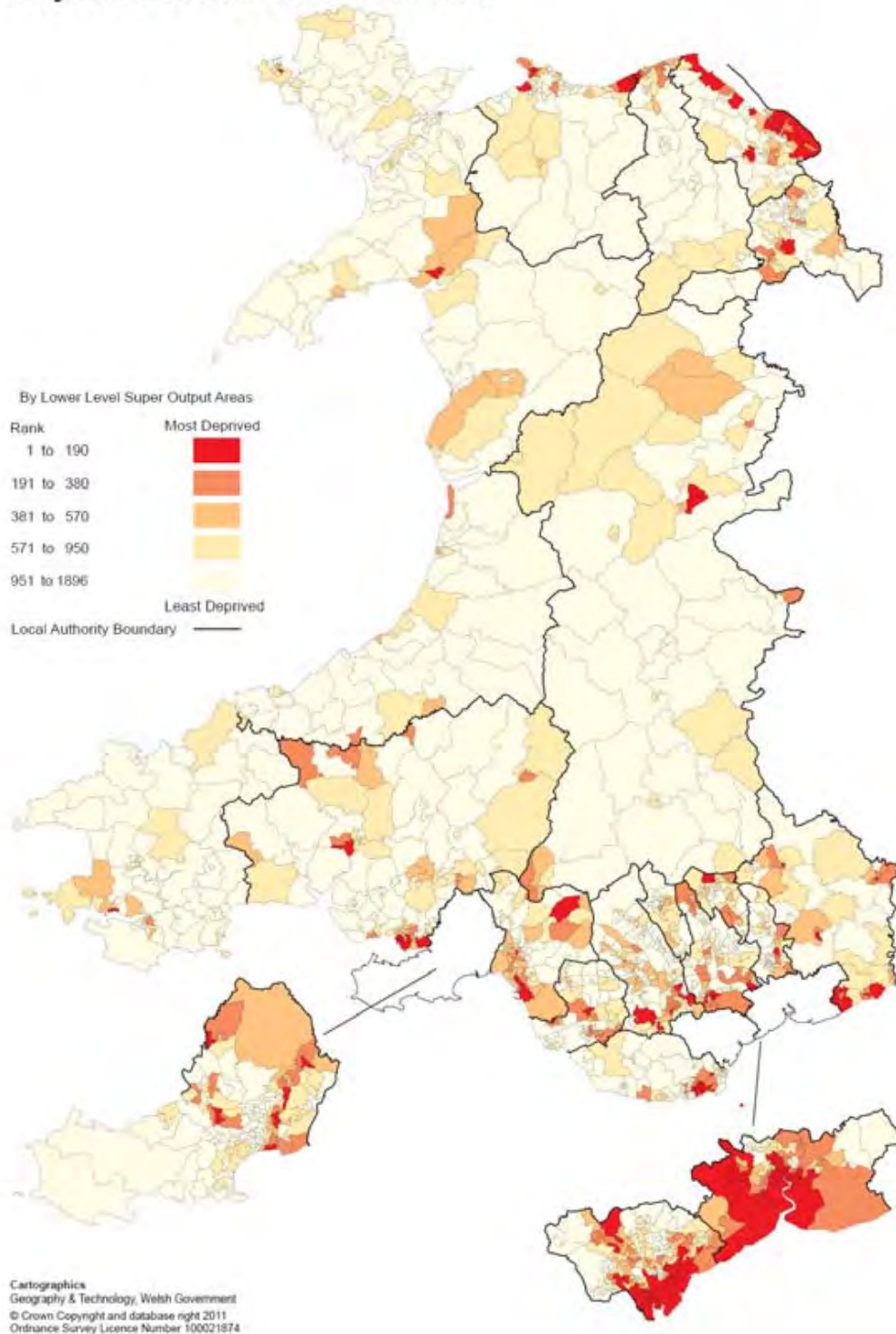
Geographical Access to Services Deprivation Domain



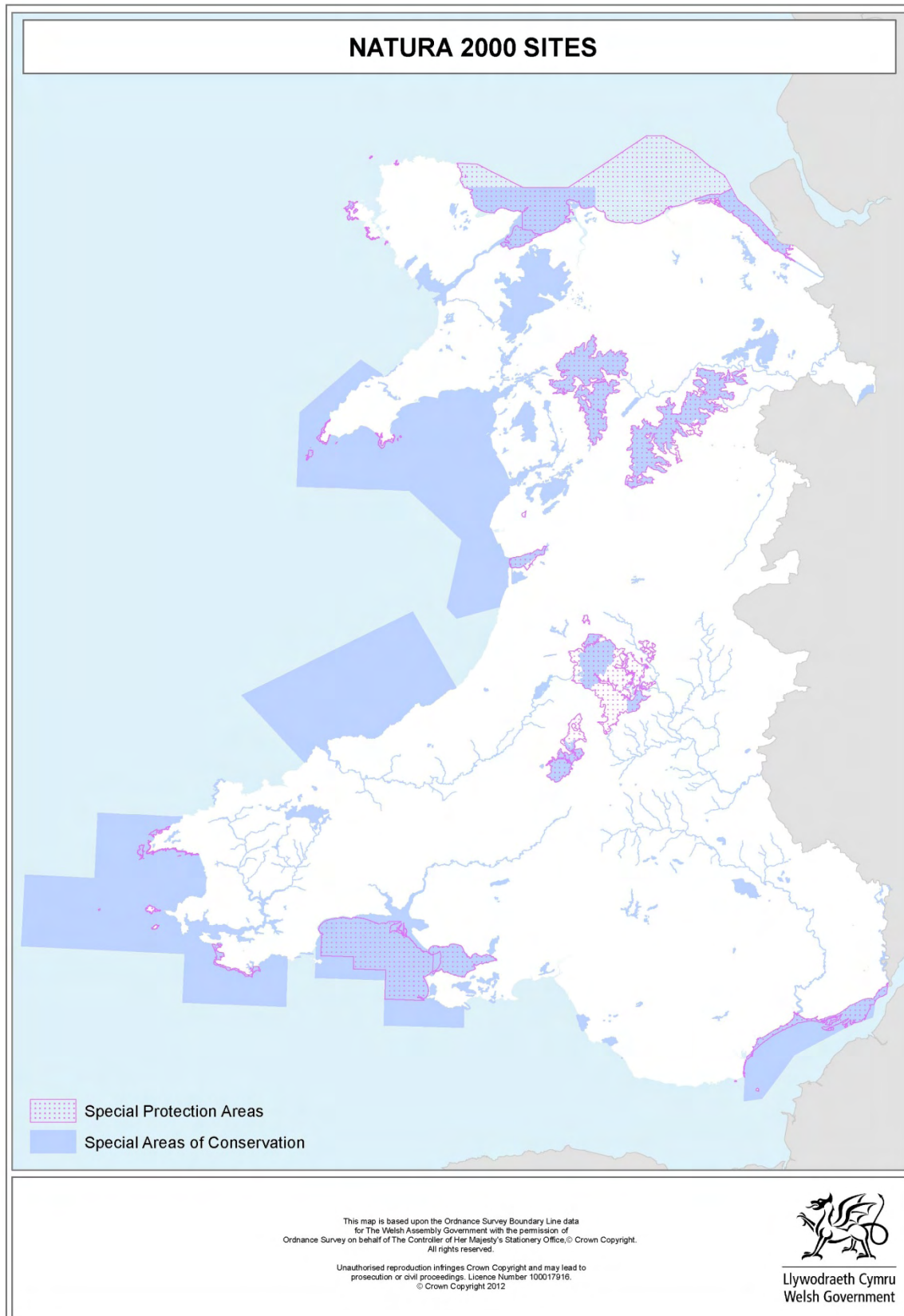
Map 4: Access to Services Deprivation (page 50).
Source Statistical Directorate, Welsh Assembly Government

Welsh Index of Multiple Deprivation 2011

Physical Environment Domain

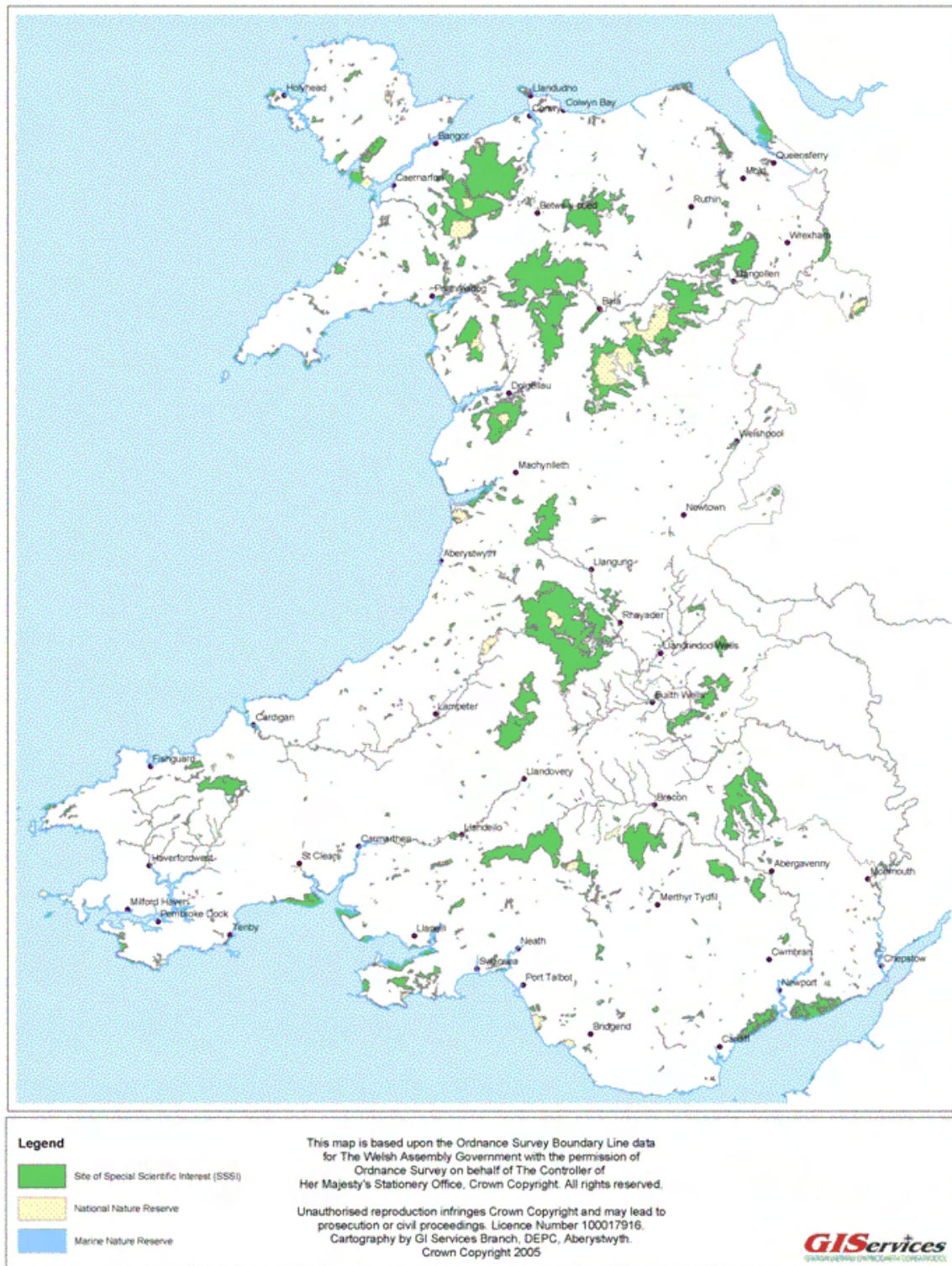


Map 5: Access to the Physical Environment Domain (page 50).
Source Statistical Directorate, Welsh Assembly Government



Map 6 Special Areas of Conservation and Special Protection Areas (page 53).
Source Welsh Assembly Government

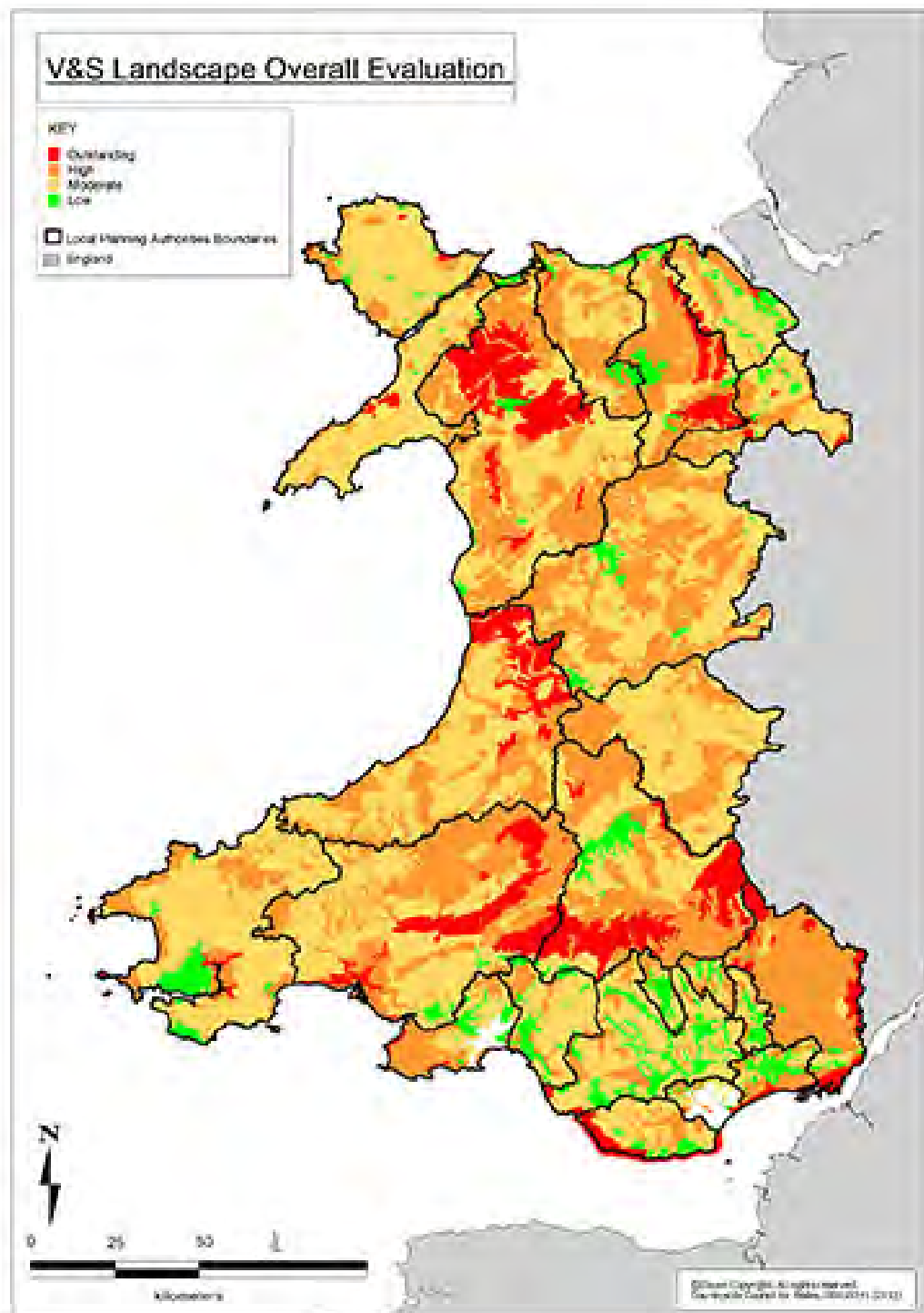
SSSIs and Nature Reserves of Wales



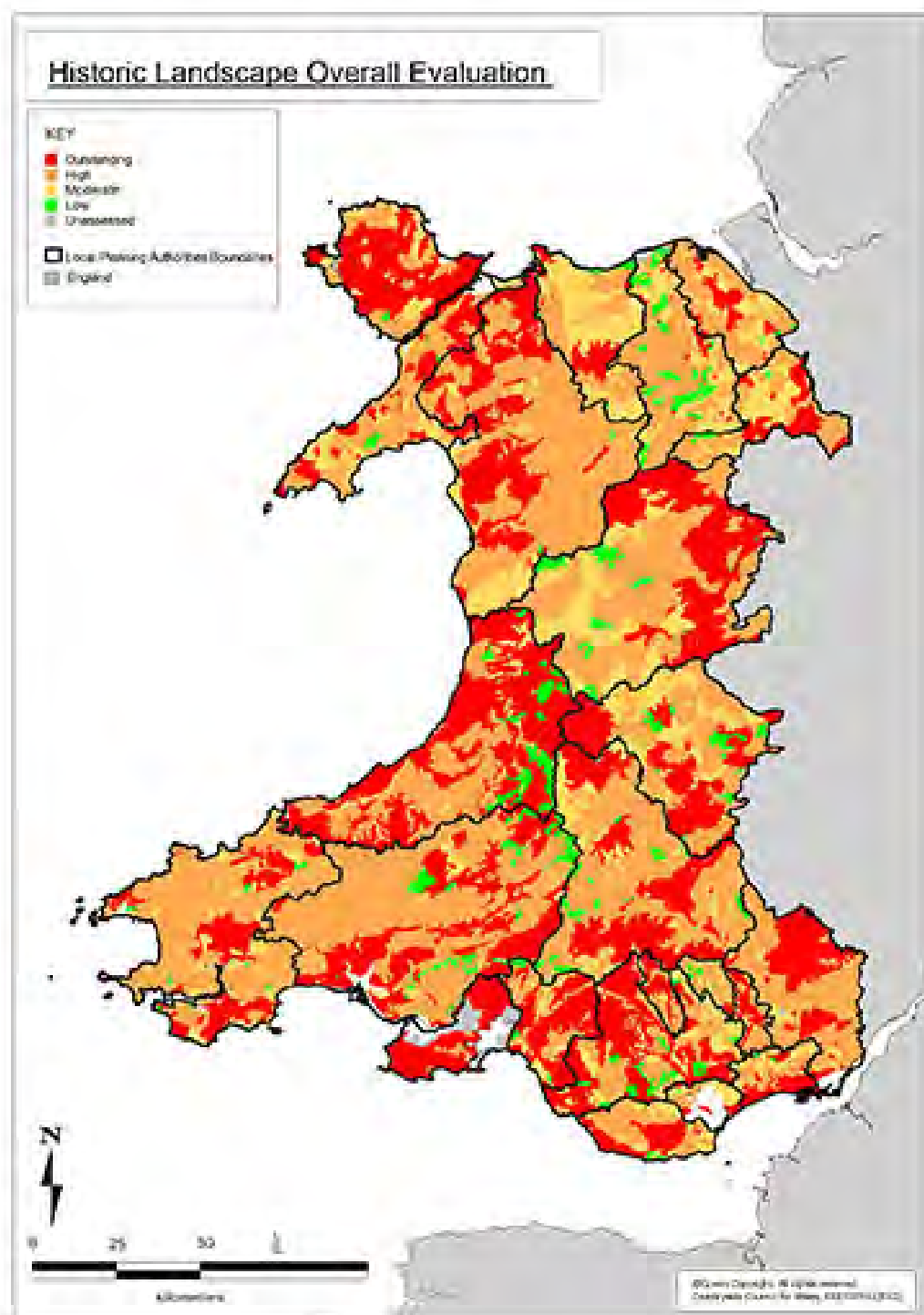
Map 7: Sites of Special Scientific Interest and National Nature Reserves (page 53)
Source Welsh Assembly Government



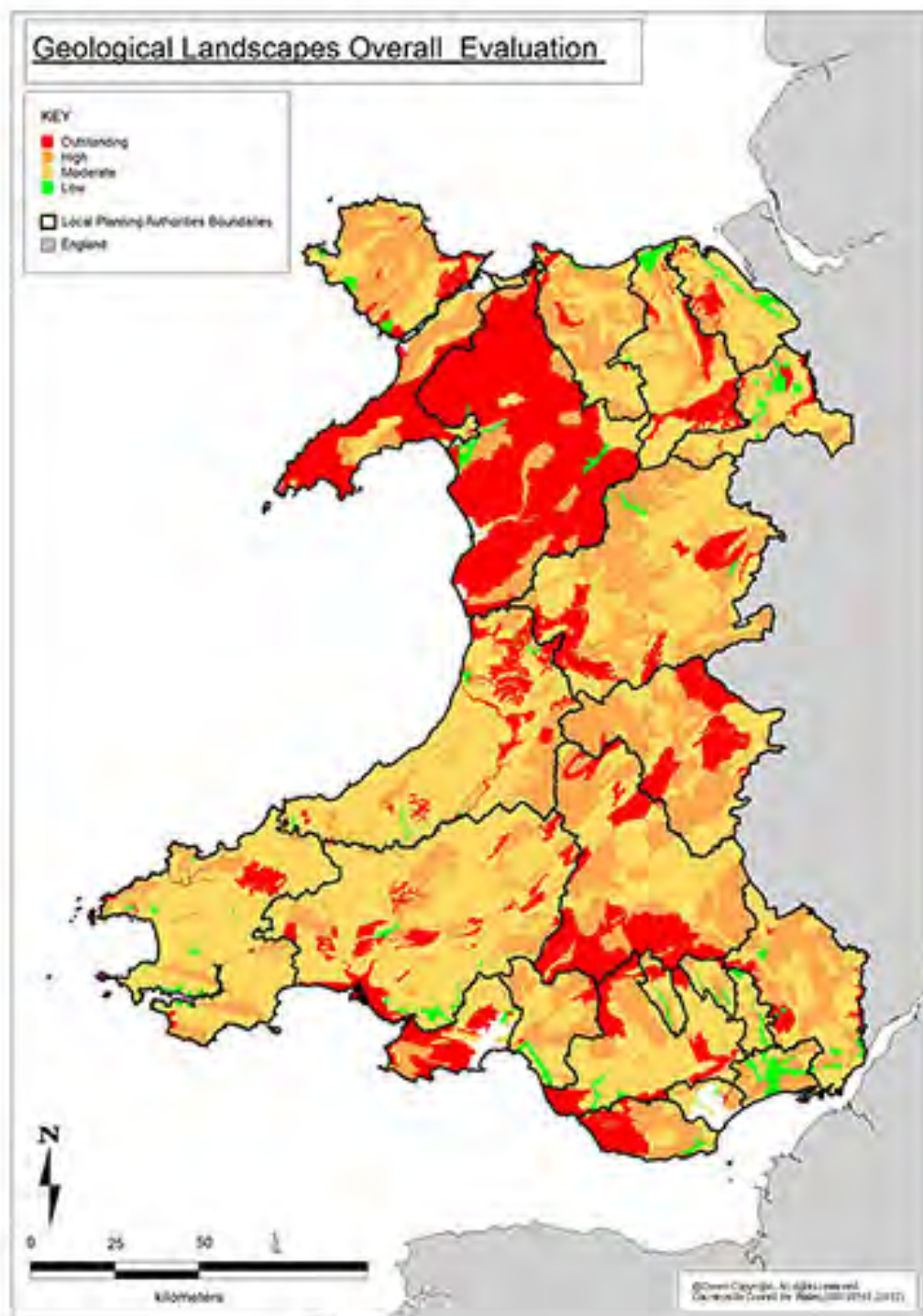
Map 8: Landscape Character Areas (page 58).
Source Welsh Assembly Government



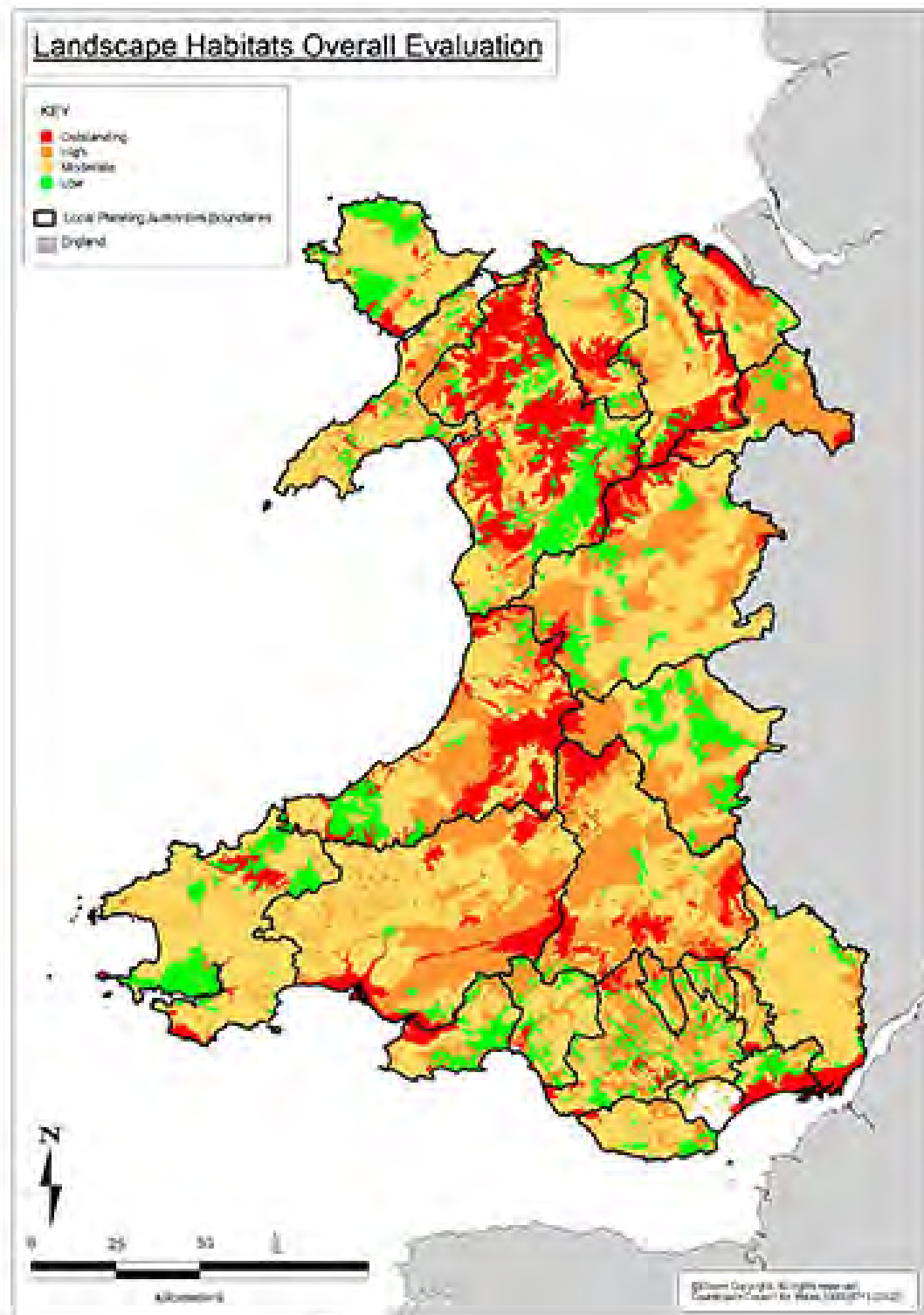
Map 9: LANDMAP Visual and Sensory Evaluation (page 58).
Source Countryside Council for Wales



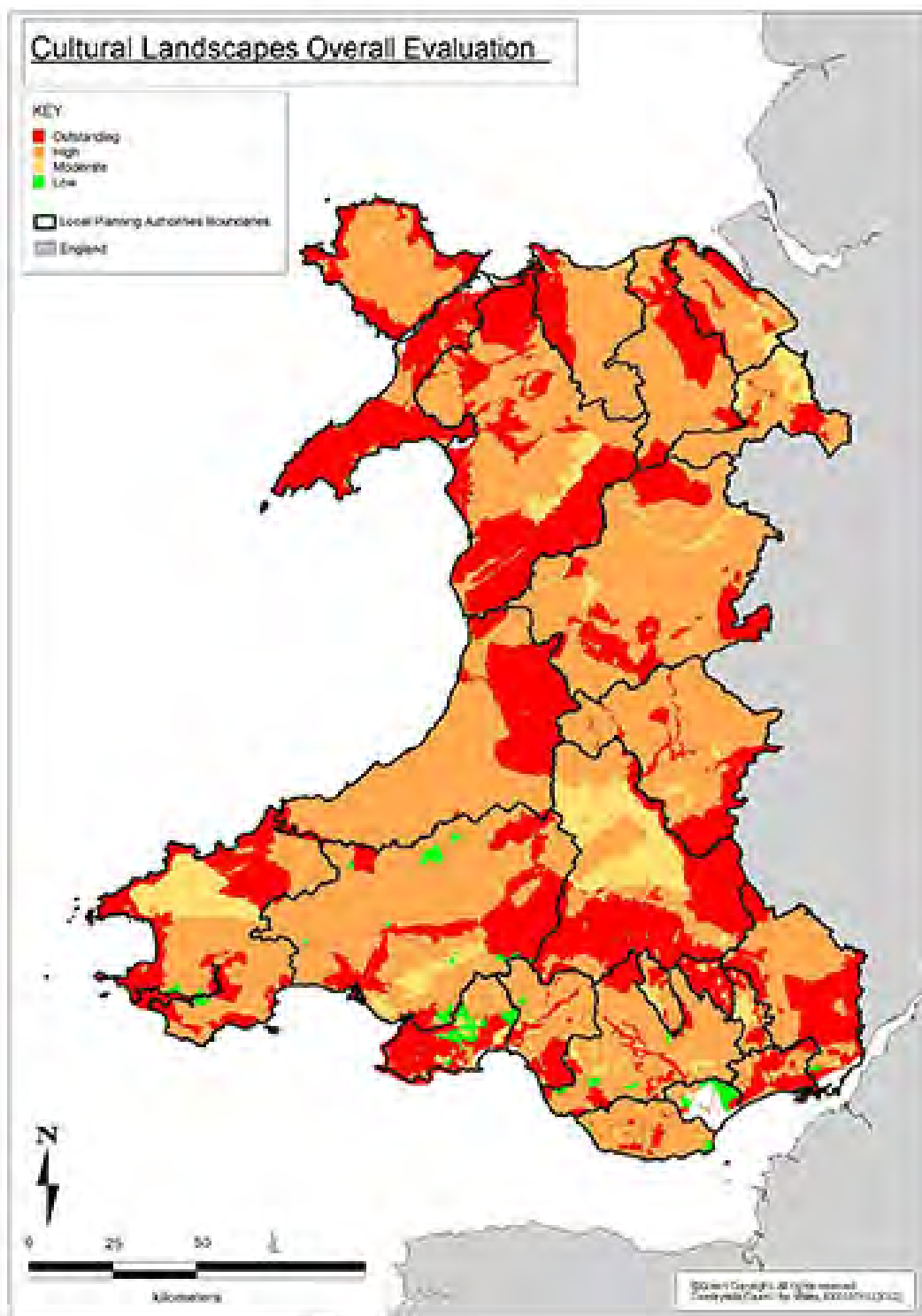
Map 10: LANDMAP Historic Landscape Evaluation (page 58).
Source Countryside Council for Wales



Map 11: LANDMAP Geological Landscape Evaluation (page 58).
Source Countryside Council for Wales

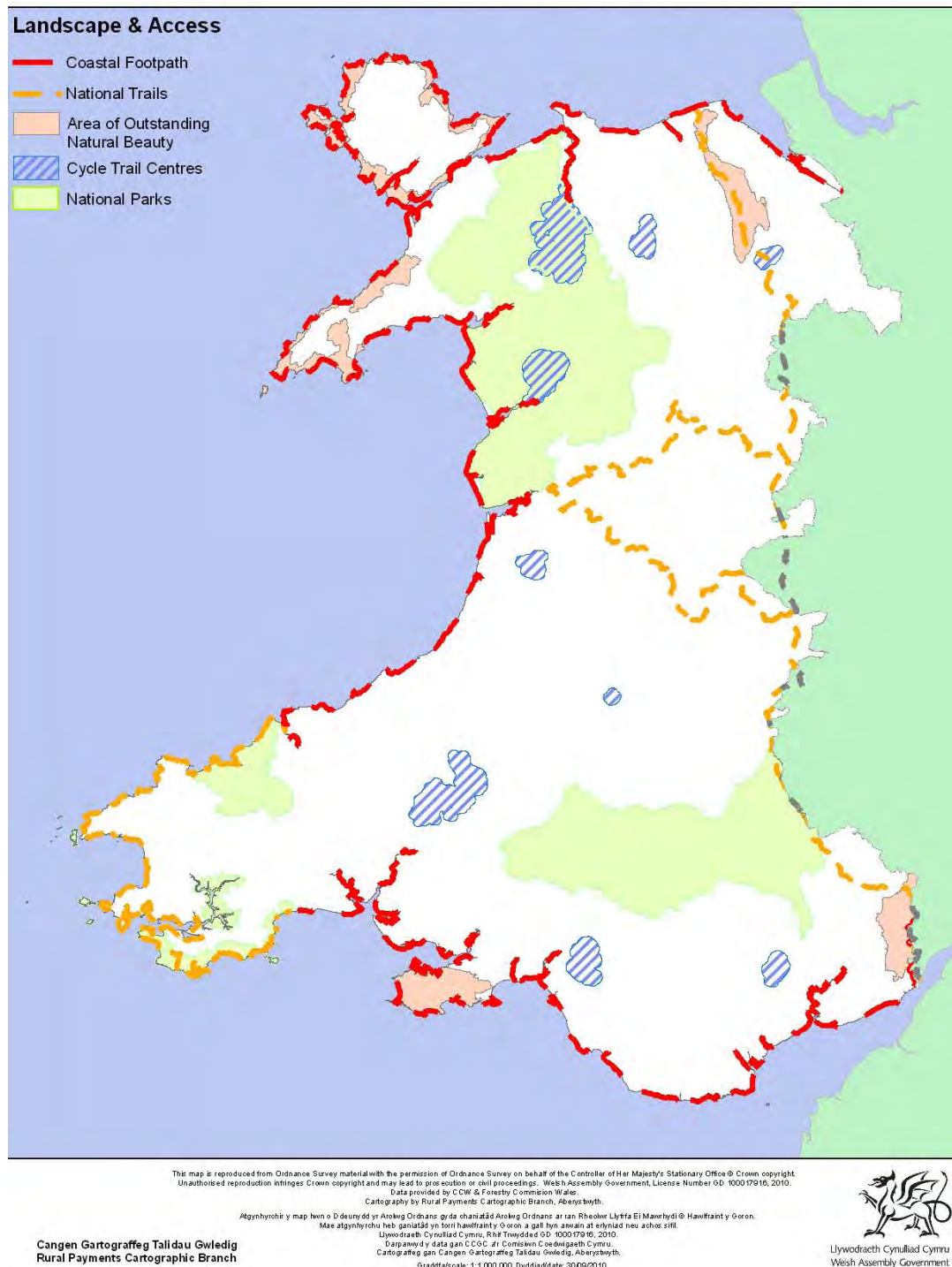


Map 12: LANDMAP Landscape Habitats Evaluation (page 58).
Source Countryside Council for Wales

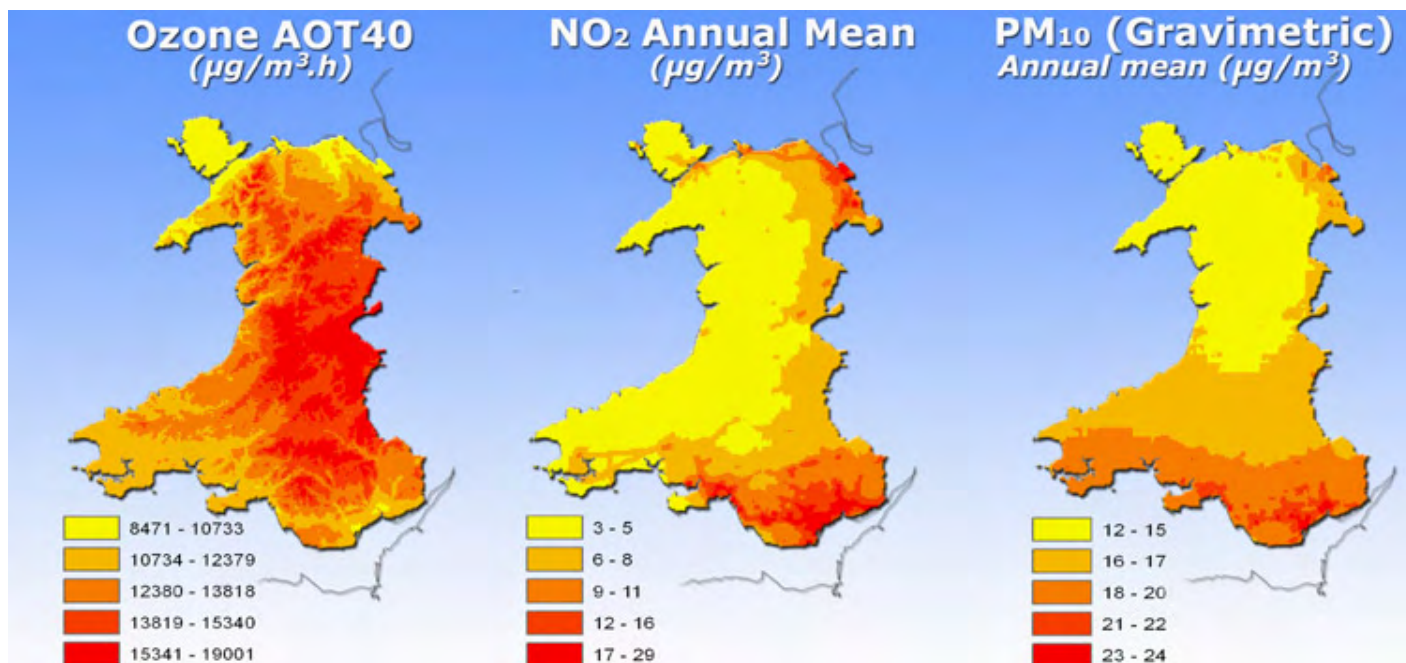


Map 13: LANDMAP Cultural Landscape Evaluation (page 58).
Source Countryside Council for Wales

Glastir Targeted Element: Landscape & Access

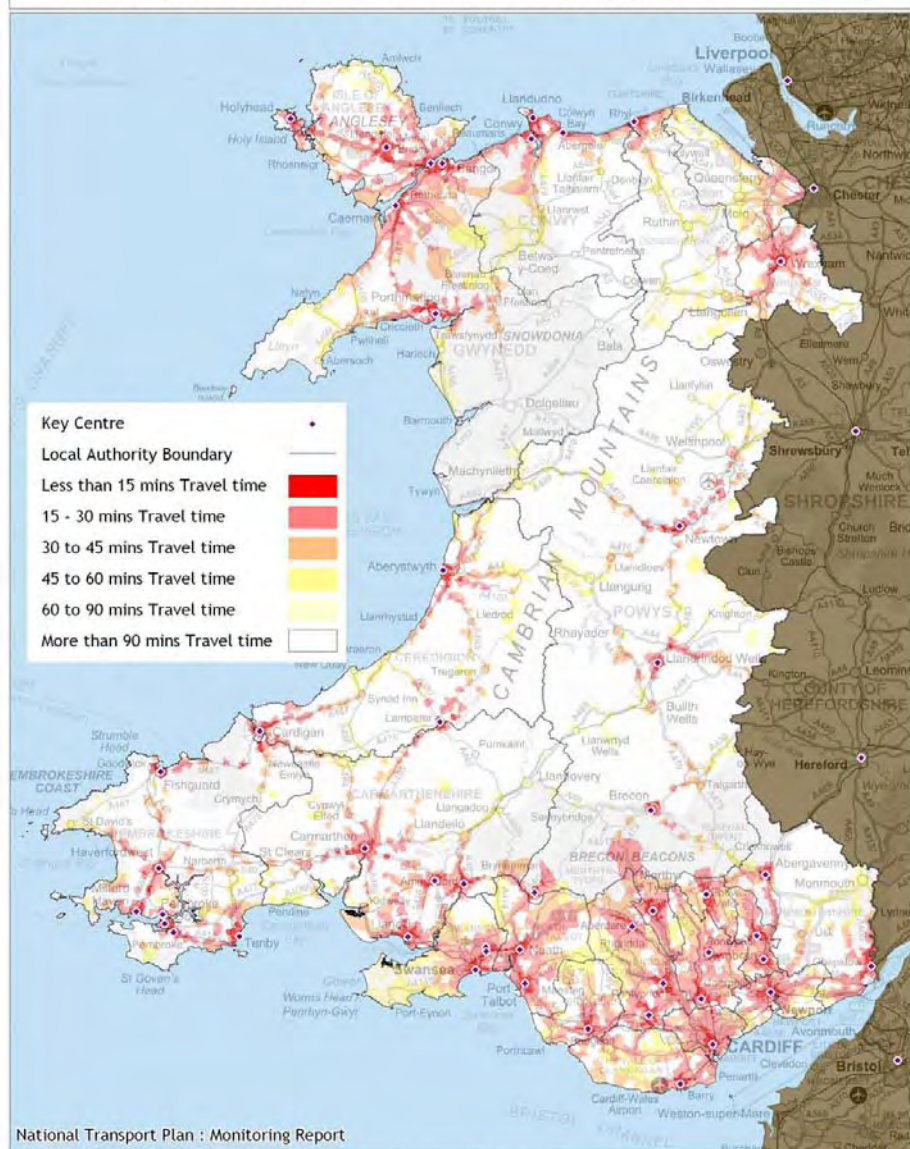


Map 14: Glastir Targeted Element. Landscape and Access (page 59).
Source Welsh Assembly Government



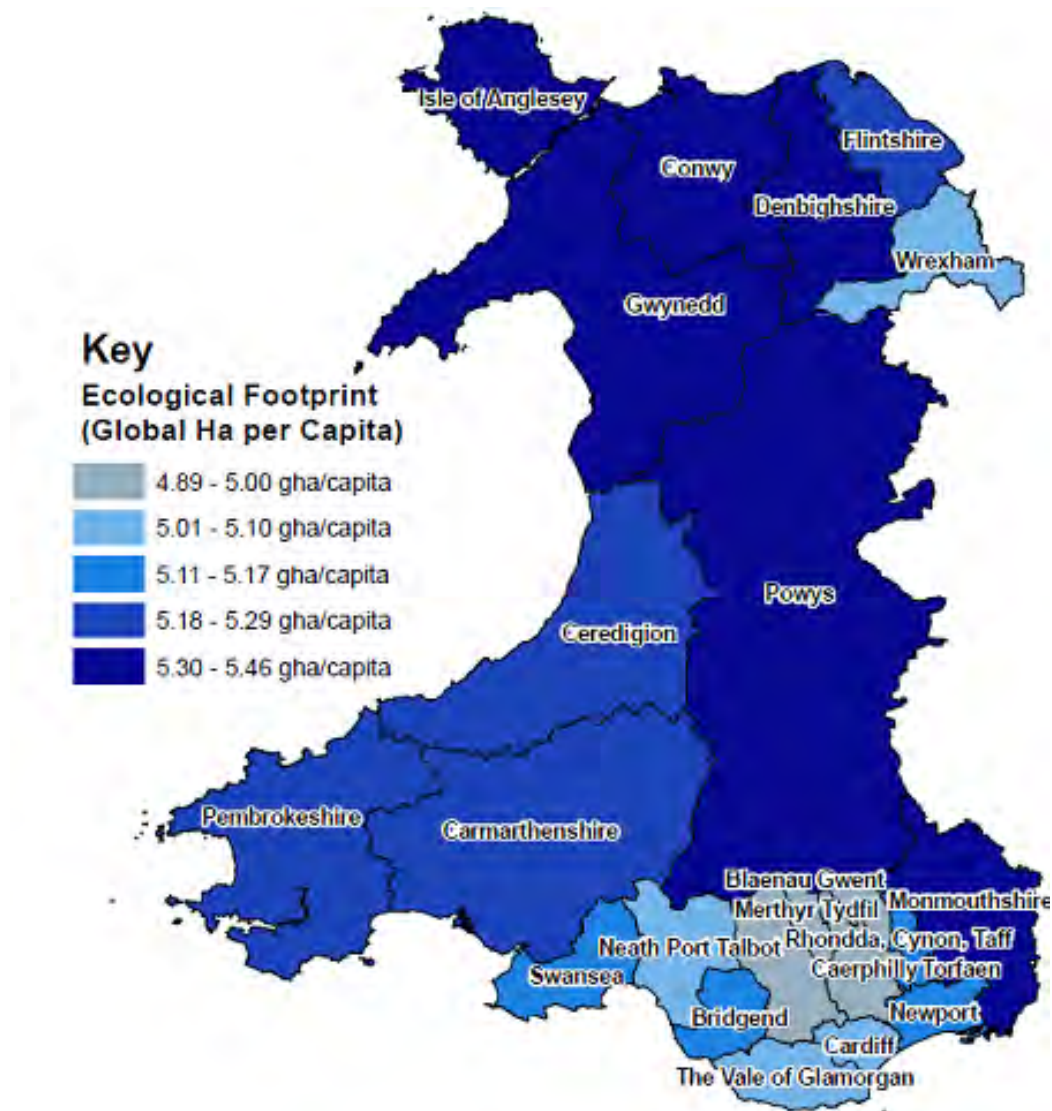
Map 15: Air Quality (page 71).
Source

6.1 The proportion of people aged over 16 within 15, 30, 45, 60, and 90 minutes travel time threshold(s) of a 'Key Centre' (as defined by the Regional Transport Consortia) between 7 a.m. and 9 a.m. on a Tuesday (i. by public transport)



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Map 16: Time taken to access 'key centres' (page 80).
Source Welsh Assembly Government



Map 17: Ecological Footprint (page 93).
 Source Welsh Assembly Government

APPENDIX 2 - SUMMARY OF RELEVANT PLANS, POLICIES AND PROGRAMMES

GLOBAL CONTEXT

Other plan/ Programme	Headlines	Application to RDP
The Convention on Wetlands of International Importance especially as Waterfowl Habitat (1971) Bonn Convention on the Conservation of Migratory Species of Wild Animals (1979)	<p>Aims to halt and reverse the worldwide loss of wetlands through wise use and management.</p> <p>Aims to conserve terrestrial, marine and avian migratory species throughout their range: "paying special attention to migratory species the conservation status of which is unfavourable and taking individually or in cooperation appropriate and necessary steps to conserve such species and their habitat." NB EUROBATS, ASCOBANS, and AEWA are relevant agreements concluded under the Convention.</p>	<p>Ensure that projects have no adverse effect on Ramsar sites and aim to enhance them where possible.</p> <p>RDP to ensure that the conservation status of relevant habitats is not threatened and where possible enhanced</p>
Convention on Biological Diversity	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	Signatories to the Convention agree to take action to meet biodiversity targets. Programme policies support objectives.

COUNCIL OF EUROPE CONTEXT

Aarhus Convention	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.	Ensure that the SEA process reflects the aim of the convention: <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.
Berne Convention on the Conservation of European Wildlife and Natural Habitats (1979)	<p>Aims:</p> <ul style="list-style-type: none">• to conserve wild flora and fauna and their natural habitats• to promote cooperation between states• to give particular attention to endangered and vulnerable species including endangered and vulnerable migratory species	Implemented by the EU as the Birds and Habitats Directives, and in the UK by the Wildlife and Countryside Act 1981. RDP to ensure that nothing illegal is done through programme implementation.
European Landscape Convention	Recognises the significance, value and role of all European landscapes and seascapes. Asserts that all landscapes matters, and that appropriate 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.	Ensure that decisions recognise the implications for landscapes - 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	<p>Directive 96/62/EC sets a framework for how member-states must monitor and report ambient levels of air pollutants.</p> <p>Directive 99/30/EC sets ambient air limit values for nitrogen dioxide and oxides of nitrogen, sulphur dioxide, lead and particulate matter.</p> <p>Directive 2000/69/EC sets ambient air limit values for benzene and carbon monoxide.</p> <p>Directive 2002/3/EC sets ambient air limit values for ozone.</p>	RDP interventions should support the objectives
Council Directive 75/442/EEC on waste, as amended by Council Directive 2008/98/EC (Waste Framework Directive)	<p>Establishes a framework for the management of waste across the EU.</p> <p>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.</p> <p>Establishes the basis for an integrated waste management strategy</p>	RDP interventions to ensure compliance
Directive (2001/42/EC) on the Assessment of the Effects of Certain Plans and Programmes on the Environment (SEA Directive)	<p>Ensures that environmental consequences of certain plans and programmes are identified and assessed during their preparation and before their adoption.</p> <p>Ensures that the environmental implications of decisions are taken into account before the decisions are made.</p> <p>Entails analysis, recording and reporting on the likely effects on the 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>	SEA to be carried out in parallel to proposed RDP

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>	RDP interventions 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, RDP interventions 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>	RDP interventions to ensure compliance with directive
Industrial Emissions Directive 2010/75/EU	<p>Commits member states to control and reduce the impact of industrial emissions on the environment. Replaces seven existing directives, including the IPPC Directive above, in order to apply an integrated approach to emissions into the environment. Requires prevention of pollution, and if not feasible, reduction. Requires the use of Best Available Techniques, and permits based on limit values defined in annexes.</p>	Relevant to the combustion of agricultural wastes. Will replace IPPC in January 2014

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). Codified by Directive 2011/92/EU

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 RDP proposals

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:

- 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

RDP 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

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. Requires appropriate assessment of programmes/projects likely to have a significant effect on SACs

RDP leads to projects that have no adverse effect on the integrity of protected areas, and when possible help to achieve favourable conservation status. Appropriate Assessment of projects likely to impact on European sites

Directive 2000/60/EC
Water Framework
Directive

Sets out environmental objectives for water status based on:

- 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.

RDP leads to projects that have no adverse effect on the aquatic environment, and where possible help to achieve the objectives for water status. Ensuring general protection of aquatic ecology, specific protection of important habitats, protection of drinking water resources, and protection of bathing water.

EC Freshwater Fish
Directive (78/659/EEC)

Seeks to protect those fresh water bodies identified by Member States as waters suitable for sustaining fish populations

RDP 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.

Bathing Water Quality
Directive (2006/7/EC)

Lays down **minimum quality criteria** to be met by bathing water, relating to:

- limit values of substances that indicate pollution (in the Annex)
- minimum sampling frequency and method of inspection and analysis for different substances (in the Annex)

Where waters do not conform to the parameters of the Directive, Member States may not allow bathing in them before they have taken the necessary measures to improve the water quality.

RDP to promotes projects that have no adverse effect on bathing water quality.

Directive 2006/113/EC on the quality required of shellfish waters	<p>Sets physical, chemical and microbiological water quality requirements that designated shellfish waters must either comply with ('mandatory' standards) or endeavour to meet ('guideline' standards). Designed to protect the aquatic habitat of bivalve and gastropod molluscs, including oysters, mussels, cockles, scallops and clams. It does not cover shellfish crustaceans such as crabs, crayfish and lobsters.</p>	Will be repealed in 2013 by the Water Framework Directive, which will provide at least the same level of protection to shellfish waters (which the WFD classifies as protected areas).
EU 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. 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 	RDP interventions 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 	RDP should 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; • 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 	Proposals for 7 th EAP to be taken into account in development of policies and programmes

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.

RDP and its interventions should support principles of 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.

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

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

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 RDP. 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>	RDP to have regard to the provisions of the directive in ensuring adequate monitoring of environmental effects.
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 these trends; • preventing and limiting indirect discharges (after percolation through soil or subsoil) of pollutants into groundwater 	RDP to ensure compliance with the objectives of the directive.
Directive 2007/60/EC Assessment and management of flood risk	<p>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</p>	RDP to support objectives of the directive where they coincide with its own objectives.

this flood risk.

It also reinforces the rights of the public to access this information and to have a say in the planning process.

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:

- 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

RDP to ensure compliance with the provisions of the directive.

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.

RDP to ensure compliance with the provisions of the directive.

Regulation 1907/2006
Registration, evaluation,
authorisation and
restriction of chemicals
(REACH)

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.

RDP to ensure compliance with the regulation.

Directive 2009/28/EC
Renewable energy

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.

RDP to promote renewable energy where appropriate.

EU Commission thematic strategy on the sustainable use of natural resource (COM(2005)670)	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.	RDP to support the objectives of the strategy. Promote sustainable use of natural resources.
7th Environmental Action Programme (in development)	<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 	RDP to take note of emerging EAP in promoting its priorities.
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/EAFRD programming. RDP to ensure its objectives are in line with those of EU2020.
Draft Common Strategic Framework	<p>Legislative proposals for cohesion policy during the period 2014-2020 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. The funds include RDP (pillar II of the CAP). 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>	RDP to provide for integration across funding streams to ensure efficient use of EAFRD. 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
Environment Act 1995	<p>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.</p>	Ensure compliance with provisions of the Act where appropriate.
Freedom of Information Act 2000	<p>Provides for public access to recorded information held by public authorities in England, Northern Ireland and Wales.</p>	Ensure compliance with Freedom of Information Act 2000. SEA/ex-ante/RDP consultation + periodic reviews. Provide information as per FOI Act requirements.
Commons Act 2006	<p>Requires commons registration authorities to bring their registers up-to-date.</p> <p>Sets out new, clearer criteria for the registration of town or village greens.</p> <p>Prohibits the severance of common rights, preventing commoners from selling, leasing or letting their rights away from the property to which rights are attached.</p>	

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. RDP 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

Ancient Monuments & Archaeological Areas Act 1979	Sites and monuments of national importance are included on a 'schedule', maintained by Cadw: Welsh Historic Monuments. With a few exceptions, the consent of the Welsh Government, through Cadw, is needed for all works to a scheduled ancient monument.	Ensure compliance with Act where appropriate.
Planning (Listed Buildings and Conservation Areas) Act 1990	Buildings of all kinds may be listed by the Welsh Government, through Cadw. Listed building consent needs to be obtained from the relevant local planning authority for alteration or demolition. Urban coastal areas may lie within conservation areas and the local planning authority should be consulted.	RDP to take note and to comply with the provisions of the Act.
Natural Environment and Rural Communities Act 2006	Section 40 places a biodiversity Duty on all public authorities. Section 42 provides a list of species and habitats of principle importance for nature conservation in Wales.	RDP to ensure compliance with the provisions of the Act.
Conservation of Habitats & Species Regulations 2010 (as amended)	The regulations provide for the designation and protection of 'European sites', the protection of 'European protected species'. Under the Regulations, competent authorities i.e. any Minister, government department, public body, or person holding public office, have a general duty, in the exercise of any of their functions, to have regard to the EC Habitats Directive. Require reporting on condition status, provide for negotiations with landowners, in order to secure favourable conservation status.	RDP to ensure that supported projects do not harm features in European sites and enhance them where possible.
The Eels (England and Wales) Regulations 2009 (as amended)	Introduces close seasons for eel fishing, and requires certification of live eel imports and exports, as well as eel management plans	RDP to take note.

Defra (2008) Invasive Non-Native Species Framework Strategy for Great Britain	<p>Aims to improve overall clarity and co-ordination of responsibilities and functions; achieve increased awareness of non-native species issues; reduce and where possible, prevent the intentional and unintentional introductions; ensure effective contingency response capabilities; improve co-ordination of actions; identify gaps and priority issues</p>	RDP to include provision for addressing the management of non-native invasive species
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>	RDP 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 	RDP 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

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.
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.
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.

RDP 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 RDP to comply with planning policies.
Wales to have its own planning act within the lifetime of the plan.

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.

RDP to comply with the provisions of the Act as necessary.

Waste Management
(England and Wales)
Regulations 2006
(S.I. 2006 No. 937)

The regulations bring UK farm waste into line with the provisions of the EU Waste Framework, Landfill and Hazardous Waste Directives. They define 'agricultural waste' and regulate its storage, use and disposal.

RDP to ensure compliance with the provisions of the Regulations, and to encourage high standards of farm waste management.

The Waste (England and
Wales) Regulations 2011

Implement the revised Waste Framework Directive. Require a new permit waste hierarchy permit; introduce a two-tier system for waste carrier and broker registration; make amendments to hazardous waste controls and definition; exclude some categories of waste from waste controls, notably animal by-products.

RDP to ensure compliance with the provisions of the Regulations, and to encourage high standards of farm waste management.

Environment Agency
(2009) Water for People
and the Environment –
Water Resources
Strategy for England and
Wales

Sets out actions to:

- protect conservation sites that depend on water so they are sustainable in the long-term, taking account of climate change impacts;
- ensure that licensing issues are resolved;
- improve environmental resilience, where possible;
- safeguard water resources through effective catchment management, considering the interaction between quality and quantity;
- reduce treatment and energy costs for water users;
- improve understanding of how the water environment and ecology interact.

A key objective of Welsh natural resource management. RDP to support the objectives of the strategy.

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.

Great Britain Animal
Health & Welfare Strategy
2004 – 14

Provides the framework for all of the Government's work on animal health and welfare. The strategy aims to improve the health and welfare of kept animals and protect the public from animal diseases, whilst protecting the economic and social well being of people as well as the environment.

RDP supports the strategy by offering advice through Farming Connect, and through promoting animal welfare and risk management as part of cross-compliance. Post 2014, Wales will have its own AH&WS. This is currently under development in parallel with the RDP.

WALES CONTEXT

Nitrate Pollution Prevention (Wales) Regulations 2008	Transposes the Nitrates Directive 91/676/EC. Requires member states to assess and designate areas as Nitrate Vulnerable Zones (NVZs) and produce an Action Programme of measures to reduce levels of nitrogen entering watercourses.	RDP to ensure compliance with the provisions of the Regulations.
Planning Policy Wales	<p>Planning policies and proposals should:</p> <p><i>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.</i></p> <p><i>Locate developments so as to minimise the demand for travel, especially by private car.</i></p> <p><i>Support the need to tackle the causes of climate change by moving towards a low carbon economy.</i></p> <p><i>Minimise the risks...by building resilience into the natural and built environment.</i></p> <p><i>...facilitate sustainable building standards (including zero carbon)...</i></p> <p><i>...securing the provision of infrastructure to form the physical basis for sustainable communities...while ensuring proper assessment of their sustainability impacts</i></p> <p><i>Contribute to the protection and improvement of the environment, so as to 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.</i></p>	<p>Provides direction and guidance on planning policy to planning authorities. Developments arising from the RDP will be required to comply with planning policy.</p> <p>RDP to support PPW provisions where relevant.</p>

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. RDP 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. A key RDP theme.
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. RDP 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. RDP to take note of general provision where relevant.

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. RDP to support general provision.
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. RDP to support objectives in relation to organic waste.
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. RDP to support objectives in relation to re-use of redundant rural buildings
Waste (Wales) Measure 2010	<p>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.</p> <p>The measures include:</p> <ul style="list-style-type: none"> • 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 	RDP to note the provisions of the Measure in relation to organic waste/composting

- 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

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

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. RDP to take note of/support the Strategy where appropriate.

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.

'...clear leadership on environmental issues through policies, programmes...environmental considerations are integrated ... consistent

RDP to support the strategy and its targets.

environmental evidence...better integration of delivery of environmental protection and enhancement...'

Welsh Government (2011) Strategic Policy Position Statement on Water	Sets out a statement of intent and actions in relation to the protection and enhancement of the water resource and its quality. States how the Government will comply with the provisions of European Directives.	RDP to support the statement's objectives
Welsh Assembly Government (2008) Welsh Soils Action Plan	Sets out 28 actions in relation to the protection of soils.	RDP to take note of the action plan and to incorporate soil protection measures.
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> '	RDP to promote general provisions where appropriate to rural tourism.
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> '	RDP 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.	RDP 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.	RDP to promote principles of the strategy where relevant to community level initiatives.
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.	RDP to promote principles of the strategy. A key RDP theme.
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	RDP 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	RDP to promote principles of the strategy. Heritage legislation will emerge during the lifetime of the plan.
Natural Environment Framework (Living Wales) 2010	<p>The purpose of the framework is to ensure that Wales has increasingly resistant and diverse ecosystems that deliver economic, environmental and social benefits.</p> <p>Its main objectives are:</p> <ul style="list-style-type: none"> • <i>Integrating the ecosystem approach through government</i> • <i>Regulating in ways that do more for the environment and are simpler for people</i> • <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> 	Provides a basis for forthcoming environmental legislation within the lifetime of the RDP, based on the ecosystem approach to natural resource management. RDP to support the NEF objectives.

REGIONAL CONTEXT

River Basin Management Plans (RBMP)	<p>A requirement of the WFD and a means of achieving the protection, improvement and sustainable use of the water environment across Europe. This includes surface freshwaters (including lakes, streams and rivers), groundwater, ecosystems such as some wetlands that depend on groundwater, estuaries and coastal waters out to one nautical mile.</p> <p>Requires member states to aim to achieve at least <i>good status</i> in each water body within their river basin districts. Each member state must produce a plan for each of the river basin districts within its territory.</p> <p>Plans must include: objectives for each water body; reasons for not achieving objectives where relevant; and the programme of actions required to meet the objectives.</p>	RDP to take note of RBMPs at regional level and to ensure that projects support the achievement of good water quality status.
Catchment Abstraction Management Strategies	<p>Aim to provide a consistent approach to abstraction. Aims to define the resource availability of a catchment, at times of low flow, by determining the quantity of water it requires to maintain or improve its riverine environment. Also, to provide a comprehensive licensing strategy to ensure the sustainable management of the water resources within the CAMS area.</p>	RDP to take note
Catchment Flood Management Plans	<p>CFMPs give an overview of the flood risk across each river catchment and recommend ways of managing those risks now and over the next 50-100 years. CFMPs consider all types of inland flooding, from rivers, ground water, surface water and tidal flooding, but not flooding directly from the sea, (coastal flooding), which is covered in Shoreline Management Plans. They also take into account the likely impacts of climate change, the effects of how land is used , and how areas could be developed without compromising risk levels</p>	RDP to take note

Shoreline Management Plans

Are large-scale assessment of the risks associated with coastal processes. They aim to reduce these risks to people and the developed, historic and natural environments. Coastal processes include tidal patterns, wave height, wave direction and the movement of beach and seabed materials.

RDP to note

Local Authority Development Plans

Statutory documents that set out spatial development management policies. Planning decisions to be in accordance with plan policies unless overriding material considerations determine otherwise.

Projects arising from the RDP to comply with planning policy where appropriate.

National Park and Area of Outstanding Natural Beauty Management Plans

Contain objectives in relation to agricultural, landscape, ecology and environment, and rural communities, for landscapes that are designated on account of special environmental and cultural qualities.

RDP to support protected landscape management plan objectives

APPENDIX 3 - SOURCE DOCUMENTS FOR IDENTIFYING OBJECTIVES AND INDICATORS

1. European Commission Core Indicators

ICT	9	Population covered by broadband access of at least 30 Mbps
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
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
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	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

2. Lisbon Structural targets and indicators

There are 89 indicators, of which 17 are labelled 'environment'. Those that might be relevant are listed here:

- Greenhouse gas emissions
- Electricity generated from renewable sources
- Road share of inland freight transport
- Car share of inland passenger transport
- 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

3. EU Environmental Action Programmes

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

4. 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
- 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.
- 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.
- 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.
- 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.

5. Wales 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.

6. 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

7. 2007-13 RDP SEA objectives and indicators

Biodiversity

To maintain and enhance biodiversity

- Halt the loss of biodiversity and promote recovery
- Meet the targets of biodiversity and habitat action plans
- Enhance protected species and their overall population

- Enhance and protect species without statutory protection and their overall population
- Enhance the quality and number of natural and semi-natural habitats
- Reduce habitat fragmentation and enhance habitat connectivity where not causing other fragmentation
- Avoid damage and adverse impacts to Priority Habitats in Wales

Area and condition of protected areas (SPAs, SACs, Ramsar, SSSIs, NNRs)

Status of Biodiversity Action Plan priority species

Trends in natural and semi-natural habitats; areas and condition

Volume / number of transiting fish stocks (river salmon, trout): fish catches

Percentage area of independently certified woodland (such as FSC)

Biodiversity index: species indicator: widespread breeding birds

Water

To meet environmental standards required by the Water Framework Directive (WFD)

- Minimise discharges to water and any adverse effects on water quality
- Maintain and enhance Wales' groundwater, rivers, lakes and coastal water
- Reduce point source and diffuse pollution
- Avoid adverse impacts on water resources through avoidance, mitigation and effective management
- Protect and maintain the quality and quantity of surface, groundwater and drinking water
- Increase water efficiency

% of water bodies likely to comply with Water Framework Directive environmental objectives

Number of water pollution incidents – category 1 & 2

Quality of rivers and freshwater bodies

Quality of estuarine rivers and coastal waters

Number / proportion of beaches achieving Blue Flag status

Pesticide use (amount) in agriculture and horticulture

Proportion water abstraction by purpose

Distribution of water availability

Distribution of nitrate concentrations

Soil

To protect soil quality and quantity

- Reduce contamination, and safeguard soil quality and quantity
- Maintain and enhance the function and integrity of soil processes and services
- Reduce soil erosion
- Ensure the protection of soil structure
- Conserve ability of peatland soils to act as carbon sinks

Soil carbon content

Amount of organic materials/wastes recycled to agricultural land

Changes in area of grassland and woodland

To conserve agricultural land

- Conserve the best and most versatile agricultural land
- Reduce the amount of nitrogen fertiliser and organic manure used
- Protect permanent pastures

Proportion of high quality agricultural land

Numbers of applications for specific elements of agri-environment schemes related to conservation of specific agricultural/habitat land features and area under agri-environment schemes

Area of contaminated land

Soil erosion risk

Air

To improve air quality (with reference to pollutants under the EC Air Quality Directives)

- Reduce emissions of atmospheric pollutants from each sector
- Reduce impacts on air quality from each sector
- Minimise the demand for travel (particularly by private car)
- Reduce acidification
- Reduce impacts on habitats from all sectors

Number of days of air pollution (rural and urban)

Levels of car and van ownership

Distances travelled per person per year and by mode of transport

Proportion of access to public transport services

Traffic volumes

Proximity to urban areas/drive time

Amount and type of fuel used in transport

Animal Welfare

To maintain and enhance animal welfare standards

- Improve farm animal welfare and health status
- Improve marketing of animal products produced to higher welfare standards
- Improve farm welfare standards
- Ensure that improved animal welfare standards do not result in reduced competitiveness against third country imports

Density of free range/outdoor poultry

Sales of Welsh higher welfare products

Climate factors

To reduce contributions to climate change

- Reduce the concentration of greenhouse gases
- Increase the use of renewable/low carbon energy consistent with wider environmental and rural objectives
- Encourage the recovery of energy from waste

To adapt effectively to climate change

- Respond to predicted climatic change through adaptation
- Ensure access to housing with good environmental standards and ensure high environmental standards are met for buildings
- Reduce flood risk and the effects of drought

Total greenhouse gas emissions

Carbon equivalent emissions by sector

Soil carbon

Electricity use from renewable energy sources

Distribution of land use by type Flood risk

Landfill methane emissions

No. and type of livestock and long-term trends

Population/Human Wellbeing

To protect and improve the health and wellbeing of the population

- Promote healthy living and reduce health inequalities
- Promote farmer health and welfare
- Ensure greater access to the countryside and outdoor recreation activities
- Maximise the use of woodlands for learning and recreation
- Increase opportunities for non-recreational walking and cycling
- Increase access to quality, nutritious food
- Increase access to locally sourced food and increasing use of local food in school and tourism businesses

Life expectancy at birth

Changes in demography

Proportion of people who find access to national parks and countryside easy

Number of walking and cycling routes

Percentage of organic food produced

Area of woodland (including ancient semi-natural)

Area of woodland dedicated for open access to the public

Waste

To maximise efficient use of resources

- Minimise and where possible eliminate the generation of waste
- Maximise the use of waste as a resource

To ensure implementation of the waste management hierarchy

- Reduce the amount of waste disposed through landfill in each sector
- Increase recycling and composting of waste sector – household, commercial, construction, demolition and agricultural

Percentage of waste arising by sector going to: a) recycling, b) composted, c) used to recover heat, power and other energy, and d) landfilled

Percentage of waste used to recover heat, power and other energy

Cultural heritage and landscape

To protect, conserve and enhance Wales' historic environment, landscape and rural heritage

- Conserve and enhance the Welsh landscape, including statutory designated areas
- Protect Wales' geodiversity.
- Avoid damage to protected earth science sites (including SSSIs limestone pavements, peatlands) and RIGS
- Strengthen and maintain Welsh rural heritage and identity
- Conserve, enhance and promote the historic environment, including archaeological heritage
- Promote the sharing of ecological and heritage data

Extent of statutory designated areas e.g. AONBs

Landscape designations (e.g. number of geological SSSIs)

Number of listed buildings and archaeological sites

To protect and conserve Wales' cultural identity

- Strengthen and maintain the Welsh language

Distribution and numbers of people speaking Welsh

Land use planning

To promote sustainable land-use planning and development

- Minimise land-take and promote re-use of previously developed land and buildings
- Reduce adverse impacts on environmental, visual and cultural quality
- Increase the proportion of land under agri-environmental and organic management
- Avoid and reduce visual, noise and light intrusion
- Protect rights of way, open space, common land and registered village greens and maintain access to the countryside

Land use distribution by type

Area under agri-environment schemes

Percentage area converted to organic production

Light pollution (distribution)

8. 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. Of these six, four are appropriate to this assessment.

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.
- 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.
- 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.
- 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

- 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.

9. Sustainable Development Targets and Indicators for Wales

- 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.

10. Glastir

Although a lack of clear objectives has been highlighted, Glastir focuses on delivering tangible results at both the individual farm and landscape level in the following key areas:

- Combating climate change;
- Improving water management;
- Improving carbon management;
- Maintaining and enhancing biodiversity;
- Maintaining and protecting traditional landscape features;
- Improving public access to the countryside.

11. Protected landscape management objectives

Manage the effects of climate change through mitigation and adaptation, including reductions in climate changing gas emissions, reductions in energy consumption and improved flood risk management

- a. As a minimum, to meet U.K. national targets for reducing carbon emissions.
- b. Promote and disseminate research which identifies good upland management which sequesters carbon and manages water.
- c. Improve the energy efficiency of buildings through good, sustainable design. In part, this can be achieved through the Guidance for Sustainable Design.
- d. Promote research aimed at improving the energy efficiency of traditional buildings whilst maintaining their special character.
- e. Promote the use of appropriately scaled micro-generation and community renewable energy schemes.
- f. Reduce the negative impacts of traffic on the National Park by lessening the need to travel and promoting public transport to residents and visitors.
- g. Encourage cycling and walking as a means of commuting and recreation by publicising existing routes and seeking additional cycle paths.
- h. Promote good practice within the sustainable tourism sector by encouraging relevant initiatives and associated publicity.
- i. Use Snowdonia to highlight human influences on the natural environment, most notably climate change.

Promote good quality, sustainable design in new and existing buildings

- a. Promote research aimed at improving the energy efficiency of traditional buildings whilst maintaining their special character.
- b. Improve energy efficiency through good, sustainable design. In part, this can be achieved by implementing the Guidance for Sustainable Design.

Promote sustainable management of waste

- a. Ensure new developments take into consideration the need to segregate waste as promoted in the Guidance for Sustainable Design.

Protect and enhance habitats and species as notified in the Local Biodiversity Action Plan and all Natura 2000 sites.

- a. Implement actions emanating from the revised Local Biodiversity Action Plan as appropriate.
- b. Disseminate key findings on the condition of all Natura 2000 sites through a revised State of the Park Report.
- c. Publish Biodiversity Supplementary Planning Guidance.

Promote ecological connectivity between sites within Snowdonia and its environs.

- a. Promote ecological connectivity between all designated sites through effective partnership working with landowners and statutory organisations.
- b. Continue efforts to reduce the land area covered by invasive species.

- c. Ensure the quality of groundwater, rivers, lakes and coastal areas is maintained and enhanced. Land management must be sympathetic to conserving fresh and salt water environments.
- d. Conduct riparian habitat restoration projects on parts of selected rivers within Snowdonia.
- e. Promote research into the effects of climate change on resident species and chart species distribution patterns.

Ensure sustainable use of high quality inland and coastal waters, including the marine environment.

- a. Ensure land management practices are sympathetic to maintaining and enhancing water quality.

Facilitate the prevention and removal of soil contamination and promote remediation.

- a. Promote the adoption of methods and projects to improve soil quality through removing contamination and improving soil function.

Protect and enhance distinctive landscapes and character types including areas of tranquillity.

- a. Highlight the importance of Snowdonia's landscape as an economic driver, source of inspiration, visitor attraction and cultural resource.
- b. Provide guidance to improve the setting and location of development within the landscape by publishing Landscape Supplementary Planning Guidance.
- c. Ensure that regional strategic and spatial plans, projects and programmes make reference to, and recognise the importance of Snowdonia.
- d. Improved use of LANDMAP to support landscape planning and decision making.
- e. Reduce the negative effects of recreation on the special qualities by, for example, managing off road parking, footpath erosion, inappropriate off-road and water based motor recreation and habitat degradation.
- f. Seek additional resources to build on the success of the Rhaglen Tir Eryri agri-environment scheme.
- g. Publish a landscape character assessment as part of the work to improve Snowdonia's special qualities.
- h. Ensure major new developments safeguard views into and out of the National Park.
- i. Resist inappropriate major infrastructure developments such as above ground power cables within the Park boundary and where possible encourage the undergrounding of inappropriately located existing lines.

Protect and enhance Regionally Important Geological and Geomorphic Sites (RIGS) and general geodiversity.

- a. Improve the safeguarding and appreciation of Snowdonia's renowned geodiversity.

Develop innovative projects emanating from the UNESCO Biosphere designation

- a. Disseminate examples of best practice in landscape conservation and apply to relevant areas in Snowdonia.
- b. Promote an understanding of the Biosphere through appropriate media.

Understand, value, protect and enhance: Scheduled Ancient Monuments, Listed Buildings, Conservation Areas and listed historic landscapes.

- a. Improve the character and appearance of Conservation Areas, Listed Buildings and Scheduled Ancient Monuments and their settings through improved guidance and compliance. This is to include the production of Conservation Area Management Plans.
- b. Highlight the economic importance of the historic environment.
- c. Continue to provide financial support to improving the quality of the historic environment, including improving the quality of Listed Buildings
- d. Work towards the establishment of a publicly accessible archaeological record.

Understand, value, protect and enhance: non designated sites, structures and the wider historic environment.

- a. Improve protection and awareness of the rich cultural heritage of the National Park.

Celebrate local diversity and distinctiveness, including linguistic identity.

- a. Ensure support is provided for events and programmes which celebrate local culture and/or improve links with other cultures.
- b. Improve the consideration of linguistic and community aspects in policy decision making.
- c. Provide innovative opportunities for Welsh learners to practise their language skills, highlighting the link between landscape, biodiversity and language.
- d. Promote the distinctive local culture of the area, nationally and internationally

Improve access to open space on land and water, including existing public rights of way.

- a. Improve opportunities for access by way of the effective delivery of Rights of Way Improvement Plans. Seek additional resources to build upon the success of the Upland Footpath Partnership.
- b. In appropriate cases improve opportunities for the sustainable and responsible use of inland waters.
- c. Encourage recreational users to act according to agreed codes of conduct.

Publish a Recreation Strategy

- a. Prepare a Recreation Strategy to ensure equitable, widespread and sustainable access which recognises the need to protect tranquillity and discourage damaging activities. It will recognise the negative impacts of recreation, such as traffic pressure, and seek positive solutions, for example by encouraging access via public transport. The Recreation Strategy will also seek to boost the positive economic and community impacts of recreation within Snowdonia's environmental goods and services sector by seeking to manage and solve recreational pressures and supporting appropriate activities.
- b. Implement the principles of good destination management in providing appropriate tourist infrastructure.

Promote understanding and enjoyment of the National Park's special qualities

- a. Promote appropriate economic activity relating to outdoor recreation and associated entrepreneurship.

- b. Promote routes linked to the Wales Coastal Path and other attractions, such as historic sites, in order to add value to the visitor experience.
- c. Improve access to information that promotes understanding of the National Park using the latest digital technology, such as podcasts and downloadable material and other new interpretation media as appropriate.
- d. Build upon Snowdonia's reputation as one of the UK's best 'outdoor classrooms'.
- e. Encourage reductions in the number of low flying activities taking place
- f. Work with partners to reduce the instances of off-road vehicle use within the National Park, using Traffic Regulation Orders if required and where appropriate.

Promote understanding and enjoyment of the Welsh language and cultural identity.

- a. Promote Welsh culture, heritage and language through interpretation and educational courses and other relevant means.

Promote the use of sustainable transport to visitors.

- a. Improve access via public transport to, from and within the National Park including improved interchanges, information and links to regional and national cycle, walking and horse-riding routes. Promote the use of public transport.

Promote economic growth in the environmental goods and services sectors.

- a. Promote economic growth in the environmental goods and services sector that include all activities arising from a healthy and high quality environment, including sustainable tourism, appropriate renewable energy, education, research and development and agricultural production.
- b. Use the designation of Snowdonia as a National Park to attract inward investment to the wider region, capitalising on its high quality landscape, community cohesion, health and well-being benefits and recreation opportunities.
- c. Improve training programmes and other opportunities for local people to develop outdoor pursuits leadership and associated skills.

Promote and improve sustainable transport services, including bus, train, walking and cycling.

- a. Reduce negative impacts of traffic on the National Park by reducing the need to travel and promoting public transport to residents and visitors.
- b. Encourage cycling and walking as a means of commuting by publicising existing routes and seeking additional cycle paths.
- c. Integrate different modes of transport to make them more efficient and convenient for users.

L1: Maintain landscape quality and function

L2: Maintain seascape quality and function

L3: Respect environmental capacity

L4: Protect dark skies

L5: Limit noise pollution

B1: Promote an ecosystem approach to land management

B2: Limit the impacts of climate change on biodiversity
B3: Promote regional and local conservation-grade food production and consumption
B6: Limit the impacts of development on wildlife
AR1: Strengthen the protective framework for the archaeological resource
AR2: Encourage proactive management of archaeological sites
AR3: Raise awareness of the archaeological resource
AR4: Manage the impact of development on the archaeological resource
AR5: Mitigate the impact of natural processes on the archaeological resource
H1: Strengthen the legislative planning and management context of the historic environment
H2: Raise awareness of the historic built environment
H3: Assist with the maintenance costs of historic buildings
H4: Manage the impact of development on the historic built environment
H5: Promote traditional building techniques and local materials
G2: Promote land management which improves soil condition
G3: Manage the impacts of climate change on geodiversity
CC1: Contribute to national targets for energy conservation and efficiency and for renewable energy
CC2: Encourage use of public transport and reduce car use
CC3: Encourage carbon-sensitive land management
CC4: Reduce, repair, reuse, recycle
CC6: Promote regional and local conservation-grade food production and consumption
A1: Reduce traffic emissions
A2: Mitigate pollutant/environmental interactions
W1: Manage flow rates and groundwater levels
W2: Reduce water pollution
W3: Limit the impact of climate change on water resources and quality
W4: Reduce marine pollution risks
W5: Manage the impact of development on water resources and quality
E1: Promote appropriate types of recreation
E3: Manage coastal and inland access/recreation opportunities

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- Conserve and enhance the sense of tranquillity, peace and remoteness experienced throughout the National Park.
 - Conserve and enhance the beautiful and varied character of the landscape via sustainable, integrated management
 - Prevent degradation of the Park's landscape and enhance derelict land.
 - Utilise a landscape-scale approach to biodiversity conservation, built on good management of soil, air and water quality.
 - Integrate effective biodiversity conservation into economically viable agricultural and arboricultural systems.

- Maintain the extent and quality of priority habitats and the range and/or population of priority species.
- Ensure that sustainable management of designated sites maintains habitats and species populations at a favourable conservation status.
- Ensure that non-designated areas across the Park also contain sufficient habitat in favourable condition to provide a high quality, interconnected landscape to conserve and enhance priority species
- Meet and, if possible, exceed the local biodiversity targets for the restoration and expansion of habitats and the expansion of species' distribution patterns and population sizes.
- Seek innovative solutions to environmental challenges which integrate biodiversity conservation with education, interpretation, other resource management priorities, and social, economic and cultural sustainability.
- Conserve and enhance designated geological sites.
- Identify and protect other significant sites of geological importance and/or nature conservation value, such as limestone pavements.
- Protect and manage historic landscapes
- Protect and manage historic parks and gardens
- Protect and enhance scheduled and designated sites
- Seek to protect and enhance, where appropriate, regionally and locally important historic environment features (including historic buildings and archaeological sites) that do not have statutory designation.
- Seek to manage all sites appropriately, concentrating on threatened and neglected sites/types whilst involving local communities.
- All listed buildings and their settings should be conserved and their condition improved, concentrating on buildings at risk.
- Protect unlisted buildings that contribute to the Park's built heritage.
- Conserve and enhance settlements and settlement patterns
- Promote the use of the Welsh language.
- Promote cultural heritage as an attraction for people
- Maintain and, where possible, improve the Park's air quality.
- Maintain or improve the quality of the Park's groundwater, rivers and lakes.
- Ensure that water resources are used sustainably across all sectors in the National Park.
- Achieve sustainable conservation management of all existing wetlands, rivers and streams within the National Park.
- Optimise the Park's capacity for water storage, sustainable, small-scale hydroelectric power and irrigation of locally grown food.
- Implement objectives within the River Basin Management Plans under the Water Framework Directive to achieve good ecological status for resilient aquatic ecosystems within the Park.
- Halt the continued acidification of upland soils and waters within the Park.
- Protect the Park's soils from degradation and erosion
- Explore more local and sustainable options to supplement or replace the need for mineral resources.
- Help achieve national targets for greater renewable production through community and domestic scale schemes.
- Reduce greenhouse gas emissions by minimising energy use.

- Assist the development of community energy initiatives.
- Develop the capacity for a localised energy grid.
- Integrate renewable energy into building and settlement design
- Maintain and enhance viable and productive farming businesses within the uplands so that they are able to deliver private and public objectives to enhance the special qualities of the Park.
- Encourage innovative marketing of farm products, for example through the development of local supply chains and landscape branded products.
- Minimise waste, energy use and pollution from all agricultural activities.
- Support the sustainable management of commons within the National Park including the working of Commons Councils.
- Capture the existing values of the lower valley native farm woodlands in the National Park and expand these habitats towards the higher slopes where existing forests lie.
- Manage forests at higher elevations to maintain a sound commercial presence as coniferous forests, contributing to the rural economy whilst offering the opportunity to improve landscape design and create new upland open space via felling.
- Restore internationally recognised habitats in woodlands, such as upland blanket bogs, upland heathland and upland oakwoods, where the environmental benefit is greater than leaving the area wooded, and where the viability and potential exists.
- Practice continuous cover forestry techniques in suitable forests where appropriate tree species, aspect, age, past management prescriptions and soils permit.
- Facilitate community woodland agreements within easy access of existing and future towns and villages to contribute to local gross domestic product (GDP) and to an improved sense of health and well being
- Identify priority areas for organic soil and wetland management.
- Reduce the extent of invasive species
- Demonstrate integrated, sustainable landscape scale conservation by securing large scale, long term funded projects across the Park.
- Restore and enhance the habitat connectivity across the Park's contiguous upland commons
- Prepare the National Park communities for climate change and fossil fuel depletion by building resilience to ensure minimised economic and social impact.
- Reduce direct and indirect production of greenhouse gases by the National Park's communities.
- Support and enhance local production and local economic supply chains.
- Manage the impacts of tourism.
- Support sustainable tourism and other forms of sustainable economic development
- Reduce the need for travel by controlling the location and design of development
- Provide an integrated transport system that encourages healthy and active lifestyles and supports local communities.

- Support working practices and behaviour change initiatives that reduce the Park's greenhouse gas emissions and reduce people's dependency on fossil fuels for transport.
- Promote the waste hierarchy of reduce, reuse and recycle across all sectors of the National Park.
- Minimise the amount of waste generated in the National Park.

TP 1. MAINTAIN AND IMPROVE THE CONDITION OF KEY GEOLOGICAL AND GEOMORPHOLOGICAL SITES WITHIN THE AONB.

TP 2. MAINTAIN AND RESTORE HISTORICAL BOUNDARIES THAT CONTRIBUTE TOWARDS LLŶN'S CHARACTER AND IDENTITY – EARTHBANKS, STONE WALLS AND HEDGEROWS.

TP 3. REDUCE THE NUMBER OF OVERGROUND ELECTRIC AND COMMUNICATION WIRES, AND RELATED EQUIPMENT, IN THE AONB.

TP 4. RESIST DEVELOPMENTS THAT WOULD BE INTRUSIVE ON THE AONB'S LANDSCAPE, COAST OR SEASCAPE, AND ENCOURAGE THE LANDSCAPING OF CONSPICUOUS EXISTING DEVELOPMENTS.

TP 5 RESIST NEW CARAVAN DEVELOPMENTS AND EXTENSIONS TO EXISTING SITES IN PROMINENT LOCATIONS WITHIN THE LLŶN AONB AND PROMOTE LANDSCAPING AND IMPROVED MANAGEMENT AND CONTROL OF EXISTING SITES AND UNITS.

TP 6. ENSURE CONSIDERATION OF THE CHARACTER OF THE LOCAL LANDSCAPE IN PLANNING ISSUES THROUGH THE USE OF LANDMAP AND SEASCAPE ASSESSMENT AS A CENTRAL COMPONENT IN DECISIONS INVOLVING THE IMPACT OF NEW DEVELOPMENTS ON THE AONB'S LANDSCAPE.

TP 7. RESIST DEVELOPMENTS THAT WOULD IMPACT ON THE CHARACTER OF THE AREA'S RURAL ROADS AND SUPPORT SCHEMES TO RESTORE HISTORICAL FEATURES AND REMOVE INTRUSIVE ELEMENTS.

TP 8. PROMOTE IMPROVEMENTS IN TERMS OF UNTIDY SITES AND BUILDINGS IN THE AONB.

TP 9. RAISE AWARENESS OF CLIMATE CHANGE AND THE POSSIBLE IMPACTS ON THE LANDSCAPE, THE COAST AND THE SEA.

TP 10. IMPROVE UNDERSTANDING OF WHAT RESIDENTS AND VISITORS APPRECIATE ABOUT THE LANDSCAPE AND ENCOURAGE PEOPLE TO PARTICIPATE IN CARING FOR THE AREA

PP 1. LIMIT DEVELOPMENTS THAT WOULD INCREASE NOISE AND LIGHTING LEVELS AND PROMOTE THE USE OF APPROPRIATE STREET/EXTERNAL SITES LIGHTING THAT IS ENERGY EFFICIENT AND LOW IMPACT.

PP 2. PROMOTE MEASURES TO SUSTAIN AND ENHANCE THE STANDARD OF AIR, WATER AND SOIL IN THE AONB.

PP 3. SUPPORT THE USE OF PUBLIC TRANSPORT AND OTHER FORMS OF SUSTAINABLE TRAVEL FOR THE BENEFIT OF THE AONB'S ENVIRONMENT.

PP 4. SUPPORT THE EFFICIENT CONSUMPTION OF DOMESTIC ENERGY IN ORDER TO REDUCE CO2 EMISSION.

PP 5. SUPPORT RENEWABLE ENERGY INITIATIVES THAT ARE APPROPRIATE GIVEN THE SENSITIVE ENVIRONMENT OF THE AONB AND INTERNATIONALLY DESIGNATED SPECIES OF BIRDS AND MAMMALS.

PP 6. MAINTAIN AND IMPROVE LEVELS OF CLEANLINESS BY RAISING AWARENESS ABOUT REUSING, RE-CYCLING, DISPOSAL OF REFUSE AND DOG FOULING

BP 1. PROTECT, MAINTAIN AND ENHANCE CONSERVATION SITES THAT HAVE BEEN INTERNATIONALLY AND NATIONALLY DESIGNATED FOR THEIR WILDLIFE OR HABITAT

BP 2. PROMOTE EFFECTIVE MANAGEMENT OF LLŶN HEATHLANDS TO IMPROVE THEIR VALUE IN TERMS OF BIODIVERSITY.

BP 3. RAISE AWARENESS OF INVASIVE SPECIES, THEIR MANAGEMENT, AND PROMOTE PLANS FOR THEIR CONTROL AND ELIMINATION.

BP 4. RAISE AWARENESS AND IMPROVING UNDERSTANDING OF WILDLIFE AND HABITATS OF LOCAL IMPORTANCE IN LLŶN.

BP 5. GATHER COMPREHENSIVE AND UP TO DATE INFORMATION ON LLŶN'S KEY HABITATS AND SPECIES IN ORDER TO UNDERSTAND THEIR CONDITION AND THE PRESSURE ON THEM.

BP 6. SUPPORT PROJECTS TO MAKE AND IMPROVE CONNECTIONS BETWEEN IMPONATURE CONSERVATION – FEATURES SUCH AS HEDGEROWS, WOODLANDS, ANCIENT TREES, COMMON LANDS AND ARABLE LAND.

BP 7. PROMOTE MEMBERSHIP OF THE GLASTIR AGRI-ENVIRONMENTAL SCHEME DUE TO IT'S BENEFITS FOR BIODIVERSITY.

BP 8. PROMOTE BETTER MANAGEMENT OF AGRICULTURAL HABITATS FOR THE BENEFIT OF OF NATURE CONSERVATION.

BP 9. ENSURE THAT RESIDENTS AND VISITORS ENJOY AND APPRECIATE LLŶN'S KEY WILDLIFE AND HABITATS BY IMPROVING COMMUNICATION METHODS AND SHARING OF INFORMATION. RTANT SITES

HP 1. ENSURE THAT THE WEALTH OF HISTORICAL RESOURCES IN THE AONB ARE IDENTIFIED AND RECORDED AND THEIR CONDITION ASSESSED.

HP 2. MAINTAIN AND RESTORE KEY HISTORICAL FEATURES INCLUDING ARCHEOLOGICAL REMAINS, HISTORICAL REMAINS AND HISTORICAL STRUCTURES AND BUILDINGS.

HP 3. ENSURE THAT NEW DEVELOPMENTS OR ALTERATIONS RESPECT AND REINFORCE THE CHARACTER AND APPEARANCE OF HISTORICAL BUILDINGS AND PROMOTE GOOD PRACTICE IN TERMS OF MAINTENANCE, THE USE OF SUSTAINABLE TECHNOLOGY AND DESIGN.

HP 4. RESIST DEVELOPMENTS THAT WOULD DAMAGE THE CHARACTER AND APPEARANCE OF CONSERVATION AREAS AND SUPPORT INITIATIVES TO MAKE IMPROVEMENTS.

HP 5. PROMOTE BETTER ACCESS TO LOCAL HISTORICAL RESOURCES AND THEIR ENJOYMENT.

HP 6. RAISE AWARENESS AND PROMOTE UNDERSTANDING OF THE AREA'S HISTORICAL ENVIRONMENT AMONG FARMERS, LANDOWNERS AND LAND MANAGERS, CHILDREN, LOCAL PEOPLE AND VISITORS.

HP 7. RAISE AWARENESS OF THE ECONOMIC BENEFITS AND LIFE QUALITY OF LIVING IN AN AREA RICH IN ITS HISTORY.

IP 1. GIVE PRIORITY TO IDENTIFYING AND RECORDING IMPORTANT ELEMENTS OF THE LOCAL CULTURE AND RAISE AWARENESS OF ELEMENTS OF THE AREA'S DISTINCTIVE CULTURE.

IP 2. SUPPORT LOCAL ENTERTAINMENT AND CULTURAL ACTIVITIES THAT WILL PROMOTE THE WELSH LANGUAGE.

IP 3. FOCUS ON THE CELEBRATION OF THE AREA'S CULTURE AND TRADITIONS THROUGH ART, LITERATURE AND POETRY.

IP 4. PROMOTE THE USE OF THE WELSH LANGUAGE AMONG BUSINESSES IN LLŶN.

IP 5. RESIST DEVELOPMENTS THAT WOULD BE HARMFUL TO THE WELL-BEING OF THE WELSH LANGUAGE AND WELSH CULTURE.

IP 6. RAISE AWARENESS OF THE WELSH LANGUAGE AND THE OPPORTUNITIES TO LEARN IT AMONG VISITORS AND INCOMERS.

CP 1. SUPPORT THE PROVISION OF AFFORDABLE HOUSING FOR LOCAL COMMUNITIES PROVIDED THE LOCAL LANDSCAPE AND THE CHARACTER OF THE TOWN/VILLAGE IN QUESTION IS RESPECTED.

CP 2. PROMOTE HEALTHY LIVING, KEEPING FIT AND VOLUNTARY WORK IN THE COUNTRYSIDE.

CP 3. MAINTENANCE, AND IF POSSIBLE, IMPROVEMENT OF LOCAL FACILITIES AND SERVICES.

CP 4. ENSURE THAT LOCAL PEOPLE AND THE COMMUNITY CONTRIBUTE TOWARDS INITIATIVES CARING FOR THE LOCAL AREA AND HERITAGE.

CP 5. FOCUS ON PREVENTING THE OUTMIGRATION OF YOUNG PEOPLE FROM THE AREA BY RAISING AWARENESS OF THE OPPORTUNITIES THAT EXIST AND THE OTHER BENEFITS OF LIVING LOCALLY.

CP 6. SUPPORT SCHEMES THAT WILL BE OF HELP TO THE AREA'S LESS PRIVILEGED PEOPLE AND COMMUNITIES.

MP 9. PROMOTE AND ENCOURAGE INDIVIDUALS, BUSINESSES AND VISITORS TO USE PUBLIC TRANSPORT AND TO REDUCE CAR USAGE

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- Promote and develop policies and initiatives to protect, conserve, restore or enhance the features and elements that create the special qualities, landscape character and natural beauty of the AONB. Ensure their sustainable management and mitigate, reduce or remove detrimental features
 - Promote and encourage the use of the Landscape Character Assessments and Historic Landscape Characterisation to inform local distinctiveness in development plans, strategies, guidance and landscaping schemes
 - Contribute to the delivery of national, regional and local Biodiversity Action Plan targets and priorities for key habitats and species relevant to the AONB, in partnership with relevant organisations Identify species and diseases considered to be detrimental to the biodiversity value of the AONB and encourage their monitoring, management and, where appropriate, their control
 - Conserve, protect and enhance the historic environment of the AONB through policy development, offering advice and encouraging sympathetic management
 - Maintain the integrity and promote the restoration, where appropriate, of the Historic Parks and Gardens and designed landscapes

- Encourage farmers and landowners to identify and develop sustainable management practices that conserve or enhance the features, special qualities and natural beauty of the Wye Valley AONB
- Influence policy on, and encourage the maximum uptake of, agrienvironment and other appropriate schemes, including support for smallholders, where they progress the conservation or enhancement of the natural beauty, biodiversity and special qualities of the AONB, particularly through Catchment Sensitive Farming and mixed farming systems
- Support all appropriate measures to control diseases of agricultural livestock, which threaten the commercial viability of grazing systems, ensuring that the measures remain compatible with the conservation and enjoyment of natural beauty.
- Encourage and support local producers to supply local food and promote and encourage the use of local produce by public bodies, consumers, accommodation providers and local food outlets.
- Support the management of woodlands and trees in the AONB that conserve, restore and/or enhance the special qualities, biodiversity and natural beauty of the area, ensuring no net loss of semi-natural woodland cover unless there are overriding nature or heritage conservation benefits
- Support the monitoring, management and where appropriate, control of diseases, pests and other threats, which may cause substantial mortality in tree species and woodland habitats and seek to mitigate the landscape impact of any loss.
- Encourage and support high standards of design, materials, energy efficiency, drainage and landscaping in all developments, including Permitted Development, to ensure that they complement and enhance the landscape and local character of the AONB
- Promote the recognition and reinforcement of local character and distinctiveness in design, scale, setting and materials used in all development in the AONB, using local landscape character assessments
- Resist inappropriate development which will create a persistent and dominant feature out of keeping with the landscape of the AONB and/or if it damages special qualities in the AONB, including through high levels of noise and/or light pollution or any SAC, SPA or Ramsar site
- Support and promote the development of renewable forms of energy generation that do not impact negatively on the landscape features and special qualities of the AONB
- Encourage the highest standards of equipment design and siting for telecommunication masts and resist new structures that either do not share masts and / or do not utilise appropriate designs at suitable locations
- Encourage the use and supply of resources, including water abstraction and investment in infrastructure, that is consistent with the special qualities, SACs, landscape character and natural beauty of the AONB, and monitor any adverse impacts
- Encourage and promote greater use of more sustainable forms of transport in the AONB and for accessing the area, subject to WV-D4
- Conserve the character of rural roads in the AONB by conserving existing traditional features, reducing excessive signage and sympathetically managing verges for biodiversity

- Seek to reduce, and resist the further extension of, street lighting, junction lighting and traffic sign illumination in the rural areas of the AONB unless there are proven public safety grounds.
- Encourage the mitigation and/or reduction of the adverse impacts of existing tourism activity and attractions, particularly where they are concentrated around certain locations or sites, and/or those that fall outside the aim of conservation, enhancement and enjoyment of the special qualities and features of the AONB.

12. Comments on 2007-13 SEA

- Too many indicators, and that problems may arise in collecting information on a consistent basis.
- Economic issues are missing, and light pollution, suggestions on waste.
- Importance of over-arching and holistic approaches are inadequately reflected in the listings of sub-objectives, potential indicators and base line data sources.
- Under Biodiversity, woodland birds should be included as an indicator as well as farmland birds. Figures are available in 'The State of Birds in Wales'¹.
- State of the Environment in Wales' produced by Environment Agency Wales / CCW as well as 'State of the Environment ' reports produced by unitary authorities
- There are some concerns that the SEA process as a whole fails to address the relative differences in the potential importance of factors being assessed.
- The SEA theme that lumps 'land use planning' in with cultural heritage and landscape is uncomfortable and these should be categorised separately.
- Local availability of nutritious food.
- Suggestions on animal welfare objectives, indicators and data sources.
- CCW believes that a key objective of the RDP must be that implementation of the component measures should not result in a significant negative effect on any sites of international importance.
- We consider it important that indicators as well as being relatively easy to monitor must reflect the outcomes of the measures, not simply outputs if the contribution of the RDP to improving Wales' environment is to be measured accurately
- the need for food quality schemes to have significant environmental components and the promotion of local sources of food.
- Many of the indicators under the biodiversity, water and soil themes that are proposed for monitoring the environmental impacts of the RDP are ill defined, ambiguous and, in some cases, difficult to monitor.

APPENDIX 4 - SEA OBJECTIVES AND INDICATORS

Notes:

- a) Whilst the RDP 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 rather than exclusive in setting 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 RDP's own environmental indicators, which are based here on the existing programme.

Draft Headline Objectives	Draft Sub-objectives	Draft SEA Indicators	Relationship to RDP impact indicators
Population and human health			
Improve physical and mental health and reduce health inequalities	<p>Minimise environmental nuisance such as noise pollution, and light pollution</p> <p>Promote access to the countryside</p> <p>Promote learning in, about and for farming and forestry</p> <p>Increase access to locally produced high quality foods</p>	<p>Change in number and extent of tranquil areas</p> <p>Percentage of dark sky at night by area</p> <p>Numbers of farm education visits</p> <p>Availability and type of locally available produce</p>	<i>Degree of rural poverty</i>

Biodiversity			
Protect and enhance biodiversity	<p>Avoid damage to sites of European conservation value and enhance them where possible</p> <p>Protect and enhance rare or endangered</p>	<p>Conservation status of SAC/SPA features dependent on/ impacted on by agriculture</p> <p>Conservation status of target species/habitats dependent on/</p>	<p><i>Farmland birds index</i></p> <p><i>HNV Farming and Farmland</i></p>

	<p>species and habitats and provide opportunities for habitat creation/restoration</p> <p>Avoid damage to sites of geological interest</p> <p>Protect habitats and minimise the fragmentation of nature corridors and networks in accordance with Biodiversity Action Plans, and improve these where possible</p> <p>Promote agri-diversity through support for endangered local breeds</p> <p>Promote indigenous woodland species</p> <p>Support biodiversity health through the management of disease and invasive species</p>	<p>impacted on by agriculture</p> <p>Conservation status of NNR/SSSI features dependent on/ impacted on by agriculture</p> <p>Presence & condition of unfarmed features - hedges, scrub, fallow areas, buffers, trees, ditches & ponds</p> <p>Percentage area of independently certified woodland (such as FSC)</p> <p>Lowland/upland farm birds - target species, presence, numbers - overwintering, breeding, spring feeding</p> <p>Woodland birds - target species, presence, numbers - overwintering, breeding, spring feeding</p> <p>Presence/location of invasive species</p> <p>Condition of Geological Conservation Review (GCR) sites that are SSSI's</p> <p>Common land in management agreements</p>	
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Culture, architecture and archaeology			
Protect places, landscapes and buildings of historic, cultural and archaeological value	<p>Improve the quality of the local built environment</p> <p>Promote the re-use of previously developed land and buildings</p> <p>Protect village greens and community wildlife areas/woodlands</p> <p>Promote and market locally sourced products</p> <p>Protect archaeological sites on farmland</p> <p>Protect and improve the stock of listed buildings</p>	<p>Condition of sites on agricultural land</p> <p>Number and condition of listed farm buildings</p> <p>LANDMAP culture aspects - condition</p> <p>Number of community-owned or managed biodiversity/amenity assets</p> <p>Register of SAMs - condition status</p> <p>Number and location of farmers' markets/ community local product market stalls</p>	

Soils			
Protect soil quality and quantity	<p>Maintain and enhance soil quality in terms of porosity, biota and structure</p> <p>Minimise soil erosion through run-off, wind and tillage</p> <p>Optimise the capacity of soils to sequester carbon</p>	<p>Change in soil organic carbon, acidity, nitrogen, biology</p> <p>Water capture</p> <p>Changes in compaction, erosion</p> <p>Changes in area of grassland and woodland</p>	<p><i>Soil erosion</i></p> <p><i>Soil quality</i></p>

Water resource			
Protect the water resource and ensure its	Complete flood and coastal risk plans	Water abstracted for agriculture (licensed)	<i>Water abstraction in agriculture</i>

sustainable use	Promote technology to conserve and recycle water	Water abstracted for agriculture (unlicensed) Agricultural discharge to water courses Changes in crop type Number and cost of flooding incidents	
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Water quality			
Protect and improve water quality	<p>Protect and enhance the quality of groundwater, rivers, lakes, and coastal waters</p> <p>Comply with 'good' status under the Water Framework Directive (WFD)</p> <p>Protect and enhance the salmonid and other fisheries</p> <p>Avoid physical disturbance to the water and water edge environment</p> <p>Reduce point and diffuse pollution from agriculture and other sources</p> <p>Ensure sustainable drainage systems in development</p>	<p>Bank erosion remediated (length)</p> <p>Chemical/ecological quality of rivers</p> <p>Number of agriculture-related pollution incidents</p> <p>Eutrophication statistics</p> <p>Estuary water condition</p> <p>Bathing water quality</p> <p>Area designated as Nitrate Vulnerable Zone</p> <p>Number of water pollution incidents, category 1 & 2</p>	<i>Water quality</i>

Air quality			
Protect and improve air quality	Reduce atmospheric hazards such as ammonia, methane and carbon dioxide	<p>Change in ammonia, CH₄, N₂O, ozone</p> <p>Air quality incidents</p>	

	Reduce risk from radon	Radon remediation programmes Percentage of sensitive habitat area exceeding critical loads for acidification and eutrophication	
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Climate issues			
Limit and adapt to climate change	<p>Reduce emissions of greenhouse gases, especially N₂O and CH₄</p> <p>Minimise the requirement for energy generation</p> <p>Promote efficient energy use</p> <p>Increase the use of energy from renewable resources including hydro-systems and biomass</p> <p>Promote ICT as an alternative to travel and print</p>	<p>CH₄ emissions from livestock</p> <p>Number of micro-generation schemes established</p> <p>Change in rural ecological footprint</p>	<i>GHG emissions from agriculture</i>

Waste management			
Minimise waste increase re-use, recycling and recovery rates	<p>Restrict biodegradable materials going to landfill</p> <p>Promote anaerobic digestion</p> <p>Promote the use of organic waste to agriculture where appropriate</p>	<p>Amount of biodegradable material going to landfill</p> <p>Amount of biodegradable material going to anaerobic digestion</p> <p>Amount of organic waste to agriculture</p>	

Transport infrastructure			
Minimise the need to travel; provide alternatives to car use	Protect and enhance the public transport system	Availability of public transport (bus and rail) - national	
	Optimise opportunities to work locally	National Park/county, local buses; taxis; community schemes	
	Promote non-recreational walking and cycling	Promotion of public transport associated with tourism	

Animal welfare/disease transmission			
Maintain and enhance animal welfare standards	Improve on-farm animal welfare standards	Number of Farm Health & Welfare Plans based on risk assessments	
	Reduce stresses related to transportation	Number of farms with separation / quarantine facilities	
	Minimise transportation distances	Number of farms with contingency plans in place	
	Minimise the risk of animal-animal/animal-human disease transmission	Sales of Welsh higher welfare products	

Rural based tourism and access			
Optimise opportunities for rural tourism whilst minimising negative impacts	Optimise opportunities for engagements with wildlife/food production	Hectares of Open Country and Common Land	
	Protect and enhance access to the coastline and countryside	Length and condition of PROWs	
	Protect rights of way, open space, and commons	Amount and condition of accessible land in agri-environment schemes	

APPENDIX 5 - PROPOSED RDP - SUMMARY OF CONTEXT AND INTERVENTIONS

The current CAP reform proposals are based on the *Communication on the CAP towards 2020* that outlined broad policy options to respond to the future challenges for agriculture and rural areas and to meet the objectives set for the CAP, namely:

Viable food production

To preserve the food production potential on a sustainable basis throughout the EU, so as to guarantee long-term food security for European citizens and to contribute to growing world food demand.

Sustainable management of natural resources and climate action

To support farming communities that provide European citizens with quality, value and diversity of food produced sustainably, in line with our environmental, water, animal health and welfare, plant health and public health requirements. The active management of natural resources by farming is one important tool to maintain the rural landscape, to combat biodiversity loss and contributes to mitigate and to adapt to climate change. This is an essential basis for dynamic territories and long term economic viability.

Balanced territorial development

To maintain viable rural communities, for whom farming is an important economic activity creating local employment.

Within those objectives for the CAP, the objectives for this Reform are:

- Enhanced competitiveness;
- Improved sustainability; and
- Greater effectiveness

At a Welsh national level the Programme for Government sets the overall context within which the RDP must deliver. As an agenda for Wales, the Programme for Government provides the benchmark for rural development actions and it emphasises the outcomes being sought in order to make a real difference to the lives of people in Wales.

The Programme for Government sets out the following 12 priority areas:

- (1) Growth and Sustainable Jobs
- (2) Public Services in Wales
- (3) Education
- (4) 21st Century Healthcare

- (5) Supporting People
- (6) Welsh Homes
- (7) Safer Communities for all
- (8) Equality
- (9) Tackling Poverty
- (10) Rural Communities
- (11) Environment and Sustainability
- (12) The Culture and Heritage of Wales

The actions within the Intervention Logic table show that the RDP could address a wide number of these target areas. Although areas 10 and 11 are the principal intervention routes for the RDP, the suite of activities proposed will have positive impacts on several others, such as growth and jobs, equality, tackling poverty and the culture and heritage of Wales.

There are 6 Rural Development Priorities which set the context for the EAFRD:

- Fostering **knowledge transfer and innovation** in agriculture, forestry, and rural areas.
- Enhancing **competitiveness** of all types of agriculture and enhancing farm viability.
- Promoting **food chain organisation and risk management** in agriculture
- Restoring, preserving and enhancing **ecosystems** dependent on agriculture and forestry
- Promoting **resource efficiency** and supporting the shift towards a **low carbon and climate resilient economy** in agriculture, food and forestry sectors.
- Promoting **social inclusion, poverty reduction and economic development** in rural areas

1. These priorities have been further broken down into 18 Focus Areas:

Priority 1:

- (i) Fostering innovation and the knowledge base in rural areas;
- (ii) Strengthening the links between agriculture, food production and forestry and research and innovation;
- (iii) Fostering lifelong learning and vocational training in the agricultural and forestry sectors.

Priority 2:

- (iv) Facilitating restructuring of farms, notably farms with a low degree of market participation, market-oriented farms in particular sectors and farms in need of agricultural diversification;
- (v) Facilitating entry into the farming sector, and in particular generational renewal in the agricultural sector.

Priority 3:

- (vi) Better integrating primary producers into the food chain through quality schemes, promotion in local markets and short supply circuits, producer groups and inter-branch organisations and promoting animal welfare;
- (vii) Supporting farm risk management.

Priority 4:

- (viii) Restoring, preserving and enhancing biodiversity, including in Natura 2000 areas and high nature value farming, and the state of European landscapes;
- (ix) Improving water and land management and contributing to meeting the Water Framework Directive objectives;
- (x) Improving soil, erosion, fertiliser and pesticide management.

Priority 5:

- (xi) Increasing efficiency in water use by agriculture;
- (xii) Increasing efficiency in energy use in agriculture and food processing;
- (xiii) Facilitating the supply and use of renewable sources of energy, of by-products, wastes, residues and other non food raw material for purposes of the bio-economy;
- (xiv) Reducing green house gas and ammonia emissions from agriculture and improving air quality;
- (xv) Fostering carbon sequestration in agriculture and forestry;

Priority 6:

- (xvi) Facilitating diversification, creation and development of small enterprises and job creation;
- (xvii) Fostering local development in rural areas;
- (xviii) Enhancing accessibility to, use and quality of information and communication technologies (ICT) in rural areas.

APPENDIX 6 - ANALYSIS OF PROGRAMME AND SEA OBJECTIVES

Note: (i) The indicators relate to the main objective and are linked to but not meant to coincide directly with the sub-objectives

(ii) The assessments are based on each sub-objective.

SEA Objective	Sub-objectives	Indicators	Innovation and knowledge base <i>primary processing/R&D in forestry products/wool</i> <i>enhanced co-operative working</i> <i>enhanced FAS role</i>	Links between agriculture/ food production/ forestry and research/ innovation <i>primary processing/R&D in forestry products/wool</i> <i>enhanced co-operative working</i>	Lifelong learning/ vocational training in agriculture and forestry <i>improved uptake of training</i> <i>enhanced FAS role</i>
Improve physical and mental health and reduce health inequalities	Minimise environmental nuisance such as noise pollution, and light pollution	Percentage of dark sky at night by area Change in number and extent of tranquil areas	Irrelevant	Irrelevant	Irrelevant
	Promote access to the countryside		✓ DIR L ST>LT <i>Potential positive - access to working on land based industry?</i>	✓ DIR L LT	✓ DIR LOCAL BUT WIDESPREAD? ST>LT
	Promote learning in, about and for farming and forestry	Numbers of farm education visits	✓ IND R MT>LT	✓ IND LOCAL BUT WIDESPREAD REGIONALLY? MT>LT	✓ DIR LOCAL BUT WIDESPREAD? MT>LT <i>Potential strong positive - more people working on land based industry</i>

	Increase access to locally produced high quality foods	Availability and type of locally available produce	✓ DIR R MT>LT	✓ DIR R MT>LT	✓ IND LOCAL BUT WIDESPREAD? LT
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SEA Objective	Sub-objectives	Indicators	Innovation and knowledge base <i>primary processing/R&D in forestry products/wool</i> <i>enhanced co-operative working</i> <i>enhanced FAS role</i>	Links between agriculture/ food production/ forestry and research/ innovation <i>primary processing/R&D in forestry products/wool</i> <i>enhanced co-operative working</i>	Lifelong learning/ vocational training in agriculture and forestry <i>improved uptake of training</i> <i>enhanced FAS role</i>
Protect and enhance biodiversity	Avoid damage to sites of European conservation value and enhance them where possible	Conservation status of SAC/SPA features dependent on/ impacted on by agriculture	✓x DIR R LT <i>Potential threat from emphasis on 'product'? Depends what is meant. Positive from co-operative working?</i>	✓x DIR R LT	✓? DIR R LT <i>Depends on scope of learning. Potential positive.</i>
	Protect and enhance rare or endangered species and habitats and provide opportunities for habitat creation/restoration	Conservation status of target species/habitats dependent on/ impacted on by agriculture	✓x DIR R LT	✓x DIR R LT	✓? DIR R LT
	Avoid damage to sites of geological interest	Conservation status of NNR/SSSI features dependent on/ impacted on by agriculture	? IND L>R LT	? IND L>R LT	✓? IND L>R LT

	Protect habitats and minimise the fragmentation of nature corridors and networks in accordance with Biodiversity Action Plans, and improve these where possible	Presence & condition of unfarmed features - hedges, scrub, fallow areas, buffers, trees, ditches & ponds	x DIR R LT <i>Potential negative effect from improvement to land/expansion of forestry into unfarmed areas</i>	x? DIR R LT	✓x IND R LT <i>Awareness of such areas needs to be implicit in training/advice</i>
	Promote agri-diversity through support for endangered local breeds	Percentage area of independently certified woodland (such as FSC)	✓x DIR R LT <i>Local breeds might benefit from R&D/potential to offer local provenance/quality product</i>	x? DIR R LT	✓? IND R LT <i>Potential training opportunity. Awareness of value of rare breeds in promoting genetic pool.</i>
	Promote indigenous woodland species	Lowland/upland farm birds - target species, presence, numbers - overwintering, breeding, spring feeding	✓x DIR N LT <i>Potential positive effect from research into enhancing value of indigenous wood, but threat from increased use of 'production' timbers.</i>	✓? DIR N LT	✓? IND N LT
	Support biodiversity health through the management of disease and invasive species	Woodland birds - target species, presence, numbers - overwintering, breeding, spring feeding	✓ DIR N LT <i>R&D into managing invasives/disease critical in optimising quality</i>	✓ DIR N LT	✓ IND N LT <i>Management of disease and invasives should be a key training theme.</i>

	Presence/location of invasive species				
	Condition of Geological Conservation Review (GCR) sites that are SSSI's				
	Common land in management agreements				

SEA Objective	Sub-objectives	Indicators	Innovation and knowledge base <i>primary processing/R&D in forestry products/wool enhanced co-operative working enhanced FAS role</i>	Links between agriculture/ food production/ forestry and research/ innovation <i>primary processing/R&D in forestry products/wool enhanced co-operative working</i>	Lifelong learning/ vocational training in agriculture and forestry <i>improved uptake of training enhanced FAS role</i>
Protect places, landscapes and buildings of historic, cultural and archaeological value	Improve the quality of the local built environment	Condition of sites on agricultural land	Irrelevant	Irrelevant	Irrelevant
	Promote the re-use of previously developed land and buildings	Number and condition of listed farm buildings	✓ DIR L LT <i>Potential conversion of land to woodland?</i>		✓? IND L LT <i>Depends on scope of learning. Potential positive.</i>
	Protect village greens and community wildlife areas/woodlands	LANDMAP culture aspects - condition	×? IND L LT <i>Danger of conversion of amenity woodland? Depends what is meant by 'product'?</i>		? IND L LT
	Promote and market locally sourced products	Number of community-owned or managed biodiversity/amenity assets	✓ DIR R ST>LT <i>Potential for locally produced wood & farm products</i>		✓ DIR R ST>LT
	Protect archaeological sites on farmland	Register of SAMs - condition status	×? DIR R ST>LT <i>Potential threat to sites from increased productivity?</i>		✓? IND L ST>LT <i>Depends on scope of learning.</i>
	Protect and improve the stock of listed buildings	Number and location of farmers' markets/ community local product market stalls	Irrelevant	Irrelevant	Irrelevant

			Innovation and knowledge base	Links between agriculture/ food production/ forestry and research/ innovation	Lifelong learning/ vocational training in agriculture and forestry
SEA Objective	Sub-objectives	Indicators	primary processing/R&D in forestry products/wool enhanced co-operative working enhanced FAS role	primary processing/R&D in forestry products/wool enhanced co-operative working	improved uptake of training enhanced FAS role
Protect soil quality and quantity	Maintain and enhance soil quality in terms of porosity, biota and structure	Change in soil organic carbon, acidity, nitrogen, biology	✗? DIR R LT <i>Potential threat to soil quality from increased productivity?</i> <i>Depends on scope of R&D</i>		✓? DIR R>N LT <i>Depends on scope of learning.</i> <i>Potential positive.</i>
	Minimise soil erosion through run-off, wind and tillage	Water capture	✗? DIR R LT <i>Potential threat from increased productivity?</i> <i>Depends on scope of R&D</i>		✓? DIR R>N LT <i>Depends on scope of learning.</i> <i>Potential positive</i>
	Optimise the capacity of soils to sequester carbon	Changes in compaction, erosion	✓ DIR N LT <i>Should be seen as an ecological 'product'.</i>		✓ DIR R>N LT <i>Depends on scope of learning.</i> <i>Potential positive. Should be a key training theme.</i>
		Changes in area of grassland and woodland			

			Innovation and knowledge base <i>primary processing/R&D in forestry products/wool</i> <i>enhanced co-operative working</i> <i>enhanced FAS role</i>	Links between agriculture/ food production/ forestry and research/ innovation <i>primary processing/R&D in forestry products/wool</i> <i>enhanced co-operative working</i>	Lifelong learning/ vocational training in agriculture and forestry <i>improved uptake of training</i> <i>enhanced FAS role</i>
SEA Objective	Sub-objectives	Indicators			
Protect the water resource and ensure its sustainable use	Complete flood and coastal risk plans	Water abstracted for agriculture (licensed)	✓? DIR R>N LT <i>Potential positive, depending on the nature of co-operative working</i>		?
	Promote technology to conserve and recycle water	Water abstracted for agriculture (unlicensed)	✓? DIR R>N LT <i>Potential positive, depending on the scope of R&D and definition of 'products'.</i>		✓ DIR R>N LT <i>Potential significant positive, depending on the nature of water conservation training, management for conservation & co-operative working</i>
		Agricultural discharge to water courses			
		Changes in crop type			
		Number and cost of flooding incidents			

SEA Objective	Sub-objectives	Indicators	Innovation and knowledge base <i>primary processing/R&D in forestry products/wool</i> <i>enhanced co-operative working</i> <i>enhanced FAS role</i>	Links between agriculture/ food production/ forestry and research/ innovation <i>primary processing/R&D in forestry products/wool</i> <i>enhanced co-operative working</i>	Lifelong learning/ vocational training in agriculture and forestry <i>improved uptake of training</i> <i>enhanced FAS role</i>
Protect and improve water quality	Protect and enhance the quality of groundwater, rivers, lakes, and coastal waters	Bank erosion remediated (length)	✓ x DIR L LT <i>Potential for use of woodland to buffer banks, depending on appropriateness. Potential negative from increased productivity?</i>	?	✓ DIR R>N LT <i>Depending on type of training and advice linked to FAS role</i>
	Comply with 'good' status under the Water Framework Directive (WFD)	Chemical/ecological quality of rivers	?	?	
	Protect and enhance the salmonid and other fisheries	Number of agriculture-related pollution incidents	✓ DIR L>R LT <i>If wild fishing is part of the product, potential positive.</i>	?	
	Avoid physical disturbance to the water and water edge environment	Eutrophication statistics	?	?	
	Reduce point and diffuse pollution from agriculture and other sources	Estuary water condition	x DIR R MT>LT <i>Potential negative depending on the 'product' envisaged. Must be linked to quality.</i>	?	

	Ensure sustainable drainage systems in development	Bathing water quality	?	?	✓ DIR L>R LT <i>Depending on type of training and advice linked to FAS role - important to promote management of drainage.</i>
		Area designated as Nitrate Vulnerable Zone			
		Number of water pollution incidents, category 1 & 2			

SEA Objective	Sub-objectives	Indicators	Innovation and knowledge base <i>primary processing/R&D in forestry products/wool</i> <i>enhanced co-operative working</i> <i>enhanced FAS role</i>	Links between agriculture/ food production/ forestry and research/ innovation <i>primary processing/R&D in forestry products/wool</i> <i>enhanced co-operative working</i>	Lifelong learning/ vocational training in agriculture and forestry <i>improved uptake of training</i> <i>enhanced FAS role</i>
Protect and improve air quality	Reduce atmospheric hazards such as ammonia, methane and carbon dioxide	Change in ammonia, CH ₄ , N ₂ O, ozone	✓? IND L LT <i>Depending on definition of 'product' & scope of R&D. Potential positive from co-operative working</i>		✓? IND L LT <i>Increased awareness + efficiencies > positive outcomes?</i>
	Reduce risk from radon	Air quality incidents Radon remediation programmes Percentage of sensitive habitat area exceeding critical loads for acidification and eutrophication	Irrelevant	Irrelevant	Irrelevant

SEA Objective	Sub-objectives	Indicators	Innovation and knowledge base <i>primary processing/R&D in forestry products/wool</i> <i>enhanced co-operative working</i> <i>enhanced FAS role</i>	Links between agriculture/ food production/ forestry and research/ innovation <i>primary processing/R&D in forestry products/wool</i> <i>enhanced co-operative working</i>	Lifelong learning/ vocational training in agriculture and forestry <i>improved uptake of training</i> <i>enhanced FAS role</i>
Limit and adapt to climate change	Reduce emissions of greenhouse gases, especially N ₂ O and CH ₄	CH ₄ emissions from livestock	✓✗ DIR R LT <i>Potential positives from R&D, but negatives from intensification? Increased woodland potential positive but depends on location/subsoils.</i>	✓ DIR L LT <i>R&D into optimal stocking rates, breeding, feeds? Efficient use of energy/on farm sources.</i>	✓ IND R LT <i>Increased awareness of issues + efficient management of stock & energy > positive outcomes? Depends on type of training.</i>
	Minimise the requirement for energy generation	Number of micro-generation schemes established	✓✗ DIR R LT <i>Research into efficient use of energy in primary processes, but potential for increases could lead to increased energy use.</i>		✓ IND R LT <i>Increased awareness of issues + efficient management of stock & energy > positive outcomes? Depends on type of training.</i>
	Promote efficient energy use	Change in rural ecological footprint			
	Increase the use of energy from renewable resources including hydro-systems and biomass		✓ DIR R LT <i>Increased awareness of issues + efficient management of stock & energy > positive outcomes? Depends on type of training. Increased yield from timber > positive effect?</i>		
	Promote ICT as an alternative to travel and print		✓? IND R>N LT <i>Potential to promote ICT in R&D and dissemination?</i>		✓? DIR R>N LT <i>Use of ICT in training and dissemination?</i>

			Innovation and knowledge base <i>primary processing/R&D in forestry products/wool</i> <i>enhanced co-operative working</i> <i>enhanced FAS role</i>	Links between agriculture/ food production/ forestry and research/ innovation <i>primary processing/R&D in forestry products/wool</i> <i>enhanced co-operative working</i>	Lifelong learning/ vocational training in agriculture and forestry <i>improved uptake of training</i> <i>enhanced FAS role</i>
SEA Objective	Sub-objectives	Indicators			
Minimise waste increase re-use, recycling and recovery rates	Restrict biodegradable materials going to landfill	Amount of biodegradable material going to landfill	✓ DIR R LT <i>Potential for increases in on-farm by-products for energy and waste on land.</i>		
	Promote anaerobic digestion	Amount of biodegradable material going to anaerobic digestion			
	Promote the use of organic waste to agriculture where appropriate	Amount of organic waste to agriculture			

SEA Objective	Sub-objectives	Indicators	Innovation and knowledge base <i>primary processing/R&D in forestry products/wool</i> <i>enhanced co-operative working</i> <i>enhanced FAS role</i>	Links between agriculture/ food production/ forestry and research/ innovation <i>primary processing/R&D in forestry products/wool</i> <i>enhanced co-operative working</i>	Lifelong learning/ vocational training in agriculture and forestry <i>improved uptake of training</i> <i>enhanced FAS role</i>
Minimise the need to travel; provide alternatives to car use	Protect and enhance the public transport system	Availability of public transport (bus and rail) - national	Irrelevant	Irrelevant	Irrelevant
	Optimise opportunities to work locally	National Park/county, local buses; taxis; community schemes	✓ DIR L>R MT>LT <i>Improved availability of primary production and land management?</i>	Irrelevant	✓? DIR L>R LT <i>Training based on local farms could reduce the amount of travel</i>
	Promote non-recreational walking and cycling	Promotion of public transport associated with tourism	Irrelevant	Irrelevant	Irrelevant

			Innovation and knowledge base <i>primary processing/R&D in forestry products/wool</i> <i>enhanced co-operative working</i> <i>enhanced FAS role</i>	Links between agriculture/ food production/ forestry and research/ innovation <i>primary processing/R&D in forestry products/wool</i> <i>enhanced co-operative working</i>	Lifelong learning/ vocational training in agriculture and forestry <i>improved uptake of training</i> <i>enhanced FAS role</i>
SEA Objective	Sub-objectives	Indicators			
Maintain and enhance animal welfare standards	Improve on-farm animal welfare standards	Number of Farm Health & Welfare Plans based on risk assessments	✓? DIR R>N LT <i>Potential for R&D to improve welfare and raise productive quality. Advice from FAS important.</i>		✓ DIR R LT <i>Potential positive - animal welfare should be a key training component.</i>
	Reduce stresses related to transportation	Number of farms with separation / quarantine facilities	? <i>Needs parallel interventions to promote local production > consumption chain.</i>		
	Minimise transportation distances	Number of farms with contingency plans in place		✓? <i>Potential positive provided quality is promoted over output.</i>	
	Minimise the risk of animal-animal/animal-human disease transmission	Sales of Welsh higher welfare products	✓ DIR N ST>LT <i>Potential for R&D to improve welfare and raise productive quality. Advice from FAS important.</i>		

			Innovation and knowledge base <i>primary processing/R&D in forestry products/wool</i> <i>enhanced co-operative working</i> <i>enhanced FAS role</i>	Links between agriculture/ food production/ forestry and research/ innovation <i>primary processing/R&D in forestry products/wool</i> <i>enhanced co-operative working</i>	Lifelong learning/ vocational training in agriculture and forestry <i>improved uptake of training</i> <i>enhanced FAS role</i>
SEA Objective	Sub-objectives	Indicators			
Optimise opportunities for rural tourism whilst minimising negative impacts	Optimise opportunities for engagements with wildlife/food production	Amount and condition of accessible land in agri-environment schemes	✓? DIR L>R ST>LT <i>Potential positive - engagement with visitors and non-farming/forestry locals should be part of the process.</i>		? <i>Depends on the scope of training.</i>
	Protect and enhance access to the coastline and countryside	Length and condition of PROWs	✗? DIR R>N LT <i>Changes in land use patterns might lead to restrictions in access?</i>		
	Protect rights of way, open space, and commons	Hectares of Open Country and Common Land	? <i>Depends how 'product' is defined. Amenity is an ecosystem service..</i>		
		Farm education schemes Wildlife events			

SEA Objective	Sub-objectives	Indicators	Restructuring of farms <i>diversification away from farming/forestry farm/forest improvements - environment, genetics, animal welfare, energy</i>	Entry into the farming sector	Integrating primary producers into the food chain <i>Protected Geographical Indication improved supply chain support</i>
Improve physical and mental health and reduce health inequalities	Minimise environmental nuisance such as noise pollution, and light pollution	Percentage of dark sky at night by area	Irrelevant	Irrelevant	Irrelevant
	Promote access to the countryside	Change in number and extent of tranquil areas	✓ DIR L>R ST>LT <i>Potential positive. Diversification may include increased access onto farmed land?</i>	?	Irrelevant
	Promote learning in, about and for farming and forestry	Numbers of farm education visits	✓ DIR L>R ST>LT <i>Potential positive. Diversification may include provision of learning opportunities</i> ✓?	Irrelevant? <i>Though an opportunity to learn new skills?</i>	
	Increase access to locally produced high quality foods	Availability and type of locally available produce	IND L>R ST>LT <i>Potential positive. Foods linked to high quality environments. But could be too expensive?</i>	Irrelevant?	✓ DIR L>R ST>LT <i>Positive. PGI and local supply chains will promote local high quality foods.</i>

SEA Objective	Sub-objectives	Indicators	Restructuring of farms <i>diversification away from farming/forestry farm/forest improvements - environment, genetics, animal welfare, energy</i>	Entry into the farming sector	Integrating primary producers into the food chain <i>Protected Geographical Indication improved supply chain support</i>
Protect and enhance biodiversity	Avoid damage to sites of European conservation value and enhance them where possible	Conservation status of SAC/SPA features dependent on/ impacted on by agriculture	✓ x DIR R>N ST>LT <i>Could be positive, but potential for negative effects depending on the kind of non-farm business supported. Need to promote high quality environment?</i>		✓ DIR R>N ST>LT <i>Strong link between promotion of high quality farm/forest products and high quality environments. Less intensive management?</i>
	Protect and enhance rare or endangered species and habitats and provide opportunities for habitat creation/restoration	Conservation status of target species/habitats dependent on/ impacted on by agriculture	✓ x DIR R>N ST>LT <i>Could be positive. Habitat creation as part of farm/forest improvement. Environmental effects of diversification away from farming/forestry could be negative.</i>		
	Avoid damage to sites of geological interest	Conservation status of NNR/SSSI features dependent on/ impacted on by agriculture			

	Protect habitats and minimise the fragmentation of nature corridors and networks in accordance with Biodiversity Action Plans, and improve these where possible	Presence & condition of unfarmed features - hedges, scrub, fallow areas, buffers, trees, ditches & ponds	✓ DIR R>N ST>LT <i>Significant link to this objective. Habitat creation as part of farm/forest improvement.</i>
	Promote agri-diversity through support for endangered local breeds	Percentage area of independently certified woodland (such as FSC)	✓ DIR R>N ST>LT <i>Diversification into genetics/ environment could promote rare local breeds.</i>
	Promote indigenous woodland species	Lowland/upland farm birds - target species, presence, numbers - overwintering, breeding, spring feeding	✓ DIR R>N ST>LT <i>Diversification into genetics/ environment could reinforce native woodland species and traditional management systems</i>
	Support biodiversity health through the management of disease and invasive species	Woodland birds - target species, presence, numbers - overwintering, breeding, spring feeding	✓ DIR R>N ST>LT <i>Promoting genetic diversity and animal welfare supports this objective.</i>

	Presence/location of invasive species				
	Condition of Geological Conservation Review (GCR) sites that are SSSI's				
	Common land in management agreements				

SEA Objective	Sub-objectives	Indicators	Restructuring of farms <i>diversification away from farming/forestry farm/forest improvements - environment, genetics, animal welfare, energy</i>	Entry into the farming sector	Integrating primary producers into the food chain <i>Protected Geographical Indication improved supply chain support</i>
Protect places, landscapes and buildings of historic, cultural and archaeological value	Improve the quality of the local built environment	Condition of sites on agricultural land	✓? DIR L MT>LT <i>Opportunity to re-use/develop redundant farm buildings</i>	?	Irrelevant
	Promote the re-use of previously developed land and buildings	Number and condition of listed farm buildings	✓? DIR L MT>LT <i>Opportunity to re-use/develop redundant farm buildings & to redevelop sites</i>	?	✓? DIR L>R MT>LT <i>Opportunity to re-use/develop redundant farm buildings & to redevelop sites to meet needs of supply chain improvements</i>
	Protect village greens and community wildlife areas/woodlands	LANDMAP culture aspects - condition	? <i>Potential to restore links/corridors from farm through village sites?</i>	Irrelevant	Irrelevant
	Promote and market locally sourced products	Number of community-owned or managed biodiversity/amenity assets	✓ DIR R>N ST>LT <i>Diversification into genetics/environment could reinforce native woodland species and traditional management systems</i>	✓? <i>Encourage new entrants to produce and market locally, based on branding quality products</i>	✓ DIR L>R ST>LT <i>Significant opportunity to promote local high quality products</i>
	Protect archaeological sites on farmland	Register of SAMs - condition status	✓x DIR L ST>LT <i>Potential loss of sites in woodlands and semi-natural sites? Potential positive -</i>	Irrelevant	Irrelevant

			reduction on impact from overgrazing/erosion?		
	Protect and improve the stock of listed buildings	Number and location of farmers' markets/ community local product market stalls	✓ DIR L>R ST>LT <i>Likely positive effects from farm improvements.</i>	?	✓? DIR L>R MT>LT <i>Opportunity to re-use/develop redundant farm buildings & to redevelop sites to meet needs of supply chain improvements</i>

SEA Objective	Sub-objectives	Indicators	Restructuring of farms <i>diversification away from farming/forestry farm/forest improvements - environment, genetics, animal welfare, energy</i>	Entry into the farming sector	Integrating primary producers into the food chain <i>Protected Geographical Indication improved supply chain support</i>
Protect soil quality and quantity	Maintain and enhance soil quality in terms of porosity, biota and structure	Change in soil organic carbon, acidity, nitrogen, biology	✓ DIR R>N LT <i>Diversification into genetics/ environment could promote soil quality</i>	?	Irrelevant
	Minimise soil erosion through run-off, wind and tillage	Water capture	✓ DIR R>N LT <i>Diversification into genetics/ environment could promote soil quality through improved features, reduction in tillage, management of stock etc.</i>	? IND?	? IND?
	Optimise the capacity of soils to sequester carbon	Changes in compaction, erosion	✓ DIR R>N LT <i>Diversification into genetics/ environment could promote sequestration of carbon</i>	?	?
		Changes in area of grassland and woodland			

SEA Objective	Sub-objectives	Indicators	Restructuring of farms <i>diversification away from farming/forestry farm/forest improvements - environment, genetics, animal welfare, energy</i>	Entry into the farming sector	Integrating primary producers into the food chain <i>Protected Geographical Indication improved supply chain support</i>
Protect the water resource and ensure its sustainable use	Complete flood and coastal risk plans	Water abstracted for agriculture (licensed)	✓ DIR R ST>LT <i>Diversification might offer improvements in water management - hedges, woodland, banks, wetlands etc.</i>		Irrelevant
	Promote technology to conserve and recycle water	Water abstracted for agriculture (unlicensed)	✓ DIR L MT>LT <i>Potential to use micro-hydro schemes, and to capture, store and recycle water. Woodland offers the opportunity to conserve water.</i>	✓? <i>Promote technology as part of entrant training?</i>	?
		Agricultural discharge to water courses			
		Changes in crop type			
		Number and cost of flooding incidents			

SEA Objective	Sub-objectives	Indicators	Restructuring of farms <i>diversification away from farming/forestry farm/forest improvements - environment, genetics, animal welfare, energy</i>	Entry into the farming sector	Integrating primary producers into the food chain <i>Protected Geographical Indication improved supply chain support</i>
Protect and improve water quality	Protect and enhance the quality of groundwater, rivers, lakes, and coastal waters	Bank erosion remediated (length)	✓ DIR R ST>LT <i>Diversification might offer improvements in water management - hedges, woodland, banks, wetlands etc.</i>	✓? <i>Promote water management as part of entrant training?</i>	Irrelevant
	Comply with 'good' status under the Water Framework Directive (WFD)	Chemical/ecological quality of rivers	✓ DIR R>N ST>LT <i>Diversification might offer improvements in water management - hedges, woodland, banks, wetlands etc.</i>		Irrelevant
	Protect and enhance the salmonid and other fisheries	Number of agriculture-related pollution incidents	✓ DIR R MT>LT <i>Quality of water should improve as a result of improvements in land management, bank management to reduce erosion, reduced chemical inputs etc.</i>		✓? <i>Potential new products linked to high quality aquatic environment</i>
	Avoid physical disturbance to the water and water edge environment	Eutrophication statistics	✓ DIR L ST>LT <i>Quality of water should improve as a result of improvements in land management, bank management</i>		Irrelevant

			<i>to reduce erosion</i>	
	Reduce point and diffuse pollution from agriculture and other sources	Estuary water condition	✓ DIR R ST>LT <i>Diversification may reduce stock numbers locally, increase hedges, banks and woodland to reduce effects of pollution.</i>	Irrelevant
	Ensure sustainable drainage systems in development	Bathing water quality	✓ DIR L>R ST>LT <i>Diversification linked to water conservation and recycling, with reductions in chemical inputs.</i>	? <i>Important to ensure any increases in the use of water locally for production is linked to SUDS</i>
		Area designated as Nitrate Vulnerable Zone		
		Number of water pollution incidents, category 1 & 2		

SEA Objective	Sub-objectives	Indicators	Restructuring of farms <i>diversification away from farming/forestry farm/forest improvements - environment, genetics, animal welfare, energy</i>	Entry into the farming sector	Integrating primary producers into the food chain <i>Protected Geographical Indication improved supply chain support</i>
Protect and improve air quality	Reduce atmospheric hazards such as ammonia, methane and carbon dioxide	Change in ammonia, CH ₄ , N ₂ O, ozone	✓ DIR R>N MT>LT <i>Change in farm practices/ genetics may promote reduction in ammonia and methane. Moving into non-farm business would reduce/remove stock?</i>	? <i>Open to new techniques? Entrepreneurial attitude in new entrants></i>	✓? DIR R>N LT <i>Reductions in produce-process-consumption chain would contribute towards reductions in carbon dioxide emissions</i>
	Reduce risk from radon	Air quality incidents Radon remediation programmes Percentage of sensitive habitat area exceeding critical loads for acidification and eutrophication	Irrelevant		Irrelevant

SEA Objective	Sub-objectives	Indicators	Restructuring of farms <i>diversification away from farming/forestry farm/forest improvements - environment, genetics, animal welfare, energy</i>	Entry into the farming sector	Integrating primary producers into the food chain <i>Protected Geographical Indication improved supply chain support</i>
Limit and adapt to climate change	Reduce emissions of greenhouse gases, especially N ₂ O and CH ₄	CH ₄ emissions from livestock	✓ DIR R>N MT>LT <i>Change in farm practices/ genetics may promote reduction in ammonia and methane</i>	? <i>Open to new techniques? Entrepreneurial attitude in new entrants</i>	✓? DIR R>N LT <i>Reductions in produce-process-consumption chain would contribute towards reductions in carbon dioxide emissions</i>
	Minimise the requirement for energy generation	Number of micro-generation schemes established	✓? DIR R>N ST>LT <i>Diversification into alternative land management may reduce the need for energy intensive farm systems? Potential to reduce transportation requirement to livestock markets?</i>		✓ DIR R>N ST>LT <i>Improved supply chains should reduce the energy needs of processing and transportation</i>
	Promote efficient energy use	Change in rural ecological footprint	✓? DIR R>N ST>LT <i>Diversification into alternative land management may reduce the need for energy intensive farm systems?</i>	? <i>New entrants familiar with the use of ICT?</i>	✓ DIR R>N ST>LT <i>Improved supply chains should increase efficiencies in energy use. Potential to reduce over-processing?</i>
	Increase the use of energy from renewable resources including hydro-systems and biomass		✓ DIR L>R MT>LT <i>Opportunity to diversify into energy generation - local wind and hydro sources, green waste, biomass</i>		✓? DIR R>N MT>LT <i>Ensuring that energy requirement for processing is based on renewable sources</i>

	Promote ICT as an alternative to travel and print	Irrelevant	Irrelevant
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SEA Objective	Sub-objectives	Indicators	Restructuring of farms <i>diversification away from farming/forestry farm/forest improvements - environment, genetics, animal welfare, energy</i>	Entry into the farming sector	Integrating primary producers into the food chain <i>Protected Geographical Indication improved supply chain support</i>
Minimise waste increase re-use, recycling and recovery rates	Restrict biodegradable materials going to landfill	Amount of biodegradable material going to landfill	✓ DIR L>R ST>LT <i>Significant opportunities to recover biodegradable materials for digestion</i>	✓? <i>Open to new techniques of biodegradable waste reclamation and use</i>	✓ DIR L LT <i>Could be a potential build up of animal and crop waste products locally. Need to ensure robust recycling/recovery systems</i>
	Promote anaerobic digestion	Amount of biodegradable material going to anaerobic digestion	✓ DIR L>R LT <i>Likely to be significant increase in volumes of green waste, though reduction in slurry? Opportunity to work communally. Could be a business</i>		
	Promote the use of organic waste to agriculture where appropriate	Amount of organic waste to agriculture	✓ DIR L MT <i>Likely to be significant increase in volumes of green waste, but less animal waste.</i>		

SEA Objective	Sub-objectives	Indicators	Restructuring of farms <i>diversification away from farming/forestry farm/forest improvements - environment, genetics, animal welfare, energy</i>	Entry into the farming sector	Integrating primary producers into the food chain <i>Protected Geographical Indication improved supply chain support</i>
Minimise the need to travel; provide alternatives to car use	Protect and enhance the public transport system	Availability of public transport (bus and rail) - national	Irrelevant? <i>Potential for small reduction in transportation, but not relevant to this specific sub-objective</i>	Irrelevant	Irrelevant <i>Potential for reduction in transportation, but not relevant to this specific sub-objective</i>
	Optimise opportunities to work locally	National Park/county, local buses; taxis; community schemes	✓ DIR L LT <i>Diversification could offer a wide range of opportunities for local work especially if the opportunities are based on local potential</i>	✓? <i>If offered on a local basis rather than based on a national pool?</i>	✓ DIR L>R LT <i>Reduction in chain may promote local work opportunities in processing/sales sectors</i>
	Promote non-recreational walking and cycling	Promotion of public transport associated with tourism	Irrelevant	Irrelevant	✓? DIR L LT <i>Local work opportunities arising from local product-process-consumer chains will promote this objective</i>

SEA Objective	Sub-objectives	Indicators	Restructuring of farms	Entry into the farming sector	Integrating primary producers into the food chain
			<i>diversification away from farming/forestry farm/forest improvements - environment, genetics, animal welfare, energy</i>		<i>Protected Geographical Indication improved supply chain support</i>
Maintain and enhance animal welfare standards	Improve on-farm animal welfare standards	Number of Farm Health & Welfare Plans based on risk assessments	✓? <i>Depends on the type of diversification. Possible positive.</i>	✓ DIR R>N MT>LT <i>New entrants likely to be more aware of animal welfare issues?</i>	✓ DIR L>N ST>LT <i>Reduction in chain should reduce widescale cross contamination</i>
	Reduce stresses related to transportation	Number of farms with separation / quarantine facilities	Irrelevant	Irrelevant	✓ DIR L>N ST>LT <i>Reduction in chain should reduce widescale cross contamination and stress</i>
	Minimise transportation distances	Number of farms with contingency plans in place	Irrelevant	Irrelevant	✓ DIR L>N ST>LT <i>Should be a direct effect of this proposal</i>
	Minimise the risk of animal-animal/animal-human disease transmission	Sales of Welsh higher welfare products	✓? DIR L LT <i>Diversification into genetics/ environment could help reduce risk</i>	✓? <i>New entrants likely to be more aware of animal welfare issues?</i>	✓ DIR L>N ST>LT <i>Reduction in chain should reduce widescale cross contamination</i>

SEA Objective	Sub-objectives	Indicators	Restructuring of farms <i>diversification away from farming/forestry farm/forest improvements - environment, genetics, animal welfare, energy</i>	Entry into the farming sector	Integrating primary producers into the food chain <i>Protected Geographical Indication improved supply chain support</i>
Optimise opportunities for rural tourism whilst minimising negative impacts	Optimise opportunities for engagements with wildlife/food production	Amount and condition of accessible land in agri-environment schemes	✓ DIR R MT>LT <i>Diversification into environment/ non-farm business could entail promotion of tourism opportunities/education</i>	✓? <i>Depends on motivation</i>	✓ DIR R LT <i>Could be opportunities for food production/high quality brands linked to festivals/education</i>
	Protect and enhance access to the coastline and countryside	Length and condition of PROWs	✓x DIR/IND R LT <i>Depends on the diversification - potential for loss of accessible land</i>	Irrelevant	Irrelevant
	Protect rights of way, open space, and commons	Hectares of Open Country and Common Land Farm education schemes Wildlife events	✓x DIR/IND R LT <i>Depends on the diversification - potential for loss of accessible land</i>	Irrelevant	Irrelevant

SEA Objective	Sub-objectives	Indicators	Farm risk management <i>broaden genetic mix significant woodland creation - stock shelter/disease barriers</i>	Restoring, preserving and enhancing biodiversity <i>small scale timber/biomass cropping- shrubs to diversify habitat - significant woodland creation - stock shelter/disease barriers specific actions on species & habitats-maintaining/ improving Nat 2K/ connectivity-hedge/ shelterbelt creation - flood mitigation - bank protection watercourse management schemes linked to WFD/community based projects, pilots on ecosystems, buffers & corridors</i>	Improving water and land management/ meeting WFD <i>hedge/shelterbelt creation - flood mitigation - bank protection watercourse management schemes linked to WFD pollution from mines</i>
Improve physical and mental health and reduce health inequalities	Minimise environmental nuisance such as noise pollution, and light pollution	Percentage of dark sky at night by area	Irrelevant	Irrelevant	Irrelevant
	Promote access to the countryside	Change in number and extent of tranquil areas	Irrelevant	Irrelevant	Irrelevant
	Promote learning in, about and for farming and forestry	Numbers of farm education visits	✓? DIR L <i>Some small local positive?</i>		
			Irrelevant?	Irrelevant?	Irrelevant?
	Increase access to locally produced high quality foods	Availability and type of locally available produce			

			Farm risk management <i>broaden genetic mix significant woodland creation - stock shelter/disease barriers</i>	Restoring, preserving and enhancing biodiversity <i>small scale timber/biomass cropping- shrubs to diversify habitat - significant woodland creation - stock shelter/disease barriers - specific actions on species & habitats-maintaining/ improving Nat 2K/ connectivity-hedge/ shelterbelt creation - flood mitigation - bank protection watercourse management schemes linked to WFD - community based projects, pilots on ecosystems, buffers & corridors</i>	Improving water and land management/ meeting WFD <i>hedge/shelterbelt creation - flood mitigation - bank protection watercourse management schemes linked to WFD pollution from mines</i>
SEA Objective	Sub-objectives	Indicators			
Protect and enhance biodiversity	Avoid damage to sites of European conservation value and enhance them where possible	Conservation status of SAC/SPA features dependent on/ impacted on by agriculture	✓ DIR L>N LT <i>Opportunities to promote connectivity and increase quantity and quality of habitat - will support resilience</i>	✓ DIR L>N LT <i>Suite of interventions will reinforce NAT 2K conservation objectives. Biomass needs careful consideration.</i>	✓ DIR L>N LT <i>Opportunities to promote connectivity and increase quantity and enhance quality of aquatic habitat - reduction in erosion/silting and pollution central to wetland/water conservation objectives</i>
	Protect and enhance rare or endangered species and habitats and provide opportunities for habitat	Conservation status of target species/habitats dependent on/ impacted on by agriculture	✓ DIR L>N LT <i>Opportunities to promote connectivity and increase quantity and enhance quality of habitat -</i>	✓ DIR L>N LT <i>Suite of interventions will reinforce BAP conservation objectives. Biomass needs careful</i>	✓ DIR L>N LT <i>Opportunities to promote connectivity and increase quantity and enhance quality of aquatic</i>

	creation/restoration		<i>will support resilience</i>	<i>consideration.</i>	<i>habitat - reduction in erosion/silting and pollution central to wetland/water conservation objectives</i>
	Avoid damage to sites of geological interest	Conservation status of NNR/SSSI features dependent on/ impacted on by agriculture	Irrelevant	Irrelevant	Irrelevant
	Protect habitats and minimise the fragmentation of nature corridors and networks in accordance with Biodiversity Action Plans, and improve these where possible	Presence & condition of unfarmed features - hedges, scrub, fallow areas, buffers, trees, ditches & ponds	✓ DIR L>N LT <i>Opportunities to promote connectivity and increase quantity and enhance quality of habitat - will support resilience</i>	✓ DIR L>N LT <i>Suite of interventions will reinforce conservation objectives. Biomass needs careful consideration. Potential conflicts between these options e.g. semi-natural grass vs. scrub/ woodland; type of woodland/wetland; habitat mix etc</i>	✓ DIR L>N LT <i>Opportunities to promote connectivity and increase quantity and enhance quality of aquatic habitat - reduction in erosion/silting and pollution central to wetland/water conservation objectives</i>

	Promote agri-diversity through support for endangered local breeds	Percentage area of independently certified woodland (such as FSC)	Irrelevant	Irrelevant	Irrelevant
	Promote indigenous woodland species	Lowland/upland farm birds - target species, presence, numbers - overwintering, breeding, spring feeding	✓ DIR R LT <i>Likely to have a significant positive effect</i>	✓ DIR R LT <i>Likely to have a significant positive effect</i>	
	Support biodiversity health through the management of disease and invasive species	Woodland birds - target species, presence, numbers - overwintering, breeding, spring feeding	✓ DIR R LT <i>This intervention is central to the objective</i>	✓ DIR R LT <i>Likely to have a significant positive effect</i>	Irrelevant
		Presence/location of invasive species Condition of Geological Conservation Review (GCR) sites that are SSSI's Common land in management agreements			

SEA Objective	Sub-objectives	Indicators	Farm risk management <i>broaden genetic mix significant woodland creation - stock shelter/disease barriers</i>	Restoring, preserving and enhancing biodiversity <i>small scale timber/biomass cropping- shrubs to diversify habitat - significant woodland creation - stock shelter/disease barriers - specific actions on species & habitats-maintaining/ improving Nat 2K/ connectivity-hedge/ shelterbelt creation - flood mitigation - bank protection watercourse management schemes linked to WFD - community based projects, pilots on ecosystems, buffers & corridors</i>	Improving water and land management/ meeting WFD <i>hedge/shelterbelt creation - flood mitigation - bank protection watercourse management schemes linked to WFD pollution from mines</i>
Protect places, landscapes and buildings of historic, cultural and archaeological value	Improve the quality of the local built environment	Condition of sites on agricultural land	Irrelevant	? <i>Need to ensure that interventions reinforce landscape character e.g. walls more appropriate in some areas than hedges</i>	Irrelevant
	Promote the re-use of previously developed land and buildings	Number and condition of listed farm buildings	Irrelevant	✓? DIR L LT <i>Potential to convert previously developed land to woodland or appropriate habitat creation/ enhancement as part of re-use</i>	Irrelevant
	Protect village greens and community wildlife	LANDMAP culture aspects - condition	Irrelevant	✓ DIR L LT <i>Potential to promote protection</i>	Irrelevant

	areas/woodlands			<i>and enhancement of community wildlife areas as refuges/corridors</i>	
	Promote and market locally sourced products	Number of community-owned or managed biodiversity/amenity assets	✓? DIR L LT <i>Depending on the product, potential for local marketing of natural products</i>	✓? DIR L LT <i>Depending on the product, potential for local marketing of natural products</i>	
	Protect archaeological sites on farmland	Register of SAMs - condition status	✕? DIR L SLT <i>Potential threat to sites from significant woodland creation?</i>		✓? DIR L LT <i>Potential benefit to sites from water management where they might be undermined</i>
	Protect and improve the stock of listed buildings	Number and location of farmers' markets/ community local product market stalls	Irrelevant	Irrelevant	Irrelevant

SEA Objective	Sub-objectives	Indicators	Farm risk management <i>broaden genetic mix</i> <i>significant woodland creation -</i> <i>stock shelter/disease barriers</i>	Restoring, preserving and enhancing biodiversity <i>small scale timber/biomass cropping- shrubs to diversify habitat - significant woodland creation - stock shelter/disease barriers</i> <i>specific actions on species & habitats-maintaining/ improving Nat 2K/ connectivity-hedge/ shelterbelt creation - flood mitigation - bank protection watercourse management schemes linked to WFD - community based projects, pilots on ecosystems, buffers & corridors</i>	Improving water and land management/ meeting WFD <i>hedge/shelterbelt creation - flood mitigation - bank protection watercourse management schemes linked to WFD</i> <i>pollution from mines</i>
Protect soil quality and quantity	Maintain and enhance soil quality in terms of porosity, biota and structure	Change in soil organic carbon, acidity, nitrogen, biology	✓ DIR R>N LT <i>Potential for improving soil biota and water holding qualities. Improved structure from woodland litter? Reduced acidity?</i>	✓ DIR R>N LT <i>Potential for improving soil biota and water holding qualities. Improved structure from woodland litter? Reduced acidity?</i>	
	Minimise soil erosion through run-off, wind and tillage	Water capture	✓ DIR R>N LT <i>Increased woodland will reduce likelihood of water and wind erosion</i>	✓ DIR R>N LT <i>Suite of interventions will control likelihood of erosion</i>	✓ DIR R LT <i>Will reduce effects of water borne erosion</i>

	Optimise the capacity of soils to sequester carbon	Changes in compaction, erosion	✓? <i>Need to ensure that woodland planting is optimally located, and preferred to scrub/blanket peat</i>	✓x DIR L>R SLT <i>Potential for some conflict between the options in terms of carbon sequestration?</i>	✓? DIR L LT <i>Protection of banks will promote resilience against flood events and retain soils</i>
		Changes in area of grassland and woodland			

			Farm risk management <i>broaden genetic mix significant woodland creation - stock shelter/disease barriers</i>	Restoring, preserving and enhancing biodiversity <i>small scale timber/biomass cropping- shrubs to diversify habitat - significant woodland creation - stock shelter/disease barriers specific actions on species & habitats-maintaining/ improving Nat 2K/ connectivity-hedge/ shelterbelt creation - flood mitigation - bank protection watercourse management schemes linked to WFD community based projects, pilots on ecosystems, buffers & corridors</i>	Improving water and land management/ meeting WFD <i>hedge/shelterbelt creation - flood mitigation - bank protection watercourse management schemes linked to WFD pollution from mines</i>
SEA Objective	Sub-objectives	Indicators			
Protect the water resource and ensure its sustainable use	Complete flood and coastal risk plans	Water abstracted for agriculture (licensed) Agricultural discharge to water courses	✓ DIR L LT <i>Appropriately sited stock shelters/woodland creation will help to contain water & mitigate flood risk - needs to be done at a landscape level</i>	✓ DIR L>R LT <i>Appropriately planned, the range of interventions could have a significant positive effect on managing water flows</i>	✓ DIR L LT <i>Appropriately sited stock shelters/woodland creation will help to contain water & mitigate flood risk - needs to be done at a landscape level</i>
	Promote technology to conserve and recycle water	Water abstracted for agriculture (unlicensed) Number and cost of flooding incidents Changes in crop type	Irrelevant?	Irrelevant?	✓ DIR L>R LT <i>Watercourse schemes linked to technology to reduce mine pollution</i>

SEA Objective	Sub-objectives	Indicators	Farm risk management <i>broaden genetic mix significant woodland creation - stock shelter/disease barriers</i>	Restoring, preserving and enhancing biodiversity <i>small scale timber/biomass cropping- shrubs to diversify habitat - significant woodland creation - stock shelter/disease barriers specific actions on species & habitats-maintaining/ improving Nat 2K/ connectivity-hedge/ shelterbelt creation - flood mitigation - bank protection watercourse management schemes linked to WFD community based projects, pilots on ecosystems, buffers & corridors</i>	Improving water and land management/ meeting WFD <i>hedge/shelterbelt creation - flood mitigation - bank protection watercourse management schemes linked to WFD pollution from mines</i>
Protect and improve water quality	Protect and enhance the quality of groundwater, rivers, lakes, and coastal waters	Bank erosion remediated (length)	✓ DIR L LT <i>The use of woodland/stock shelters could help to filter farm related pollutants</i>	✓ DIR L>R LT <i>A wide range of intervention options should have a positive effect on water quality</i>	✓ DIR L>R LT <i>This intervention should result in significant improvements to the ecological and chemical quality of waters</i>
	Comply with 'good' status under the Water Framework Directive (WFD)	Chemical/ecological quality of rivers	✓ DIR L LT <i>As above</i>	✓ DIR L>R LT <i>As above</i>	✓ DIR L>R LT <i>As above</i>
	Protect and enhance the salmonid and other fisheries	Number of agriculture-related pollution incidents	✓ DIR L LT <i>Measures to reduce silting and eutrophication from agricultural pollutants will have a positive effect</i>	✓ DIR L>R LT <i>Significant filtering, water and soil erosion management will have a positive effect</i>	✓ DIR L>R LT <i>This intervention should result in significant positive effects</i>

	Avoid physical disturbance to the water and water edge environment	Eutrophication statistics	✓ DIR L LT <i>Likely to be positive depending on location - could reduce soil erosion and build up of silts</i>	✓ DIR L>R LT <i>Hedgerow and bankside management, flood protection will support this objective</i>	✓?x DIR R>N ST>LT Irrelevant? <i>Bank protection and watercourse management will support this objective</i>
	Reduce point and diffuse pollution from agriculture and other sources	Estuary water condition	✓ DIR L LT <i>The use of woodland/stock shelters could help to filter farm related pollutants</i>	✓ DIR L>R LT <i>A wide range of intervention options should have a positive effect on water quality, by filtering pollutants and slowing down the rate of runoff</i>	✓ DIR L>R LT <i>This intervention should result in significant improvements to the ecological and chemical quality of waters</i>
	Ensure sustainable drainage systems in development	Bathing water quality	✓ DIR L>R LT Irrelevant? <i>Potential for upstream management to reduce flow rates and support SUDS in downstream development</i>		✓ DIR L LT <i>Could help reduce the 'cocktail' effect of pollutants in downstream development</i>
		Area designated as Nitrate Vulnerable Zone			
		Number of water pollution incidents, category 1 & 2			

			Farm risk management <i>broaden genetic mix significant woodland creation - stock shelter/disease barriers</i>	Restoring, preserving and enhancing biodiversity <i>small scale timber/biomass cropping- shrubs to diversify habitat - significant woodland creation - stock shelter/disease barriers specific actions on species & habitats-maintaining/ improving Nat 2K/ connectivity-hedge/ shelterbelt creation - flood mitigation - bank protection watercourse management schemes linked to WFD community based projects, pilots on ecosystems, buffers & corridors</i>	Improving water and land management/ meeting WFD <i>hedge/shelterbelt creation - flood mitigation - bank protection watercourse management schemes linked to WFD pollution from mines</i>
SEA Objective	Sub-objectives	Indicators			
Protect and improve air quality	Reduce atmospheric hazards such as ammonia, methane and carbon dioxide	Change in ammonia, CH ₄ , N ₂ O, ozone Air quality incidents	✓ DIR R LT <i>Some positive effect, depending on the type of land conversion - potential to reduce methane and carbon dioxide through stock dispersal.</i>	✓ DIR L>R LT <i>Some positive effect, depending on the type of land conversion - potential to reduce methane and carbon dioxide through stock dispersal.</i>	✓? DIR L>R LT
	Reduce risk from radon	Radon remediation programmes	Irrelevant	Irrelevant	Irrelevant
		Percentage of sensitive habitat area exceeding critical loads for acidification and eutrophication			

			Farm risk management <i>broaden genetic mix significant woodland creation - stock shelter/disease barriers</i>	Restoring, preserving and enhancing biodiversity <i>small scale timber/biomass cropping- shrubs to diversify habitat - significant woodland creation - stock shelter/disease barriers specific actions on species & habitats-maintaining/ improving Nat 2K/ connectivity-hedge/ shelterbelt creation - flood mitigation - bank protection watercourse management schemes linked to WFD community based projects, pilots on ecosystems, buffers & corridors</i>	Improving water and land management/ meeting WFD <i>hedge/shelterbelt creation - flood mitigation - bank protection watercourse management schemes linked to WFD pollution from mines</i>
SEA Objective	Sub-objectives	Indicators			
Limit and adapt to climate change	Reduce emissions of greenhouse gases, especially N ₂ O and CH ₄	CH ₄ emissions from livestock	✓ DIR R LT <i>Some positive effect, depending on the type of land conversion - potential to reduce methane and carbon dioxide through stock dispersal.</i>	✓ DIR L>R LT <i>Some positive effect, depending on the type of land conversion - potential to reduce methane and carbon dioxide through stock dispersal.</i>	Irrelevant
	Minimise the requirement for energy generation	Number of micro-generation schemes established	Irrelevant	Irrelevant	Irrelevant
	Promote efficient energy use	Change in rural ecological footprint	Irrelevant	Irrelevant	Irrelevant

	Increase the use of energy from renewable resources including hydro-systems and biomass	✓ DIR L>R LT <i>Significant areas of woodland development likely to result fuel timber.</i>	✓ DIR L>R LT <i>Significant areas of woodland development likely to result fuel timber and may promote micro-hydro generation through appropriate watercourse management</i>	✓ DIR L>R LT <i>Potential to promote micro-hydro generation through appropriate watercourse management</i>
	Promote ICT as an alternative to travel and print	Irrelevant	Irrelevant	Irrelevant

SEA Objective	Sub-objectives	Indicators	Farm risk management <i>broaden genetic mix significant woodland creation - stock shelter/disease barriers</i>	Restoring, preserving and enhancing biodiversity <i>small scale timber/biomass cropping- shrubs to diversify habitat - significant woodland creation - stock shelter/disease barriers specific actions on species & habitats-maintaining/ improving Nat 2K/ connectivity-hedge/ shelterbelt creation - flood mitigation - bank protection watercourse management schemes linked to WFD community based projects, pilots on ecosystems, buffers & corridors</i>	Improving water and land management/ meeting WFD <i>hedge/shelterbelt creation - flood mitigation - bank protection watercourse management schemes linked to WFD pollution from mines</i>
Minimise waste increase re-use, recycling and recovery rates	Restrict biodegradable materials going to landfill	Amount of biodegradable material going to landfill	Irrelevant	✓? DIR R LT <i>Likely to be a significant increase in compostable green waste.</i>	Irrelevant
	Promote anaerobic digestion	Amount of biodegradable material going to anaerobic digestion	✓ DIR R MT>LT <i>Increases in green waste to anaerobic digestion</i>	✓ DIR R MT>LT <i>Increases in green waste to anaerobic digestion</i>	
	Promote the use of organic waste to agriculture where appropriate	Amount of organic waste to agriculture	? <i>Likely to be a reduction in animal wastes to agriculture</i>	?	Irrelevant

SEA Objective	Sub-objectives	Indicators	Farm risk management <i>broaden genetic mix significant woodland creation - stock shelter/disease barriers</i>	Restoring, preserving and enhancing biodiversity <i>small scale timber/biomass cropping- shrubs to diversify habitat - significant woodland creation - stock shelter/disease barriers specific actions on species & habitats-maintaining/ improving Nat 2K/ connectivity-hedge/ shelterbelt creation - flood mitigation - bank protection watercourse management schemes linked to WFD community based projects, pilots on ecosystems, buffers & corridors</i>	Improving water and land management/ meeting WFD <i>hedge/shelterbelt creation - flood mitigation - bank protection watercourse management schemes linked to WFD pollution from mines</i>
Minimise the need to travel; provide alternatives to car use	Protect and enhance the public transport system	Availability of public transport (bus and rail) - national	Irrelevant	Irrelevant	Irrelevant
	Optimise opportunities to work locally	National Park/county, local buses; taxis; community schemes	Irrelevant	✓? DIR R ST>LT <i>Increased direct interventions in land management for biodiversity likely to increase opportunities to work locally</i>	Irrelevant
	Promote non-recreational walking and cycling	Promotion of public transport associated with tourism	Irrelevant	Irrelevant	Irrelevant

SEA Objective	Sub-objectives	Indicators	Farm risk management <i>broaden genetic mix significant woodland creation - stock shelter/disease barriers</i>	Restoring, preserving and enhancing biodiversity <i>small scale timber/biomass cropping- shrubs to diversify habitat - significant woodland creation - stock shelter/disease barriers specific actions on species & habitats-maintaining/ improving Nat 2K/ connectivity-hedge/ shelterbelt creation - flood mitigation - bank protection watercourse management schemes linked to WFD community based projects, pilots on ecosystems, buffers & corridors</i>	Improving water and land management/ meeting WFD <i>hedge/shelterbelt creation - flood mitigation - bank protection watercourse management schemes linked to WFD pollution from mines</i>
Maintain and enhance animal welfare standards	Improve on-farm animal welfare standards	Number of Farm Health & Welfare Plans based on risk assessments	✓ DIR R>N MT>LT <i>The development of disease barriers and stock shelter will promote this objective</i>	✓? DIR R>N MT>LT <i>The development of disease barriers and stock shelter will promote this objective. Risk that enhanced corridors, increase in wetlands may facilitate breeding and migration of disease carrying organisms?</i>	✓ DIR L>R MT>LT <i>Positive effect likely. Reduction in heavy metals may promote animal welfare?</i>
	Reduce stresses related to transportation	Number of farms with separation / quarantine facilities	Irrelevant	Irrelevant	Irrelevant
	Minimise transportation distances	Number of farms with contingency plans in place	Irrelevant	Irrelevant	Irrelevant

	Minimise the risk of animal-animal/animal-human disease transmission	Sales of Welsh higher welfare products	✓ DIR R MT>LT <i>The development of disease barriers and stock shelter will minimise the risk of transmission</i>	✓? DIR R>N MT>LT <i>Generally positive, but potential to harbour disease carrying organisms?</i>	✓ DIR R MT>LT <i>The development of disease barriers and stock shelter will minimise the risk of transmission</i>
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SEA Objective	Sub-objectives	Indicators	Farm risk management <i>broaden genetic mix significant woodland creation - stock shelter/disease barriers</i>	Restoring, preserving and enhancing biodiversity <i>small scale timber/biomass cropping- shrubs to diversify habitat - significant woodland creation - stock shelter/disease barriers specific actions on species & habitats-maintaining/ improving Nat 2K/ connectivity-hedge/ shelterbelt creation - flood mitigation - bank protection watercourse management schemes linked to WFD community based projects, pilots on ecosystems, buffers & corridors</i>	Improving water and land management/ meeting WFD <i>hedge/shelterbelt creation - flood mitigation - bank protection watercourse management schemes linked to WFD pollution from mines</i>
Optimise opportunities for rural tourism whilst minimising negative impacts	Optimise opportunities for engagements with wildlife/food production	Amount and condition of accessible land in agri-environment schemes	Irrelevant	✓ DIR L>R MT>LT <i>Potential to offer significant opportunities for the public to engage with wildlife and its conservation</i>	Irrelevant
	Protect and enhance access to the coastline and countryside	Length and condition of PROWs	Irrelevant	✓ DIR L>R MT>LT <i>Providing opportunities to visitors is likely to support access</i>	Irrelevant
	Protect rights of way, open space, and commons	Hectares of Open Country and Common Land	Irrelevant	Irrelevant	Irrelevant
		Farm education schemes/events			

SEA Objective	Sub-objectives	Indicators	Improving soil, erosion, fertiliser and pesticide management <i>GAEC - parallel measures</i>	Efficiency in water use by agriculture <i>GAEC - parallel measures</i>	Efficiency in energy use in agriculture and food processing <i>anaerobic digestion</i>
Improve physical and mental health and reduce health inequalities	Minimise environmental nuisance such as noise pollution, and light pollution	Percentage of dark sky at night by area	✓ DIR L>R LT <i>Fertiliser and pesticide reduction will contribute significantly to improvements in human health in sensitive communities</i>	Irrelevant	Irrelevant
	Promote access to the countryside	Change in number and extent of tranquil areas	Irrelevant	Irrelevant	Irrelevant
	Promote learning in, about and for farming and forestry	Numbers of farm education visits	Irrelevant	Irrelevant	Irrelevant
	Increase access to locally produced high quality foods	Availability and type of locally available produce	✓ DIR L LT <i>Fertiliser and pesticide management will promote a high quality image</i>	Irrelevant	Irrelevant

			Improving soil, erosion, fertiliser and pesticide management <i>GAEC - parallel measures</i>	Efficiency in water use by agriculture <i>GAEC - parallel measures</i>	Efficiency in energy use in agriculture and food processing <i>anaerobic digestion</i>
SEA Objective	Sub-objectives	Indicators			
Protect and enhance biodiversity	Avoid damage to sites of European conservation value and enhance them where possible	Conservation status of SAC/SPA features dependent on/ impacted on by agriculture	✓ DIR R MT>LT <i>This intervention should result in reductions in pressure on protected sites</i>	✓ DIR L>R ST>LT <i>Reducing abstraction of water and promoting recycling will support the objective</i>	✓ DIR R MT>LT <i>Removing waste to anaerobic digestion will reduce the risk of pollution and eutrophication of water bodies</i>
	Protect and enhance rare or endangered species and habitats and provide opportunities for habitat creation/ restoration	Conservation status of target species/habitats dependent on/ impacted on by agriculture	✓ DIR L>R ST>LT <i>Reductions in pesticides and fertilisers likely to increase invertebrate numbers and improve the condition of semi-natural habitats</i>	✓ DIR L>R ST>LT <i>Efficiency should increase quantity of water and support aquatic habitat condition</i>	Irrelevant
	Avoid damage to sites of geological interest	Conservation status of NNR/SSSI features dependent on/ impacted on by agriculture	✓ DIR R LT <i>Could reduce silting and build up of chemical pollutants in geological features</i>	✓ DIR R ST>LT <i>Of particular value in speleological environment</i>	Irrelevant

	Protect habitats and minimise the fragmentation of nature corridors and networks in accordance with Biodiversity Action Plans, and improve these where possible	Presence & condition of unfarmed features - hedges, scrub, fallow areas, buffers, trees, ditches & ponds	✓ DIR L LT <i>Will help to protect habitats by reducing chemical pollutants</i>	✓ DIR L>R ST>LT <i>Will contribute to the increased volumes of water and help improve condition of aquatic corridors</i>	Irrelevant
	Promote agri-diversity through support for endangered local breeds	Percentage area of independently certified woodland (such as FSC)	Irrelevant	Irrelevant	Irrelevant
	Promote indigenous woodland species	Lowland/upland farm birds - target species, presence, numbers - overwintering, breeding, spring feeding	✓? IND L LT <i>Will help to promote condition status of species by reducing chemical pollutants</i>	Irrelevant	Irrelevant
	Support biodiversity health through the management of disease and invasive species	Woodland birds - target species, presence, numbers - overwintering, breeding, spring feeding	? IND L>R ST>LT <i>It is possible that the reduction of pesticides and herbicides may result in the development of organisms and invasives</i>	Irrelevant	Irrelevant

	Presence/location of invasive species				
	Condition of Geological Conservation Review (GCR) sites that are SSSI's				
	Common land in management agreements				

SEA Objective	Sub-objectives	Indicators	Improving soil, erosion, fertiliser and pesticide management <i>GAEC - parallel measures</i>	Efficiency in water use by agriculture <i>GAEC - parallel measures</i>	Efficiency in energy use in agriculture and food processing <i>anaerobic digestion</i>
Protect places, landscapes and buildings of historic, cultural and archaeological value	Improve the quality of the local built environment	Condition of sites on agricultural land	Irrelevant	Irrelevant	Irrelevant
	Promote the re-use of previously developed land and buildings	Number and condition of listed farm buildings	Irrelevant	Irrelevant	Irrelevant
	Protect village greens and community wildlife areas/woodlands	LANDMAP culture aspects - condition	Irrelevant	Irrelevant	Irrelevant
	Promote and market locally sourced products	Number of community-owned or managed biodiversity/amenity assets	Irrelevant	Irrelevant	Irrelevant
	Protect archaeological sites on farmland	Register of SAMs - condition status	✓? DIR L LT <i>Potential to reduce exposure of sites through erosion.</i>	Irrelevant	Irrelevant
	Protect and improve the stock of listed buildings	Number and location of farmers' markets/ community local product market stalls	Irrelevant	Irrelevant	Irrelevant

SEA Objective	Sub-objectives	Indicators	Improving soil, erosion, fertiliser and pesticide management <i>GAEC - parallel measures</i>	Efficiency in water use by agriculture <i>GAEC - parallel measures</i>	Efficiency in energy use in agriculture and food processing <i>anaerobic digestion</i>
Protect soil quality and quantity	Maintain and enhance soil quality in terms of porosity, biota and structure	Change in soil organic carbon, acidity, nitrogen, biology	✓ DIR R LT <i>Significant opportunity to promote conservation of physical and ecological soil properties</i>	✓? DIR R LT <i>Increase the potential to increase water storage?</i>	Irrelevant
	Minimise soil erosion through run-off, wind and tillage	Water capture	✓ DIR R LT <i>Of central importance to this objective. Significant positive effect</i>	✓ DIR R ST>LT <i>Reduced likelihood of soil desiccation may help to bind soil.</i>	Irrelevant
	Optimise the capacity of soils to sequester carbon	Changes in compaction, erosion	Irrelevant	Irrelevant	Irrelevant
		Changes in area of grassland and woodland			

			Improving soil, erosion, fertiliser and pesticide management <i>GAEC - parallel measures</i>	Efficiency in water use by agriculture <i>GAEC - parallel measures</i>	Efficiency in energy use in agriculture and food processing <i>anaerobic digestion</i>
SEA Objective	Sub-objectives	Indicators			
Protect the water resource and ensure its sustainable use	Complete flood and coastal risk plans	Water abstracted for agriculture (licensed)	✓ DIR R LT <i>Improving the condition of soils will support their porosity where possible and will reduce risk of rapid run-off and flood</i>	?× IND R ST>LT <i>On its own, efficiency that results in increases in water quantity may result in increased risk of run-off and downstream flooding</i>	Irrelevant
	Promote technology to conserve and recycle water	Water abstracted for agriculture (unlicensed)	Irrelevant	✓ DIR R>N LT Irrelevant? <i>Measures to promote efficient water use may entail some technological initiatives</i>	Irrelevant
		Agricultural discharge to water courses			
		Changes in crop type			
		Number and cost of flooding incidents			
			Improving soil, erosion, fertiliser and pesticide management <i>GAEC - parallel measures</i>	Efficiency in water use by agriculture <i>GAEC - parallel measures</i>	Efficiency in energy use in agriculture and food processing <i>anaerobic digestion</i>
SEA Objective	Sub-objectives	Indicators			

Protect and improve water quality	Protect and enhance the quality of groundwater, rivers, lakes, and coastal waters	Bank erosion remediated (length)	✓ DIR R ST>LT <i>This intervention should result in rapid and significant improvements in the quality of water bodies</i>	✓? DIR R ST>LT <i>Management in water use, from abstraction through use to discharge, should help to reduce pollution incidents</i>	Irrelevant
	Comply with 'good' status under the Water Framework Directive (WFD)	Chemical/ecological quality of rivers	✓ DIR R ST>LT <i>This intervention should result in rapid and significant improvements in the chemical and ecological quality of water bodies</i>	✓? As above	Irrelevant
	Protect and enhance the salmonid and other fisheries	Number of agriculture-related pollution incidents	✓ DIR R ST>LT <i>Reduced soil erosion should result in rapid and significant improvements in the quality of aquatic habitats</i>	✓? As above	Irrelevant
	Avoid physical disturbance to the water and water edge environment	Eutrophication statistics	✓ DIR L>R ST>LT <i>Bankside erosion measures should reduce pressure on water edge</i>	Irrelevant	Irrelevant
	Reduce point and diffuse pollution from agriculture and other sources	Estuary water condition	✓ DIR L>R ST>LT <i>Reduction in chemical inputs will support this objective</i>	? IND L>R ST>LT <i>Efficiency on its own will not necessarily reduce pollution.</i>	Irrelevant

	Ensure sustainable drainage systems in development	Bathing water quality	Irrelevant	✓? IND L MT>LT Irrelevant? <i>Systems to use water and to recycle it should promote clean discharges</i>	Irrelevant
		Area designated as Nitrate Vulnerable Zone			
		Number of water pollution incidents, category 1 & 2			

SEA Objective	Sub-objectives	Indicators	Improving soil, erosion, fertiliser and pesticide management <i>GAEC - parallel measures</i>	Efficiency in water use by agriculture <i>GAEC - parallel measures</i>	Efficiency in energy use in agriculture and food processing <i>anaerobic digestion</i>
Protect and improve air quality	Reduce atmospheric hazards such as ammonia, methane and carbon dioxide	Change in ammonia, CH ₄ , N ₂ O, ozone	Irrelevant	Irrelevant	Irrelevant
	Reduce risk from radon	Air quality incidents	Irrelevant	Irrelevant	Irrelevant
		Radon remediation programmes			
		Percentage of sensitive habitat area exceeding critical loads for acidification and eutrophication			

SEA Objective	Sub-objectives	Indicators	Improving soil, erosion, fertiliser and pesticide management <i>GAEC - parallel measures</i>	Efficiency in water use by agriculture <i>GAEC - parallel measures</i>	Efficiency in energy use in agriculture and food processing <i>anaerobic digestion</i>
Limit and adapt to climate change	Reduce emissions of greenhouse gases, especially N ₂ O and CH ₄	CH ₄ emissions from livestock	✓ DIR R>N ST>LT <i>Excessive use of fertiliser may release N₂O. Reductions will be positive.</i>	Irrelevant	✓ DIR R>N LT <i>Reductions in carbon dependent energy will have be beneficial in reducing GHGs</i>
	Minimise the requirement for energy generation	Number of micro-generation schemes established	Irrelevant	Irrelevant	✓ DIR L>N MT>LT <i>Efficiencies in energy use will reduce demand for generation</i>
	Promote efficient energy use	Change in rural ecological footprint	Irrelevant	Irrelevant	✓ DIR L>N ST>LT <i>Direct link between intervention and the objective, especially when linked to renewables</i>
	Increase the use of energy from renewable resources including hydro-systems and biomass		Irrelevant	✓? DIR R>N ST>LT <i>Efficient use of water should include opportunities for micro hydro energy generation</i>	Irrelevant
	Promote ICT as an alternative to travel and print		Irrelevant	Irrelevant	Irrelevant

SEA Objective	Sub-objectives	Indicators	Improving soil, erosion, fertiliser and pesticide management <i>GAEC - parallel measures</i>	Efficiency in water use by agriculture <i>GAEC - parallel measures</i>	Efficiency in energy use in agriculture and food processing <i>anaerobic digestion</i>
Minimise waste increase re-use, recycling and recovery rates	Restrict biodegradable materials going to landfill	Amount of biodegradable material going to landfill	Irrelevant	Irrelevant	Irrelevant
	Promote anaerobic digestion	Amount of biodegradable material going to anaerobic digestion	Irrelevant	Irrelevant	✓ DIR R>N LT <i>Energy from animal waste used for farm management and processing</i>
	Promote the use of organic waste to agriculture where appropriate	Amount of organic waste to agriculture	✓ DIR R LT <i>Where appropriate, organic waste will help to condition soil and to increase its biodiversity</i>	?	Irrelevant

SEA Objective	Sub-objectives	Indicators	Improving soil, erosion, fertiliser and pesticide management <i>GAEC - parallel measures</i>	Efficiency in water use by agriculture <i>GAEC - parallel measures</i>	Efficiency in energy use in agriculture and food processing <i>anaerobic digestion</i>
Minimise the need to travel; provide alternatives to car use	Protect and enhance the public transport system	Availability of public transport (bus and rail) - national	Irrelevant	Irrelevant	Irrelevant
	Optimise opportunities to work locally	National Park/county, local buses; taxis; community schemes	Irrelevant	Irrelevant	Irrelevant
	Promote non-recreational walking and cycling	Promotion of public transport associated with tourism	Irrelevant	Irrelevant	Irrelevant

			Improving soil, erosion, fertiliser and pesticide management <i>GAEC - parallel measures</i>	Efficiency in water use by agriculture <i>GAEC - parallel measures</i>	Efficiency in energy use in agriculture and food processing <i>anaerobic digestion</i>
SEA Objective	Sub-objectives	Indicators			
Maintain and enhance animal welfare standards	Improve on-farm animal welfare standards	Number of Farm Health & Welfare Plans based on risk assessments	✓?× DIR R>N ST>LT <i>Reduction of chemicals on soils should have a positive effect. Potential for increase in pathogens that may promote disease?</i>	Irrelevant	?
	Reduce stresses related to transportation	Number of farms with separation / quarantine facilities	Irrelevant	Irrelevant	✓?× DIR L>R ST>LT <i>Efficiencies in transportation could promote local production to Consumption. However, efficiencies of scale may require centralised systems that will increase transportation</i>
	Minimise transportation distances	Number of farms with contingency plans in place	Irrelevant	Irrelevant	✓?× <i>See above</i>
	Minimise the risk of animal-animal/animal-human disease transmission	Sales of Welsh higher welfare products	✓?× DIR R>N ST>LT <i>Reduction of chemicals on soils should have a positive effect. Potential for increase in pathogens that may promote disease transmission</i>	Irrelevant	Irrelevant

			Improving soil, erosion, fertiliser and pesticide management	Efficiency in water use by agriculture	Efficiency in energy use in agriculture and food processing
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SEA Objective	Sub-objectives	Indicators	GAEC - parallel measures	GAEC - parallel measures	anaerobic digestion
Optimise opportunities for rural tourism whilst minimising negative impacts	Optimise opportunities for engagements with wildlife/food production	Amount and condition of accessible land in agri-environment schemes	Irrelevant	Irrelevant	Irrelevant
	Protect and enhance access to the coastline and countryside	Length and condition of PROWs	Irrelevant	Irrelevant	Irrelevant
	Protect rights of way, open space, and commons	Hectares of Open Country and Common Land Farm education schemes Wildlife events	Irrelevant	Irrelevant	Irrelevant

SEA Objective	Sub-objectives	Indicators	Supply and use of renewable sources of energy, of by-products, wastes, residues and other non food raw material <i>small scale timber/biomass cropping anaerobic digestion/green supply renewables/alternative energy for community buildings</i>	Reducing green house gas and ammonia emissions from agriculture and improving air quality <i>anaerobic digestion/green supply</i>	Carbon sequestration in agriculture and forestry <i>local tree nurseries significant woodland creation - stock shelter/disease barriers</i>
Protect and enhance biodiversity	Avoid damage to sites of European conservation value and enhance them where possible	Conservation status of SAC/SPA features dependent on/ impacted on by agriculture	✓ IND R LT <i>Use of wastes should reduce risk of point and diffuse pollution into sensitive sites</i>	✓ IND R LT <i>Use of animal manure for energy will reduce ammonia on land and in water</i>	? <i>Need to ensure that woodland planting is appropriate in relation to conservation of site features. Carbon sequestration contributes to reductions in marine acidification</i>
	Protect and enhance rare or endangered species and habitats and provide opportunities for habitat creation/restoration	Conservation status of target species/habitats dependent on/ impacted on by agriculture	✓ <i>As above</i>	✓ <i>As above</i>	? <i>As above</i>
	Avoid damage to sites of geological interest	Conservation status of NNR/SSSI features dependent on/ impacted on by agriculture	Irrelevant	Irrelevant	Irrelevant
	Protect habitats and minimise the fragmentation of	Presence & condition of unfarmed features - hedges, scrub, fallow	✓? DIR L LT <i>Could promote improvement of</i>	?	✓? DIR L LT <i>Could promote improvement of</i>

	nature corridors and networks in accordance with Biodiversity Action Plans, and improve these where possible	areas, buffers, trees, ditches & ponds	<i>habitat connectivity</i>		<i>habitat connectivity</i>
	Promote agri-diversity through support for endangered local breeds	Percentage area of independently certified woodland (such as FSC)	Irrelevant	Irrelevant	Irrelevant
	Promote indigenous woodland species	Lowland/upland farm birds - target species, presence, numbers - overwintering, breeding, spring feeding	✓?× DIR L>R LT <i>Potential positive, but could be conflict between growth for biomass and indigenous species</i>	Irrelevant	✓?× DIR L>R LT <i>Potential positive, but could be conflict between growth for biomass and indigenous species</i>
	Support biodiversity health through the management of disease and invasive species	Woodland birds - target species, presence, numbers - overwintering, breeding, spring feeding	?	Irrelevant	Irrelevant

	Presence/location of invasive species
	Condition of Geological Conservation Review (GCR) sites that are SSSI's
	Common land in management agreements

SEA Objective	Sub-objectives	Indicators	Supply and use of renewable sources of energy, of by-products, wastes, residues and other non food raw material	Reducing green house gas and ammonia emissions from agriculture and improving air quality	Carbon sequestration in agriculture and forestry
			<i>small scale timber/biomass cropping anaerobic digestion/green supply renewables/alternative energy for community buildings</i>	<i>anaerobic digestion/green supply</i>	<i>local tree nurseries significant woodland creation - stock shelter/disease barriers</i>
Protect places, landscapes and buildings of historic, cultural and archaeological value	Improve the quality of the local built environment	Condition of sites on agricultural land	?x DIR L MT <i>Potential design issues from digester - ensure appropriate locations</i>	?x DIR L MT <i>Potential design issues from digester - ensure appropriate locations</i>	✓?x DIR R LT <i>Ensure appropriate planting by species and type - hedges/stock shelters not appropriate in all landscapes</i>
	Promote the re-use of previously developed land and buildings	Number and condition of listed farm buildings	Irrelevant	Irrelevant	Irrelevant
	Protect village greens and community wildlife areas/woodlands	LANDMAP culture aspects - condition	✓ DIR L LT <i>Potential benefit for community management of woodlands for energy?</i>	Irrelevant	Irrelevant
	Promote and market locally sourced products	Number of community-owned or managed biodiversity/amenity assets	✓ DIR L LT <i>Potential to market local woodland products</i>	Irrelevant	✓ DIR L LT <i>Potential to market local woodland products</i>
	Protect archaeological sites on farmland	Register of SAMs - condition status	Irrelevant	Irrelevant	Irrelevant

	Protect and improve the stock of listed buildings	Number and location of farmers' markets/ community local product market stalls	Irrelevant	Irrelevant	Irrelevant
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SEA Objective	Sub-objectives	Indicators	Supply and use of renewable sources of energy, of by-products, wastes, residues and other non food raw material <i>small scale timber/biomass cropping anaerobic digestion/green supply renewables/alternative energy for community buildings</i>	Reducing green house gas and ammonia emissions from agriculture and improving air quality <i>anaerobic digestion/green supply</i>	Carbon sequestration in agriculture and forestry <i>local tree nurseries significant woodland creation - stock shelter/disease barriers</i>
Protect soil quality and quantity	Maintain and enhance soil quality in terms of porosity, biota and structure	Change in soil organic carbon, acidity, nitrogen, biology	Irrelevant	Irrelevant <i>Potential to remove organic matter from land?</i>	✓ DIR L>R LT <i>Significant woodland creation will improve structure and soil biodiversity</i>
	Minimise soil erosion through run-off, wind and tillage	Water capture	Irrelevant	Irrelevant	✓ DIR R LT <i>Could have a significant effect in reducing erosion from wind</i>
	Optimise the capacity of soils to sequester carbon	Changes in compaction, erosion	✓?x DIR R>N ST>LT Irrelevant? <i>Diversification into</i>	Irrelevant	✓ DIR R LT <i>Depending on existing levels of soil carbon, extensive woodland planting has the potential to optimise carbon capture</i>
		Changes in area of grassland and woodland			

SEA Objective	Sub-objectives	Indicators	Supply and use of renewable sources of energy, of by-products, wastes, residues and other non food raw material <i>small scale timber/biomass cropping anaerobic digestion/green supply renewables/alternative energy for community buildings</i>	Reducing green house gas and ammonia emissions from agriculture and improving air quality <i>anaerobic digestion/green supply</i>	Carbon sequestration in agriculture and forestry <i>local tree nurseries significant woodland creation - stock shelter/disease barriers</i>
Protect the water resource and ensure its sustainable use	Complete flood and coastal risk plans	Water abstracted for agriculture (licensed)	Irrelevant	Irrelevant	Irrelevant
	Promote technology to conserve and recycle water	Water abstracted for agriculture (unlicensed) Agricultural discharge to water courses Changes in crop type Number and cost of flooding incidents	Irrelevant	Irrelevant	Irrelevant

SEA Objective	Sub-objectives	Indicators	Supply and use of renewable sources of energy, of by-products, wastes, residues and other non food raw material	Reducing green house gas and ammonia emissions from agriculture and improving air quality	Carbon sequestration in agriculture and forestry
			<i>small scale timber/biomass cropping anaerobic digestion/green supply renewables/alternative energy for community buildings</i>	<i>anaerobic digestion/green supply</i>	<i>local tree nurseries significant woodland creation - stock shelter/disease barriers</i>
Protect and improve water quality	Protect and enhance the quality of groundwater, rivers, lakes, and coastal waters	Bank erosion remediated (length)	✓ DIR R LT <i>Removal of animal waste to anaerobic digestion could have a significant positive effect on water quality</i>	✓ DIR R LT <i>Removal of animal waste to anaerobic digestion could have a significant positive effect on water quality</i>	✓ DIR R LT <i>Significant woodland planting and shelter belts could have the effect of filtering water and removing pollutants</i>
	Comply with 'good' status under the Water Framework Directive (WFD)	Chemical/ecological quality of rivers	✓ <i>As above - could promote chemical and biological criteria, especially if a common approach were adopted at a 'landscape' level</i>	✓ <i>As above</i>	✓ <i>As above</i>
	Protect and enhance the salmonid and other fisheries	Number of agriculture-related pollution incidents	✓ DIR R LT <i>Reduction in animal wastes will reduce risk of eutrophication and silting</i>	✓ <i>As above</i>	✓ <i>As above</i>
	Avoid physical disturbance to the water and water edge environment	Eutrophication statistics	✓ DIR R LT <i>Planting up alongside streams and rivers where appropriate and at a large scale will strengthen banksides, reduce risk of runoff and soil erosion and help in cooling water bodies.</i>	Irrelevant	✓ DIR R LT <i>Planting up alongside streams and rivers where appropriate and at a large scale will strengthen banksides, reduce risk of runoff and soil erosion and help in cooling water bodies.</i>
	Reduce point and diffuse pollution from agriculture and	Estuary water condition	✓ DIR R LT <i>Removing animal waste and slurry</i>	✓ DIR R LT <i>Removal of animal waste to</i>	✓ DIR R LT <i>Significant woodland planting and</i>

	other sources		<i>to anaerobic digestion would be beneficial. Appropriate planting could act as a barrier and filter</i> ✓	<i>anaerobic digestion could have a significant positive effect on water quality</i> ✓	<i>shelter belts could have the effect of filtering water and removing pollutants</i> ✓
	Ensure sustainable drainage systems in development	Bathing water quality	DIR L>R LT <i>Will reduce the risk of pollute water entering downstream drainage systems. Can also help filter out pollutants from upland dwellings</i>	DIR L>R LT <i>Will reduce the risk of pollute water entering downstream drainage systems. Can also help filter out pollutants from upland dwellings</i>	DIR L>R LT <i>Will reduce the risk of pollute water entering downstream drainage systems. Can also help filter out pollutants from upland dwellings</i>
		Area designated as Nitrate Vulnerable Zone			
		Number of water pollution incidents, category 1 & 2			

SEA Objective	Sub-objectives	Indicators	Supply and use of renewable sources of energy, of by-products, wastes, residues and other non food raw material	Reducing green house gas and ammonia emissions from agriculture and improving air quality	Carbon sequestration in agriculture and forestry
			small scale timber/biomass cropping anaerobic digestion/green supply renewables/alternative energy for community buildings	anaerobic digestion/green supply	local tree nurseries significant woodland creation - stock shelter/disease barriers
Protect and improve air quality	Reduce atmospheric hazards such as ammonia, methane and carbon dioxide	Change in ammonia, CH ₄ , N ₂ O, ozone	✓ DIR L>R LT <i>There should be a significant positive effect from this intervention. Potential for localised odours? Need to ensure high quality storage of effluents + appropriate management of digestate</i>	✓ DIR L>R LT <i>Significant positive effect from this intervention. Potential for localised odours? Need to ensure high quality storage of effluents + appropriate management of digestate</i>	✓ DIR R LT <i>Planting trees will promote carbon sequestration. Potential for trees around livestock to capture ammonia?</i>
	Reduce risk from radon	Air quality incidents Radon remediation programmes Percentage of sensitive habitat area exceeding critical loads for acidification and eutrophication	Irrelevant	Irrelevant	Irrelevant

SEA Objective	Sub-objectives	Indicators	Supply and use of renewable sources of energy, of by-products, wastes, residues and other non food raw material <i>small scale timber/biomass cropping anaerobic digestion/green supply renewables/alternative energy for community buildings</i>	Reducing green house gas and ammonia emissions from agriculture and improving air quality <i>anaerobic digestion/green supply</i>	Carbon sequestration in agriculture and forestry <i>local tree nurseries significant woodland creation - stock shelter/disease barriers</i>
Limit and adapt to climate change	Reduce emissions of greenhouse gases, especially N ₂ O and CH ₄	CH ₄ emissions from livestock	✓ DIR L>R LT <i>There should be a significant positive effect from this intervention.</i>	✓ DIR L>R LT <i>Significant and direct positive effect.</i>	✓ DIR R LT <i>Planting trees will promote carbon sequestration. Potential for trees around livestock to capture ammonia?</i>
	Minimise the requirement for energy generation	Number of micro-generation schemes established	✓ DIR L>R LT <i>Appropriate planting near farm curtilage could have the effect of reducing heating budgets</i>	Irrelevant <i>Parallel measures needed to reduce the requirement</i>	✓ DIR L>R LT <i>Appropriate planting near farm curtilage could act as wind shelters and reduce heat demand</i>
	Promote efficient energy use	Change in rural ecological footprint	✓ DIR L>R LT <i>Use of renewable schemes including anaerobic digestion needs to be linked to effective energy conservation in buildings</i>	✓ DIR L>R LT <i>Use of renewable schemes including anaerobic digestion from local sources of waste will reduce transport and transmission chains, and will provide energy for cooking and heating</i>	<i>As above - but needs parallel measures to optimise heat retention</i>
	Increase the use of energy from renewable resources including hydro-systems and biomass		✓ DIR L>R LT <i>Availability of locally sourced fuel timber and hydro/anaerobic digestion will contribute to the objective. Use of timber pellets as bedding > recycled to anaerobic</i>	✓ DIR L>R LT <i>An appropriate intervention for this objective</i>	✓ DIR L>R LT <i>Availability of locally sourced fuel timber will contribute to the objective</i>

		<i>digestion?</i>		
	Promote ICT as an alternative to travel and print	Irrelevant	Irrelevant	Irrelevant

SEA Objective	Sub-objectives	Indicators	Supply and use of renewable sources of energy, of by-products, wastes, residues and other non food raw material <i>small scale timber/biomass cropping anaerobic digestion/green supply renewables/alternative energy for community buildings</i>	Reducing green house gas and ammonia emissions from agriculture and improving air quality <i>anaerobic digestion/green supply</i>	Carbon sequestration in agriculture and forestry
					<i>local tree nurseries significant woodland creation - stock shelter/disease barriers</i>
Minimise waste increase re-use, recycling and recovery rates	Restrict biodegradable materials going to landfill	Amount of biodegradable material going to landfill	✓ IND L>R LT <i>Introduction of anaerobic digestion will divert green waste to energy conversion</i>	✓ IND L>R LT <i>Introduction of anaerobic digestion will divert green waste to energy conversion</i>	?
	Promote anaerobic digestion	Amount of biodegradable material going to anaerobic digestion	✓ DIR R LT <i>Potential increase in material going to digestion. via wood chippings for bedding?</i>	✓ DIR R>N LT <i>Directly supportive of the objective</i>	✓?x DIR R>N ST>LT Irrelevant? <i>Diversification</i>
	Promote the use of organic waste to agriculture where appropriate	Amount of organic waste to agriculture	✓? DIR R LT <i>Increase in organic by product from timber cropping - potential to use as bedding?</i>	✓ <i>Need to ensure adequate standards of disposal of digestate. Agriculture would be appropriate - likely to be an increase</i>	?

SEA Objective	Sub-objectives	Indicators	Supply and use of renewable sources of energy, of by-products, wastes, residues and other non food raw material <i>small scale timber/biomass cropping anaerobic digestion/green supply renewables/alternative energy for community buildings</i>	Reducing green house gas and ammonia emissions from agriculture and improving air quality <i>anaerobic digestion/green supply</i>	Carbon sequestration in agriculture and forestry <i>local tree nurseries significant woodland creation - stock shelter/disease barriers</i>
Minimise the need to travel; provide alternatives to car use	Protect and enhance the public transport system	Availability of public transport (bus and rail) - national	Irrelevant	Irrelevant	Irrelevant
	Optimise opportunities to work locally	National Park/county, local buses; taxis; community schemes	✓? DIR L MT>LT <i>Potential for local employment in woodland management and renewables</i>	✓? DIR L MT>LT <i>Potential for local employment in woodland management and collection of materials</i>	Irrelevant
	Promote non-recreational walking and cycling	Promotion of public transport associated with tourism	Irrelevant	Irrelevant	Irrelevant

SEA Objective	Sub-objectives	Indicators	Supply and use of renewable sources of energy, of by-products, wastes, residues and other non food raw material	Reducing green house gas and ammonia emissions from agriculture and improving air quality	Carbon sequestration in agriculture and forestry
			<i>small scale timber/biomass cropping anaerobic digestion/green supply renewables/alternative energy for community buildings</i>	<i>anaerobic digestion/green supply</i>	<i>local tree nurseries significant woodland creation - stock shelter/disease barriers</i>
Maintain and enhance animal welfare standards	Improve on-farm animal welfare standards	Number of Farm Health & Welfare Plans based on risk assessments	✓ DIR R LT Irrelevant? <i>Some benefit from the provision of shelter and removal of animal wastes.</i>	Irrelevant <i>No significant link perceived, though removal of animal waste to digestion likely to be positive</i>	✓ DIR L>R LT <i>Stock protection and taking measures to minimise disease will be beneficial</i>
	Reduce stresses related to transportation	Number of farms with separation / quarantine facilities	Irrelevant	Irrelevant	Irrelevant
	Minimise transportation distances	Number of farms with contingency plans in place	Irrelevant	Irrelevant	Irrelevant
	Minimise the risk of animal-animal/animal-human disease transmission	Sales of Welsh higher welfare products	✓ DIR R LT <i>Stock protection and taking measures to minimise disease will be beneficial. Use local materials as bedding?</i>	✓? DIR L LT <i>At a local level, there are opportunities to reduce risks to human health and disease transmission through removal of wastes to digestion</i>	✓ DIR R LT <i>Stock protection and taking measures to minimise disease will be beneficial</i>

SEA Objective	Sub-objectives	Indicators	Supply and use of renewable sources of energy, of by-products, wastes, residues and other non food raw material	Reducing green house gas and ammonia emissions from agriculture and improving air quality	Carbon sequestration in agriculture and forestry
			<i>small scale timber/biomass cropping anaerobic digestion/green supply renewables/alternative energy for community buildings</i>	<i>anaerobic digestion/green supply</i>	<i>local tree nurseries significant woodland creation - stock shelter/disease barriers</i>
Optimise opportunities for rural tourism whilst minimising negative impacts	Optimise opportunities for engagements with wildlife/food production	Amount and condition of accessible land in agri-environment schemes	Irrelevant	Irrelevant	Irrelevant
	Protect and enhance access to the coastline and countryside	Length and condition of PROWs	Irrelevant	Irrelevant	Irrelevant
	Protect rights of way, open space, and commons	Hectares of Open Country and Common Land Farm education schemes Wildlife events	Irrelevant	Irrelevant	Irrelevant

			Diversification, creation and development of small enterprises and job creation <i>access to services - community based projects, pilots on ecosystems, buffers & corridors community transport gaps/ alternative fuels - woodland for tourism/recreation - local tree nurseries - renewables/alternative energy for community buildings</i> LEADER	Local development <i>community built environmental improvements in target areas/community service provision</i> LEADER	Accessibility to, use and quality of information and communication technologies (ICT) <i>ICT IT support</i>
SEA Objective	Sub-objectives	Indicators			
Improve physical and mental health and reduce health inequalities	Minimise environmental nuisance such as noise pollution, and light pollution	Percentage of dark sky at night by area	Irrelevant <i>No obvious link between the interventions and the objective</i>	✓? DIR L LT <i>Small potential for community initiatives that reduce environmental nuisance</i>	Irrelevant <i>No obvious link between ICT and environmental nuisance</i>
	Promote access to the countryside	Change in number and extent of tranquil areas	✓ DIR L LT <i>Some potential to promote access through participation in the above interventions</i>	Irrelevant <i>Some minor initiatives but unlikely to be significant</i>	✓ DIR R>N LT <i>ICT will be a significant factor in promoting access to the countryside through the provision of information/ interpretation</i>
	Promote learning in, about and for farming and forestry	Numbers of farm education visits	✓ DIR R>N LT <i>Significant opportunities to teach a wide range of land-based skills and crafts and to promote farming and forestry</i>	✓? DIR L LT <i>Sharing information and experience should be an integral aspect of community based activity/LEADER</i>	✓ DIR R>N LT <i>ICT will be a significant factor in promoting and learning about farming and forestry</i>

	Increase access to locally produced high quality foods	Availability and type of locally available produce	Irrelevant	Irrelevant	✓ DIR R>N LT <i>A significant factor in promoting local products</i>
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SEA Objective	Sub-objectives	Indicators	Diversification, creation and development of small enterprises and job creation <i>access to services - community based projects, pilots on ecosystems, buffers & corridors community transport gaps/ alternative fuels - woodland for tourism/recreation - local tree nurseries - renewables/alternative energy for community buildings LEADER</i>	Local development <i>community built environmental improvements in target areas/community service provision LEADER</i>	Accessibility to, use and quality of information and communication technologies (ICT) <i>ICT IT support</i>
Protect and enhance biodiversity	Avoid damage to sites of European conservation value and enhance them where possible	Conservation status of SAC/SPA features dependent on/ impacted on by agriculture	✓ DIR N LT <i>An important factor in supporting initiatives that protect and enhance biodiversity is human resources. Need to ensure appropriate land management</i>	Irrelevant	✓ DIR N LT <i>ICT is a key element in building data and disseminating information about sites in order to support their protection</i>
	Protect and enhance rare or endangered species and habitats and provide opportunities for habitat creation/restoration	Conservation status of target species/habitats dependent on/ impacted on by agriculture	As above	Irrelevant	✓ DIR N LT <i>ICT is a key element in building data and disseminating information about sites and species - public access is important</i>
	Avoid damage to sites of geological interest	Conservation status of NNR/SSSI features dependent on/ impacted on by agriculture	Irrelevant	Irrelevant	As above

	Protect habitats and minimise the fragmentation of nature corridors and networks in accordance with Biodiversity Action Plans, and improve these where possible	Presence & condition of unfarmed features - hedges, scrub, fallow areas, buffers, trees, ditches & ponds	✓ DIR N LT <i>An important factor in supporting initiatives that protect and enhance biodiversity is human resources. Need to ensure appropriate land management</i>	Irrelevant	As above
	Promote agri-diversity through support for endangered local breeds	Percentage area of independently certified woodland (such as FSC)	✓? DIR L LT <i>Some potential to support promotion of rare breeds</i>	Irrelevant	✓ DIR N LT <i>ICT is a valuable tool in sharing data and disseminating information about rare breeds and their values</i>
	Promote indigenous woodland species	Lowland/upland farm birds - target species, presence, numbers - overwintering, breeding, spring feeding	✓ DIR R LT <i>Opportunity to develop appropriate woodland habitats to support target indigenous species</i>	Irrelevant	✓ <i>Important for building and sharing data</i>
	Support biodiversity health through the management of disease and invasive species	Woodland birds - target species, presence, numbers - overwintering, breeding, spring feeding Presence/location of invasive species Condition of	✓? DIR R>N LT <i>Diversity in woodland and other habitats will promote resilience. Human resources needed to address problems with invasive species</i>	Irrelevant	✓ DIR N LT <i>ICT is crucial to assist in recognition and sharing experiences and techniques in dealing with problem species</i>

	Geological Conservation Review (GCR) sites that are SSSI's
	Common land in management agreements

SEA Objective	Sub-objectives	Indicators	Diversification, creation and development of small enterprises and job creation <i>access to services - community based projects, pilots on ecosystems, buffers & corridors community transport gaps/ alternative fuels - woodland for tourism/recreation - local tree nurseries - renewables/alternative energy for community buildings</i> LEADER	Local development <i>community built environmental improvements in target areas/community service provision</i> LEADER	Accessibility to, use and quality of information and communication technologies (ICT) ICT IT support
Protect places, landscapes and buildings of historic, cultural and archaeological value	Improve the quality of the local built environment	Condition of sites on agricultural land	✓? IND L>R LT <i>Some potential to improve built environment quality alongside energy developments in community buildings</i>	✓ DIR L>R LT <i>Significant opportunity to improve built environment through community initiatives. Need to ensure sensitivity to landscape/setting</i>	✓ DIR N LT <i>A valuable tool for setting standards in quality built environment</i>
	Promote the re-use of previously developed land and buildings	Number and condition of listed farm buildings	Irrelevant	✓ DIR R LT <i>Significant opportunity for local communities to re-use redundant buildings with potential community use</i>	✓ DIR N LT <i>A valuable tool for setting standards in quality built environment and for interrogating planning policy</i>

	Protect village greens and community wildlife areas/woodlands	LANDMAP culture aspects - condition	✓ DIR L LT <i>Community conservation sites can support amenity, nurseries and fuel wood where appropriate, and are useful 'islands', buffers and corridors</i>	✓ DIR L LT <i>Important to ensure promotion of community conservation sites as part of targeted development</i>	✓ DIR N LT <i>Provides a critical database of otherwise un-noted sites</i>
	Promote and market locally sourced products	Number of community-owned or managed biodiversity/amenity assets	✓?x DIR R>N ST>LT Irrelevant? <i>Some potential for wood-based and other local products e.g. eggs, honey etc</i>	✓ DIR L>R LT <i>LEADER can play a significant role in supporting and promoting local products</i>	✓ DIR R>N LT <i>A necessary marketing tool</i>
	Protect archaeological sites on farmland	Register of SAMs - condition status	? <i>A wide range of interventions should include the protection of archaeology - opportunity to develop conservation and interpretation skills</i>	? <i>Need to ensure that local development promotes and protects archaeological heritage</i>	✓ DIR N LT <i>Provides a critical database of scheduled and unscheduled sites</i>
	Protect and improve the stock of listed buildings	Number and location of farmers' markets/ community local product market stalls	Irrelevant	✓ DIR L>R LT <i>Significant opportunity to re-use redundant listed buildings and to promote and interpret them</i>	✓ DIR N LT <i>Provides a critical database of listed buildings</i>

SEA Objective	Sub-objectives	Indicators	Diversification, creation and development of small enterprises and job creation <i>access to services - community based projects, pilots on ecosystems, buffers & corridors community transport gaps/ alternative fuels - woodland for tourism/recreation - local tree nurseries - renewables/alternative energy for community buildings</i> LEADER	Local development <i>community built environmental improvements in target areas/community service provision</i> LEADER	Accessibility to, use and quality of information and communication technologies (ICT) <i>ICT IT support</i>
Protect soil quality and quantity	Maintain and enhance soil quality in terms of porosity, biota and structure	Change in soil organic carbon, acidity, nitrogen, biology	✓ DIR R LT <i>A wide range of initiatives with significant potential for positive effects on soil quality</i>	Irrelevant	✓ DIR N LT <i>Provides a critical database of soil conditions and criteria for assessing quality</i>
	Minimise soil erosion through run-off, wind and tillage	Water capture Changes in compaction, erosion	✓ DIR R LT <i>Significant positive effect is likely through a number of interventions that can hold soils and reduce rapid runoff - important opportunity to learn about soil management</i>	Irrelevant	✓ DIR N LT <i>Critical tool for monitoring erosion rates in selected locations</i>
	Optimise the capacity of soils to sequester carbon	Changes in area of grassland and woodland	✓ DIR R SLT <i>Capacity to plant trees in appropriate places to optimise carbon capture</i>	Irrelevant	✓ DIR N LT <i>Important to maintain up to date research on soil carbon</i>

SEA Objective	Sub-objectives	Indicators	Diversification, creation and development of small enterprises and job creation <i>access to services - community based projects, pilots on ecosystems, buffers & corridors community transport gaps/ alternative fuels - woodland for tourism/recreation - local tree nurseries - renewables/alternative energy for community buildings</i> LEADER	Local development <i>community built environmental improvements in target areas/community service provision</i> LEADER	Accessibility to, use and quality of information and communication technologies (ICT) <i>ICT IT support</i>
Protect the water resource and ensure its sustainable use	Complete flood and coastal risk plans	Water abstracted for agriculture (licensed & unlicensed)	✓ DIR R LT <i>Community based initiatives at an appropriately large scale can support management of water flows and reduce risks</i>	Irrelevant	Irrelevant
	Promote technology to conserve and recycle water	Agricultural discharge to water courses	✓ DIR L LT <i>Potential to pilot technologies in water cycling</i>	✓? DIR L LT <i>Potential to pilot experiments in water conservation as part of local development</i>	Irrelevant
		Changes in crop type			
		Number and cost of flooding incidents			

SEA Objective	Sub-objectives	Indicators	Diversification, creation and development of small enterprises and job creation <i>access to services - community based projects, pilots on ecosystems, buffers & corridors community transport gaps/ alternative fuels - woodland for tourism/recreation - local tree nurseries - renewables/alternative energy for community buildings LEADER</i>	Local development <i>community built environmental improvements in target areas/community service provision LEADER</i>	Accessibility to, use and quality of information and communication technologies (ICT) <i>ICT IT support</i>
Protect and improve water quality	Protect and enhance the quality of groundwater, rivers, lakes, and coastal waters	Bank erosion remediated (length)	Irrelevant	Irrelevant	Irrelevant
	Comply with 'good' status under the Water Framework Directive (WFD)	Chemical/ecological quality of rivers	Irrelevant	Irrelevant	Irrelevant
	Protect and enhance the salmonid and other fisheries	Number of agriculture-related pollution incidents	Irrelevant	Irrelevant	Irrelevant
	Avoid physical disturbance to the water and water edge environment	Eutrophication statistics	✓ DIR L>R LT <i>Pilots at ecosystem level including tree planting and bankside management will be positive</i>	Irrelevant	Irrelevant

	Reduce point and diffuse pollution from agriculture and other sources	Estuary water condition	✓ DIR L>R LT <i>Diversification into alternatives including ecosystem restoration will reduce pollution by absorbing chemicals</i>	Irrelevant	Irrelevant
	Ensure sustainable drainage systems in development	Bathing water quality Area designated as Nitrate Vulnerable Zone Number of water pollution incidents, category 1 & 2	✓? DIR L>R LT Irrelevant? <i>Will assist by managing water flows and filtering pollutants</i>	✓ DIR L LT <i>Need to ensure that all community based development includes SUDS</i>	Irrelevant

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Protect and improve air quality	Reduce atmospheric hazards such as ammonia, methane and carbon dioxide	Change in ammonia, CH ₄ , N ₂ O, ozone	✓ DIR L>R LT <i>The interventions envisaged can promote reduction of ammonia and methane through reduction in stock where appropriate, and through strategic planting around stock. Woodland planting will reduce carbon dioxide</i>	✓? DIR L LT <i>Opportunity to improve local air quality through appropriate development - not likely to be significant</i>	Irrelevant
	Reduce risk from radon	Radon remediation programmes Air quality incidents Percentage of sensitive habitat area exceeding critical loads for acidification and eutrophication	Irrelevant	✓? DIR L LT <i>Limited opportunity in the context of development</i>	Irrelevant

SEA Objective	Sub-objectives	Indicators	Diversification, creation and development of small enterprises and job creation <i>access to services - community based projects, pilots on ecosystems, buffers & corridors community transport gaps/ alternative fuels - woodland for tourism/recreation - local tree nurseries - renewables/alternative energy for community buildings</i> LEADER	Local development <i>community built environmental improvements in target areas/community service provision</i> LEADER	Accessibility to, use and quality of information and communication technologies (ICT) <i>ICT</i> <i>IT support</i>
Limit and adapt to climate change	Reduce emissions of greenhouse gases, especially N ₂ O and CH ₄	CH ₄ emissions from livestock	✓ DIR L>R LT <i>The interventions envisaged can promote reduction of ammonia and methane through reduction in stock where appropriate, and through strategic planting around stock.</i>	Irrelevant	Irrelevant
	Minimise the requirement for energy generation	Number of micro-generation schemes established	✓ DIR L LT <i>Ensure that energy for community buildings is conserved through parallel measures</i>	✓ DIR L LT <i>All local development to meet energy conservation standards</i>	Irrelevant
	Promote efficient energy use	Change in rural ecological footprint	<i>As above</i>	<i>As above</i>	Irrelevant
	Increase the use of energy from renewable resources including hydro-systems and biomass		✓ DIR L>R LT <i>Promoting diversification into the above interventions will support the development of community-based renewable energy</i>	✓ DIR L>R LT <i>Need to support pilots in community-based renewable energy generation</i>	Irrelevant

	Promote ICT as an alternative to travel and print	Irrelevant	✓ DIR L LT <i>ICT can be a key area of support to target communities</i>	✓ DIR L>R LT <i>Increased broadband capacity will enhance access to ICT and improve its use. Potential to communicate virtually</i>
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SEA Objective	Sub-objectives	Indicators	Diversification, creation and development of small enterprises and job creation	Local development	Accessibility to, use and quality of information and communication technologies (ICT)
			<i>access to services - community based projects, pilots on ecosystems, buffers & corridors</i> <i>community transport gaps/ alternative fuels - woodland for tourism/recreation - local tree nurseries - renewables/alternative energy for community buildings</i> LEADER	<i>community built environmental improvements in target areas/community service provision</i> LEADER	<i>ICT</i> <i>IT support</i>
Minimise waste increase re-use, recycling and recovery rates	Restrict biodegradable materials going to landfill	Amount of biodegradable material going to landfill	✓ DIR L>R LT <i>Significant opportunity to support measures to divert biodegradables from entering landfill.</i>	✓ DIR L LT <i>Opportunity to pilot schemes in biodegradable waste recovery</i>	Irrelevant
	Promote anaerobic digestion	Amount of biodegradable material going to anaerobic digestion	✓ DIR R LT <i>Follows from above - diverting biodegradable and farm waste to anaerobic digestion is an important objective</i>	✓? DIR L>R LT <i>Opportunity to pilot schemes at community levels</i>	Irrelevant
	Promote the use of organic waste to agriculture where appropriate	Amount of organic waste to agriculture	? <i>Likely to be a reduction - digestate can be spread on land</i>	Irrelevant	Irrelevant

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Minimise the need to travel; provide alternatives to car use	Protect and enhance the public transport system	Availability of public transport (bus and rail) - national	✓ DIR L LT <i>Opportunity to pilot community transport services where gaps exist</i>	✓ DIR L LT <i>Opportunity to pilot community transport services where gaps exist</i>	Irrelevant
	Optimise opportunities to work locally	National Park/county, local buses; taxis; community schemes	✓ DIR L>R LT <i>Potential to increase local opportunities through development of community based projects</i>	✓ DIR L>R LT <i>Local development has the potential to increase local opportunities</i>	✓ DIR L>N LT <i>Access to high quality ICT offers significant opportunities to work locally as an alternative to travel to work</i>
	Promote non-recreational walking and cycling	Promotion of public transport associated with tourism	Irrelevant	✓? <i>Local work opportunities provide an incentive to walk or cycle to work</i>	✓? <i>Opportunity to work locally instead of travelling provides an incentive to walk or cycle to work</i>

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					ICT IT support
Maintain and enhance animal welfare standards	Improve on-farm animal welfare standards	Number of Farm Health & Welfare Plans based on risk assessments	✓?x <i>Increase in shelter may be supportive. Potential risk from disease carrying organisms migrating along corridors?</i>	Irrelevant?	✓ DIR N LT <i>Important tool for monitoring animal condition</i>
	Reduce stresses related to transportation	Number of farms with separation / quarantine facilities	Irrelevant	Irrelevant	Irrelevant
	Minimise transportation distances	Number of farms with contingency plans in place	Irrelevant	Irrelevant	Irrelevant
	Minimise the risk of animal-animal/animal-human disease transmission	Sales of Welsh higher welfare products	✓?x DIR L>N LT <i>Whilst some interventions may buffer against disease, there is a potential risk from disease carrying organisms migrating along corridors</i>	Irrelevant	Irrelevant

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Optimise opportunities for rural tourism whilst minimising negative impacts	Optimise opportunities for engagements with wildlife/food production	Amount and condition of accessible land in agri-environment schemes	✓ DIR R LT <i>Significant opportunity for diversification into wildlife/farm based tourism</i>	✓ DIR R LT <i>Opportunity for diversification into community initiated wildlife/farm based tourism</i>	✓ DIR N LT <i>A critical platform for identifying and booking events and stays</i>
	Protect and enhance access to the coastline and countryside	Length and condition of PROWs	✓ DIR R>N LT <i>Diversification is likely to promote access. Need to ensure that habitat creation can support tourism and vice versa</i>	Irrelevant <i>Not likely to be significant</i>	✓ DIR N LT <i>Important for visitors to know what is accessible, and what is its condition/restrictions</i>
	Protect rights of way, open space, and commons	Farm education schemes			
		Hectares of Open Country and Common Land	✓ DIR RLT <i>Diversification is likely to support a network of PROWs in good condition. Likely to promote job creation.</i>	Irrelevant	✓ DIR N LT <i>Of increasing importance in planning visits</i>
		Wildlife events			