Wales Transport Strategy

Strategic Environmental Assessment Scoping Report

Volume 2

Appendices

by Monica Tetlow and Stefan Laeger

UPR IE/063/05 PROJECT REPORT

Appendices

Appendix A: Review of Relevant Policies, Plans and Programmes

International

A.1 Ramsar Convention on wetlands of international importance especially as waterfowl habitat (1971)

The Ramsar Convention provides a framework for the conservation of wetlands and their resources. 146 parties signed the convention with 1469 wetland sites, totalling 128.9 million hectares, designated for inclusion in the Ramsar List of Wetlands of International Importance.

Mission Statement: "The Convention's mission is the conservation and wise use of all wetlands through local, regional and national actions and international cooperation, as a contribution towards achieving sustainable development throughout the world"

Objectives and requirements	Implications for Wales TS
Contracting Parties make a commitment to:	To support this convention the transport strategy
Designate at least one site that meets the Ramsar criteria for inclusion in the List of Wetlands of International Importance	should aim to reduce the impact of transport on wetlands and enhance and restore wetland habitats where possible.
Protect the ecological character of listed sites	Affected issues: biodiversity, flora and fauna
Include wetland conservation within their national land-use planning	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Establish nature reserves on wetlands and promote wetland training	
Consult with other Contracting Parties about the implementation of the Convention	

A.2 Bonn Convention on the Conservation of Migratory Species of Wild Animals (1979)

The Bonn Convention aims to improve the status of all threatened migratory species through national action and international Agreements between states within the range of particular groups of species.

Objectives and requirements	Implications for Wales TS
To conserve/restore habitats and control other factors that might endanger the listed migratory birds.	The transport strategy should try to avoid or minimise transport-related impacts on migratory species and their habitats.

Affected issues: biodiversity and fauna

A.3 Bern Convention on the Conservation of European Wildlife and Natural Habitats (1979)

The convention aims:

To conserve wild flora, fauna and natural habitats

To promote co-operation between States

To give particular attention to endangered and vulnerable species, including endangered and vulnerable migratory species

Appendices provide detailed information on species and habitats protected under the convention.

Objectives and requirements	Implications for Wales TS
Obligations for contracting parties: conservation of wild flora and fauna and all natural habitats in general, by	The Wales Transport Strategy should take the conservation of biodiversity into account.
Promoting national conservation policies	Affected issue: biodiversity, flora and fauna
Taking conservation into account in regional planning policies and pollution abatement	
Promoting education and information	

A.4 The Convention on Biological Diversity, Rio de Janeiro (1992)

The convention is designed to conserve biological diversity, ensure the sustainable use of this diversity and share the benefits generated by the use of genetic resources.

Objectives and requirements	Implications for Wales TS
Each Contracting Party should (Article 6a)	The Wales Transport Strategy should aim to
Develop national strategies for the conservation and sustainable use of biological diversity	facilitate the protection and enhancement of biodiversity.
Integrate the conservation and sustainable use of biological diversity into relevant sectoral and cross-sectoral plans, programmes and policies	Affected issue: biodiversity

A.5 Kyoto Protocol on Climate Change (UN, 1997)

The Kyoto Protocol supports the United Nations Framework Convention on Climate Change which sets an overall framework for intergovernmental efforts to tackle the challenge posed by climate change.

Objectives and requirements	Implications for Wales TS	
Articles 2(a-vii) & Article 3 applies the Protocol to reduction of ozone-depleting gases produced by the transport sector not covered by the Montreal Protocol (CFCs and fluorocarbons). Article 3 contains the key obligation requiring reduction in anthropogenic CO2 levels to at least 5% below 1990 levels by 2012.	Ensure all reasonable opportunities are taken forward to encourage residents and visitors to reduce dependence on private cars, while recognising the dispersed distribution of the population in Wales.	
Article 10(b-1) requires signatories to implement and publish regular plans detailing how reduction targets will be met in specific sectors, including transport.	Affected issue: climatic factors	
A.6 The UN Millennium Declaration and Millennium Development Goals (2002)		
All 191 UN member states set out eight millennium development goals which should be met by 2015.		
Objectives and requirements	Implications for Wales TS	
To tackle the issues of climate change, preserve biodiversity, manage the forests and water resources, and reduce the impacts of natural and man-made disasters.	The Wales Transport Strategy can contribute towards achieving those objectives.	
	Affected issues: climatic factors, biodiversity and water	
A.7 World Summit on Sustainable Development - Earth Summit (Johannesburg, 2002)		
The Johannesburg Summit 2002 – the World Summit on Sustainable Development – aimed to address difficult challenges, including improving people's lives and conserving our natural resources in a world that is growing in population, with ever-increasing demands for food, water, shelter, sanitation, energy, health services and economic security.		
Objectives and requirements	Implications for Wales TS	
Greater resource efficiency	National and regional planning documents can	
Waste reduction	have significant impacts on the issues mentioned and should try to contribute towards their	
Promotion of renewable energy	achievement.	
Significantly reduce loss of biodiversity by 2010	Affected issues: all	

European

B.1 EU Directive on the Conservation of Wild Birds (79/409/EEC)

This Directive and its amending acts aim at providing long-term protection and conservation of all bird species living in the wild within the European territory of the Member States (except Greenland).

Objectives and requirements

Imposes duty on Member States to sustain populations of naturally occurring wild birds by sustaining areas of habitats in order to maintain populations at ecologically and scientifically sound levels.

Implications for Wales TS

Promote this aim by e.g. promoting biodiversity and avoiding/reducing habitat fragmentation.

Affected issues: biodiversity and fauna

B.2 EU Habitats Directive (92/43/EEC)

The aim of this Directive is to contribute towards protecting biodiversity through the conservation of natural habitats and of wild fauna and flora in the European territory of the Member States to which the Treaty applies. Measures taken pursuant to this Directive are designed to maintain or restore, at favourable conservation status, natural habitats and species of wild fauna and flora of Community interest.

Objectives and requirements

Article 3.1: Maintain or restore in a favourable condition designated natural habitat types, and habitats of designated species listed in Annexes I and II of the Directive.

Article 6.2: Take appropriate steps to avoid degrading or destroying natural habitats within SACs, and avoid disturbance of designated species insofar as this would result in further decline in numbers or the loss of habitat that maintains the species.

Article 6.3: Any plan or project not directly concerned with the management of a designated site (SAC/SPA), but which is likely to have a significant impact on it (individually or in combination with other projects), should undergo assessment of its implications for the conservation objectives of the site.

Article 6.4: If the project must proceed in the public interest and in spite of negative conservation impacts, including social or economic reasons, compensatory measures must be provided for. The Article provides limited scope for development in designated areas. It is only acceptable on grounds of human health and safety (but not economic development) if it affects habitats supporting protected species.

Article 10: Linear structures such as rivers/streams, hedgerows, field boundaries, ponds, etc., that

Implications for Wales TS

Accept the primacy of nature conservation objectives, and clearly take note of these designations.

Ensure the location of designated areas is clear and taken into account in any options (particularly those affecting the strategic transport network).

Prioritise options that avoid or result in minimal damage to designated areas. Ensure assessment reviews impact on SACs/SPAs from non-adjacent sites.

Review the extent to which options would damage or destroy these features, or sever habitats over a wide area or long distance, and use less damaging options or appropriate mitigation measures.

enable movement an	d migration of s	pecies should be	preserved.

Affected issues: biodiversity, flora and fauna

B.3 EU Directive on Ambient Air Quality and Management (1996/62/EC)

Introduces new air quality standards for previously unregulated pollutants, setting the timetable for the development of daughter directives on a range of pollutants. The list of atmospheric pollutants to be considered includes sulphur dioxide, nitrogen dioxide, particulate matter, lead and ozone – pollutants governed by already existing ambient air quality objectives – and benzene, carbon monoxide, poly-aromatic hydrocarbons, cadmium, arsenic, nickel and mercury.

Objectives and requirements	Implications for Wales TS
Establishes mandatory standards for air quality, and sets limits and guide values for sulphur and nitrogen dioxide, suspended particulates and lead in air.	Standards for ambient air quality should not be exceeded.
	Affected issue: air quality

B.4 EU Biodiversity Strategy (EU, 1998)

On 4th February 1998, the European Commission adopted a Communication on a European Biodiversity Strategy. This strategy aims to anticipate, prevent and attack the causes of significant reduction or loss of biodiversity at the source.

Objectives and requirements	Implications for Wales TS
To anticipate, prevent and attack the causes of significant reduction or loss of biological diversity at the source.	The Strategy should be to promote this aim by e.g. promoting biodiversity and avoiding/reducing habitat fragmentation.
	Affected issues: biodiversity, flora and fauna

B.5 European Spatial Development Perspective (EU, 1999)

By adopting the ESDP, the Member States and the Commission reached agreement on common objectives and concepts for the future development of the territory of the European Union.

The aim of spatial development policies is to work towards a balanced and sustainable development of the territory of the European Union. The ESPD aims to ensure that the three fundamental goals of European policy are achieved equally in all the regions of the EU:

Economic and social cohesion;

Conservation and management of natural resources and the cultural heritage;

More balanced competitiveness of the European territory.

Objectives and requirements	Implications for Wales TS
European cultural landscapes, cities and towns, as well as a variety of natural and historic monuments are part of the European Heritage. Its fostering should be an important part of modern architecture, urban and landscape planning in all regions of the EU.	Conserve and protect the historic environment and taken into consideration potential effects on townscape, historic structures and features.
	Affected issue: cultural heritage, townscape and landscape

B.6 EU Directive Establishing a Framework for the Community Action in the Field of Water Policy (2000/60/EC) – The Water Framework Directive

Requires all Member States to achieve 'good ecological status' of inland water bodies by 2015, and limits the quantity of groundwater abstraction to that portion of overall recharge not needed by ecology.

Objectives and requirements	Implications for Wales TS
To achieve 'good ecological status' of inland water bodies by 2015.	Contribute to the objectives of the Water Framework Directive by minimising negative impacts on water resources due to transport. Affected issue: water

B.7 European Commission White Paper on the European Transport Policy (EC, 2001)

With its Transport Policy White Paper, the Commission proposed an Action Plan aimed at bringing about substantial improvements in the quality and efficiency of transport in Europe. It also proposed a strategy designed to gradually break the link between constant transport growth and economic growth in order to reduce the pressure on the environment and prevent congestion while maintaining the EU's economic competitiveness.

Approximately 60 measures are set out to develop a transport policy for Europe's citizens. Amongst others 'towards sustainable mobility': Transport in Europe must, as a matter of priority, be compatible with environmental protection. To this end, the Commission proposed a wide range of measures to develop fair infrastructure charging which takes into account external costs and encourages the use of the least polluting modes of transport, to define sensitive areas, in particular in the Alps and Pyrenees, which should be eligible for additional funding for alternative transport, and to promote clean fuels ...

Objectives and requirements	Implications for Wales TS
The principal measures suggested in the White Paper include:	Contribute to these objectives and aim towards
Revitalising the railways	sustainable mobility that is compatible with environmental protection.
Improving quality in the road transport sector	Affected issues: population, human health,

Striking a balance between growth in air transport and the environment

Transport and the environment

Turning inter modality into reality

Improving road safety

Adopting a policy on effective charging for transport

Recognising the rights and obligations of users

Developing high-quality urban transport

Developing medium and long-term environmental objectives for a sustainable transport system

climatic factors

B.8 EU Directive 2002/49/EC relating to the assessment and management of environmental noise - The Environmental Noise Directive (EU, 2002)

The aim of the Environmental Noise Directive (END) is to define a common approach across the European Union with the intention of avoiding, preventing or reducing on a prioritised basis the harmful effects, including annoyance, due to exposure to environmental noise.

DEFRA consulted on the implementation of the Directive into UK law May 2005.

Objectives and requirements

This will involve:

Informing the public about environmental noise and its effects

Preparing strategic noise maps for large urban areas (referred to as 'agglomerations' in the END and in this document), major roads, major railways and major airports as defined in the END

Preparing action plans based on the results of the noise mapping exercise. Such plans will aim to manage and reduce environmental noise where necessary, and preserve environmental noise quality where it is good.

Implications for Wales TS

To avoid, reduce and mitigate transport related noise and vibration.

Affected issues: noise and vibration

B.9 Environment 2010: Our Future, Our Choice - EU Sixth Environment Action Programme (EU, 2002)

The latest Environment Action Programme gives a strategic direction to the Commission's environmental policy over the next decade, as the Community prepares to expand its boundaries.

The new programme identifies four environmental areas for improvements:

Climate Change

Nature and Biodiversity

Environment and Health and Quality of Life

Natural Resources and Waste

Objectives and requirements

Recognises that land use planning and management decisions in the Member States can have a major influence on the environment, leading to fragmentation of the countryside and pressures in urban areas and the coast. Also includes objectives on stabilising greenhouse gases, halting biodiversity loss, reducing pollution and resource use. Under the EAP framework, Thematic Strategies are being developed on:

Air quality

Soil Protection

Sustainable use of Pesticides

Marine Environment

Waste Prevention and Recycling

Sustainable Use of Natural Resources

Urban Environment

Implications for Wales TS

Awareness of these strategies is needed. Need to consider how to positively influence issues such as air quality, the urban environment, natural resource use and waste prevention and recycling.

Affected issues: air, soil, water, material assets, population, human health

B.10 EU Directive for the promotion of bio-fuels for transport (2003/30/EC)

The directive aims to promote the use of bio fuels or other renewable fuels for transport purposes.

Objectives and requirements

Member states should aim to provide 2% of all petrol in the form of bio fuels by 2005 increasing to 5.75% by 2010.

Implications for Wales TS

Consider the role of bio fuels in Wales and other renewable fuels and their potential to reduce greenhouse gas emissions.

l A	Affected issue: climatic factors

National (UK)

C.1 UK Biodiversity Action Plan - UK BAP (Defra, 1994)

The UK BAP is the UK Government's response to the Convention on Biological Diversity (CBD) signed in 1992. It describes the UK's biological resources, and commits a detailed plan for the protection of these resources. It contains 391 Species Action Plans, 45 Habitat Action Plans and 162 Local Biodiversity Action Plans with targeted actions.

Objectives and requirements	Implications for Wales TS
To maintain, promote and enhance biodiversity.	Maintain, protect and enhance priority habitats listed.
	Affected issues: biodiversity, flora and fauna

C.2 UK Air Quality Strategy (ODPM, 2000 amended in 2003)

This Strategy describes the plans drawn up by the Government and the devolved administrations to improve and protect ambient air quality in the UK in the medium-term. The plan sets a number of air quality objectives for pollutants including sulphur dioxide, nitrogen dioxide, particulate matter, lead and ozone.

Objectives and requirements	Implications for Wales TS
The purpose of the air quality strategy includes:	Contribute to the achievement of the objectives
To provide the best practicable protection to human health by setting health based objectives for eight	set out in the UK Air Quality Strategy.
main air pollutants (objectives are maximum recommended exposure levels)	Affected issues: air quality and human health
To contribute to the protection of the natural environment by setting objectives for two pollutants (nitrogen and sulphur dioxide) for the protection of vegetation and ecosystems	

C.3 Countryside and Rights of Way Act (CRoW) (ODPM, 2000)

CRoW extends the public's ability to enjoy the countryside whilst also providing safeguards for landowners and occupiers. It creates a new 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), provides better management arrangements for Areas of Outstanding Natural Beauty (AONBs), and strengthens wildlife enforcement legislation. Emphasises the public's right of access to open country and common land, and gives additional protection to Sites of Special Scientific Interest (SSSI).

Objectives and requirements	Implications for Wales TS
Part I of the Act creates a new right of access to open country and registered common land	Maintain, improve and enhance biodiversity and
Part II of the Act modernises the law on public rights of way	respect public rights of way.
Part III of the Act gives greater protection to sites of special scientific interest (SSSIs), and strengthens wildlife protection	Affected issue: population, biodiversity
Part IV of the Act provides new powers to set up Conservation Boards for the better management of areas of outstanding natural beauty (AONBs), and requires certain bodies to have regard for AONBs when doing anything which would affect the land in those areas	

C.4 Climate Change: The UK Programme (2001)

The UK's climate change programme sets out the Government's and the devolved administrations' approaches to the challenge of climate change. It explains why the climate is changing and what its effects might be. Moreover, it explains the new measures the Government and the devolved administrations are introducing to reduce emissions further and achieve the UK's climate change targets, Also explains how climate change is expected to affect the UK, how the UK might need to adapt, and the action the Government and the devolved administrations have started to take to prepare for this.

Objectives and requirements	Implications for Wales TS
1990 levels by 2008-2012	climate change by reducing transport related
	greenhouse gas emissions and thereby contributing to meet the UK CO ₂ reduction target.
In the long term, UK Carbon Dioxide emissions should be cut by 60% by 2050	Affected issue: climatic factors

C.5 Our energy future - creating a low carbon economy' (2003) - UK white paper on energy

The white paper defines a long-term strategic vision for energy policy combining our environmental, security of supply, competitiveness and social goals. The implementation of the White Paper is being taken forward via the Sustainable Energy Policy Network (SEPN).

Objectives and requirements	Implications for Wales TS
To put ourselves on a path to cut the UK's carbon dioxide emissions - the main contributor to global warming - by some 60% by about 2050 with real progress by 2020.	Reduce the contribution of transport in Wales to climate change by reducing transport related greenhouse gas emissions and thereby contributing to meet the UK CO ₂ reduction target.

	Affected issue: climatic factors
C.6 The Future of Transport (2004) – UK white paper on transport	<u>'</u>
Sets out a long term strategy for a modern, efficient and sustainable transport system over the next 15 years.	
Objectives and requirements	Implications for Wales TS
To ensure that transport makes its full contribution to reducing CO ₂ emissions cost effectively.	Minimise CO ₂ and other greenhouse gas emissions and promote more environmentally friendly travel choices. Affected issue: climatic factors

C.7 UK Climate Change Programme Review: Consultation (Defra, 2004)

Transport: The Government is committed to sustained investment in public transport, providing the public with more environmentally friendly travel choices and to encouraging its use through, for example, workplace travel plans and promoting alternatives to the school run. It is vigorously seeking the inclusion of intra-EU aviation in the EU TENS and it is considering the feasibility of road-pricing, as well as the scope for including surface transport into a phase of the EU ETS.

Objectives and requirements	Implications for Wales TS
The devolved administrations are committed to making an equitable contribution to efforts aimed at meeting the UK's Kyoto target, moving towards the UK's national goal and putting the UK on a path	
towards a 60 per cent reduction in carbon dioxide emissions by 2050.	Affected issues: climatic factors

C.8 Securing the Future – UK Government Sustainable Development Strategy (2005)

This strategy aims to promote sustainable development. It contains

Five principles (with a more explicit focus on environmental limits)

Four agreed priorities (sustainable consumption and production, climate change, natural resource production and sustainable communities)

A new indicator set with new indicators such as on well being

Objectives and requirements	Implications for Wales TS
The new objectives included within the strategy are:	Promote sustainable development wherever
Living within environmental limits	possible.

Promoting good governance	Affected issues: all
Using sound science responsibly	

National (Wales)

D.1 Achieving Our Potential: A Tourism Strategy for Wales (2000)

Sets the vision that Wales' tourism industry should develop into a prosperous industry and make an increasing contribution to the economic, social, cultural and environmental well being of Wales, achieved by sustainable growth.

Objectives and requirements	Implications for Wales TS
One of the key principles set out is sustainability: tourism must be developed reasonably if it is to achieve wider economic, environmental and cultural benefits for Wales.	Contribute to the achievement of this aim by setting appropriate measures and objectives, such as promoting more sustainable transport options for tourist sites. Affected issue: population
D.2 Community First Guidance (National Assembly for Wales, 2001)	

A flagship WAG programme which aims at cutting poverty and helping to improve the lives of people who live in the poorest areas.

Objectives and requirements	Implications for Wales TS
Aims to improve the surrounding environment of deprived areas.	Contribute to the achievement of this aim by setting appropriate measures and objectives.
	Affected issue: population

D.3 Planning Policy Wales (2001)

Planning Policy Wales (PPW) sets out the land use planning policies of the Welsh Assembly Government. It is supplemented by a series of Technical Advice Notes (TAN) and National Assembly for Wales / Welsh Office circulars. PPW, the TANs and circulars together comprise national planning policy which should be taken into account by local planning authorities in Wales in the preparation of unitary development plans (UDPs). In addition, PPW sets out a commitment to sustainable development.

Objectives and requirements	Implications for Wales TS

Several key policy objectives are set out:

promote resource efficient settlement patterns

Minimise the demand for travel

Contribute to climate protection/ promotion of renewable energy

Minimise the risk of flooding

Promoting sustainable communities

Contribute to the protection and improvement of the environment, so as to improve the quality of life, and protect local and global ecosystems. In particular, planning should seek to ensure that development does not produce irreversible harmful effects on the natural environment. The conservation and enhancement of statutorily designated areas and of the countryside and undeveloped coast; the conservation of biodiversity, habitats, and landscapes; the conservation of the best and most versatile agricultural land; and enhancement of the urban environment all need to be promoted

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

Minimise the use of non-renewable resources and maximise efficiencies in their use

Promote renewable energy, higher resource efficiency, protect the environment and help to conserve the historic environment and cultural heritage.

Affected issues: material assets, climatic factors, water, biodiversity, cultural heritage

D.4 Wise about waste – The National Waste Strategy for Wales (2002)

This document sets out the way Wales will deal with its waste in the next 10 years. It aims to move Wales away from an over-reliance on landfill to a more sustainable way of waste management. This will be achieved by adopting a sustainable, integrated approach to waste production by minimising waste production, reducing its environmental impacts and maximises the use of unavoidable waste as a resource.

Objectives and requirements	Implications for Wales TS		
To re-use and recycle 85% of construction and demolition waste by 2010 To reduce the amount of hazardous waste generated by at least 20 % by 2010	Increase resource efficiency and reduce (construction) waste by e.g. replacing primary with secondary aggregates.		
	Affected issue: material assets		

D.5 Wales: A Better Country - The Strategic Agenda of the Welsh Assembly Government (2003)

This is the strategic agenda of the Welsh Assembly Government 2003 - 2007. It sets out a guiding vision for a fairer, more prosperous, healthier and better educated country, an agenda for public services and priority issues which require joint working of different departments.

Its vision is to create a sustainable future for Wales where action for social, economic and environmental improvement work together to create positive change e.g. by

Action in our built and natural environment that enhances pride in the community, supports bio-diversity, promotes local employment and helps to minimize waste generation, energy and transport demands;

Supporting people to live healthy and independent lives

Objectives and requirements	Implications for Wales TS
Commitments include:	Increase resource use efficiency.
Recycling to increase by 25% (to use materials more efficiently, reducing the need to dispose of waste via landfill	Affected Issue: material assets

D.6 Road Safety Strategy for Wales (2003)

Vision: To reduce danger and perceived danger for all road and footway users in order to promote safe and sustainable access. In addition, the strategy has the aim to support sustainable development, which is an objective set by higher level policies (e.g. Wales a better Country).

Objectives and requirements	Implications for Wales TS
No specific environmental objectives are set, but proposed measures, such as reducing speed and managing traffic could indirectly lead to environmental benefits.	The strategy should aim to contribute to sustainable development by setting appropriate objectives and measures.
	Affected issues: human health, air quality and climatic factors

D.7 People, Places, Futures - The Wales Spatial Plan (2004)

The Welsh Spatial Plan sets out a strategic and integrated agenda for the next 20 years by outlining issues and opportunities across different sectors and areas. Moreover, it defines several key themes as part of a national framework. Its vision is to create sustainable communities by e.g.

Reducing negative environmental impacts

Enhancing our natural and built environment

Objectives and requirements

Objectives

Manage the environment comprehensively so that it contributes to sustainable development including maintaining soil carbon, reducing contamination, managing diffuse pollution sources to water, protecting landscapes and enhancing habitats

Decouple growth of waste from economic growth; waste should be dealt with near the source according to the waste hierarchy

Reduce Wales' contribution to climate change by promoting renewable energy, increasing energy efficiency in industry, housing and transport and protecting existing soil carbon sinks

Work to help the environment, economy and society to adapt to climate change's potential impacts including flood risk

Achieving sustainable accessibility

Implications for Wales TS

It is of particular importance that the Wales Transport Strategy serves the spatial planning needs by promoting sustainable communities, protecting the environment, enhancing resource efficiency and reducing Wales' contribution to climate change.

Affected issues: biodiversity, soil, water, material assets, climatic factors, accessibility

D.8 The Sustainable Development Action Plan 2004 – 2007 (2004)

D.9 Starting to Live Differently - The Sustainable Development Scheme - SDS (2004)

The National Assembly for Wales is required to set up a scheme stating how it will promote sustainable development. Both documents implement this requirement. They are intended to contribute to the fulfilments of international commitments, to form part of the framework for the UK sustainable development strategy and to ensure progress is kept under review.

The Action Plan is divided into four areas reflecting the key issues Wales in facing: living differently, leadership and delivery, making our money talk and measuring progress.

The Sustainable Development Scheme is divided into five sections: the duty, definition of sustainable development, vision, principles and fulfilling the duty.

Objectives and requirements SD Action Plan – section living differently: Implementing the Energy Efficiency Plan across of sectors Ensuring that lighting for trunk roads employs renewable technologies to deliver at least 20% energy saving To take action on diffuse pollution to comply with the EU Water Framework Directive Promote energy efficiency (e.g. through more efficient light of trunk roads), reduce diffuse water pollution, enhance biodiversity and promoting healthier lifestyles. Affected issues: climatic factors, water, material assets, biodiversity, human health

SDS

Promotion of biodiversity, minimisation of waste generation, energy, water and transport demands

Promotion of healthy lifestyles

Contributing towards sustainable development

Respecting environmental limits: contribution to the protection of the planet's climate, protecting and enhancing biodiversity, minimising harmful emissions, promoting sustainable use of natural resources

Applying the precautionary principle

Preventing pollution as far as possible

D.10 Well Being in Wales Consultation Document (2002)

D.11 Health Challenge Wales (2004)

D.12 Designed for Life (2005)

One of the purposes of Well being in Wales is to take into account health in other policies and programmes. It highlights the relevance of health to well being, sets out actions to reduce health inequalities and provides the national direction for Local Health, Social Care and Well Being Strategies.

Health Challenge Wales is an initiative to encourage the public to do more to improve health in Wales. It asks the government at all levels, public, private and voluntary sector organisations, the media and individuals to improve their health and/or support health initiatives and healthier lifestyles where they can.

'Designed for Life' outlines how the objectives set in Health Challenge Wales and other documents can be achieved.

Objectives and requirements	Implications for Wales TS
Well Being in Wales: The overall objectives are to spread prosperity, encourage lifelong learning, improve health and reduce inequalities in health by:	Improving safety, promoting healthier lifestyles, reducing air pollution should be aims of the Wales
Improving the safety of road users	Transport Strategy.
Encouraging people to build exercise into their daily travelling	Affected issues: human health, air quality
Asking the NHS and social care services to contribute to these objectives by reducing congestion, pollution from cars of patients, visitors and staff, and using cleaner energy technologies for the transport used by the services	

Health Challenge Wales:
Improving health
Promoting healthier life styles
Design for Life:
Improve health and reduce inequalities in Wales
Support the role of citizens in promoting their health

D.13 A Wining Wales - The National Economic Development Strategy of the Welsh Assembly Government (2001 and 2004)

D.14 Wales: A Vibrant Economy (2005) - emerging new strategy

The strategy was adopted in 2001 and refreshed in 2004. It sets out the vision that within one generation the standard of living in Wales will match that of the UK as a whole. In addition, Wales will become more prosperous and prosperity will be sustainable and more evenly spread.

The new emerging strategy emphasises the focus on sustainable growth.

Objectives and requirements	Implications for Wales TS
The vision sets out that future economic growth should contribute towards sustainable development.	The strategy should aim to contribute to these objectives by outlining appropriate measures, e.g. creating sustainable transport systems.
	Affected issues: all

D.15 Our Environment, Our Future, Your Views: Environment Strategy for Wales - Consultation Document (2005)

The Welsh Assembly Government is currently in the process of developing an environmental strategy for Wales. This document represents a consultation document. It presents information about the current state of the environment, why it is important to the Welsh economy and daily life. It includes detailed information about the environmental issues Wales will face and the key outcomes the Welsh Assembly government wants to achieve by 2025. The issues are set out in terms of six main themes: climate change, managing the land and sea, sustainable use of resources and ecosystem services, biodiversity, quality of life and making the connections.

Objectives and requirements	Implications for Wales TS	
Climate change:	Special regards should be paid to:	

To reduce Wales' contribution to climate change significantly

To improve resilience to the impacts of climate change and set out flexible measures to adapt to future changes

Managing the land and sea:

To maintain and enhance the valued and unique character the Welsh landscape and seascape

Development of an integrated approach to manage inevitable changes in a way that they can support environmental, economic and social needs while retaining their essential character and biodiversity.

Sustainable use of resources and ecosystem services:

To decouple the link between economic growth and unsustainable resource use (e.g. minerals, aggregates, water)

Actively minimising the consumption of resources and the production of waste

Sustainable management of water resources

Maintaining and enhancing the quality of rivers, lakes and coastal waters

Biodiversity:

To halt the loss of habitat by 2025 and work to reverse the decline which has already taken place

To address poor habitat management and fragmentation

Integration of the biodiversity into policies and programmes

Sites of international, Welsh and local importance will be in favourable condition

Quality of life:

Everyone will enjoy a cleaner and safer environment

There will be good access to the countryside

Measures will be in place to manage the risk of flooding from rivers and the sea

The proportion of tranquil areas and noise pollution will be reduced

Making the connections:

Resource efficiency

Climate change mitigation and adaptation

Protection of soils as carbon stores

Potential carbon offsetting for new transport schemes

Flood risk

Diffuse water pollution (run-off)

Loss of biodiversity, fragmentation

Changes to landscape character

And interlinkages between those issues

Affected issues: climatic factors, water, air quality, landscape, biodiversity, flora and fauna, material assets

Wales will provide leadership on environmental issues

Public, private and voluntary sector organisations will work together in an integrated way to ensure that sustainable development principles are followed

By 2025 the majority of people in Wales will understand, respect and value the environment

Technical Advice Notes (TANs)

E.1 TAN 5 - Nature Conservation and Planning (1996)

This advice note sets out how the statutory framework for nature conservation set by national legislation and international agreements will be implemented and taken into account in the Welsh Planning system.

Objectives and requirements

- 4. To ensure that development plans are based on adequate information about geology, landform, habitats and species, nature conservation issues should be included in surveys of local authority areas. Nature conservation policies in development plans should indicate the criteria against which a development will be judged, having regard to the relative significance of international, national and local designations. The plan proposals map should identify the areas to which these policies apply.
- 5. Local authorities have an important role in delivering biodiversity objectives at a local level.
- 8. The review will need to ascertain whether implementation of any permission which is likely to have a significant effect on the site, and is not directly connected with or necessary to its management would adversely affect its integrity.
- 16. If developers are uncertain whether their proposal is likely to have a significant effect on the site, they should seek an opinion from CCW through the appropriate Area Office (see Annex D).
- 21. Development proposals in or likely to affect an SSSI must be subject to special scrutiny. Before granting planning permission for development in or likely to affect an SSSI, local planning authorities must consult CCW.
- 22. SSSIs might be seriously damaged by developments outside their boundaries. To ensure that the potential effect of such developments can be taken properly into account when considering planning applications CCW should define consultation areas around SSSIs, giving priority to defining

Implications for Wales TS

Although TANs only relate to development plans, the transport strategy should aim to deliver biodiversity objectives (maintain protect and enhance) relevant objectives and targets.

Adverse impacts from proposed transport schemes and/or related developments on designated areas, such as SSSIs, SPAs, SACs and others should be avoided.

Affected issue: biodiversity

consultation areas around sites of international importance.

E.2 TAN 8 – Renewable Energy (2005)

This TAN relates to the land use planning considerations of renewable energy; however UK and national energy policy provide its context. Energy policy is a reserved function that is not devolved to the Assembly Government. Nevertheless, all decisions relating to renewable energy in Wales must take account of the Assembly Government's policy.

Objectives and requirements

- 1.4. UK energy policy has an established target of producing 10% of electricity production from renewable energy sources by 2010. For Wales, the Assembly Government set a target of 4TWh of electricity per annum to be produced by renewable energy by 2010 and 7TWh by 2020.
- 1.5. Delivering these targets through the planning system is therefore at the core of this TAN.
- 1.6 As well as developing new sources of renewable energy which are essential to meeting the targets set by energy policy, the Assembly Government is fully committed to promoting energy efficiency and energy conservation.

Implications for Wales TS

Although TANs only relate to development plans, the Wales Transport Strategy should aim to contribute to the wider policy aims of promoting renewable energy by e.g. supporting bio or hydrogen fuelled vehicle fleets and/or suggesting using renewable technologies for supporting transport infrastructure (e.g. solar powered parking meters).

Affected issues: climatic factors, material assets

E.3 TAN 11 - Noise (1997)

This note provides advice on how the planning system can be used to minimise the adverse impact of noise without placing unreasonable restrictions on development or adding unduly to the costs and administrative burdens of business. It outlines some of the main considerations which local planning authorities should take into account in drawing-up development plan policies and when determining planning applications for development which will either generate noise or be exposed to existing noise sources.

Objectives and requirements

- 6. Where it is particularly difficult to separate noise sensitive development from noisy activities, plans should contain an indication of any general policies which the local planning authority proposes to apply in respect of conditions or planning obligations.
- 8. Local planning authorities must ensure that noise generating development does not cause an unacceptable degree of disturbance. They should also bear in mind that if subsequent intensification or change of use results in greater intrusion, consideration should be given to the use of appropriate conditions.
- 9. Noise characteristics and levels can vary substantially according to their source and the type of

Implications for Wales TS

Although TANs only relate to development plans, the Wales Transport Strategy should aim to minimise noise impacts from the transport system by e.g. considering the using low noise surfaces, avoiding heavy traffic in close proximity to sensitive receptors, and promoting low noise vehicles for e.g. bus fleets.

Affected issue: noise and vibration

activity involved. Sudden impulses, irregular noise or noise which contains a distinguishable continuous tone will require special consideration.

- 10. Local planning authorities should consider whether proposals for new noise-sensitive development would be incompatible with existing activities, taking into account the likely level of noise exposure at the time of the application and any increase that may reasonably be expected in the foreseeable future.
- 11. Measures introduced to control the source of, or limit exposure to, noise should be proportionate and reasonable.

E.4 TAN 12 - Design (2002)

The Welsh Assembly Government is committed to achieving good design in all development at every scale throughout Wales. This Technical Advice Note gives more detailed advice on how this may be facilitated within the planning system. The design of development in the environment is significant to the quality of our lives and is a major factor in sustaining a positive image for Wales. Good design has the potential to assist environmental sustainability, economic growth, and social inclusion.

Objectives and requirements

To make best use of natural resources, incorporate sustainable energy use, waste control measures and provide the means for effective long-term maintenance, efficient operation and management

To sustain and enhance character in townscape and landscape by responding to locally distinctive patterns

To assess how the layout of infrastructure can contribute to the promotion of walking, cycling and public transport

To ensure that the design of infrastructure avoids severance and fragmentation of communities

To give particular attention to the needs of people with disabilities, children and elderly people in addressing transport and movement issues

To achieve sustainable design solutions which maximise the natural landscape assets and minimise environmental impact on the landscape

To contribute to conserving and enhancing wildlife

To sustain local character in areas recognised for their landscape, townscape or historic value

Implications for Wales TS

Although TANs only relate to development plans, the Wales Transport Strategy should

Suggest utilising good design as a way to reduce car traffic and promote more sustainable modes of travel

Avoid/reduce mitigate adverse impacts on landscape character from transport infrastructure

Aim to protect, maintain and enhance biodiversity where possible

Avoid/reduce mitigate adverse impacts on cultural heritage from transport infrastructure

Affected issues: biodiversity, climatic factors, air quality, accessibility, cultural heritage, material assets, landscape

E.5 TAN 14 - Coastal Planning (1998)

This advice note sets out how coastal issues should be considered in land use planning.

Objectives and requirements

- 5. It is important to recognise that on-shore development can often have an impact off-shore: this is particularly so adjacent to a candidate marine Special Area of Conservation (SAC).
- 8. Key issues: Planning considerations will vary depending on the nature of the coastline, but there are a number of specific issues in relation to the coastal zone that the planning system should address. These are, in terms of:

Proposals for Development: the nature of the ground conditions and physical processes, and the potential need for remedial and defence works; likely effects on physical and biological processes along the coast; the potential effects on mineral, water and conservation resources; as well as high-quality agricultural land; and any potential visual impact from both land and sea.

Nature and landscape conservation: the role of physical and biological processes in creating, maintaining and altering features of nature and landscape conservation value; the effects of statutory and other nature and landscape conservation policies in the coastal zone, which may not always be contiguous with the low water mark; and the importance of the integrity and special features of Marine Nature Reserves, candidate marine SACs and coastal SACs, Special Protection Areas and Ramsar sites. EC Directives relevant to planning in the coastal zone should always be borne in mind.

10. Some coast-specific considerations will need to be incorporated into the planning framework by local planning authorities. These include:

On-shore: the risks to any form of development associated with the physical processes and problem ground conditions; the likely impact of any development on the geomorphological processes and features, and on the important features of the littoral and sub-littoral zones;

off-shore, in the intertidal zone, and the maritime fringe, the sediment budget (1) of the physical system; and the sensitivity of the overall coastal environment to natural change or human influences.

Consideration of these issues will allow local planning authorities to reflect variations in physical and biological conditions along their stretches of coastline instead of adopting a blanket approach to coastal planning. It will also enable them to consider the effects, including cumulative effects, of development proposals upon sites of nature and landscape conservation interest.

Implications for Wales TS

Although TANs only relate to development plans, the Wales Transport Strategy should aim to consider the sensitive nature of the coastal environment and avoid/reduce/mitigate impacts from transport on protected stretches of coast.

Affected issues: biodiversity, soil, water, landscape

E.6 TAN 15 - Development and Flood Risk (2004)

This advice note on development and flood risk relates to sustainability principles (section 2.2 PPW). It provides a framework within which risks arising from

both river and coastal flooding and from additional run-off from development in any location, can be assessed.

Objectives and requirements

3. Aims

Direct new development away from those areas which are at high risk of flooding

Where development has to be considered in high risk areas (zone C) only those developments which can be justified on the basis of the tests outlined in section 6 and section 7 are located within such areas

6.2 Nature of development/land use: New development should be directed away from zone C and towards suitable land in zone A, otherwise to zone B, where river or coastal flooding will be less of an issue.

Since transport and utilities infrastructure is classified as less vulnerable development this is less of an issue but still merits some consideration.

- 8.2 Surface water run-off from new development: Built development, such as roads, pavements, and roofing, tends to increase the surface area of impermeable ground, thus reducing percolation and increasing rapid surface run-off. This has the effect of reducing the time it takes for precipitation to enter the watercourse and consequently increasing the peak discharge. SUDS can perform an important role in managing run-off from a site and should be implemented, wherever they will be effective, in all new development proposals, irrespective of the zone in which they are located.
- 8.3 Development in one part of a catchment may increase run-off and hence flood risk elsewhere, therefore, the aim should be for new development not to create additional run-off when compared with the undeveloped situation, and for redevelopment to reduce run-off where possible. It is accepted that there may be practical difficulties in achieving this aim.

Appendix A2.4 Impacts of climate change: The rise in sea level will change the frequency of occurrence of high water levels. There may also be secondary impacts such as changes in wave height due to increased water depths, as well as predicted changes in the frequency, duration and severity of storm events. It should be recognised however that while sea level rise and climate change could have a significant impact on flooding consequences for existing flood zones, current information suggests that the actual extent of such areas at risk are not expected to increase significantly.

Implications for Wales TS

Although TANs only relate to development plans, the Wales Transport Strategy should aim to avoid proposing new infrastructure projects on classified areas of flood risk, promote the use of permeable surfaces/pavements and sustainable drainage schemes to reduce surface runoff.

Special attention should be paid to making existing and proposed infrastructure 'future-proof' to anticipated impacts of climate change.

Affected issues: Water, climatic factors, material assets

E.7 Draft TAN 18 - Transport (2001)

The National Assembly for Wales has produced draft revised technical advice on transport. This advice is designed to complement the policy on transport

contained in Draft Planning Policy Wales, which was recently issued for consultation. The revised advice is intended to promote the Assembly's objectives for better integration between planning and transport and between different transport modes. It provides practical advice on how unitary development plans and decisions on new developments can help to achieve these objectives.

The National Assembly for Wales wishes to extend choice in transport and secure accessibility and mobility in ways which support sustainable development by encouraging the development of an integrated transport system which is safe, efficient, clean and fair. This will be achieved by:

Integration within and between different types of transport

Integration with land use planning

Integration with the environment

Integration with policies for education, health and wealth creation

Objectives and requirements

5. Integration between land use planning and transport: Land use planning can help to achieve the Assembly's objectives for integrated transport planning through:

Reducing the need to travel by locating development where there is good access by public transport, walking and cycling

Locating development near other related uses to encourage multi-purpose trips

Ensuring that new development includes appropriate pedestrian, cycling, public transport, and traffic management provision

Promoting cycling and walking

Supporting the provision of high quality public transport

Supporting traffic management measures

Supporting necessary transport infrastructure improvements

73. Mitigation of environmental impacts: The potential for adverse impacts associated with transport infrastructure projects, on the natural, historic and built environment should be minimised. Wherever possible new routes should follow existing gradients, using existing landforms and landscape features to reduce noise and visual impact, subject to safety environmental and economic considerations. Transport schemes should where necessary provide mitigation measures to minimise the impacts caused by the construction and operation of transport infrastructure. Such mitigation measures should

Implications for Wales TS

Although TANs only relate to development plans, the Wales Transport Strategy should aim to contribute to these objectives by setting appropriate objectives and measures e.g. making more sustainable modes of travel more attractive

Affected issues: human health, population, air quality, noise

be secured by the use of planning conditions.

E.8 TAN 21 - Waste (2001)

This guidance note provides advice about how the land use planning system should contribute to sustainable waste resource management. With its commitments to sustainable development, the Assembly wants to address waste issues and develop sustainable methods of waste resource management.

Objectives and requirements	Implications for Wales TS
10.1 Construction and demolition waste: The re-use and recycling of construction and demolition waste not only implements the objective of minimising waste but reduces the demand for primary resources, the extraction of which incurs environmental costs.	Although TANs only relate to land use plans, the Wales Transport Strategy should aim to contribute to minimising waste and re-use and recycle the remains by setting appropriate objectives and measures Affected issues: material assets

E.9 Minerals Technical Advice Note (MTAN) 1 - Aggregates (2004)

This Minerals Technical Advice Note (Wales) sets out detailed advice on the mechanisms for delivering the policy for aggregates extraction by mineral planning authorities and the aggregates industry. The overarching objective in planning for aggregates provision is to ensure supply is managed in a sustainable way so that the best balance between environmental, economic and social considerations is struck, while making sure that the environmental and amenity impacts of any necessary extraction are kept to a level that avoids causing harm to interests of acknowledged importance.

Objectives and requirements	Implications for Wales TS
	Although TANs only relate to land use plans, the Wales Transport Strategy should aim to contribute to maximise the use of secondary and recycled materials by setting appropriate objectives and measures
	Affected issues: material assets

Appendix B: Environmental Baseline

SEA topic/issue	Quantitative or qualitative data (source of data provided in brackets)	Comparators and targets	Trends/future baseline (427)	Issues, problems & opportunities identified	Actions/Issues for Wales Transport Strategy
Biodiversity, flora and fa	una				
Population of wild birds – short-term changes in the abundance of widespread breeding birds (index, 1994=100)	2003 data: All species: 99 Birds of farmed habitats: 94 Woodland bird species: 96 Urban and other birds: 116 (NAW 2005a)	In the UK the overall population of widespread breeding species has been relatively stable over the short-term. However, there is a long-term decline in farmland bird species (NAW 2005a) No target identified	Mixed, downward trend for farmland and woodland species, upward trend for urban species Wetland bird species are also decreasing (NAW 2005b)	Slight but steady decline	Biodiversity loss is a major issue and biodiversity should be protected, maintained and enhanced
Number and size of designated areas 3 national parks 5 ANOBs 6 ESAs 1021 SSSIs 92 SACs 39 SPAs 34 Ramsar sites 66 NNRs 14 stretches of	2004 data 410,000 ha (5% of Wales) 83,000 ha 519,000 ha 264,000 ha 151,000 ha 104,000 ha 25,000 ha 24,000 ha 495 km	No target defined	The overall loss of biodiversity is likely to continue although the number of designated areas is increasing	A significant proportion of Wales is designated for its biodiversity, landscape and/or aesthetic value	The protection, maintenance and enhancement of biodiversity should be a high priority

SEA topic/issue	Quantitative or qualitative data (source of data provided in brackets)	Comparators and targets	Trends/future baseline (? ?)	Issues, problems & opportunities identified	Actions/Issues for Wales Transport Strategy
heritage coast	(NAW 2005a; CCW 2005)				
Condition of SSSIs	2003 data:	UK: 63% percent in	7	Loss of biodiversity is	Avoid, minimise, and
Favourable condition	29%	favourable or unfavourable recovering	More habitats are in decline than in a	often irreversible	mitigate negative impacts on designated
Unfavourable but recovering condition	18%	condition in 2004 PSA target of 95% by	recovering condition		areas
Unfavourable and declining condition	52%	2010 in England			
Partially destroyed	1%	No target defined in Wales			
	(CCW 2005)				
Extent and percentage of area covered with woodland	2004 data:	UK 7.7% Europe: 30% No targets defined	Coverage has been increasing steadily		Negative environmental impacts on woodlands in general and
Conifers	162,000 ha				woodlands around transport infrastructure
Broadleaves	123,000 ha				in particular should be
Total	286,000 ha (14.3% of Wales are covered with woodland)				avoided/reduced/mitig ated were possible
	(NAW 2005b; FC 2002)				
Habitat severance/fragmenta tion attributable to transport projects	Not known			More information would assist assessment	Could be suggested for future data collection

SEA topic/issue	Quantitative or qualitative data (source of data provided in brackets)	Comparators and targets	Trends/future baseline (? ?)	Issues, problems & opportunities identified	Actions/Issues for Wales Transport Strategy
Percentage of transport network in active management for wildlife	Not known			More information would assist assessment	Could be suggested for future data collection
Population (including	severance and accessibility)				
Total population	2001 data: 2.946 million 3.2% increase in the last 20 years	2001 data: 58.789 million 4.3% increase in the last 20 years	The population of Wales is growing but at a slower rate than in the UK	An increase in population might lead to higher demand for transport infrastructure	Anticipated changes in population and settlement patterns should be taken into account
	(ONS 2001)	(ONS 2001)			
Population density	2001 data: 140 per km ² (ONS 2001)	Half of the UK average	? No trend identified	Population density in rural areas can be very low	Improving accessibility should be aimed at both the rural and the urban population
Age split/average age	2003 data for Wales: 17.5% of the population was aged 65 or over (WAG 2005b)	2003 data for England: 15.9% The Welsh population is slightly older than the UK average (WAG 2005b)	This percentage is projected to increase to 23.8% by 2026	An increased proportion of elderly people needs to be taken into account when developing accessibility policies	Increasing accessibility with special regards to the elderly, mobility impaired and other disadvantaged groups
Percentage of people of working age in work	2004 data: Wales 72.4% (NAW 2005a)	2004 data: UK 74.5% No target defined (NAW 2005a)	Slightly increasing	Although unemployment has been decreasing, Wales still has higher unemployment than	Promoting the economy while minimising negative environmental impacts of travel

SEA topic/issue	Quantitative or que data (source of data provided in bracket	ta	Comparators and targets	Trends/future baseline (1) 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Issues, problems & opportunities identified	Actions/Issues for Wales Transport Strategy
					UK average rates	
Percentage of people at age 19 with at least an NVQ level 2 qualification	2003 data: Wales 76% (NAW 2005a)		2003 data: UK 76% No target defined (NAW 2005a)	Slightly increasing	Anecdotal evidence suggests that accessibility to education can be a particular problem in rural areas	Promoting accessibility with special regards to people in education
Number of people with out access to a car or van	2003 data: Wales 24 % (WAG 2005a)		2001 data: UK 27 % No target defined (ONS 2001)	? No trend identified Access to a car is usually higher in rural areas	Although car ownership is high, a significant proportion of the population relies on sufficient provision of public transport	Improving accessibility by widening choice. This can have other beneficial side effects, such as reduced greenhouse gas emissions
Index of multiple deprivation	Pockets of multiple and physical enviro deprivation can be found in SE and NE (WAG 2005c)	onment mainly	Most other parts of Wales but SE and NE Wales suffer from geographical access to services deprivation No target defined	? No trend identified	SE Wales in particular suffers from multiple deprivation	Reducing multiple deprivation by improving the physical environment, accessibility and health
Human health (includi	ng physical fitness,	, security a	nd safety)			
Life expectancy at birth (2000-2002)	Wales: Males 75 Females 80 (WAG 2005b)		England: 76.0 80.6 (WAG 2005b)	Steadily increasing	An increased proportion of elderly people needs to be taken into account when developing accessibility policies	Increasing accessibility with special regards to the elderly, mobility impaired and other disadvantaged groups
Proportion of	2001-02 data for W	/ales:	2001-02 data for	?	Generally, more	Promoting healthier

SEA topic/issue	Quantitative or qualitative data (source of data provided in brackets)	Comparators and targets	Trends/future baseline (1) 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Issues, problems & opportunities identified	Actions/Issues for Wales Transport Strategy
population reporting "good" state of health	Males 55% Females 55% (WAG 2005b)	England: 62% 58% No target defined (WAG 2005b)	No trend identified	people report a good state of health in England than in Wales	lifestyles by e.g. encouraging a modal shift to walking and cycling
Level of physical activity	2004 data: 1 in 3 men and 1 in 4 women reported undertaking physical activity according to guidelines (WAG 2005b)	2000 data for UK: Around 15 min per day spent on sporting activities. Variable with age and gender Not directly comparable No target defined (ONS 2000a)	No obvious upward or downwards trend	Lack of exercise	
Obesity	2004 data: 60% of men and 48% of women reported being overweight or obese (WAG 2005b)	2001 data for Wales: 64% of men and 53% of women reported being overweight or obese No target defined (ONS 2001)	Obesity rates are steadily increasing	Increasing obesity	
Road accidents Killed Seriously injured	2003 data for Wales: 173 (-18%) 1,482 (-18%)	2003 data for England: (-22%) (-22%)	Steady improving trend but slightly below UK average for overall casualties	Wales made significant progress in reducing road accidents which is a good basis for further	Reducing road accidents with special regards to KSI children should be a priority

SEA topic/issue	Quantitative or qualitative data (source of data provided in brackets)	Comparators and targets	Trends/future baseline (1) 21 -> 21	Issues, problems & opportunities identified	Actions/Issues for Wales Transport Strategy
KSI children	192 (-34%)	(-40%)		reductions	
Slightly injured	12,381 (-14%)	(-17%)		However, children	
All	14,036 (-6%)	(-9%)		priorities remain a high priority for the Welsh	
	Total numbers with percentage change to baseline 1994-1998 in	Targets by 2010 compared with 1994-1998 average:		Assembly Government	
	brackets	KSI reduction of 40%			
	(WAG 2005)	Slight injuries reduction of 10%			
		(DfT 2004)			
Crime rates per 100,000 population	2003/2004 data for Wales:	2003/04 for England and Wales	→ Although there is no	Crime on public transport or fear of	Reducing transport related crime
Theft of and from a vehicle	1,574	1,694	obvious upwards or downwards trend	crime can deter people from making more sustainable travel	
Burglary in dwelling	476	767	crime rates are on average lower than in	choices	
violent crime	1,933	2,113	the UK		
	(NAW 2005a)	No target defined			
		(NAW 2005a)			
Safety/Perception of safety on the transport system	Not known			More information would assist assessment	Could be suggested for future data collection
Number of initiatives to reduce community severance	Not known			More information would assist assessment	Could be suggested for future data collection

SEA topic/issue	Quantitative or qualitative data (source of data provided in brackets)	Comparators and targets	Trends/future baseline (? ?)	Issues, problems & opportunities identified	Actions/Issues for Wales Transport Strategy
Accessibility of pubic transport for wheel chair users and mothers with small children	Not known			More information would assist assessment	Could be suggested for future data collection
Soil					
Land use	2003 data:	No target defined	?	Wales consists of very	Improve accessibility
Total area	20,000 km ²		No trend identified	rural areas and some major urban centres	in rural and urban areas
Crops and bare fallow	3%			which has implications	areas
grasses and rough grassing	73%			for accessibility planning	
other agriculture	1%				
forest and woodland	14%				
urban/other	9%				
	(NAW 2005b)				
Types and percentage of soil groups found in Wales	Majority are brown soils, some peat, podzolic and lithomorphic soils can be found (see soil map)	No target defined	While the loss of upland habitats slowed, the quality of some vegetation types continues to decline (WAG 2003a)	Large areas of Wales are vulnerable to acidification, especially the uplands since soils have little or no acid neutralising capacity. Approximately one third of soils in Wales are affected by acidic deposition. In these areas, around half of most streams may	Preventing soil loss and maintaining and enhancing existing soil carbon stores Peatland and organic soils are large carbon stores and should be preserved as a climate change mitigation measure

SEA topic/issue	Quantitative or qualitative data (source of data provided in brackets)	Comparators and targets	Trends/future baseline (? ?)	Issues, problems & opportunities identified	Actions/Issues for Wales Transport Strategy
				have been damaged (Ferrier 2003). This is due partly to airborne sulphur and nitrogen compounds from industry and transport (WAG 2003a).	
				Vulnerable to land use change and development pressures.	
Soil loss and contamination through transport infrastructure development	Not known			More information would assist assessment	Could be suggested as indicator for future collection
Water and flood risk					
River water quality (percentage of river lengths of good or fair quality)	2003 data: Biological: 99.2% Chemical 98.3% (NAW 2005a)	2003 data for UK: UK: chemical and biological 95% Rivers in Wales are generally cleaner than the UK average No target defined (NAW 2005a):	→ Flat on high level	12,000 km of Welsh streams and rivers remain acidified (WAG 2003a) – an issue which needs to be addressed The main pressure on freshwater resources comes from nutrient enrichment, run-off, soil erosion, industrial pollution, acidification,	Protecting, maintaining and enhancing water quality

SEA topic/issue	Quantitative or qualitative data (source of data provided in brackets)	Comparators and targets	Trends/future baseline (1) 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Issues, problems & opportunities identified	Actions/Issues for Wales Transport Strategy
				water abstraction and climate change (WAG 2003a)	
Water pollution incidents attributable to transport	2001 data: 295 incidents (oils and fuels) 16.2% of overall water pollution incidents (WAG 2003a)	No target defined	? No trend identified	Transport related pollution incidents, such as spillages, have the potential to contaminate water courses	Protecting, maintaining and enhancing water quality
Drinking water quality/quantity	2003 data Percentage of test meeting quality standards: 99.86% (NAW 2005b)	Targets: prescribed concentration or value standards (PCV)	increasing	Because of its high rainfall, Wales has abundant water resources, but its landscape, soils and geology provide few natural stores. Consequently, supplies can quickly become scarce whenever there are extended dry periods (WAG 2003a)	Implications of climate change combined with transport factors on water quantity should be taken into account
Percentage of transport infrastructure at risk form flooding	Not known			The transport system is likely to be more vulnerable to flooding as the effects of climate change are felt As could be seen in Boscastle, flooding can lead to major	If possible new transport infrastructure should not be built in areas prone to flooding or should be sufficiently protected

SEA topic/issue Number of vegetative treatment systems implemented	Quantitative or qualitative data (source of data provided in brackets) Not known	Comparators and targets	Trends/future baseline (?)	Issues, problems & opportunities identified destructions of both properties and infrastructure More information would assist assessment	Actions/Issues for Wales Transport Strategy Could be suggested for future data collection
Air quality					
Number of days of moderate or high air pollution	2003 data: Urban: Cardiff: 59, Swansea 55, Port Talbot79 Rural: Aston Hill 53, Narbeth 41 (NAW 2005a; WAQF 2003)	UK urban: 59 (1993) 21 (2000) 25 (2001) 20 (2002) 50 (2003) UK rural: 33 (1999) 27 (2000) 34 (2001) 20 (2002) 61 (2003) 20 (2002) 61 (2003)	Air quality is improving but people living in urban areas are at greater risk of being exposed to poorer air quality Urban air quality in Wales is worse than England Main air pollutants come from road traffic, power generation and other heavy industries (WAG 2003a)	Ambient air quality is a problem in some urban areas and needs to be addressed Continuing rise of road traffic is of concern since it counteracts the effect of pollution control measures Improvements in air quality are not yet mirrored by improvements in terrestrial and aquatic ecosystems (WAG 2003a)	Reducing the contribution of transport to local air pollution
Levels of main air pollutants PM ₁₀	2003 data: 25 μg/m ³	UK Air Quality Strategy: 40 μg/m³annual mean maximum 3 exceedences a year	PM ₁₀ : slight downward tendency but trends can vary from site to site	PM ₁₀ measurements are close threshold at some sites	Contribute towards meeting national air quality targets Special attention should be paid to

SEA topic/issue	Quantitative or qualitative data (source of data provided in brackets)	Comparators and targets	Trends/future baseline (1) 7 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Issues, problems & opportunities identified	Actions/Issues for Wales Transport Strategy
NO ₂	20/40 μg/m³ (background and road site) with	40 μg/m³annual mean	NO ₂ no obvious trends		particulates
_	6 μg/m ³	125 μg/m ³ 24h mean	SO ₂ clearly downward		
SO ₂	(WAQF 2003)	maximum 3 exceedences a year	trend		
		(DEFRA 2003a)			
Incidences of ground level ozone	There were numerous exceedences of the Air Quality Strategy objective for ozone		? No trend identified	Ground level ozone remains an issue in some areas	Improving air quality should be a priority
	However, this objective is not included in UK Regulations for the purposes of local air quality management, since the pollutant cannot be controlled locally (WAQF 2003)				
Number of declared	2003 data for Wales:	2003 data for UK:	7	Living in an area with	Avoid further increase
AQMAs	4	137	With increased traffic	high air pollution can potentially have	in traffic related air pollution in AQMAs
	(WAQF 2003)	(WAQF 2003)	further AQMAs are likely	negative health effects	political in 7 (Qui) to
Percentage of population living in AQMAs	Not known			More information would assist assessment	Could be suggested for future data collection
Climatic factors (inclu	ding greenhouse gas emission	ns and adaptation to clima	nte change impacts)		
Tonnage of CO₂ emissions in mega	2003 data:	No target defined	A	Road traffic is the third biggest source of	Reducing the contribution of

SEA topic/issue	Quantitative or qualitative data (source of data provided in brackets)	Comparators and targets	Trends/future baseline (1)21->>>\dot*?)	Issues, problems & opportunities identified	Actions/Issues for Wales Transport Strategy
tonnes (Mt)	36 Mt CO ₂ thereof 6 Mt from transport (excludes military, off-shore industry, aviation and shipping) (DEFRA 2005b)		After the 'dash for gas' (switch from coal to gas) and with growing traffic, further increases are likely	greenhouse gas emissions in Wales and is likely to continue to grow due to increased numbers of vehicles and greater annual distance travelled (WAG 2003a) Wales is still below the UK Kyoto target	transport to climate change
Change in emissions of basket of greenhouse gases between 1990 and 2002	Wales -8.6% (NAW 2005a)	UK: -14.9% (NAW 2005a) Kyoto target for basket for GHG emissions: 12.5% lower than 1990 level	Is likely to increase as traffic increases		
Annual mean temperature	2004 data for Wales 9.7 degrees Celsius (NAW 2005b)	0.8 degrees Celsius higher than 1961-1990 average (NAW 2005b)	Is likely to increase as GHG emissions increase		
Annual rainfall	2004 data: 1,409mm (NAW 2005b)	4% higher than 1961- 1990 average (NAW 2005b)	? No trend identified However, climate change projections suggest that winter rainfall might increase in future where as summer rainfall might	Transport infrastructure could be at risk on areas prone to flooding	Transport infrastructure should be designed with possible climate change impacts in mind

SEA topic/issue	Quantitative or qualitative data (source of data provided in brackets)	Comparators and targets	Trends/future baseline (1) 27 -> 2 -> 2)	Issues, problems & opportunities identified	Actions/Issues for Wales Transport Strategy
			decline (WAG 2003a)		
N. 1. 11 41					
Noise and vibration					
Noise levels	2000 data: 54.9 L _{Aeq, 24hr} (dB) 51.2 L _{A10,24 hr} (dB) 38.4 L _{A90, 24hr} (dB) (BRE 2000)	Only small regional differences within the UK WHO target for day time noise 55 dB _{LAeq, day} WHO target for night time noise 45dB _{LAeq, night}	? No trend identified However, with increased traffic, noise levels are likely to increase	Road traffic is the predominant source of noise (BRE 2000) Noise levels in rural areas are around 10 dB lower than urban areas	Avoidance, reduction and mitigation of transport related noise and vibration
Percentage of population hearing/being affected by transport noise/vibration	1999 data for England and Wales: 60% of the population hear road noise and 30% are affected by it 45% of the population hear aircraft noise and 18% are affected by it (DEFRA 2003b) WAG commissioned Parsons Brinckerhoff (PB) to carry out a study assessing those sections of the trunk road or motorway network where there is significant concern about traffic noise and to determine feasible noise	See above	Increasing with traffic growth	Transport noise remains an issue No data on is available on vibration	More Wales specific data on noise could be suggested for future data collection

SEA topic/issue	Quantitative or qualitative data (source of data provided in brackets)	Comparators and targets	Trends/future baseline	Issues, problems & opportunities identified	Actions/Issues for Wales Transport Strategy
	mitigation measures.				
Noise complaints	2003/04 data compared with 1984/85 baseline for England and Wales	No target defined	complaints regarding road traffic slightly		
Regarding road traffic	Slightly below baseline		decreasing		
Regarding road works, construction,	Three times higher than in baseline year		Sharp increase in		
demolition	(DEFRA 2005b)		complaints regarding road works		
Noise offences relating to motor	2003 data for England and Wales	No target defined	Decreasing in line with	Compliance with standards is improving	
vehicles	104 offences		national trend		
	(DEFRA 2003c)				
Material assets (includ	les resource efficiency)				
Total road length	2004 data:	No target defined	7	New infrastructure can	If further transport
	33,987 km		Further increases are	cause both temporary and permanent	infrastructure is deemed necessary the
	An increase of 111 km (mainly minor surfaced roads)		likely if private transport continues to be the first choice of travel	adverse environmental impacts	environmental impacts should be avoided, minimised and
	(WAG 2005a)				mitigated
Percentage of trunk	2003 data	No target defined	->	Necessary	Possible
road network requiring close	11%		Slight decrease from	maintenance of transport assets can	environmental impacts of maintenance works
monitoring of structural condition	(WAG 2005a)		2002	give rise a variety of environmental impacts	should considered

SEA topic/issue	Quantitative or qualitative data (source of data provided in brackets)	Comparators and targets	Trends/future baseline (? ?)	Issues, problems & opportunities identified	Actions/Issues for Wales Transport Strategy
Tonnage and percentage of recycled and secondary aggregates used in transport projects	Not known	No transport specific target. MTAN 1 sets a target to recycle 40% of construction and demolishment waste by 2005 (WAG 2004a)	? No trend identified	35% of all permitted reserves of primary aggregates are situated at least partly within SSSIs (WAG 2003a) Hence, the exploration of these reserves could give rise to negative environmental impacts	Higher resource efficiency in transport projects should be encouraged by e.g. setting mandatory targets for the use of recycled and secondary materials
Percentage of electricity produced in Wales generated from renewable sources	2003 data for Wales: 2.6% (mainly from wind) (NAW 2005a)	2003 data for UK: 2.9% (NAW 2005a) Target: renewables should supply 10% of UK electricity by 2010 (DTI 2003)	Slightly decreasing	In the light of climate change and the incentive mechanisms available this trend is worrying and need to be reversed	Promoting renewable energy, e.g., by supporting hybrid vehicles, solar powered parking meters etc.)
Number/percentage of hybrid or Liquid Petroleum Gas (LPG) vehicles	Not known			More transport specific indicators would be useful	Could be suggested for future data collection
Ecological footprint in area units per person	2001 data: 5.25 (NAW 2005a)	2001 data: 5.35 Average earth share 1.8	? No trend identified	Every person in Wales has an ecological footprint which is more than twice as high as sustainable In the light of	Minimising resource use and increasing resource efficiency

SEA topic/issue	Quantitative or qualitative data (source of data provided in brackets)	Comparators and targets	Trends/future baseline (?)	Issues, problems & opportunities identified	Actions/Issues for Wales Transport Strategy
		(NAW 2005a)		continuing economic and population growth worldwide this figure has to decrease to be sustainable	
Number of initiatives/ schemes promoting/using alternative energy (e.g. solar powered parking meters)	Not known				Could be suggested for future data collection
Cultural heritage and t	he historic environment (inclu	ding architectural and arc	haeological heritage)		
Number of Scheduled Ancient Monuments (SAMs)	2003/04 data: Over 7000 (Cadw 2004)	No target defined	Increasing	Historic buildings, monuments and other cultural heritage could potentially be at risk when transport infrastructure is built or enhanced	Avoid, reduce and mitigate the negative effects of transport on Wales' cultural assets, the historic environment and local distinctiveness. Ensure a quality built environment
Condition of SAMs	2002 data: 15% of SAMs are deteriorating, but only in 2% considered as severe (WAG 2003a)	No target defined	? No trend identified		
Number of	2002 data:	No target defined	?		

SEA topic/issue	Quantitative or qualitative data (source of data provided in brackets)	Comparators and targets	Trends/future baseline (1) 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Issues, problems & opportunities identified	Actions/Issues for Wales Transport Strategy
conservation areas	513 (WAG 2003b)		No trend identified		
Number of listed buildings	In 2003/04 (Cadw 2004): 27,327	No target defined	7 Increasing		
Number of buildings sites at risk (due to transport)	Buildings at risk registers are being compiled by local authorities (Cadw 2004)				
Landscape and towns	cape (including light pollution)				
Landscape character	The Register of Landscapes of Historic Interest in Wales, highlights the 58 best examples of different types of historic landscape in Wales (CCW 2001) However, Wales remains a predominantly pastoral landscape Agriculturally improved grassland of little biodiversity value is the single most extensive habitat type followed buy semi-improved grassland (WAG 2003a)	No target defined	? No trend identified	New transport infrastructure can potentially have negative impacts on landscape character These impacts have to be analysed on regional or local level	Protecting, maintaining and enhancing landscape character
Light pollution	Between 1993 and 2000 light pollution has increased UK wide (CPRE 2003)	No target defined	With further development light pollution is likely increase	Contributes to climate change via GHG emissions and can decrease tranquillity	Reducing light pollution via sensible design

SEA topic/issue	Quantitative or qualitative data (source of data provided in brackets)	Comparators and targets	Trends/future baseline (1)22222222	Issues, problems & opportunities identified	Actions/Issues for Wales Transport Strategy
Proportion of tranquil areas/loss of tranquillity	Not known	56 % of England is seen as tranquil, decrease from 77% in 1960s			Could be suggested as future data collection
Transport					
Number of vehicles licensed	2003 data: 1,547,000 (WAG 2005a)	No target defined	An increase of 3% compared to 2002	An increasing number of vehicles is likely to lead to more road traffic with all its associated environmental impacts	Road traffic growth should be avoided and average car occupancy should be increased
Road traffic growth	2003 data: 3.5% (WAG 2005a)	All UK classified roads: 2% per year between 1993 – 2001 (overall increase of 18%)	Road traffic growth is steadily increasing	Continuing road traffic growth combined with decreasing average car occupancy could lead to increased congestion levels and various adverse environmental impacts	
Average car occupancy	Not known	1.2 in the UK for commuting (ONS 2000b) No target defined	Slightly downward trend		
Congestion levels	Anecdotal evidence suggests that there are some congestion problems in SE Wales, in contrast to no or only minor problems in other parts of the country	No target defined	? No trend identified	Congestion leads to higher local air pollution This can be a problem in already polluted areas or in close	Congestion and hence local air pollution should be reduced

SEA topic/issue	Quantitative or qualitative data (source of data provided in brackets)	Comparators and targets	Trends/future baseline (1) 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Issues, problems & opportunities identified	Actions/Issues for Wales Transport Strategy
				proximity to sensitive receptors	
Modal spilt	2002/03 data: 84% car 10% walking 6 % other (WAG 2005a)	2000 data: 71% car 10%, walking 3%, cycle 8% bus 7% rail (ONS 2001)	A higher percentage of trips make use of the private car This trend continues	Primary use of the private car gives rise to more air pollution and greenhouse gas emissions which could otherwise be avoided	Encourage more environmentally friendly travel choices Improve accessibility by more sustainable modes of travel
Distances travelled by mode	2002/03 data: 5,628 m by car 138 m walking 946 m other (WAG 2005a)	2000 data fro UK: 5,712 m car 189 m walking 39 m cycling, 254 m bus, 425 m rail, 204 m taxi (ONS 2001)	? No trend identified	The private car is by far the most used mode of travel (in terms of distance)	A modal shift to more sustainable modes of travel could lead to a number of environmental benefits
Mode of travel to work	2004 data: Car or van 82% Foot 11% Bus 4% Bicycle 1% Rail 1% Other 1% (WAG 2005a)	2001 data: 71% (ONS 2001)	The trend to commute to work by car still continues	In Wales a higher proportion of people rely on private transport to commute to work	

SEA topic/issue	Quantitative or qualitative data (source of data provided in brackets)	Comparators and targets	Trends/future baseline (1) 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Issues, problems & opportunities identified	Actions/Issues for Wales Transport Strategy
Tourism modal split	2003 data: Car 84% Bus 5% Train 5% Other 6% (WAG 2005a)	No targets defined	Trend to use primarily private transport continues	The vast majority of trips by tourists is undertaken by the private car, adding to air pollution, greenhouse gas emissions and congestion	
Number of bus journeys	2003/04 data: 108 million (WAG 2005a)	Bus patronage is generally decreasing in the UK with only a few exceptions (e.g. London area) No target defined	1% decrease compared with 2002/03	Decreasing bus patronage remains a problem in the UK	
Access to bus services - time taken to walk to nearest bus stop (min)	2002/03 data: 6 or less 86% 7-13 9% 14 or more 4% (WAG 2005a)	No target defined	Access to bus services does not show an obvious trend	Easy accessibility to public transport crucially determines the likelihood of a modal shift towards more sustainable modes of travel	
Bus availability indicator	2002/03 data: Wales 87% (WAG 2005a)	2002/03 data: UK 90% (WAG 2005a)	Bus availability in Wales is improving	Bus availability is generally good in Wales, however the overall number of bus journeys is decreasing	
Number of passengers using Cardiff International	2003 data: 1.92 million	No target defined	An increase by 35%	Aviation is one of the fastest growing sources of GHG	Implications of increased air traffic in Wales e.g. in terms of

SEA topic/issue	Quantitative or qualitative data (source of data provided in brackets)	Comparators and targets	Trends/future baseline	Issues, problems & opportunities identified	Actions/Issues for Wales Transport Strategy
Airport	(WAG 2005a)		compared to 2002	emissions	GHG emissions, air pollution, noise should be considered
Amount Freight landed in Welsh ports	50,284 thousand tonnes	No target defined	Slightly upwards trend in 2003 after decline since 2000	As traffic in Welsh ports continues to rise, so does the risk that ships will introduce non-native species (WAG 2003a)	Environmental impacts of sea transport should be considered