TAITH

**Anglesey, Conwy, Denbighshire, Flintshire, Gwynedd and Wrexham
Councils working in Partnership**

North Wales Regional Transport Plan

30th September 2009

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Abbreviations used in this document

ATCO	Association of Transport Co-ordinating Officers
CPE	Civil Parking Enforcement
CSS	County Surveyors' Society
DDA	Disability Discrimination Act
DfT	Department for Transport
DRT	Demand Responsive Transport
EU	European Union
HGVs	Heavy Goods Vehicles
ICT	Information and Communications Technology
LA	Local Authority
LDP	Local Development Plan
LTP	Local Transport Plan
MDA	Mersey-Dee Alliance
NSIP	National Stations Improvement Programme
NTP	National Transport Plan
NWTM	North Wales Transport Model
PSO	Public Service Obligation
RFP	Rail Forward Programme
RMS	Route Management Strategy
RTP	Regional Transport Plan
SEA	Strategic Environmental Assessment
SEWTA	South East Wales Transport Consortium
SNPA	Snowdonia National Park Authority
SWWITCH	South West Wales Transport Consortium
Taith	North Wales Transport Consortium
TEN-T	Trans European Transport Network
TG	Transport Grant
TraCC	Mid-Wales Regional Transport Consortium
TRFP	Trunk Road Forward Programme
UDP	Unitary Development Plan
UK	United Kingdom
WAG	Welsh Assembly Government
WelTAG	Welsh Technical and Planning Appraisal Guidance
WLGA	Welsh Local Government Association
WSP	Wales Spatial Plan

Executive Summary

E1 – About this document

The schematic below shows how this document is arranged

Introduction	Introducing Taith's role in North Wales and the statutory background to preparation of the North Wales Regional Transport Plan.
The National and Regional Planning Context	Other national and regional frameworks to which the North Wales Regional Transport Plan relates.
North Wales Transport Problems & Opportunities	Analysis of the problems and opportunities within transport services in North Wales including cross cutting issues.
Developing the North Wales RTP	The process followed by Taith in compiling the North Wales Regional Transport Plan.
Strategies and Programmes	How Taith's strategies and programmes were developed and evaluated.
Evaluation	
Cross-cutting and Future Issues	Important issues which impact on Transport, future developments and how Taith will deliver the North Wales Regional Transport Plan.
Delivery	

E2 – Taith

Taith is the North Wales Regional Transport Consortium, a grouping of the six North Wales Local Authorities that the Welsh Assembly Government has charged with preparing the North Wales Regional Transport Plan. There are four consortia altogether. The others deal with Mid-Wales (TraCC), South East Wales (SEWTA) and South West Wales (SWWITCH).

E 3 - Why we are producing the North Wales Regional Transport Plan

Almost every activity depends on transport whether for the movement of people or goods. The North Wales Regional Transport Plan (RTP) is a strategy for identifying and delivering improvements to our transport system in North Wales over the next 25 years. It is set in the context not only of national policies but also the economic and social aspirations and development plans of the six North Wales local authorities.

The Wales Transport Act 2006 requires the Taith Transport Consortium to produce an RTP for North Wales consistent with the Welsh Assembly Government's Wales Transport Strategy. There are other important considerations such as protecting and enhancing North Wales world class landscapes and heritage and taking measures to reduce the adverse impacts of transport on the environment and climate. As well as the North Wales RTP itself Taith is required to produce a Strategic Environmental Appraisal (SEA)

E4 – Transport to and from North Wales

North Wales is a large and diverse region but it is not self-contained. The Welsh Assembly Government has prepared the Wales Spatial Plan (WSP), providing a national planning framework that gives the context for the Wales Transport Strategy (WTS) and the four consortia RTPs. They are now preparing a National Transport Plan (NTP) that will have major implications for North Wales as the national trunk road and rail networks also carry regional and local services. North Wales looks increasingly to the capital, Cardiff, as the seat of government and much national business. The One Wales manifesto emphasises the importance of North South transport links to Wales as a nation. The North Wales RTP must consider how national road, rail, air and ports issues affect our regional needs and feed back to the Welsh Assembly Government what we want them to do for national transport links and services to ensure that the North Wales RTP aims and objectives can be successfully delivered.

North Wales is also a strategic gateway to Ireland and to North West England as well as its links to the rest of Wales. Taith has therefore established close links with English and Irish authorities as well as with TraCC to ensure that "cross-border" transport requirements are jointly identified and appropriate action is included in the plans of each relevant authority.

E5 - RTP Vision and Priorities

Taith's vision for transport in North Wales reflects the rich diversity of the region and is:

> *"Taith will deliver safe, sustainable and efficient transport networks to support the economic and social activities of North Wales' diverse communities and businesses having regard to its strategic European role."*

From this and the requirements of the Wales Transport Strategy are derived objectives and the nine regional priorities which have shaped our proposals for developing economically efficient and environmentally sustainable transport systems to serve the communities and businesses of North Wales. The priorities are:

1. *Efficiently meeting North Wales' diverse transport needs*
   Providing a transport network for North Wales that recognises the geographic and social diversity of the Region, making best use of the available resources to give efficient movement of both people and freight.

2. *Passenger transport profile and performance*
   Raising the profile and performance of public transport services in North Wales within an integrated system including trains, high quality fast inter-urban bus and coach services, improved local bus networks and an appropriate mix of services involving smaller vehicles for rural areas.

3. *Reducing congestion and journey times*
   Resolving congestion and highway access issues.

4. *Supporting development*
   Supporting the development of towns and other key centres to increase their economic viability and to promote sustainable development and environmental improvement.

5. *Safe, efficient, sustainable transport networks*
   Maintaining safe, efficient, more sustainable transport networks.

6. *Improving rail services for North Wales*
   Seeking improvements to all North Wales rail passenger services and facilities.

7. *Environmentally-friendly and efficient freight movement*
   Implementing road, rail and terminal improvements in conjunction with national and regional agencies and companies.

8. *Smart traffic planning and management*
   Establishing an integrated North Wales traffic monitoring, information and control network and seeking to promote more sustainable travel behaviour through travel planning and better education in efficient travel choices and driving techniques.

9. *Sustainable transport*
   Increasing current levels of cycling and walking by residents and visitors

E6 - Interventions and 5 year programme

Having developed our regional transport priorities, regional strategies were proposed and interventions (policies and transport projects) have been developed to implement them. As required under the WTS guidance three strategic options have been tested using the WelTAG appraisal tool and 5 year expenditure programmes have been put forward in the RTP as a bid for consideration by the Welsh Assembly Government for funding of £92.3 million capital expenditure over the period April 2010 to March 2015. The programmes will deliver economic, social and environmental benefits through a combination of interventions including public transport, walking and cycling, freight strategy, environmental awareness and training, road safety, integrated transport management and highway network improvements.

We have considered all types of transport, freight and passenger, public and private, taxis and community transport, road and rail, sea and air in a comprehensive approach to the transport needs of North Wales.

E7 – Consultation

In drawing up the North Wales RTP we have consulted stakeholder partners in business and the community both in specific consultation events covering both the RTP and the SEA and through "one-to-one" sessions with particular groups such as public and community transport operators, business representatives and others. An extensive public consultation in the summer of 2008 attracted high and very positive interest through responses to a questionnaire via the internet and postal questionnaire returns.

E8 – Delivery and Monitoring

Taith is now preparing to deliver its proposals, moving from the planning phase to prioritising the different schemes for implementation when funding levels are known. Whilst the main source of funds will be grants from the Welsh Assembly Government, there are many others that Taith will be seeking to use including European Community funds, contributions from developers who will receive benefits in the future from access to their sites and charges for the use of public transport services and facilities such as parking.

A key feature of the North Wales RTP is a robust data collection and monitoring strategy. This will provide a sound basis for the development of robust transport strategies and programmes for North Wales.

1   Introduction

Transport affects all of us, making possible the movement of people and goods. It gives us access to jobs, education, health, shops, leisure and social activities.

People in their everyday lives cross administrative boundaries without thinking about them, simply travelling along the transport routes which enable them to reach their destinations, unconcerned about whether national or local government is responsible for the route or service they are using. The Welsh Assembly Government has asked Taith, the North Wales Transport Consortium, to continue and extend their joint working arrangements throughout the region to ensure safe, sustainable, accessible and well maintained links between our communities regardless of lines on maps which need to be crossed in order to reach home, work and amenities or to move goods.

In accordance with the Wales Transport Act 2006, the Taith Transport Consortium is required by the Welsh Assembly Government (the Welsh Assembly Government) to produce a Regional Transport Plan (RTP) for North Wales consistent with its own Wales Transport Strategy (WTS). The North Wales RTP is a strategy for identifying and delivering improvements to our transport system in North Wales over the next 25 years.

The Taith Regional Transport Consortium was formally established on 31st March 2004. It is one of four legally constituted consortia in Wales and brings together all six North Wales Unitary Authorities (Anglesey, Gwynedd, Conwy, Denbighshire, Flintshire and Wrexham).   Gwynedd Council is also a member of the mid-Wales TraCC Consortium, representing the former Meirionnydd district area. The boundaries of the consortia in Wales were formalised by "The Regional Transport Planning (Wales) Order" of the National Assembly for Wales in 2006. Apart from Taith and TraCC, the other two transport consortia are SEWTA and SWWITCH in South Wales. The Taith Consortium is administered by a joint committee of Local Members from each of the Unitary Authorities, supported by a small team of full-time Officers and working groups of officers from the six authorities.   The areas covered by Taith and the other three consortia are shown in figure 1.1.

North Wales is a large and diverse region but it is not self-contained. The Welsh Assembly Government has prepared the Wales Spatial Plan (WSP), providing a national planning framework that gives the context for the Wales Transport Strategy (WTS) and the four consortia RTPs. They are now preparing a delivery plan to take forward the nationally funded policies and schemes arising from the WTS. This National Transport Plan (NTP) will necessarily have major implications for North Wales as the national trunk road and rail networks also carry regional and local services. Most importantly North Wales looks increasingly to the capital, Cardiff, as the seat of government and much national business and North South transport links are vital to Wales as a nation. The One Wales manifesto stresses the importance of such links. Our RTP must also look at how national road, rail, air and ports issues affect our regional needs and policies and then feed back to the Welsh Assembly Government what we want them to do on the transport links and services for which they are responsible to ensure that the RTP aims and objectives can be successfully delivered.

Figure 1.1 - The Welsh Transport Consortia Areas
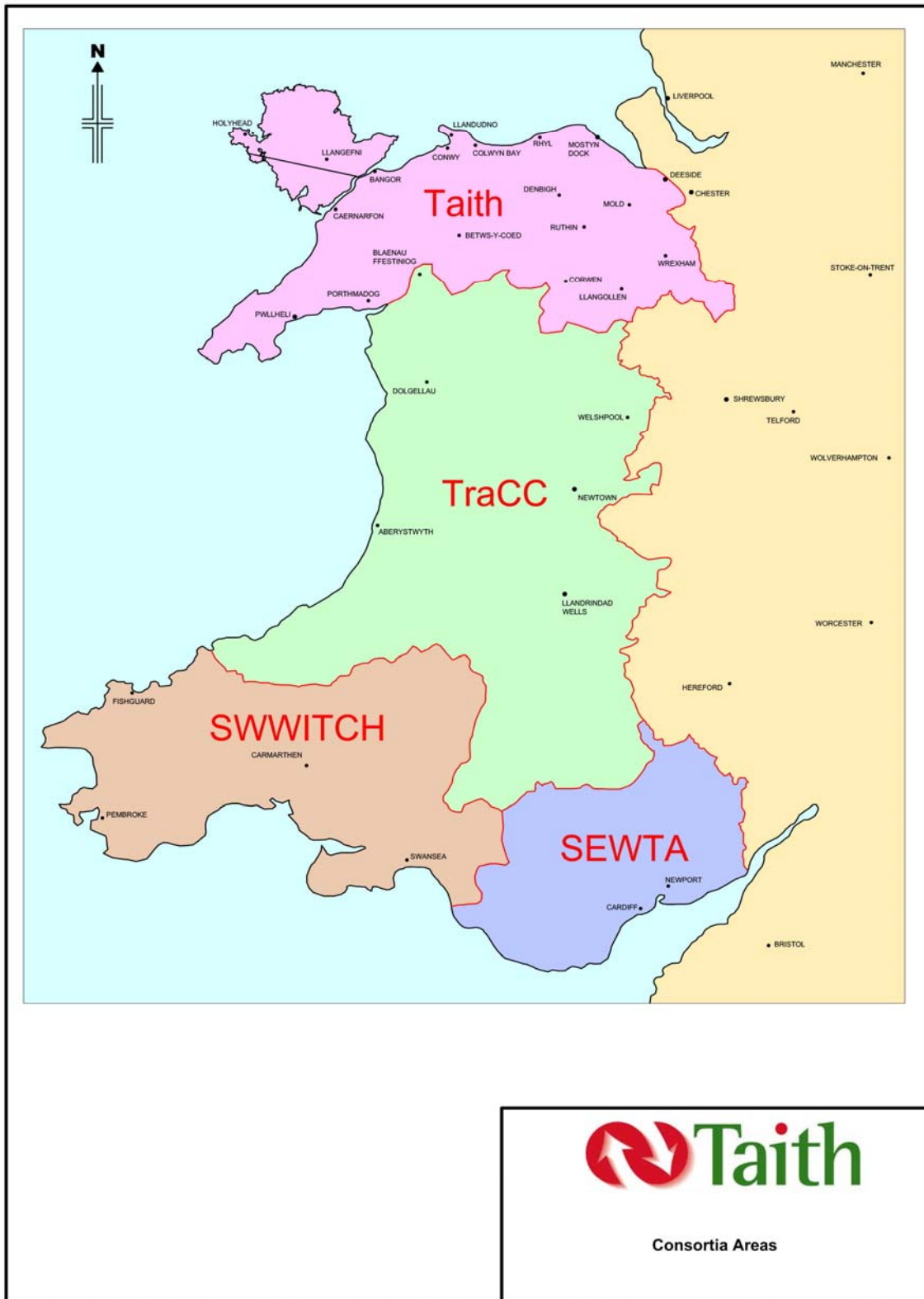
North Wales has an international strategic role. Holyhead is an important gateway for the Irish Republic and other North Wales ports, such as Mostyn, have roles for both domestic UK and international trade. Within the UK, the many transport movements across the Wales-England border, particularly to and from Cheshire, Merseyside and Shropshire, are clear examples of transport not respecting administrative boundaries. Taith and the Councils bordering England have joint working arrangements to deal with issues of mutual concern including spatial planning and transport. An example is the Mersey-Dee Alliance of authorities surrounding the estuaries of the rivers Mersey and Dee. Internationally, Taith is working with UK, Irish and European authorities as two European Transport Priority Networks pass through North Wales. Figure 1.2 shows the North Wales Region with principal routes by road and rail, ports and airports with public air services, whilst figure 1.3 has corresponding information for Wales as a whole.

Figure 1.2 – Principal Transport Networks and Infrastructure in North Wales
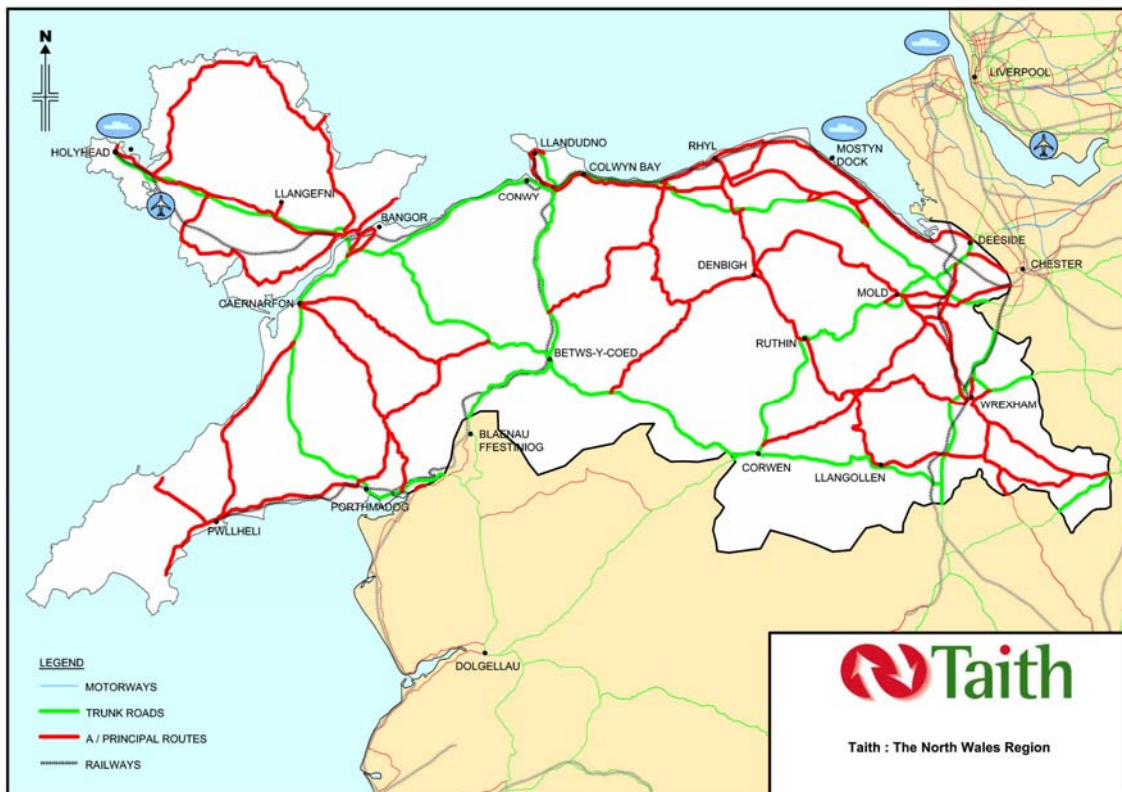
Figure 1.3 – Principal Transport Networks and Infrastructure in Wales
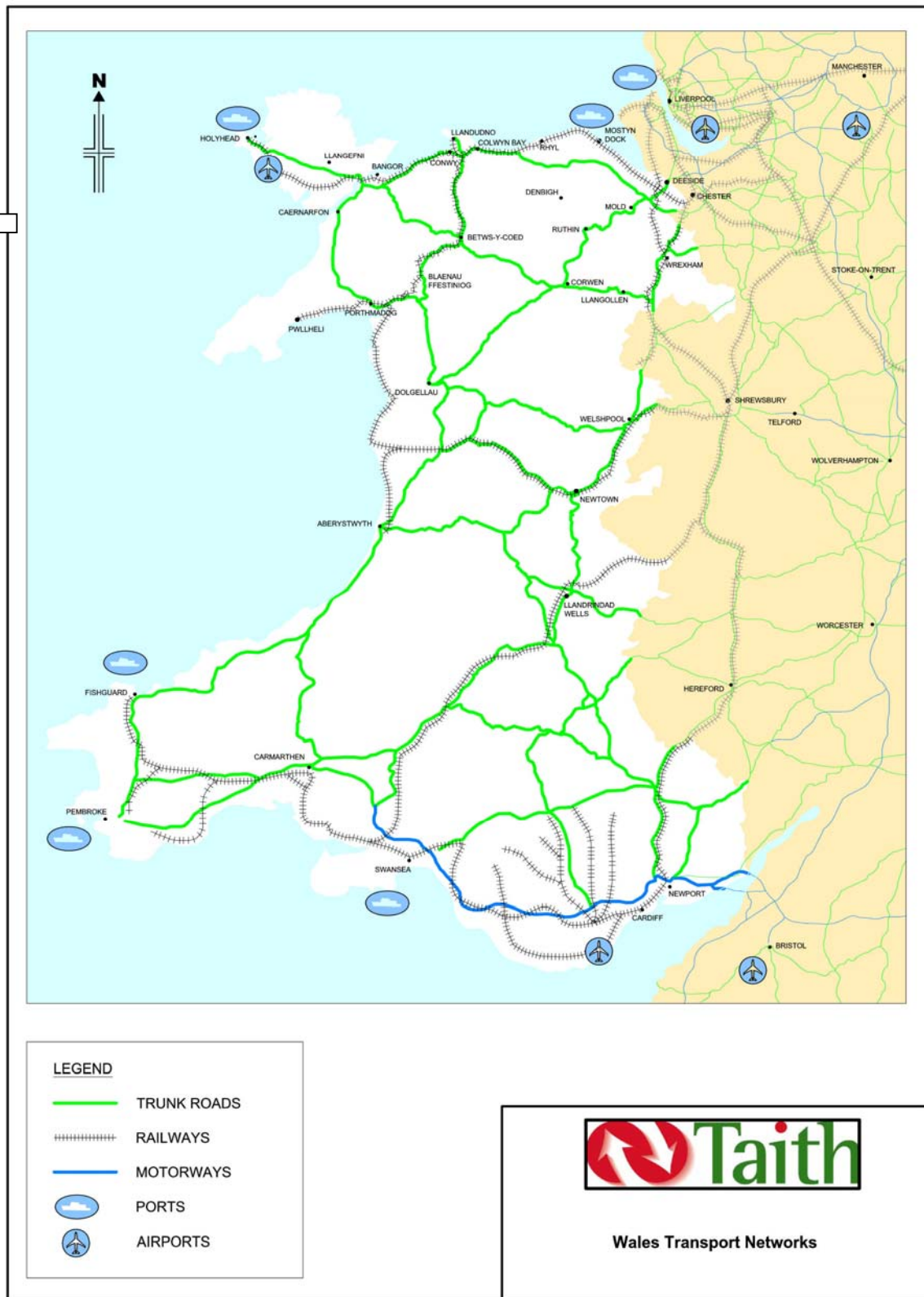
2   The National and Regional Planning Context

2.1   Introduction

The policy framework for the preparation of the Regional Transport Plan for North Wales is set out in policy documents at the national, regional and local level. The National and Regional strategic documents that have been key influences on the preparation of the preparation of the Taith RTP include;

- o   One Wales
- o   Wales Spatial Plan
- o   Wales Transport Strategy
- o   Local Authority Development Plans
- o   Cross Border Strategies
- o   Stakeholder Plans / Strategies

2.2   Wales Spatial Plan

People, Places Futures, the Wales Spatial Plan (adopted 2004, refreshed 2008)[1] set out an agenda for the sustainable development of Wales over the next 20 years. It seeks to provide a spatial dimension to long term planning that recognises the differing needs and challenges experienced throughout Wales. It provides a basis and momentum for working together on a shared agenda locally, so that the different parts of Wales can develop their own distinctive approaches to meet objectives set in the strategic plan and the Welsh Assembly Government's Sustainable Development Scheme. The WSP develops five national themes as depicted in Figure 2.1:

Figure 2.1 - The WSP National Themes

Source: Welsh Assembly Government

The following WSP themes provide guidance for developing regional transport priorities, recalling that transport facilitates and affects virtually all social and economic activity but obviously has significant and lasting impacts on the natural and built environments.

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[1] Welsh Assembly Government, People, Places Futures, The Wales Spatial Plan Update 2008

Figure 2.2 – Key Themes in the Wales Spatial Plan

Building Sustainable Communities

Promoting a Sustainable Economy

Valuing Our Environment

Achieving Sustainable Accessibility

Respecting Distinctiveness

Beyond Wales

The WSP theme on Achieving Sustainable Accessibility includes the comments[2]:

Figure 2.3 – WSP Achieving Sustainable Accessibility Extracts

"In the context of responding to and mitigating the effects of climate change, the Wales Spatial Plan supports the development of spatially targeted responses. These include reducing the need to travel, by co-locating jobs, housing and services, for instance, and changing behaviour towards more resource-efficient and healthy modes of travel, such as encouraging car sharing, public transport, walking and cycling."

"The development of improved electronic communications and improved access to information and services through electronic means (including support for local access points and face-to-face contact) can reduce the need to travel while improving service delivery at the same time."

This poses the following challenges for transport planners and operators in Wales.[3]

Figure 2.4 – Challenges arising from the WSP

Challenges
- Work within the national and regional transport planning frameworks to improve the quality and sustainability of connections between key settlements, within and between the Wales Spatial Plan Areas.
- Integrate sustainable transport solutions with community and development planning to improve access to services and facilities, recognising the role of the third sector in hard-to-reach places.
- While continuing to invest in the transport infrastructure and services, ensure that transport in Wales contributes to mitigating the effects of climate change by achieving a reduction in total greenhouse gas emissions.
- Improve the quality of ICT networks in Wales as well as reducing barriers to accessing ICT, such as skills.

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[2]Welsh Assembly Government, People, Places Futures, The Wales Spatial Plan Update 2008, pps 43-44

[3] Welsh Assembly Government, People, Places Futures, The Wales Spatial Plan Update 2008, p44

2.3 Wales Spatial Plan – Area Plans

Any Regional Transport Plan must link closely with the aims and objectives of the National 'Spatial' Strategy and the local variances agreed at a regional level. Whilst the Wales Spatial Plan provides the overarching visions and objectives, there are three Area Plans which impact on the six North Wales Unitary Authorities and hence the North Wales RTP area. Each Area Plan will have an associated delivery plan. The Area Plans are as follows:-

> North West Wales – Eryri a Môn
> North East Wales – Border and Coast
> Central Wales

The boundaries between these plans are deliberately "fuzzy" recognising that many activities, including transport, do not respect artificial boundaries. This is especially true of the Central Wales Area with its substantial overlapping interests with North East and North West Wales.

The following sections extracted from the WSP describe each of the areas, their visions and sustainable accessibility sections which in each case have had input from the North Wales Regional Transport Plan team.

2.4 Area Plan – North West Wales: Eryri a Môn[4]

Figure 2.5 – WSP Eryri a Môn Area

Source: Welsh Assembly Government

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[4] Welsh Assembly Government, People, Places, Futures, The Wales Spatial Plan Update 2008, p86

The Vision

A high-quality natural and physical environment supporting a cultural and knowledge-based economy that will help the area to maintain and enhance its distinctive character, retain and attract back young people and sustain the Welsh Language.

The key priorities for this Area are:

- Reducing the economic gap between North West Wales and the rest of Wales, through the Môn a Menai Programme, targeting infrastructure - including utilities and Information and Communications Technology (ICT); decommissioning and skills.
- The development of integrated transport systems; between key settlements and employment areas to spread prosperity and provide access to jobs and services; maximising the opportunities of Holyhead as an International gateway.
- Focus on developing a knowledge economy and recognising the key role Bangor University has in supporting this; ensuring the Area has sufficient vocational skills providers to support sector growth.
- Capitalising on the region's environment to build higher value sustainable tourism and better paid jobs within the environmental goods and service sector including, marine and engineering sciences, geo sciences, waste management, recycling and renewable energy.

Transport's Contribution

Identified below are certain key statement from the Spatial Plan Update that have been taken into account in preparing the RTP.

- The cluster of larger towns on either side of the Menai Hub
- Access to increasingly centralised jobs and services from a largely dispersed rural population
- Supporting secondary hubs
- Developing key sectors with appropriate physical infrastructure
- Maximising role of Holyhead as a key UK international gateway and the opportunities arising from the regions position on the two EU TEN-T priority axes (13 and 26) from Ireland – UK – Continental Europe.

With regard to the Achieving Sustainable Accessibility Theme, the WSP development process was able to inform the RTP with the following major areas;

- To guard against the risk of increased polarisation between developed and peripheral parts of North West Wales.

- Internal connectivity internally with North West Wales between its primary and secondary hubs and external connectivity to Central Wales, North East Wales, North West England, West Midlands and the Republic of Ireland.(The Cambrian Coast Line is dealt with by the Mid Wales RTP)

- Capacity issues on the Britannia Bridge and the A487 around Caernarfon.

- Freight Issues and potential on the North Wales Main Line and the Conwy Valley branch line.

- Internal and External connectivity of the air transport sector through Anglesey Airport.

In the North West Area Delivery Plan, two Regional Transport Plan projects are included in the near term Delivery Plan. Both projects are eligible for funding under the European Union Convergence Programme.

- Holyhead Transport Environmental Package (EU Convergence Bid)

- Llandudno Town Station (this will also attract funding from the National Station Improvement Programme) – this scheme is also in the North East Area Spatial Plan list of projects

A key influence for the Taith region (both for the North West Wales and North East Wales WSP Areas) is the role of the North West England / West Midlands region. In respect of the key cross border relationship with the North West England, Taith with its three North Eastern constituent authorities (Wrexham CBC, Flintshire CC, Denbighshire CC) are represented in the Mersey Dee Alliance (MDA) with adjoining English Authorities.

In March 2007, the Welsh Assembly Government and the West Midlands Regional Assembly signed a memorandum of understanding which outlines their commitment to promote stronger and more effective cross border collaboration in both policy development and service delivery. Accessibility was one of the six themes of the Memorandum of Understanding. Taith works closely with TraCC and attends meetings as appropriate where there is an interest – principally on the A483 / A5 and Chester – Shrewsbury rail corridors.

2.5 Area Plan – North East Wales – Border and Coast [5]

Figure 2.6 - WSP Border & Coast Area

Source: Welsh Assembly Government
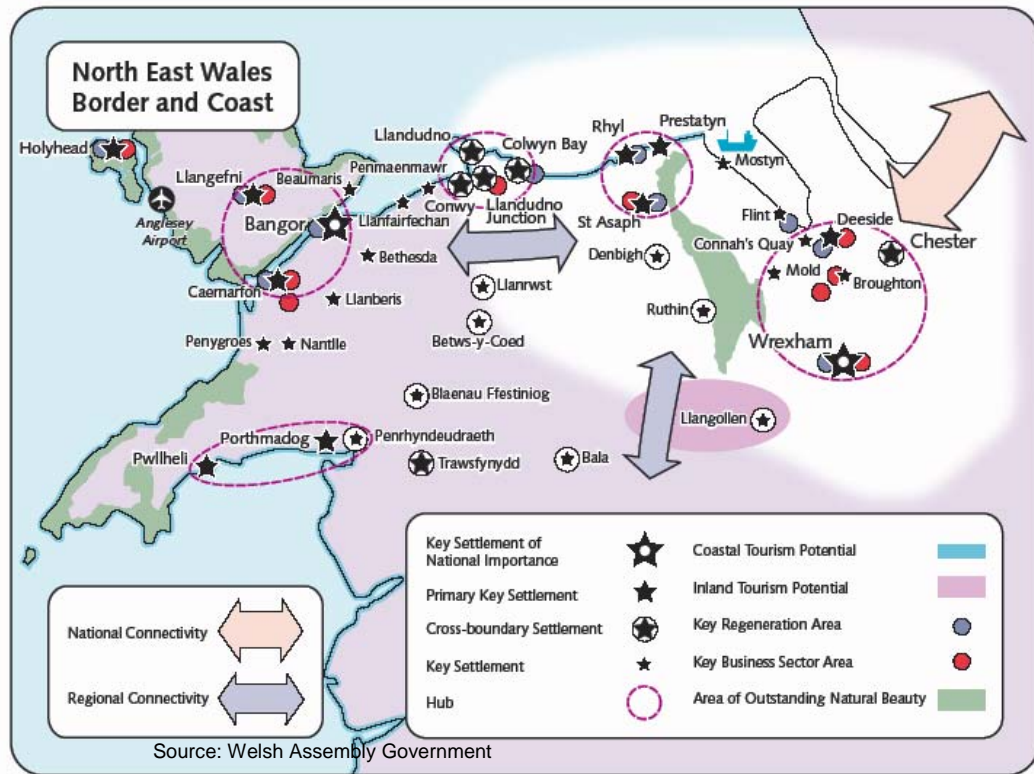
The Vision

An area harnessing the economic drivers on both sides of the border, reducing inequalities and improving the quality of its natural and physical assets.

- Focus on high value manufacturing and services, including a high quality year-round tourism sector.
- Raise the profile of the Area's environmental assets and the natural and built heritage to provide high quality employment opportunities and to create places people want to visit, live in and work.
- Ensure that the Area has a sufficiently strong and innovative network of vocational skills providers to support investment and business growth within key high value manufacturing and service sectors.
- Focus investment on the identified hubs for future employment, housing and retail/leisure, enabling continued growth in areas of opportunity and providing continued support for areas in need of regeneration.
- Improving accessibility on key road and rail corridors to maintain economic growth and provide development opportunities to the west of the Area. Developing sustainable accessibility between hubs, coastal and border towns and the rural parts of the Area.

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[5] Welsh Assembly Government, People, Places Futures, The Wales Spatial Plan Update 2008, p68

Transport's Contribution

Identified below are certain key statement from the Spatial Plan Update that have been taken into account in preparing the RTP.

- Strengthening key hubs and supporting locally accessible jobs and services outside these hub areas.

- Developing sustainability accessibility between hubs, coastal, border towns, the rural hinterland and on key road and rail corridors to maintain economic and provide development opportunities to the West.

- Accessing education and good job opportunities.

- Promoting sustainable development

- Cross Border linkages to Chester and West Cheshire, Wirral, Liverpool and Warrington / Manchester / Birmingham and the West Midlands.

With regard to the Achieving Sustainable Accessibility Theme, the WSP development process was able to inform the RTP with the following major areas;

- Reducing the impact on the environment and protected areas

- Sustainable solutions to the needs of freight traffic across North Wales and the development of port facilities (e.g. Mostyn)

- Efficient, effective and sustainable connectivity between key settlements, education and employment areas.

- Improved accessibility on key inland and coastal corridors and to inland market towns and rural communities to link settlements with key services and employment

- Role of transport in supporting Tourism.

- Resilience of the transport network

In the North East Spatial Plan, the following seven key Regional Transport Plan projects have been identified for inclusion in the near term Delivery Plan subject to approval at the North East Ministerial Meeting in December 2008.

- Wrexham Industrial Estate Access Road

- Llandudno Town Station (Transport Grant / NSIP Bid) – this scheme also appears in the North West Area Plan list of projects

- Prestatyn Station Interchange

- Rhyl Rail / Bus Station Interchange

- Demand Responsive Transport (DRT) in the Deeside and Wrexham areas funded from European Union Competitiveness Programme

- Wrexham – Bidston Electrification / Frequency Enhancement

- Smarter Choices – Deeside Industrial Park

2.6 Area Plan – Central Wales[6]

Figure 2.7 - WSP Central Wales Area

Source: Welsh Assembly Government
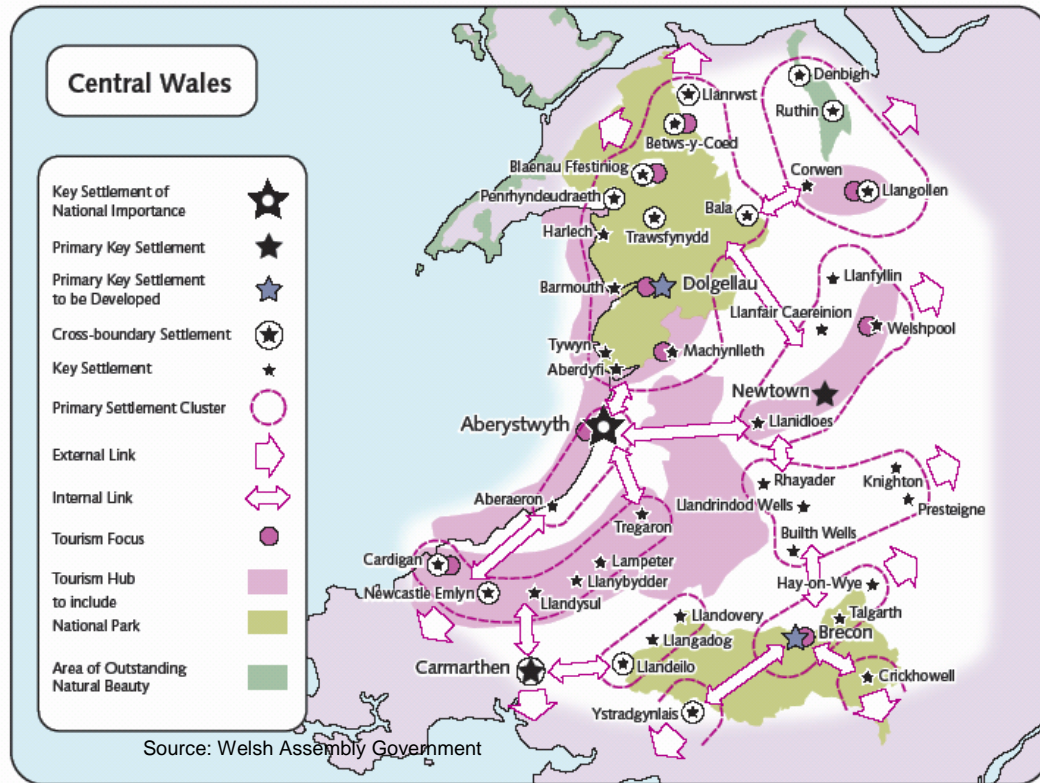
The Vision

High quality living and working in smaller-scale settlements set within a superb environment, providing dynamic models of rural sustainable development, moving all sectors to higher value added activities.

Key Priorities

- Develop the potential of the environmental assets of Central Wales for the economic and social benefit of the region and beyond.

- Development of a strong knowledge economy and high skilled and better paid jobs in existing and emerging sectors (e.g. Earth, Land, Environment and Marine Sciences, Unmanned Aerial Vehicles etc.)

- Prioritise cluster/hub approach to the sustainable development of settlements and the sustainable delivery and accessibility of services in a rural context to include all levels of education provision and health services.

- Ensure continuity of service delivery and accessibility to employment and housing across the border with England working through the agreed Memorandum of Understanding.

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[6] Welsh Assembly Government, People, Places Futures, The Wales Spatial Plan Update 2008, p49

Transport's Contribution

Central Wales is highly rural and therefore presents many problems of providing and sustaining access for those too young or otherwise unable to - or not wishing to – use private cars. The tools proposed to resolve this are effective land use planning, improved ICT infrastructures and integrated transport strategies. The latter must promote the use of community based solutions including car-sharing and car clubs as well as community transport services. Taith's proposal for rural hubs under discussion with TraCC and the Community Transport Association is an example of how solutions based on general service centres offering interchange, parking, retail and parcels storage facilities might respond to the needs of rural communities. A related issue is the need to improve ICT services for this area thus helping potential small businesses and home-workers.

The WSP notes the following issues which the Regional Transport Consortia should consider:

- Improving the availability, quality and integration of passenger transport, including the role of community and demand responsive transport as feeder services
- Providing, promoting and improving sustainable, affordable and healthy forms of transport
- Improving connectivity of the settlements within the area and to other regions of Wales and England
- Maintaining, improving and maximising the efficient use of the existing transport infrastructure for the movement of people and freight
- Reducing the need to travel and minimising the environmental, economic and social disbenefits of transport.

All of these issues are reinforced by Taith's own analysis of issues in North Wales which are reflected in its vision and objectives discussed at Chapter 4.

2.7 Local Authority Plans

Local Authorities are required to produce Local Development Plans following the approach of the WSP which integrates spatial aspects of strategies including social, economic, environmental and transport policy[7].

When Local Development Plans (LDPs) are adopted these will supersede existing development plans and be the land use development plan for the area. The Welsh Assembly Government requires that there shall be consistency between the RTPs and the LDPs in each region[8]. Until LDPs are adopted, the RTP should aim for consistency with existing development plans unless this would conflict with WSP proposals. Examples of Taith's engagement with current planning issues include the Llandudno Junction master plans, Rhyl regeneration, Deeside and Wrexham industrial developments and major housing allocation sites in Rhyl and St Asaph.

Table 2.1 summarises the status of each authority's development plans. Other planning documents may also exist - for instance supplementary planning guidance.

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[7] Welsh Assembly Government, LDP Wales: Policy on Preparation of LDPs, 2005
[8] Welsh Assembly Government, Technical Advice Note 18: Transport, 2007

Table 2.1: Status of Local Planning Authority Plans

Authority	UDP adoption	LDP pre-deposit consultation	LDP deposit	LDP adoption
Anglesey		November 2008		
Conwy		October 2006	March 2009	November 2010
Gwynedd	Summer 2009			
Denbighshire	July 2002	June-August 2008	Summer 2009	Spring 2011
Flintshire	Spring 2010			
Wrexham	February 2005	Oct-Nov 2007	Spring 2009	
Snowdonia NP		Spring 2008	Spring 2009	

The interdependence between land use and transport is well documented. The RTP will have a major influence in directing how transport issues are considered and resolved throughout the region. Given the importance of the RTP in considering transport for each of the individual LDP periods, the key issue for the LDPs is how the RTP and LDP will relate to each other. TAN 18 identifies close links between the LDPs, RTPs and the WSP. All three documents should ensure they are compatible and integrated with each other.

Consequently the LDPs will need to include transport policies that support the RTP and its aims. At the outset the LDP strategy, which will have been derived from community and key stakeholder involvement, will require particular consideration in respect of transport. Ensuing land use allocations and areas of protection in the individual LDP will have to be considered carefully to ensure they contribute towards both short and long term transport goals and have a positive impact on meeting Assembly targets for carbon emission reduction.

Given the differing timeline of the RTP and the various LDP cycles, at the present time the RTP is not yet fully aligned into each LDP document. All Authorities should take account of the final RTP.

The recent Conwy CBC deposit draft which was published in April 2009 illustrates an example of how the RTP has informed the LDP process, in terms of the priority issues (p19), Sustainable Transport Strategy (p149), Policy STR/1 (p153), Policy STR/2 Parking Standards (p154), Policy STR/4 Non Motorised Travel (p156), and Policy STR/6 Rail Freight (p158).

Existing liaison processes between the consortia members and the local planning authorities will be sustained and developed further through the North Wales Planning Officers Group and the North Wales Planning Policy Officers Group to ensure that the links into the LDPs are strengthened particularly with regard to major development or development of regional significance.

The Regional Transport Plan has been developed against a background of Authorities producing LTPs (Local Transport Plans) for the period 2001 – 5 and APRs (Annual Progress Reports) which ceased in 2005. In addition the Taith Regional Public Transport Strategy (TPS) set out a series of strategies in six key areas of activity with associated investment programme for the years 2004 – 2008. Policies and proposals from the LTPs and PTS have formed part of the background to this RTP.

2.8   Boundary Influences

Co-operative working

Close working arrangements are in place between Taith, the TraCC regional transport consortium and neighbouring English Authorities, in particular through the Mersey Dee Alliance discussed below. In addition the liaison arrangements facilitated by the Welsh Local Government Association, Welsh Assembly Government and Professional institutions such as the County Surveyors Society and ATCO (the Association of Transport Co-ordinating Officers) allow Taith officers to monitor cross border developments that may be relevant either because of direct impacts or as models of good practice.

Mersey-Dee Alliance

Arising from the West Cheshire – North East Wales work, the Mersey Dee Alliance (MDA) provides an excellent example of cross border authorities working in a partnership in which Welsh involvement is increasing. Following local government reorganisation in Cheshire, participants will be Cheshire West and Chester Council, Merseytravel (Merseyside PTE), Wirral Metropolitan Borough Council, Government Office for North West England, Flintshire and Denbighshire County Councils, Wrexham County Borough Council, Taith and the Welsh Assembly Government. Taith is represented on the MDA Board, Strategy Group and Transport Subgroup.

An important piece of work recently completed by the MDA was the compilation of evidence to the Welsh Affairs Committee of the House of Commons on the provision of cross-border services. Much of the transport input was provided by Wrexham County Borough Council and Merseytravel using evidence on the transport needed to support development in the Deeside area, including Broughton, Deeside Industrial Park, Northern Gateway, Saltney and Warren Hall together with results from studies for Flintshire and Wrexham Councils to which Taith contributed funding.

West Cheshire – North East Wales Sub Regional Study
(October 2004)

The West Cheshire – North East Wales study partners were: Cheshire County Council (now Chester and West Cheshire Unitary Authority), Chester City Council, Ellesmere Port and Neston Borough Council, Flintshire County Council, Government Office for the North West, North West Regional Assembly, the Welsh Assembly Government and Wrexham County Borough Council. Details of the sub regional study are available on the Taith website. This study provides an important input to the North Wales RTP as many of the issues raised remain unresolved.

Whilst connections within and beyond the sub-region are good, increasing traffic congestion at key junctions and the capacity and service level of the local rail network are continuing problems.

A Framework for Joint Action was developed following analysis of travel patterns, flows and journey distances which proposed measures based on demand management, such as car park pricing and availability, or availability of public transport.

Accessibility by public transport must be a key criterion for choosing future development sites, and increased emphasis should be placed on developing new and

improved public transport links, rather than just relying on existing network links. The electrification of the Wrexham-Bidston line would provide a significant opportunity for the sub-region in the future.

The main highway network links (M53, M56, A55, A483, A548 and A550) are generally satisfactory, although there are capacity hotspots at key junctions. Access issues with regard to important traffic generators coupled with concern about the capacity of the A483 to cater for significant new development are important areas that need to be addressed. There is a need to ensure that investment to provide adequate capacity on key highway routes is sufficient to cope with the growth in economic prosperity of the sub-region, not constrain it, and that improvement proposals should be implemented where necessary.

Buses will remain the main form of public transport for the sub-region. Bus priority and other support measures are being developed and further initiatives are being considered by Taith, Cheshire West and Chester Council and the Mersey Dee Alliance Strategy. The links along the Flintshire coastal corridor and onwards to the towns of Denbighshire, the Vale of Clwyd and Wrexham to Chester and the Dee Valley should be strengthened. A large part of the sub-region is rural and has associated public transport accessibility problems. A more strategic approach to park and ride locations serving strategic employment sites and other significant traffic generators should be considered. The continued development and coverage of ICT Infrastructure in the sub-region will be encouraged.

Manchester Airport is the major international airport serving the region, but Liverpool John Lennon Airport is growing in importance. Good service links by all modes are required for both these airports. The possibility of improved air transport links from within the sub-region needs to be considered alongside any plans for expansion taking into account the environmental consequences.

Ireland

North Wales has the closest and most significantly important international border with the Republic of Ireland, with the gateway port of Holyhead situated just 60 miles from Dublin. The importance of strong links by road, rail and sea with the Irish Republic particularly on Trans European Transport Networks (TEN-T) matters is recognised and Taith is seeking to establish stronger ties with public and private sector organisations in Ireland in order to work collaboratively on mutually beneficial projects that will improve cross border transport links and address the issue of peripherality of both areas in relation to mainland Europe.

2.9   Stakeholder Plans and Cross-Cutting Issues

The plans of major industry, other large employers and public services can have major implications for transport movement and it is important to take them into account in the RTP. Tourism and Health are excellent examples of "cross-cutting issues" where it is important that the views of all stakeholders including those concerned with transport are taken into account to achieve the best possible outcomes for North Wales as a whole. Accessibility analysis is an important tool that is used to examine the impacts of alternative locations and levels of service and examples of plots showing the travel time contours for existing Health and Tourist facilities in North Wales.

North Wales Regional Tourism Strategy
(October 2003)

The vision for tourism in North Wales as set out within this strategy is 'to build a viable and prosperous tourism industry attracting visitors throughout the year'.

The development of the strategy built upon a SWOT (Strengths, Weaknesses, Opportunities, Threats) Analysis, from the conclusions of which a series of strategic objectives were derived.

The three strategic priorities set within this strategy in order to make the vision a reality are to:

- strengthen the unique sense of place
- improve the quality of tourism facilities in North Wales
- reduce seasonality across the region.

"Designed for North Wales
– A vision for the health community and a plan for the major hospital services"
(Consultation Document, April 2006)

The plan is based on the premise that the current level of use of hospitals is unnecessarily high so the focus of services will shift to out of hospital based care as the norm. Some services will move closer to patients' own communities and patients will not be required to come to hospital as much as at present. This will be achieved in part by hospital based services, such as diagnostics, becoming more responsive to the needs of patients in primary and community care. There are considerable implications here for movement of both patients and NHS personnel and Taith, the highways authorities and public transport operators need to be fully involved in planning for both people and vehicle movements.

Acute hospital care will only be provided on the three main hospital sites - Ysbyty Gwynedd, Ysbyty Glan Clwyd and the Wrexham Maelor Hospital. These will be supported by the English NHS Trusts on the border and by Bronglais Hospital for patients in south Gwynedd. This may cause many more patients to travel further to receive specialised treatment or care as the nearest hospital may not be able to support their needs. Again there are substantial transport implications as the hospitals are not easily accessible by public transport from large parts of their catchment areas.

Investment is planned over the next 8 to 10 years to provide a 21st century service. This must take account of transport and parking issues which are always of concern to the public.

Highly specialised major surgery and medical services will continue in specialised centres including some in North Wales, where viable. These services will be kept under review in the light of national and professional advice. No significant change is anticipated in the short term.

Snowdonia National Park Authority

Taith has engaged with the Snowdonia National Park Authority on a cross consortia basis with TraCC which also covers part of the Park Authority's area and has been involved with the development of the Authority's own LDP process. In broad terms, SNPA welcomed the public transport aspects of the RTP but there was some concern

at the lack of paid for parking within the SNPA, a matter that requires attention by the appropriate Council.

Many of the identified Rural Accessibility Issues require significant levels of revenue funding.

Other Stakeholder Plans

Consultation and research for the RTP has involved examination and discussion of other stakeholder plans such as:

- Major infrastructure operators
  (including Network Rail, Port of Holyhead, the Trunk Roads Agencies, Highways Agency)
- Major freight and passenger transport operators
- Educational authorities and establishments
- Leisure and tourism operators

2.10 External Factors

There are other UK and European policies relevant to spatial planning that have an impact on North Wales.

Transport schemes included in the RTP by Taith may be eligible for at least two sources of European funding, Convergence Funds (for Conwy, Denbighshire, Gwynedd and Isle of Anglesey) and Regional Competitiveness and Employment Funds (for Flintshire and Wrexham). Flintshire and Wrexham County Councils have agreed to jointly submit a bid under Priority 4 – Physical Regeneration, of the East Wales Competitiveness and Employment Programme 2007-2013. The bid focuses on improving access to employment through the provision of high quality bus services which will be linked to rural communities by DRT services. In Flintshire, two new services will interconnect at Queensferry where a new interchange will be provided to give access to a number of existing and developing employment sites. Subject to the bid being successful, the new services will commence in 2009 and there is provision in Taith's 2009/10 transport grant bid for funding for infrastructure work in connection with the proposal.

Identifying sources of ongoing revenue funding is critical to the development and maintenance of sustainable transport solutions. This implies a radical rethinking of mechanisms to deliver developer funding.

The Town & Country Planning Act of 1990 offers, through Section 106, a mechanism for potential funding of associated transport schemes as well as other works. In a passenger transport sense this funding can make a valuable contribution to the provision of infrastructure and seed corn funding for new transport facilities and encouraging their use.

A major problem with this form of funding however is its short term nature. Alternative solutions for industrial developments include, by agreement, waiving S106 payments in favour of contractual ongoing revenue streams targeted specifically at sustainable solutions relevant to the developments. For example, a contractual parking levy or local "rate" that offsets the S106 payment might be agreed. This fund would be managed locally by stakeholders including local authority representatives, site owners and tenants. Moneys could be used, for example, to support public transport initiatives or to develop and maintain local infrastructure. Proposals along these lines are

currently the subject of discussion between a developer in the Deeside area and Flintshire County Council.

Taith has engaged with the North West Wales EU Convergence Group to ensure opportunities between the Strategic Frameworks for which it is responsible are co-ordinated with the Regional Transport Plan.

Taith is planning to seek Welsh Assembly Government and Department of Transport support for an application for Trans European Transport Networks (TEN-T) funding in respect of an integrated transport approach to the North Wales Coastal Corridor around the A55 and North Wales Main Line.

Concurrently with the RTP development process, a working group, co-ordinated by the WLGA with the Welsh Assembly Government is reviewing the current funding arrangements for local and regional transport planning of which the largest source is the Transport Grant programme. In particular it is hoped that the issue of capital and revenue funding to reflect the diverse nature of North Wales is addressed as part of the study.

2.11 "Connecting the Nation: The Wales Transport Strategy"

The Welsh Assembly Government published "Connecting the Nation: the Wales Transport Strategy", an overarching transport strategy for Wales in May 2008. They will also be producing the National Transport Plan (section 2.13) during 2009. The outcomes and strategic priorities of the Wales Transport Strategy flow through into the North Wales RTP. The relationship of the various national strategies and plans to the RTPs produced by the Regional Transport Consortia is shown in Figure 2.8.

Figure 2.8 - *Connecting the Nation* **- how transport can contribute to Welsh Assembly Government strategies and the WSP**
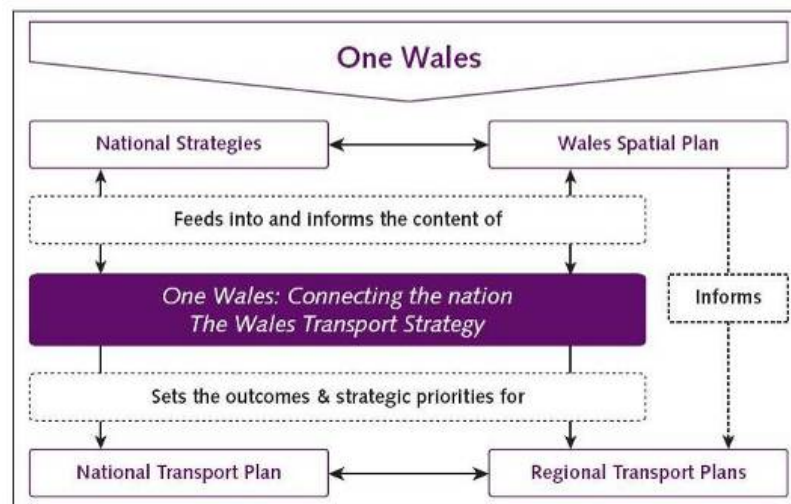
Source: Welsh Assembly Government

The 17 WTS outcomes are grouped under three main agendas – Social, Economic and Environmental - as shown in Figure 2.9. They describe succinctly the changes needed in the transport system to improve life for Welsh communities and businesses.

Figure 2.9- Social, Economic and Environmental Outcomes in the WTS (numbering added for Taith use)

Social
1. Improve access to healthcare
2. Improve access to education, training and lifelong learning
3. Improve access to shopping and leisure facilities
4. Encourage healthy lifestyles
5. Improve the actual and perceived safety of travel

Economic
6. Improve access to employment opportunities
7. Improve connectivity within Wales and internationally
8. Improve the efficient, reliable and sustainable movement of people
9. Improve the efficient, reliable and sustainable movement of freight
10. Improve access to visitor attractions

Environmental
11. Increase the use of more sustainable materials
12. Reduce the contribution of transport to greenhouse gas emissions
13. Adapt to the impacts of climate change
14. Reduce the contribution of transport to air pollution and other harmful emissions
15. Improve the impact of transport on the local environment
16. Improve the impact of transport on our heritage
17. Improve the impact of transport on biodiversity

Source: Welsh Assembly Government

The WTS is a long term strategy until 2030 but has also set five shorter term strategic priorities which are helping to shape the NTP and RTP, as shown in Figure 2. 10.

Figure 2.10 - WTS Strategic Priorities

- Reducing greenhouse gas emissions and other environmental impacts
- Integrating local transport
- Improving access between key settlements and sites
- Enhancing international connectivity
- Increasing safety and security

Source: Welsh Assembly Government

Taith has taken full account of the WTS outcomes and priorities in developing its own regional vision for transport, objectives and priorities.

2.12 The One Wales Transport Agenda

In June 2008 the One Wales coalition published its transport agenda summarised in Figure 2.11. Taith took the opportunity to review its work to date including its vision, objectives and regional priorities to ensure that these accorded with One Wales. Appendix 11 shows how Taith's priorities are consistent with those of the One Wales agenda.

Figure 2.11 – One Wales Transport Agenda

Access for All: Travelling across much of Wales can be lengthy and tortuous, whether travelling by car or public transport.

- We envisage a Wales where travelling between communities in different parts of Wales is both easy and sustainable. We are firmly committed to creating better transport links, both road and rail, between the North and the West of Wales and the South.

- A quarter of households all over Wales do not have a car and rely on public transport or walking or cycling. We will transform provision of bus services by investing in a modern, integrated public transport system. Better public transport will also help households in non-urban communities to be less dependent on car ownership, the costs of which can be prohibitive to those on low incomes.

- Dramatic improvements to public transport will encourage people to reduce car use. This in turn will contribute to reducing Wales's carbon footprint.

- Our programme of government over the next four years will involve:
    - Improving regional and national transport
    - Improving accessibility.

Improve regional and national transport: We will improve transport between communities across Wales by investing in many different modes of travel.

- We will develop and implement a programme for improved North-South links, including travel by road and rail.

- We will reduce rail travel time between the North and South of Wales.

- We will create a new all-Wales Traws Cambria transport network integrating long distance rail and coach routes with electronic cross-ticketing by 2011.

- We will continue to improve the safety and quality of stations and platforms in all parts of Wales, introducing new trains and train services.

- We will introduce a National Transport Passenger Committee for Wales.

- We will improve arrangements for regional and national strategic planning for transport.

- We will press ahead with improvements to major road links between the North, the West and the South of Wales, investing over £50 million for this purpose over the four year Assembly term.

Improving Access: Most journeys are local - going shopping, taking children to school, getting to work or keeping hospital appointments. To improve local transport:

- We will use new powers for local authorities to plan and support new bus routes to improve links between communities.

- We will enhance and link up cycle routes on an all-Wales basis.

2.13 The Trunk Roads and Rail Forward Programmes and The National Transport Plan

On 2nd December 2008 the Deputy First Minister made an announcement setting out a revision of the 2001/2004 trunk road forward programme and for the first time a rail forward programme. In effect this announcement foreshadows part of the National Transport Plan (NTP). The proposals are represented diagrammatically in Figures 2.12 (trunk roads) and 2.13 (rail).

The National Transport Plan (NTP) will be a plan for transport functions for which the Assembly Government is responsible within Wales as a whole including trunk roads, railways, air and sea ports policy and aviation. The link between the NTP and RTPs is especially important in North Wales as so many strategic routes controlled by the Welsh Assembly Government are important locally to the people who live near them and use them for their general transport needs within the region. The Consortia have been consulted on regional concerns which also affect Wales nationally. Appendix 13 contains a list of the issues for North Wales which Taith consider are also national issues to be included within the NTP. The consultation version of the NTP was published on the 15th July 2009. to which Taith will be formally responding.

Trunk Road Forward Programme

The inclusion and high priority accorded to the both the Caernarfon - Bontnewydd, Porthmadog to Tremadog and the two A470 schemes in the Taith area welcomed.

It is disappointing that the A494 Drome Corner to Ewloe (Scheme 27) has been categorised in the unlikely to start before April 2014. The scheme is strategically positioned on the key North Wales / North West England EU TEN-T corridor.

It is hoped that there will be the opportunity to ensure closer working between Taith / Local Authorities and the Welsh Assembly Government to ensure that the regional / sub regional and local transport needs of the area are taken into account and in the effective and efficient delivery of the NTP and RTP.

The revised scheme must ensure that the appropriate regional / local complementary measures are undertaken to support the main scheme to ensure that the benefits of the scheme to North Wales / Deeside / EU TEN-T are secured.

Further it is envisaged that there will be close working with the Welsh Assembly Government over developing the interface between the county road network and the trunk road network. The concept of the Park and Ride / Share / Regional Coach Services that could use strategic sites along the A55 connecting a number of the key strategic employment sites to the two principal airports for North Wales (Liverpool and Manchester) in addition to the identified need for adequate road freight facilities on the A55.

Also of concern is that there are no schemes identified for the A483 between the English Border near Chester and the English Border near Chirk. It is understood that an action in the recent Route Management Strategy (RMS) for this route has identified the need for a capacity study to be undertaken. Given the importance of this route not just as a key trunk road from the North East Wales to the West Midlands and to South / Mid Wales but also that it is a TEN-T priority axis route, the lack of an identified scheme and / or junction improvement package for this strategic corridor is a matter of concern.

Rail Forward Programme

The first rail forward programme is particularly welcomed with the inclusion of North - South journey time improvements, majority re-doubling of the Saltney Junction - Wrexham General section, the National Station Improvement Programme (NSIP) elements of the Llandudno Station upgrade and the Conwy Valley Slate Waste Upgrade proposal.

Taith is keen to see the key outputs from the Taith Rail Strategy appended to the Rail Forward Programme and in particular the following package of schemes have been identified for inclusion in the Rail Forward Programme as 'High Ranking – Potential for Early Approval' status. This short-term package has a strong benefits cost ratio (BCR) of 2.79.

Extend Llandudno - Manchester Piccadilly to Manchester Airport.

Frequency Enhancement on Wrexham - Bidston (Hourly to Half Hourly)

Existing services accelerated (due to line speed improvements).

Further medium and long term strategies are set out in Appendix 5 – Taith Rail Strategy. The key interface between the RTP and the Rail Forward Programme is Station Access and Interchange and this is set out in the RTP through the Non Car Station Access Package which outlines a number of identified schemes. Work is currently underway within Taith and the Welsh Assembly Government concerning the inclusion of suitable schemes into the proposed NSIP+ programme.
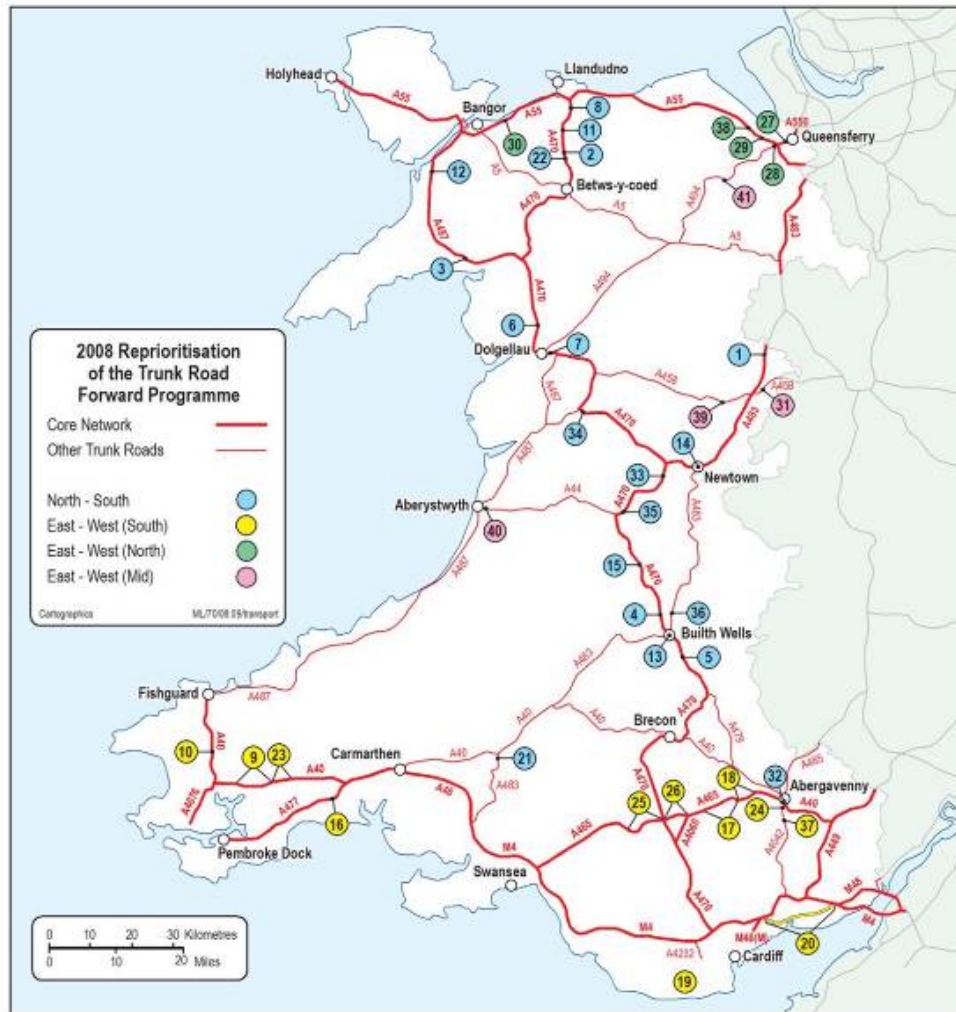
A key interface between the current and proposed Traws Cambria network with the local / regional bus and coach services will be critical. Taith will welcome the future opportunity to ensure the local / regional bus and coach network connects at the appropriate locations into the Traws Cambria network with enhanced interchange and information facilities.

Taith would wish to continue the exploration of improvements to the Wrexham – Bidston (Borderlands) line, in the medium term by the extension of the electrified Merseyside service from Bidston to Wrexahm Central, to facilitate direct services to Liverpool city centre (preferred option) and in the shorter term by an increase to the current diesel service to provide earlier morning journeys (to service Wrexham and the Deeside Industrial Park) and a more frequent daytime service (every 30 minutes).

In the longer term, whilst there are proposals for trunk road improvements, Taith would welcome similar proposals to be brought forward for further rail re-openings to and between key settlements as set out in the Wales Spatial Plan to be better connected especially those in Central and North Western North Wales to centres in Mid Wales, South West Wales and South East Wales. Development of a rail re-opening programme as a longer term programme would complement the trunk road programme in order to achieve the vision for a truly integrated transport system within and to / from Wales.

On the Freight side, the introduction of land-bridge service from Holyhead – Daventry to Northern Europe (BCR 1.65), along with the Deeside Freight Consolidation Centre (BCR 1.86) and provision of Rail Freight Awareness (BCR 4.78) have been identified as high ranking projects to be taken forward for further investigation.

Figure 2.12 - Trunk Roads Forward Programme to April 2014 and beyond

Source: Welsh Assembly Government

Figure 2.13 - Rail Forward Programme

Source: Welsh Assembly Government

3   North Wales Transport Problems and Opportunities

3.1   Introduction to the area

North Wales, as shown in Figure 3.1, is a very diverse region, geographically, economically and socially. With its coasts and mountains, historical and cultural inheritance including the Welsh language it attracts worldwide attention. It contains areas of outstanding natural beauty, including the Snowdonia National Park.

This chapter will look at the problems the area experiences and the opportunities for change that exist.

Figure 3.1 – The diverse North Wales region
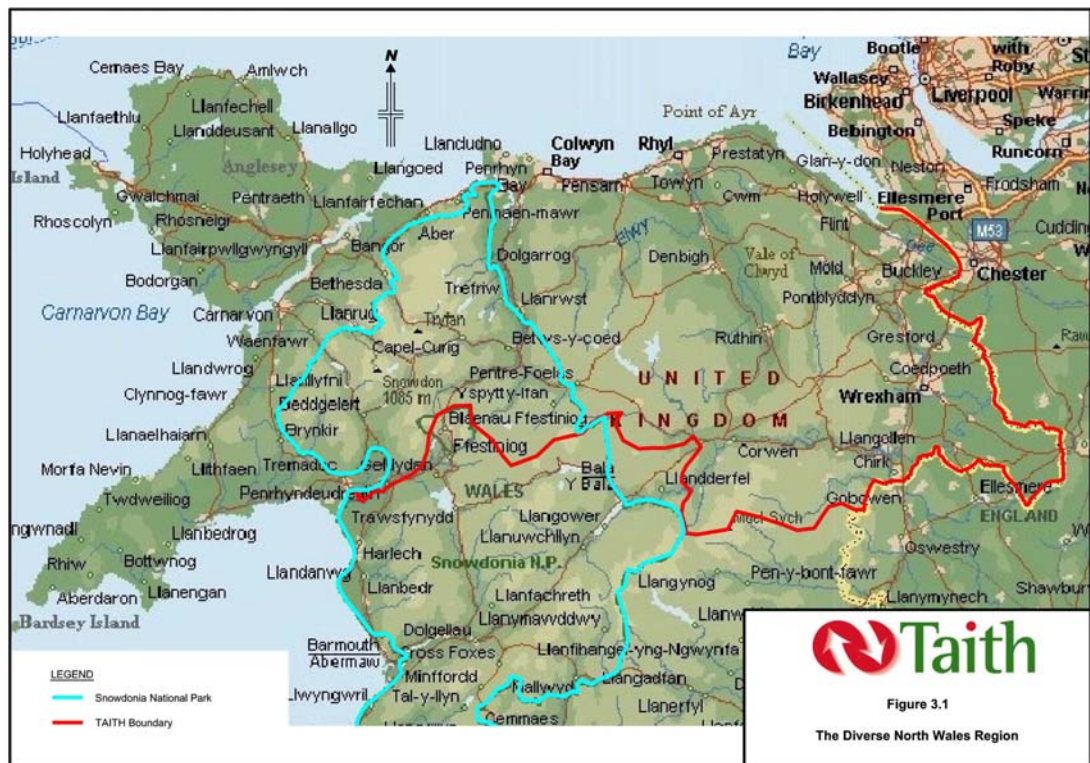
3.2   Demographics

The following tables are taken from StatsWales, 2001 Census figures.

The first table shows that car ownership is higher in North Wales than in Wales as a whole.

Car and Van Ownership	North Wales	Wales
All households	279 311	1 209 048
Percentage of households with no car	22.7	26
Percentage of households with 1 car	45.8	45.5
Percentage of households with 2 cars	24.9	22.9
Percentage of households with 3 cars or more	6.6	5.6

The second table looks at modes of travel to work and shows that North Wales has a lower percentage travelling to work by rail and bus than Wales as a whole, but a higher percentage work mainly from home in North Wales.

Usual mode of travel to work	North Wales	Wales
All people aged 16-74 in employment	281 618	1 186 256
Percentage of those who work mainly at home	11.3	9.7
Percentage of those who usually travel to work by train	0.6	1.3
Percentage of those who usually travel to work by Bus	3.8	5.3
Percentage of those who usually travel to work by Motorcycle	0.7	0.7
Percentage of those who usually travel to work by Car or van	70.2	70.2
Percentage of those who usually travel to work by Taxi	0.6	0.5
Percentage of those who usually travel to work by Bicycle	1.7	1.4
Percentage of those who usually travel to work on Foot	10.4	10.3
Percentage of those who usually travel to work by Other Means	0.7	0.5

Figure 3.2 : Welsh Index of Multiple Deprivation 2008
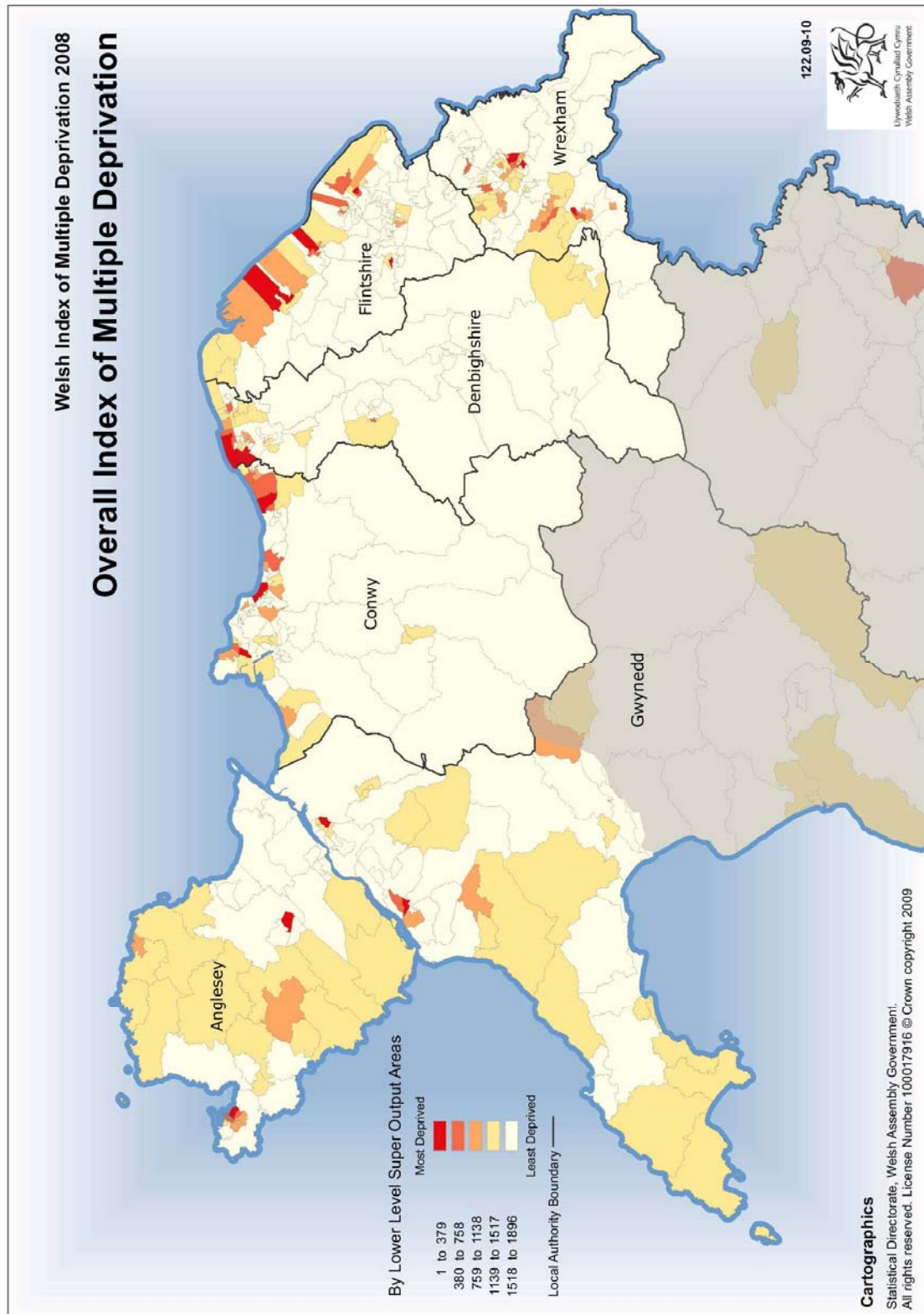
3.3 Transport Problems

Many of the transport related problems of the North Wales area are highlighted both in the WSP and WTS and this RTP links to these documents and develops the points made.

3.4 Problems highlighted by the WSP

The WSP highlights the need to improve both the quality and sustainability of connections between key settlements, as well as access to services and facilities. ICT networks need to be improved and Climate Change forces the need for mitigating actions to reduce its effects on transport. The WSP also highlights the high levels of Wales' rural area which is deprived of good access.

The North East Wales Area has some of the most deprived urban areas in Wales in or near the towns of the northern coastal corridor and around Wrexham. Their problems are associated with poverty, outdated infrastructure and poor services.

North West Wales' transport problems include capacity issues on the Britannia Bridge and the A487 around Caernarfon.

Figure 3.3 (provided by the Wales Spatial Plan teams in North Wales) is a convenient depiction of the transport connectivity of North Wales.

Figure 3.3 - A spatial representation of North Wales' transport connectivity
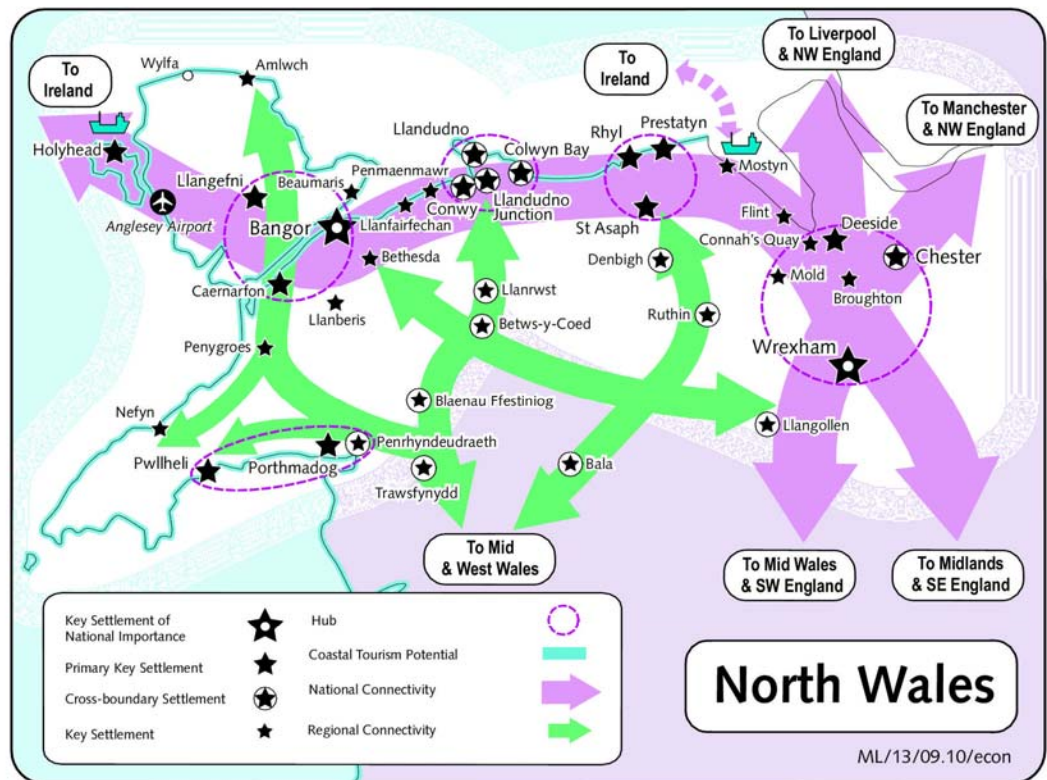
Source: Welsh Assembly Government

3.5   Problems highlighted by the WTS

The WTS uses three main agendas to organise the long term outcomes it wishes to achieve. These themes are used here to describe the transport problems that Taith needs to look at solving in North Wales.

The WTS shorter term strategic priorities will be used to help develop Taith's 5 year programme of interventions to deal with the problems and opportunities discussed later in this document, and which will lead on to longer term proposals.

Social

North Wales is rich in Welsh culture, history and language and is characterised by a diversity of communities, some affluent but many others suffering disadvantage because of factors including remoteness, low economic activity and outdated housing, infrastructure and facilities. Some of these communities are small, particularly in the deep rural areas.

A number of rural towns and numerous small communities, each with distinctive patterns of need and demand, do not lie naturally within any of the main corridors of movement. Many of them have suffered depopulation and reduced economic activity in recent decades and transport links must support wider programmes for stabilising and revitalising them.

Economic

Industrially, North Wales has seen major changes with both mineral extraction throughout the region and the heavy industry of the north east largely giving way to lighter industry, services and tourism, taking advantage of a good skills base supported by a flourishing education sector. There is strong potential for knowledge based economic development.

Many workers commute to North West England from the highly populated north east Flintshire and Wrexham areas with a smaller number of English residents commuting into Wales. These movements contribute to the congestion at the junctions around the border and show the importance of all the relevant authorities and agencies working together.

Proposals to provide new jobs in Anglesey and around the Menai coast (the Mon Menai initiative) and elsewhere in Conwy and Gwynedd may have considerable transport implications.

Environmental

Climate change is a major issue for the WSP, WTS and for Taith's RTP. Transport is seen as a contributor to climate change and greenhouse gas emissions from transport have been increasing since 1990.

A consultation document on Climate Change recently produced by the Welsh Assembly Government states that the target for the transport sector is to stabilise emissions and then start to reduce them over 10 years.

The WTS also states that transport will have to adapt to the impacts of climate change such as increased flood risk and more extreme weather conditions which are

particularly important for North Wales with routes which are at a low level and close to the sea or river.

A recent Welsh Audit Commission Report emphasises the fragility of road and rail transport links along North Wales Coast due to climate change. Along the northern coast, and, to a lesser extent on the west, transport infrastructure, particularly the North Wales Coast main line, forms part of the flood defences for low-lying areas.

General problems highlighted by the WTS

The WTS has identified various problems for the transport network in Wales as a whole:

- centralisation of service provision and a reduction in locally provided services
- long journey times between North and South Wales by both road and rail
- greenhouse gas emissions – transport accounts for around 14% of greenhouse gas emissions in Wales (road transport accounts for around 90% of those emissions)
- people are making longer journeys than they used to
- people are using cars more and are walking and cycling less than they used to
- journeys to work and school create morning and evening peak flows which in places leads to congestion – school journeys are increasingly being made by car
- the number of households without a car is falling with resulting increased mobility, however groups without access to a car can have increased mobility problems
- road safety statistics have improved but still need to improve further

(For sources of statistics please see WTS)

3.6 Problems identified by Taith

The following sections, which deal specifically with the North Wales region, have an impact on all three pillars of sustainability - social, economic and environmental.

Accessibility

Taith has adopted a methodology consistent with the other three Welsh consortia to identify accessibility problems. Accession is a tool based on GIS software adopted by the Welsh Assembly Government and Taith for accessibility planning.

Accession is able to measure access by public transport as compared to access by private car for different destinations at relevant times of the day. Types of destinations that have been considered include; education, health care, important centres and visitor attractions.

As would be expected the analysis showed that journey times by private car are shorter than by public transport. Access, egress and interchange times contribute to much longer public transport times than private car. This becomes more pronounced for access from more rural locations. A good example of this is highlighted in figure 3.4 below which shows the access time to main hospitals, the right-hand diagram shows accessibility by car and the yellow illustrates a journey time of under 30 minutes covering the majority of North Wales. The journey time by public transport shows a very different story with many places unable to even make the journey within an hour and a half.
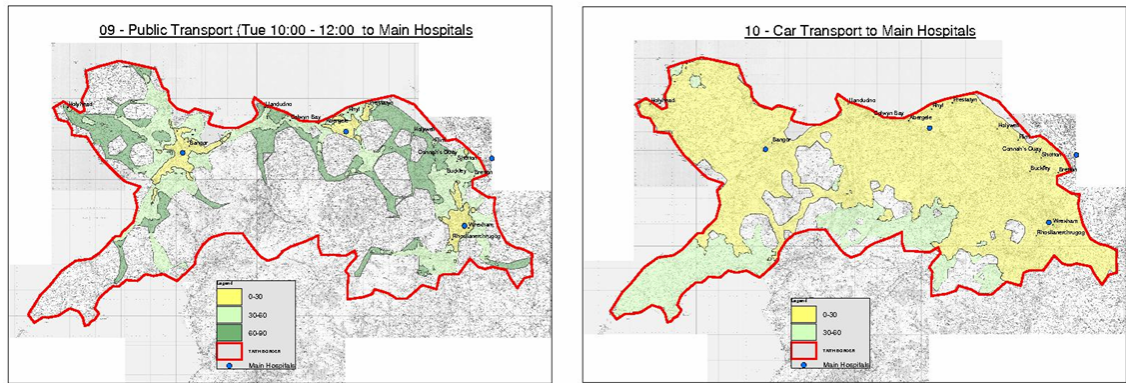
Figure 3.4: Comparison of journey times to major hospitals by public transport and by car.

Accession does not take into account services such as those provided by voluntary organisations which are often relied upon in rural areas. Where the analysis shows no access by public transport (and in some cases by car) this is often due to the area being deeply rural with very sparse population densities and in some cases no population at all. All diagrams produced using Accession are detailed in Appendix 7.

Infrastructure - Traffic Flows

The transport characteristics of North Wales are diverse - whilst it is largely rural, the larger population centres tend to be located along the coastal strip (Caernarfon, Bangor, Llandudno, Conwy, Colwyn Bay) and to the north east of the region (Mold, Flint, the Queensferry/ Connah's Quay area, Wrexham). Figure 3.3 derived from recent monitoring data illustrates the existing traffic loadings on the Taith highway network. The loadings reflect the population distribution and also clearly show the important function of parts of the network as key regional, national and European strategic routes.

The A55 across North Wales forms the major strategic highway route linking the Port of Holyhead on Anglesey (and Ireland beyond) in the west, with the motorway network in North West England and is part of Euro Route E22. It has average daily traffic flows of up to 46,000 vehicles on sections of its length. Other key routes in terms of loading, are the A483 (south of the A55) with average daily flows of up to 48,000 vehicles and the A494 (through Queensferry) with average daily flows of 49,000 vehicles.

Constraints exist at the Britannia Bridge crossing of the Menai Strait between the mainland and Anglesey where the A55 is reduced to a single lane in each direction – the only single carriageway section along the whole length of Euro Route E22. The bridge is also subject to closures during periods of high winds. The A55 is a dual carriageway highway with predominantly grade separated junctions although the two at-grade roundabout junctions at Penmaenmawr and Llanfairfechan are the only roundabouts on the E22. A further constraint to the west of Conwy lies in a severely substandard, eastbound carriageway alignment at Penmaenbach Headland which is subject to a 30mph speed limit.

Between the A55 at Ewloe Interchange and the M56 motorway, the route through Queensferry is formed by the A494(T), A550(T) and A5117(T). These sections of the highway network suffer congestion and delay at peak weekday and tourism periods

due to high traffic volumes, sub-standard junction geometry (e.g. Ewloe Interchange) and limited peak capacity.

There are high proportions of HGVs on some highway links. Whilst average HGV content across the region tends to fall between 5% and 6%, up to 13% is experienced on the A483 with up to 11% on the A55 and 9% on the A5. HGVs travel in convoys on the A55 in waves coinciding with arrivals and departures of the Holyhead ferries.

Figure 3.5 - Existing Annual Average Daily Traffic Flows
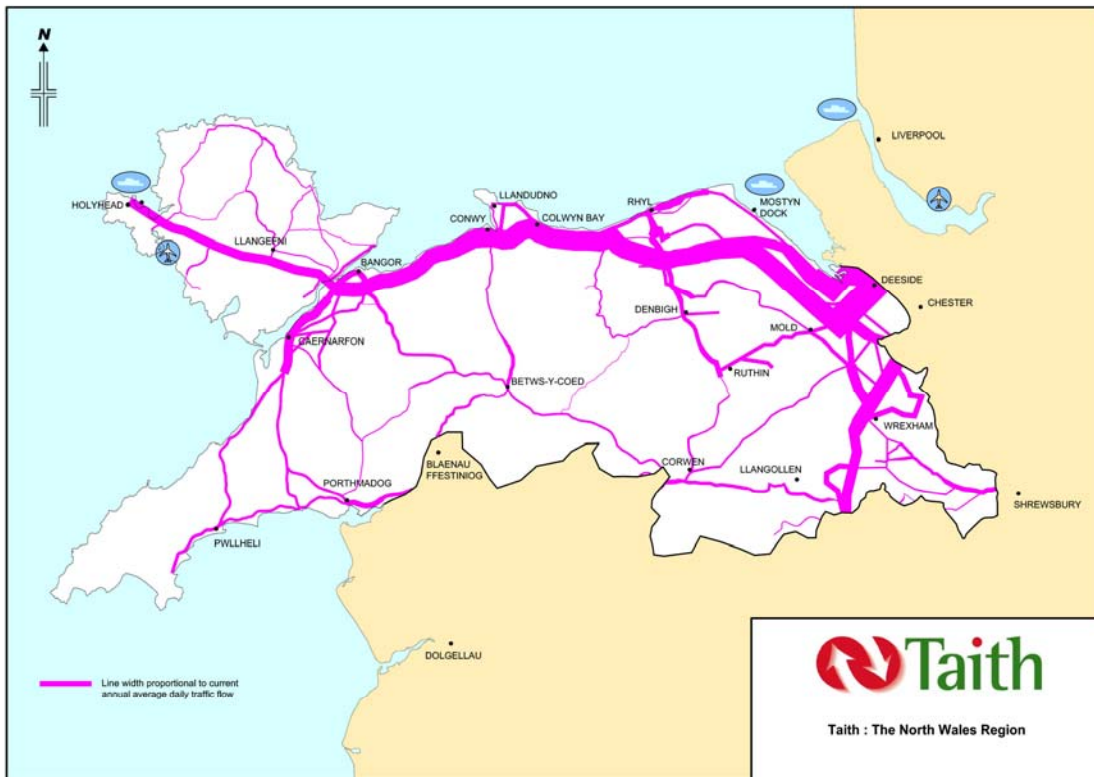
Infrastructure - Congestion

There are significant congestion and environmental problems around the junctions near Ewloe and Queensferry where commuter traffic combines with inter-regional movements. The impacts spill over the English border towards Chester and the M53 and M56 motorways. There is a need for a comprehensive approach to managing the through traffic and peak commuting movements on the A494, A55, A548, A550 and feeders to them (including roads in England) involving all agencies.

Figure 3.6 illustrates baseline traffic load versus highway capacity plots derived from the North Wales Transport Model (NWTM) forecast for 2021

The figure identifies those parts of the network previously identified as carrying high volumes of traffic, as also being sections likely to be approaching capacity and hence experiencing congestion in 2021.

As the NWTM is a link based model and does not consider capacity or issues at junctions the Taith authorities have separately identified 104 junction locations throughout the region where it is considered that congestion already exists and is a constraint to the operation of the network.

Figure 3.6 – Traffic Load vs Highway Capacity 2021
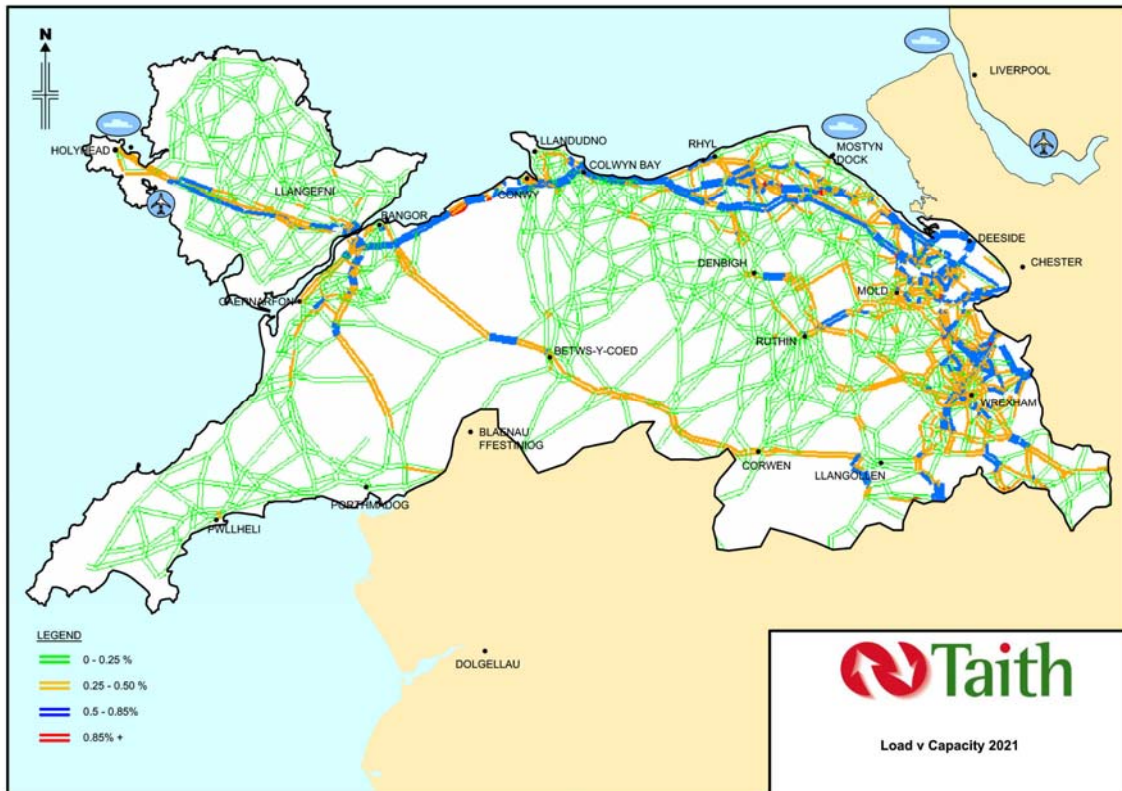
Infrastructure - Physical Restrictions on the Network

There are constraints limiting the way in which the network can be used which could potentially cause problems for particular types of vehicles but are not felt to be acute problems. The most significant of these are:

- 37 height restrictions (20 on 'A' roads)
- 21 weight restrictions (3 on 'A' roads)
- 3 width restrictions
- 2 combined height and width restrictions
- 1 combined height and length restriction

Infrastructure - Condition

A condition survey has been undertaken of all 'A' and 'B' classified roads within the North Wales using SCANNER laser survey technology. In addition a 10% sample of both 'C' and unclassified roads has also been taken. From the survey an appraisal of the maintenance backlog has been undertaken and is set out in Table 3.1 below. Poor condition of highways can have an impact on safety as well as ride quality.

Table 3.1: Highways Maintenance Backlog

Area	Value of Backlog (£)				
	A Roads	B Roads	C Roads	Unclassified	Total
Isle of Anglesey	518,979	1,353,389	3,799,290	1,978,208	7,649,866
Conwy	1,292,396	3,727,727	2,868,488	1,500,397	9,389,008
Denbighshire	1,107,457	3,402,655	6,264,755	2,064,652	12,839,519
Flintshire	1,017,203	742,075	1,575,232	1,351,205	4,685,715
Gwynedd	2,338,092	2,364,097	4,206,936	1,845,339	10,754,464
Wrexham	778,866	2,170,493	1,725,350	4,510,793	9,185,502
North Wales	**7,052,993**	**13,760,436**	**20,440,051**	**13,250,594**	**54,504,074**
Wales	17,904,744	36,170,686	86,030,516	152,878,031	292,983,977

Taken from CSS Wales. Highways Asset Management Plan Development Stage 1. State of the Nation Report September 2006.

Road Safety

Collisions on our roads are a problem that needs constant attention. In North Wales there is a good record of accident reduction and the Region is on track to exceed Government Road Safety targets for the year 2010 compared to the 1994-98 average. These are shown below:

♦ *a 40% reduction in the number of people killed or seriously injured in road casualties -* Achieved 39.9% by end 2006

♦ *a 50% reduction in the number of children killed or seriously injured -* Achieved 69% by end 2006

♦ *a 10% reduction in the slight casualty rate expressed as the number of people slightly injured per 100 million vehicle kilometres -* Achieved 33.9% by end 2006

Figure 3.7 below illustrates the progress being made, with a clear downward trend across the region.

Figure 3.7 Casualties in collisions in North Wales Police area 2001-2007 compared to 1994-98 average
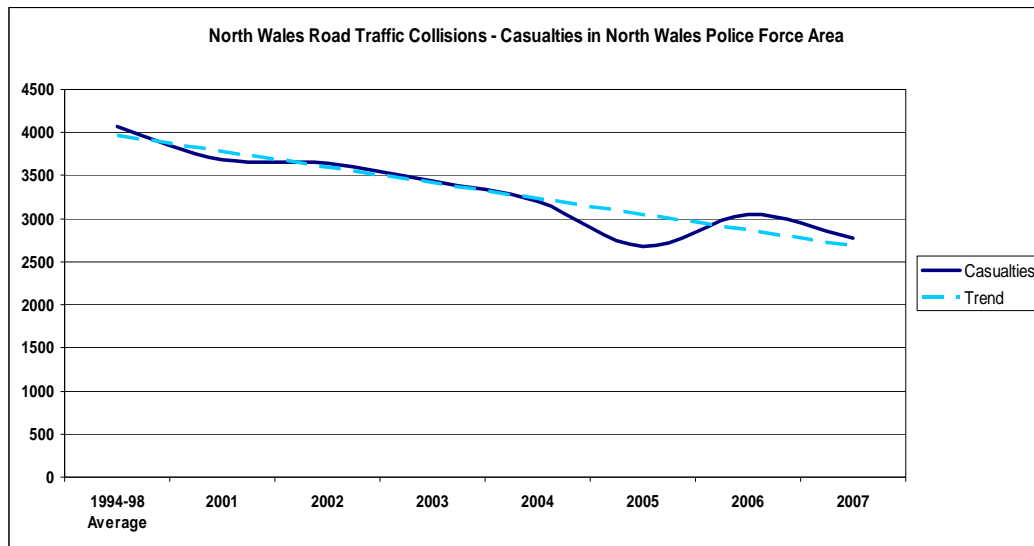
Notwithstanding this record, authorities in North Wales and their partners are not complacent. The combined effort of Education Training and Publicity, Safety Engineering, and Enforcement is working to improve road safety even further, particularly for the most vulnerable road users.

Safety and Security

Safety and security of transport has a high priority in public perceptions and although transport in North Wales has a good record, the nature of many of the routes and the international function of the North Wales coastal corridor pose particular risks for both safety and security. Some of these risks are measurable in terms of numbers of accidents, thefts and offences against people. Others are perceived by travellers and play a part in deterring use of particular facilities or services. A lone traveller, for example, may not feel safe waiting at a station or stop to catch a train or bus late at night.

Walking and Cycling

In North Wales 21% of the Workplace population live within 2km of their employment site, however, only 10.4% travel to work on foot. A further 16% live within 5km and yet only 1.8% of the total workplace population choose to cycle to work.[9] Whilst the opportunity to walk and cycle is available to those living in close proximity to work, few choose these options as modes of transport.

Road Passenger Transport Services

The region is served by a network of conventional bus services provided through a mix of commercial and tendered services, linking major settlements with the outlying villages, and dedicated town services operating within most of the towns of the region. The majority of these services are not able to compete with the private car in terms of

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[9] Office of National Statistics, Census 2001

journey times and are perceived as slow due to the routes serving as many communities as possible by using an optimum number of vehicles.

The de-regulated system of bus operations which has existed since 1986 has reduced the ability of a local authority to co-ordinate all the bus services in their area as they have no control over commercial services. This can sometimes lead to poor connections between services operated by different operators.

The image of bus travel in terms of quality and speed of journey does not encourage people to change their travel behaviour, particularly travel to work journeys where speed and reliability is seen as important as the quality of service. In the peaks, many of the bus services are used to transport school pupils (Authorities have a duty under the 1985 Transport Act to make best use of existing bus services to serve educational establishments). This may act as a deterrent for some people to use services which are known to be full of schoolchildren.

In Flintshire, where travel to work by bus represents only 3.89% of work trips, market research has identified a need for a significant improvement in quality of the services and the associated infrastructure.

"Third Sector" Road Passenger Transport

The term "third sector" is used for collective passenger transport ranging from Demand Responsive Transport (DRT) services, often operated by bus operators using small buses, through Community Bus Services operated by, or on behalf of, community based organisations, taxis and private hire cars, to car sharing schemes and car clubs where a pool of cars is available for members to book for use as and when required. Local Authorities procure bespoke services from bus, taxi and community transport operators for educational and social services transport. These services often experience problems in consistency of delivery and cost.

The Deeside and Wrexham Shuttle, DRT services have proved very successful in terms of attracting new users to public transport. The operating costs are significantly higher per passenger than conventional bus services, but the costs can not only be justified on environmental and sustainability grounds but also in terms of economic benefits such as providing reliable transport links allowing unemployed or re-trained people to gain employment.

Community Transport services are provided at various locations in the region which include dial a ride services, social car schemes and car sharing initiatives. Whilst these services do provide a community based solution to address a need that is not being met by other means, their reliance on volunteers in many cases does lead to pressures in terms of availability.

In terms of taxis and private hire vehicles, there is very good coverage throughout the region apart from a few rural pockets which have to rely on taxis coming from a neighbouring town. There is however a shortage of accessible taxis which not only deters their use by persons with mobility difficulties, but also puts pressure on Education Authorities and Social Services departments in terms of arranging transport for children and adults with special needs or mobility difficulties. There is also a distinct lack of co-ordination between the health services' non-emergency patient transport service and the client transport services operated by local authorities.

Rail Passenger Services

Rail services operate along the North Wales Coast Line with services operating from Holyhead and Llandudno. Services operate to London, Cardiff, Manchester and Birmingham, with the majority of the Cardiff and Birmingham services operating via Wrexham. The loco hauled business train from Holyhead to Cardiff does at the moment not operate via Wrexham due to the non availability of a train path between Chester and Wrexham. Services from Holyhead operate hourly as do services from Llandudno which gives a 30 minute frequency East of Llandudno Junction. Additional trains operate to London over and above this mainly standard pattern timetable. Despite this reasonably frequent level of service, there are times when capacity is an issue on this line and overcrowding can be encountered. Journey times of the London services are much improved particularly between Chester and London, but the running time of services to Cardiff, Manchester, and Birmingham are constrained by single track section between Chester and Wrexham and low line speeds in the case of the Cardiff and Birmingham services and by an intensive stopping pattern between Chester and Manchester. The Birmingham trains extend to Birmingham International, but there are no direct rail services from North Wales to Manchester Airport.

The Conwy Valley line linking Blaenau Ffestiniog with Llandudno is served by six trains per day, which provides very limited journey opportunities for the communities served by this line. Extensive flooding is a frequent problem and often leads to services being suspended whilst emergency repairs to the infrastructure takes place.

The Cambrian Coast line which links Pwllheli via Barmouth and Dovey Junction to Machynlleth has an infrequent service (approximately two hourly), which is slow and severely constrained by pathing requirements at key stations in England.

The Borderland Line (Wrexham – Bidston) has an hourly service but requires a change of train at Bidston for travel through to Liverpool. This line serves a large population but does not maximise the potential for growth due to the frequency constraints and the need to change trains from the diesel services operated on this line to the electric Merseytravel services operated from Bidston to Liverpool.

Access to stations by other modes of public transport and by foot and cycle is poor at many stations, with lack of secure cycle storage deterring cyclists from leaving their bikes at stations without such facilities. Limited availability of car parking spaces at many key stations including Bangor and in some cases such as Flint where unmanaged parking at the station results in usage of spaces which could potentially be used by rail users, being used for non rail use.

Whilst most large centres of population in the region are rail connected, there are significant communities such as Caernarfon, Denbigh and Mold that lost their rail services in the 1960's that justify better standards of public transport access than currently available.

Public Transport Ticketing

The limited availability of integrated ticketing between bus and rail, and the ability to book both modes through a single point does not encourage usage particularly from persons who are unfamiliar with public transport or/and the area of travel.

For busy buses significant time is spent in selling tickets and handling cash, reinforcing the perception of buses as a slow means of travel. More needs to be done

to speed up bus boarding time, with some operators making increasing use of sale of tickets through local shops.

Rail Freight

There are currently a very limited number of rail freight services operated in the region which operate mainly from terminals at Deeside, Holyhead, Penmaenmawr, and Chirk.

The line is currently not utilised by container traffic between Ireland, the UK, and mainland Europe. The increase in the size of containers used in the shipping market has resulted in gauging issues unless these boxes are accommodated on a new type of low wagon which are currently not widely available. There are also no terminals in place that could handle this traffic or the higher gauge piggyback traffic (W12) which could lead to a reduction in HGV movements along the A55. There is currently no rail freight facilities at the port of Holyhead, and the facilities at the port of Mostyn would need significant investment if use as a freight hub was to be considered.

The Conwy Valley line is currently not able to accommodate heavy freight trains due to axle loading limits, and would also need the construction of at least one passing loop if slate waste trains were to be introduced.

Shipping

The port of Holyhead is served by ferry services to Dublin and Dun Laoghaire which carry both passengers and freight. The increases in the number of ferry services and increased capacity has lead to a significant growth in ferry traffic which has lead to stresses on the transport network particularly between the port and the start of the A55, the Britannia Bridge, and other locations along the north Wales coast.

There are currently no ferry services operating from the port of Mostyn but there are freight movements handled by the port including aircraft wings for Airbus Industries and components for offshore wind farms.

Many cruise liners call at Holyhead particularly during the summer months, but due to the lack of a deep water cruise terminal at the port, passengers need to transfer from the cruise ship to land by tender which slows the disembarkation process and deters usage by some cruise lines.

Air

A twice daily air service operates between Anglesey Airport in Valley, and Cardiff, and is currently the only services operated from the new civilian airport built at RAF Valley in 2007. There is under utilisation of this resource and it is essential to encourage the development of additional services with Dublin and London seen as potential destinations in terms of accessing these locations in their own right and as a gateway to international flights.

Whilst the route to Cardiff has been extremely successful with passenger numbers far exceeding the most optimistic projections, the operation of the route by an 18 seater aircraft has resulted regularly in insufficient capacity to meet demand. The flights are operating at over 80% capacity overall with the morning flight from Anglesey and the evening flight from Cardiff being the most heavily loaded journeys.

Manchester and Liverpool airports are extremely important to North Wales for international connectivity, and between them provide a vast range of destinations

provided by conventional and low cost airlines. Access to both these airports from North Wales by public transport is extremely difficult with only a limited number of National Express services serving Manchester Airport. There are no direct rail services to Manchester Airport despite increased capacity available at the airport station due to the recent provision of a new platform.

Climate Change

"Climate Change" is the popular term for a series of complex impacts to surface temperatures and weather caused by changes in the atmosphere reducing the Earth's protection from radiative warming.   Some of these changes occur naturally under a range of influences, but the rate of change has accelerated as the world has become more highly populated and industrialised.   In particular damage to the upper atmosphere is caused by increased concentrations of gases resulting mainly from human activity including Carbon Dioxide (CO_2), Water Vapour, Methane, Nitrous Oxide (NO) and industrial refrigerants (collectively known as the "greenhouse gases").

Carbon Dioxide is currently seen as the largest contributor to climate change and current UK and international technological and fiscal initiatives are designed to achieve a "low carbon economy". Targets have been set by the UK Climate Change Commission for reductions in carbon emissions in the UK of 34% by 2020 and of 80% by 2050. However, there are tensions with Air Quality as the amount of Oxides of Nitrogen (NO_x) produced by petrol and diesel fuelled engines increases as carbon emissions are reduced. This is a significant problem for air quality in congested town centres and around major roads and points to the need for balance in evaluating proposed solutions. For much of North Wales except Wrexham and North East Flintshire the air quality impacts from measures designed to reduce carbon emissions are unlikely to be significant.

Table 3.2 summarises some climate changes predicted by modelling high and low carbon reduction strategies up to 2080 and beyond. During this period, winters will have more precipitation, and summers will be generally hotter and drier. In all seasons there will be more day-to-day variability with higher winds. The reduction in snowfall will have a major impact on the ecology of the Snowdonia National Park and other important habitats. As well as changes to the weather there will be a rise in sea levels exacerbated by gales. It is thought that mean sea levels in North Wales may increase by up to 70 centimetres by 2080 bringing increased frequency of flooding, breaching of coastal defences and damage to bridges and other infrastructure. Already the effects of severe weather have caused increasingly frequent disruption in areas such as the Conwy Valley.

Table 3.2: Predicted climate changes in North Wales to 2080
(from http://www.ngfl-cymru.org.uk/cc-future-climate-in-wales.htm)

Change in	Range
Mean annual temperature	+1.5^{o}C to + 4.0^{o}C
Winter temperature	+1.0^{o}C to + 4.0^{o}C
Summer temperature	+2.0^{o}C to + 3.5^{o}C
Annual Precipitation	Normal to +10%
Winter Precipitation	+10% to +30%
Summer Precipitation	-20% to -50%
Average winter snowfall	-40% to -100%

Transport Emissions

Transport accounts for over a quarter of global CO_2 emissions and is one of the few industrial sectors where emissions are still growing. Car use, road freight and aviation are the principal contributors to greenhouse gas emissions from the transport sector. New technologies include developing alternative transport fuels to break the dependence on petroleum, although it appears that technological innovation is unlikely to be the sole answer to the climate change problem. Other problems emerge such as the production of bio-fuels from agricultural crops which may have undesirable impacts outweighing the carbon impacts in transport.

Although electric vehicles appear to be an attractive medium to long term alternative, with increasing use of hybrid vehicles as a precursor there are problems. The infrastructure for recharging electric vehicles is expensive and may currently only be affordable in large urban areas. The electricity generation process itself may not be any less polluting than the petrol or diesel emissions substituted unless renewable or nuclear power sources can be guaranteed. Battery technology is also a problem because of the scarcity of lithium for the preferred type of battery, the environmental implications of both manufacture and disposal and limited battery life and therefore vehicle range. However, technological improvements will shortly extend battery life and reduce weight and charging periods.

To achieve a stabilisation of greenhouse gas emissions from transport, significant behavioural change will also be required. Policy measures such as recently introduced fiscal incentives will take some time to work through as the typical lifespan of a motor vehicle is some 9 to 10 years. For the purposes of the RTP, technological and fiscal initiatives will apply at national, UK or even international levels and although they will contribute to improvement of regional and local conditions in North Wales Taith and the Councils can do little directly to influence their application except offer support. Behavioural change is, however, a different matter and Taith will concentrate its efforts on driver education, choice of appropriate vehicles for use in North Wales (primarily Council vehicles and possibly contractors) and supporting the North Wales Police in enforcement of speed limits and responsible driving practices.

3.7 Problems Identified as a result of Consultation

Taith has carried out consultation exercises with stakeholders and the public in the course of preparing the RTP. Full details of consultations are available in Appendix 12 and a summary of the findings follows:

Accessibility

- Rurality is seen as a barrier to access to health, employment, learning, services and social interaction or cause deprivation, effect quality of life or wellbeing.

- Some groups have greater issues with accessibility for example, non-car households, under 18s, over 60s (although they benefit from concessionary fares scheme), areas of deprivation, rural populations, people with disabilities.

Infrastructure

- North -South road links are seen as needing improvements generally and at specific locations such as A487 Bontnewydd.

- East-West links were generally perceived more favourably although with specific problems such as Britannia Bridge.

- Many roads are in poor condition. Need to invest in maintaining existing infrastructure properly rather than just spending on new initiatives is important.

- Possible impact of proposals on conserving and enhancing the natural beauty, wildlife and cultural heritage of the Snowdonia National Park.

- There is concern about improving North – South journey times encouraging more traffic through the Snowdonia National Park with no gain to the local economy.

- Traffic flows should be improved around town centres to reduce pollution and fuel consumption due to vehicles regularly stopping and starting.

Road Safety

- Highway infrastructure needs to be improved for safety reasons and should be done by route.

- Safety of new young drivers as they can only afford older cars after passing their driving test.

- Safety of cyclists.

Safety and Security

- Fear of crime and personal security is an important factor in many people's choice not to travel after about 8pm on Public Transport. Young people / children have a negative perception of transport interchanges and are also worried about using Public Transport by themselves.

Walking and Cycling

- The school run is seen as a problem area with a lot of parents driving their children to school. Choice of non-local schools by parents reduces the potential for walking and cycling.

- Lack of footpaths between key settlements including along major roads.

- Cycle paths and footways are generally seen as poorly maintained.

Passenger Transport

- School buses are seen as unattractive by pupils leading to a negative perception of public transport in later life.

Freight

- Better road and rail links to the major ports of Mostyn and Holyhead including a cruise berth at Holyhead which is important for tourism in the region.

- The use of inappropriate routes due to the use of sat-nav systems.

Parking

- Provision and adequate enforcement.

3.8 Transport Opportunities

The opportunities for Taith to improve transport for North Wales are linked to the aims of the WSP and the three pillars of sustainability detailed in the WTS - Social, Economic and Environmental. Taking advantage of these opportunities will lead to improvements in existing infrastructure, services and systems, new policies and initiatives and progress towards the shared goal of full sustainability.

3.9 Opportunities provided by the WSP

The WSP has an aim of sustainable development. Taith can use the North Wales RTP to provide sustainable development of transport systems for the region with the UK and Welsh Assembly governments providing the legislative framework and the political will to do this.

The opportunity is there for Taith to work with others on cross cutting issues (which consider transport together with the activities it supports – for example the impacts on transport requirements as a result of closing rural Post Offices or centralising medical services) to achieve these WSP aims as well as working towards achieving the social, economic and environmental aims of the WTS. There is an opportunity for this RTP to assist in reducing inequalities between communities by providing equitable and sustainable transport systems as part of building sustainable communities.

Providing improved sustainable transport to all areas will aid the WSP aim of utilising and developing people's skills and knowledge, helping to spread prosperity throughout the region and adding to the quality of people's lives. The RTP can also assist with reducing the need to travel, and developing access for all in sustainable transport terms will help the WSP aim of achieving sustainable accessibility.

North East Wales needs to make the most of opportunities to develop sustainable accessibility including effective public transport to aid the spread of development from the border and coastal hubs to the market towns and rural villages. The needs of freight need to be met sustainably looking at roads, rail and coastal shipping.

For North West Wales connectivity within the region is crucial to ensuring the distribution of growth and access to services and leisure. Maintenance of roads is important along with the development of public transport. The presence of two Trans European network priority routes is an opportunity to build upon existing partnerships to ensure an integrated approach to national and international connectivity.

3.10 Opportunities highlighted by the WTS

Social

Improving the transport system provides the opportunity for the WTS to contribute towards creating better jobs and skills by increasing access to jobs and education. It can contribute towards improving health by improving access to health services but also by promoting and providing for more walking and cycling. It can also ensure that transport schemes help strengthen and contribute towards safer communities.

Economic

Reducing congestion will support the economy through better connections between businesses and suppliers and through improved journey times to work. Improving the effective movement of freight by reducing costs and increasing reliability in line with

the "lean and agile" principles of modern supply chain logistics also helps the economy by making Wales more attractive to business. Improving access to education and employment helps towards long term prosperity for the area.

Environmental

The reduction of emissions from transport will help towards tackling climate change. Travel planning is a key element in enabling this to happen, dealing with issues such as new developments and their transport needs, changing modes of travel to more sustainable ways, and also reducing the need to travel.

3.11 Opportunities Identified by Taith

Taith have identified a number of opportunities for improving sustainable transport and therefore the communities it serves.

Accessibility

Whilst it is not possible to provide public transport services for all areas identified with poor or no accessibility, accessibility analysis including use of the Accession model, .can be used to identify and evaluate opportunities for better connectivity. This has been done for Taith in studies of integrated transport and regional bus networks discussed later in this RTP. New and improved services can be targeted on areas with low public transport accessibility with and by encouraging public transport usage will contribute to more sustainable transport solutions.

In a region with widely differing levels of demand for public transport, there are considerable opportunities to develop new models of mobility management that integrate all of the resources potentially available in both the commercial and public sectors with travel planning and management techniques. Already, successes such as Demand Responsive Transport (DRT - for example, the Deeside and Wrexham Shuttles), community transport schemes, car-sharing and car clubs indicate how unserved needs can be efficiently served, helping to stabilise communities and promote growth in areas not initially suited to conventional bus and rail services.

Infrastructure - Route Management Strategies

Route management strategies (RMSs) produced for WAG will help to identify problems and solutions for local areas and communities served by trunk roads. Taith and the Local Authorities are involved in this work and have taken the opportunity to develop a complementary approach for regional strategic routes which will identify a wide range of possible solutions for the problems experienced on any given route. The work done on WAG RMSs provides a link between WAG's National Transport Plan (NTP) and Taith's North Wales RTP providing the opportunity for collaborative working on joint solutions, to meet local as well as national needs.

Infrastructure - Working with Partners and Stakeholders

There are existing groups within the Taith region who already identify and solve problems (e.g.MDA, various partnerships etc) and there is an opportunity to build upon those partnerships.

The Highways Agency is currently developing a Regional Strategy for the North West of England, which will take into account the needs of the M56/A5117/A550

Manchester - Welsh Border corridor. In view of the interactions with the complex of junctions in the Queensferry area, the heavy use of these routes by local and regional traffic and the opportunities for integrating local with strategic solutions, Taith must be involved as a key stakeholder in the development of this work.

The condition of road surfaces, which is determined by maintenance standards, and the quality of driving both contribute significantly to fuel economy. In the case of bus services, these two factors together also contribute to passengers' perceptions of the ride quality of journeys offered.

Bus infrastructure has been significantly upgraded over the past few years due to the availability of Transport Grant (TG) funding from the Welsh Assembly Government through the Taith Public Transport Infrastructure Programme. The grant has been successfully managed by the Taith Public Transport Group who have ensured that the benefits of the programme have been spread across the region. There is much work to be done to ensure that every interchange and stop is of a standard that existing and potential passengers should expect.

Road Safety

Road Safety – there are strong regional groups already in existence for the delivery of different aspects of Road Safety and the development of the Safer Journeys strategy as a part of this RTP.

The North Wales Road Safety Group is a partnership of the six North Wales unitary authorities, North Wales Police, North Wales Fire & Rescue Service, and North Wales Ambulance NHS Trust.

Measures are already in place to improve road safety on the trunk road network through partnership working with the Welsh Assembly to identify and develop safety improvements through the local road safety initiative and community based schemes. The partnership working will be further developed by broadening the scope of bodies coming together to tackle all aspect of safer journeys.

A major contributory factor in collisions is that of excessive speed. The Arrive Alive Safety Camera Partnership (established in 2002) is regarded as an example of best practice of working together in partnership on a regional basis. This approach is now expanded to ensure that the same partnership principles and successes are applied on a National basis. Joining with its South Wales equivalent the camera partnership is now called the Wales Road Casualty Reduction Partnership. It is an opportunity to grow on the success of a significant and effective measure in reducing the overall number of collisions and casualties on our roads.

A North Wales Safer Journeys Strategy covering all forms of transport has been developed together with the North Wales Regional Transport Plan and reflects UK and Wales national policies. It takes account of the actions and targets recommended within the Road Safety Strategy for Wales and proposes actions for public and private passenger transport.

Technology is available to allow monitoring of ride quality, engine performance and fuel economy. This can be used to train drivers for example in local authority transport fleets, by bus and taxi operators and road hauliers. It could also be made available to assist with driver education and awareness programmes for private motorists, possibly together with safe driving initiatives.

Safety and Security

The councils, major bus operators and the principal train operator have been pro-active in installing CCTV systems to monitor operations and protect the safety and security of users and staff. Personal safety now ranks highly alongside availability and frequency of services as a factor shaping public attitudes to bus and train services.

Walking and Cycling

There are opportunities to develop and build on the work that has already been done in recent years.

North Wales offers a number of dedicated routes for use by cyclists. The arterial National Cycle Network (Routes 5 and 8) is strengthened by several important local networks within each Local Authority. The Wrexham Urban Network is the most extensive and developed. Both national and local networks continue to be developed and extended to provide a more inclusive regional network. As a part of this process consideration is given to the needs of both tourists and local residents.

Proposals exist to expand local cycling networks, identifying and developing new ones. Aspirations include new spurs to and from the National Cycle Network, for example:

- between Chester, Mold and Denbigh;

- links to Denbigh and Wrexham from Route 5;

A route from Wrexham, through Denbighshire and Bala linking into the TraCC Consortium area is proposed. Finally, a landmark route has been identified down the Conwy Valley through Snowdonia to Cardigan Bay.

The region offers several local and long distance walking routes, so a range of innovative walking schemes has been developed to encourage more active communities and healthier life styles. People need to be encouraged to walk more and to recognise and chose walking as a viable transport mode. Examples include Urbanwalks and the new Let's Walk Cymru promotions. Existing long range coastal paths could be linked into the continuing development of the All Wales Coastal Path. Urban rights of way could be improved to enhance the walking transport network in towns and cities.

The integration of cycles with the passenger transport services continues with the selective use of buses equipped to carry cycles. It is recognised that work in this sector needs to be developed and improved during the life of the Regional Transport Plan. Equally, work needs to expand to allow an increased level of cycle carriage on trains. Where appropriate, such facilities need to link into the regional cycling network.

Rights of Way Improvement Plans (ROWIP) have been completed for each Local Authority in North Wales and are a resource to assist the improvement of walking and cycling routes.

WAG published a Walking & Cycling Action Plan early in 2009 which will also be used for focussing efforts on improving routes and on persuading people to use them.

Smarter Choices

There are opportunities within the Region to promote Smarter Choices for travel, to reduce congestion, reduce greenhouse gas emissions, enhance accessibility and increase travel choice. These include imaginative ways of encouraging efficient and sustainable ways of travel other than by car. They include improving travel information, car sharing, cycling and walking facilities, teleconferencing and Travel Planning for getting to school, work or other destination. Such choices complement or replace more conventional ways of getting around.

Taking this a stage further is the concept of the Sustainable Travel Town which demonstrates what effect a package of "smarter choices" interventions plus infrastructure improvements could have in a relatively small area over a sustained period.

Bangor the 'City of Learning' has already been proposed for the Taith area and will have far reaching consequences. Not only would the city itself benefit, but also areas further afield in Anglesey where initiatives aimed at making travel to, from, and within Bangor would involve improved non car access to/from Anglesey, and could also assist in addressing the peak flow disruption across the Menai crossings.

Road Passenger Transport Services

Various studies have recently been undertaken to look at improving the bus network. Market research has identified that there is significant opportunity for growth in bus travel through the provision of high quality vehicles along with new and upgraded infrastructure. The Taith Express study focused on the potential for a high quality network of express coach services complementing rail services across the region and on to Liverpool and Manchester airports. A review of bus services in the Eastern area of North Wales centred on Flintshire identified improvements that would increase the modal share of buses. Both these studies have identified the potential for raising the quality of the strategic bus network, as well as the creation of new journey opportunities including access to employment.

Proposals for improved services span the commercial and tendered networks, therefore there is a need for innovative solutions to ensure that the most efficient and appropriate network of services is provided. Options include conventional procurement, "Kickstart" funding, or the adoption of statutory quality partnerships or contracts under the Local Transport Act 2008.

Bespoke "Yellow Bus" services for scholars could not only improve the quality and image of education transport, but could also make travel on peak time bus services more attractive for other users. It is recognised that this may not be the most appropriate solution throughout the region as limited availability of resources and low population density dictate that services in peak hours need to serve more than one function to keep costs down.

"Third Sector" Road Passenger Transport

Demand Responsive Transport solutions have been successful in some urban areas of the Eastern part of the region. There is potential for similar services in other urban

areas of the region, and for exploring whether DRT could offer less costly solutions in the less populated areas.

Increasing the availability of community based solutions including dial a ride, car sharing and car clubs is seen as a cost effective way of meeting unserved needs efficiently, whilst helping to stabilise communities and promote growth in areas not normally suited to conventional bus and rail services.

Efficient use of existing resources and co-ordination of existing services provided by a range of bodies would give opportunities to expand services available to communities. The "Making the Connections" work on integrating education and social services transport has identified the potential to further integrate the procurement and operation of these services, yielding potential efficiency and improvements in quality. This work is currently being taken forward through the North Wales Procurement Partnership. Whilst there is some potential for joint working between local authorities, the greatest potential appears to be through integration of all transport procurement and management within each authority.

Further potential for producing efficiency savings and service improvements would be made possible if the non-emergency patient transport provided by the health authorities could also be co-ordinated with education transport services and in particular social services transport arranged by local authorities.

Increasing the number of accessible taxi and private hire vehicles throughout the region would benefit independent users with mobility difficulties and would also give a greater choice for organisations needing to procure such vehicles to transport clients to educational establishments, care facilities, and hospitals.

Solutions to public transport availability problems should be appropriate to the scale of demand – "car sized solutions for car sized problems". Car sharing, park and share, park and ride and car clubs all have greater potential than is currently realised in North Wales.

Rail Passenger Services

A recently completed rail study (the North Wales Rail Strategy Study) undertaken for Taith has identified opportunities for rail service enhancements, new stations, improvements to non-car station access and car parking at stations. Major infrastructure improvements which will play an integral part in improving rail travel include line speed improvements across North Wales and the recently approved scheme to redouble the single track section from Saltney Junction to Wrexham. Some of individual schemes for both infrastructure and service improvements, have a national significance and contribute to the aims and objectives of the Wales Transport Strategy. These should be included within the National Transport Plan, and funded directly by WAG.

The short term (2010-2011) rail service enhancements include doubling the frequency on the Borderlands line to half hourly, with timetable optimised for connections with North Wales Coast line services at Shotton. Extension of the hourly Llandudno – Manchester train to Manchester Airport is probably feasible under the current timetable. However a more attractive solution would be to accelerate the timings between Chester and Manchester by omitting all stops apart from Warrington Bank Quay, with an additional hourly service between Chester and Manchester calling at all

stations. This would considerably improve access to the Manchester conurbation for residents and businesses in North Wales.

Along with additional service improvements proposed in the medium (2012-2019) and longer term (2020-2024), there are aspirations for new stations at Towyn, Greenfield, Queensferry, Deeside Park, Rossett and Johnstown. Most of these options could only be feasible in conjunction with line speed improvements and service enhancements which would require additional rolling stock.

There are many generic proposals for improving non-car station access at all stations including secure cycle parking provisions at all stations within the region and specific improvements to for cycling, walking and public transport access to Wrexham General, Ruabon, Shotton, Flint, Prestatyn, Rhyl, Colwyn Bay, Llandudno Junction, Bangor, Llanfairpwll, Holyhead, and Porthmadog stations. These would be promoted using standardised signage and branding and could be implemented as part of a wider public transport branding strategy including all modes and associated infrastructure.

Car parking improvements are proposed in the short term at Chirk, Rhosneigr, Ruabon, Llandudno, Buckley, Caergwrle, Flint, and Prestatyn. The Llandudno scheme forms part of a larger scheme being taken forward under Network Rail's National Station Improvement Plan (NSIP). Longer term proposals are suggested for Holyhead, Bangor and Wrexham General.

Public Transport Ticketing

New smart ticketing systems are being introduced throughout the region. Smartcards for the all Wales concessionary travel scheme are being rolled out across Taith and will give much needed journey pattern information that will allow services to be tailored to meet the demand.

There is considerable potential for the smart ticketing technology to be extended to other service users with opportunities for easier payment mechanisms. Flintshire is already using the new ticketing technology for multi journey tickets.

Integrated bus and rail tickets have the potential to make travel by public transport a much simpler proposition, particularly for new users. The North Wales Rover Ticket and the "Plus Bus" bus add on to rail tickets are good examples of what can be achieved by bus and rail operators along with local authorities, working together. New technology will allow the development of existing integrated ticketing schemes and new options for making public transport ticketing seamless.

Rail Freight

There is considerable scope for increasing the number of rail freight services operated on all the lines within the Taith area.

Options contained in the North Wales Rail Strategy Study include a rail freight terminal at Holyhead for trains that would serve as a land bridge between Ireland and mainland Europe. This could reduce the number of heavy lorries that operate along the A55 from the port of Holyhead.

Other options include the provision of a freight terminal at Blaenau Ffestiniog to allow the movement of slate waste by rail, consolidation centres at Deeside and Wrexham which could also be used for waste, redevelopment of the rail terminal at the port of

Mostyn, and reactivation of the mothballed freight terminal at Llandudno Junction. The Blaenau Ffestiniog proposal would include upgrading the Conway Valley line to enable heavy freight trains to operate.

Longer term projects to transfer freight from road to rail include the possible upgrade of the gauge of the North Wales Coast line from W8 (clearance for 8' 6" containers on conventional flat wagons) to W10 (clearance for the more widely used 9' 6" containers), or even to full piggyback clearance which would allow the carriage of lorries on trains.

Shipping

There is potential to attract new shipping routes to the port of Holyhead particularly if rail freight facilities are available. Rail facilities at the port of Mostyn could also be better utilised if upgraded and utilised as a freight hub for the Eastern part of the region.

Around the coast, a number of harbours and jetties handle coastal shipping for specific traffic whilst others are currently disused. It has been suggested that greater use should be made of coastal shipping rather than road freight to reduce climate change and other environmental impacts but the viability and emissions performance of current coastal vessels needs to be carefully considered.

The smaller harbours and landing facilities which are either not served by commercial freight services or are currently disused may offer opportunities for coastal shipping to be used for bulk products.

Air

Increasing the range of destinations for air services from Anglesey Airport would improve the accessibility of the Western half of the region in terms of outward journeys and the ability of business users and tourists to visit the area. A service to Dublin could potentially make travel between Wales and Ireland easier and improve business connectivity. As Dublin offers a range of international flight destinations including Trans Atlantic services, there is an opportunity for Valley to provide a direct link to a busy hub airport. A service from Valley to London City airport could also provide as fast a service to London as the one currently on offer to Cardiff.

The provision of a larger aircraft on the Anglesey – Cardiff route when the current PSO is due to expire in May 2010 would allow the current service to reach its potential, ensuring that there is sufficient capacity to meet the demand that is currently being suppressed due to the limited number of seats available on the aircraft.

There are other airfields throughout the region including Hawarden and Caernarfon which could potentially provide facilities for civilian air services.

Climate Change

Climate change is an overarching issue and, as noted in discussing problems in section 3.5, the "Big Picture" changes are likely to come from technology or fiscal changes at national and international levels. Nevertheless there are significant opportunities to make small but worthwhile changes at local level in North Wales by a variety of actions including reducing the need to travel, shared transport and environmentally friendly travel modes, providing secure parking facilities to encourage

park & ride and park & share, choosing less polluting vehicles and fuels, design of roads and terminal infrastructure to be as environmentally friendly as possible, improved driving skills that will reduce emissions and fostering public awareness of the need to reduce North Wales carbon and ecological footprints by local as well as national action.

Opportunities to reduce the need to travel can be approached in a number of ways discussed more extensively elsewhere in the RTP including land use and facilities planning that minimises travel distances and co-locates activities where possible. Greater use of home-working or local "hot desking" centres (office spaces provided on a community basis) should be facilitated, this largely depends on reliable high speed broadband ICT services achieving far better coverage in many parts of North Wales.

Encouraging the use of shared transport should include not only bus, coach, rail, taxi and community transport but car sharing, lift giving and car clubs. More Park and Ride or Park and Share opportunities should be provided especially through the development of transport hubs both in main centres and serving rural areas. Walking and cycling should be promoted through education of young people and public awareness programmes supported by networks of safe and secure routes, not necessarily through separate provision but by good design of roads and infrastructure. Travel Planning should become a mainstream activity at all sites generating large volumes of trips, whether public sector or private, and application of the principles of travel planning should be encouraged through schools and public information.

By developing inter-modal freight terminals or transhipment centres at key locations such as Deeside Industrial Park, Llandudno Junction and Holyhead greater use of rail freight or consolidation of loads to reduce lorry movements can be achieved. This will require the creation of viable markets for such activities using models now being successfully applied in Scotland and for Anglo-Scottish trunk loads.

Roads and terminal facilities should be designed to facilitate good driving, avoiding the need for heavy acceleration and braking. Layover facilities should be provided so that vehicles can be parked without their engines running. Even with the benefits of new engine and fuel technologies such principles will remain valid. In the longer term, particularly as sea levels and flooding risks rise, there will be opportunities to develop major infrastructure improvements for both roads and railways by jointly planning them with flood relief, coastal defence or energy generation schemes thus sharing benefits and costs to increase viability for all partners. Many such schemes will require integration of proposals in the National Transport Plan forward programmes for railways and trunk roads with RTP proposals for regional and local traffic.

Reducing Emissions

When replacing their in-house vehicle fleets North Wales Councils can choose to use more environmentally friendly fuels and hybrid vehicles. It is possible that there may be some local applications for electrically powered vehicles, in association with transhipment centres for example. Waste management is an area of particular interest to Councils as waste can be used as a source of fuels such as methane or bio-fuels and transport of waste also offers opportunities for environmentally friendly transport choices. However the sources of "green fuels" need to be carefully considered as bio-fuels and electricity generation may simply transfer the carbon load from the users to the producers with far lower net gains or even losses to the carbon

economy. Consideration might be given to including environmental conditions in contracts for the provision of transport services for Council departments. Councils might offer advice to companies and individuals on vehicle choices through public information and trading standards services.

The most effective local action on climate change is likely to be through changing driver behaviour. Taith considers that cost effective driver awareness and education programmes, supported by the use of simple monitoring technology and computer based training can be introduced for fleet drivers, young people preparing for their first driving licences through driving schools, or people given the opportunity to attend driver awareness courses as an alternative to penalties by the Police. Many bus and road haulage companies already use in vehicle monitoring of acceleration, braking and fuel consumption successfully, the proposed programme uses data captured in this and other ways as the basis of training programmes so that good driving techniques can be demonstrated and practiced. Fleet operators can also use such aids for route learning and hazard awareness in the training room rather than in real time on the roads.

Managing Demand and Traffic Flows

Techniques for managing demand and traffic flow include road user charging which is a matter for the Welsh Assembly Government although local access control schemes based on charging such as in Durham or the Peak District National Park in England might be considered for some local problems. Parking management, including the use of workplace or retail parking levies might also be considered, particularly to generate revenue to support other measures such as public transport services in development of large new commercial sites.

Intelligent Transport Systems (ITS) techniques and variable message signing are well established for monitoring and managing traffic flows on motorways and in North Wales through the A55 tunnels at the North Wales Traffic Control Centre. The successful Deeside and Wrexham Shuttle services and Real Time Bus Passenger Information services in North Wales have ITS infrastructure that in the case of the Shuttles is used for control and scheduling as well as monitoring and information. By extending the areas of monitoring to include principal regional roads and co-locating highways and public transport control centres, possibly including also Police control facilities, information on disruptions can be shared between highways and public transport managers and schedule changes, diversionary routes and public information through radio and other media can be co-ordinated and managed. The RTP includes a proposal to investigate the establishment of such a centre.

3.12 Opportunities highlighted as a result of Consultations

Taith has carried out consultation exercises with stakeholders and the public in the course of preparing the RTP. Full details of consultations are available in Appendix 12 and a summary of the opportunities for Taith which were highlighted follows:

Accessibility

- Developing rural hubs

- The need to travel was questioned with technology put forward as an innovative way of accessing services and work.

- Car sharing and car clubs should be encouraged

- Satellite shared office spaces / home working

- People should be taught / encouraged to drive in an eco friendly way.

- Promote electric vehicles and facilities within North Wales.

Infrastructure

- Regular maintenance of facilities is important

- Park and share schemes particularly alongside the A55.

- Improved Information Communication Technology (ICT)

Road Safety

- Where technology can be used to improve road safety the opportunity should be taken.

- Cycle training for all ages

- Education of children and young people is very important but should be continued through all age groups including in the workplace.

- Speed limit reductions where there are large walking and cycling flows

Walking and Cycling

- Cycle monitoring is important allowing schemes to be prioritised

- Safe Routes in Communities is an important scheme

- Free bike schemes - have bikes available for use from stations and town centre locations

- Implement cycle tracks where they are needed, not just where they fit - consult with users

- Priorities given to walkers and cyclists over motor vehicles

- Education to encourage culture change (for cyclists/walkers and motorists)

- Cycle parking should be secure / safe / accessible and provided at all public transport interchanges

Passenger Transport

- Air links from Valley should be expanded to Northern Ireland, Dublin and London.

- Greater promotion of integrated ticketing

- Secure parking should be provided for park and share. Car Park pricing should be used as a lever to encourage people to use Public Transport. People need to be educated about the perceived / actual costs of Public Transport and car driving. Public Transport needs to be an attractive option with, for example, offers, group save tickets, multi operator area wide tickets

- Tickets for an entire Public Transport journey should be available as should information.

- Integration of current services with each other and community services

- Electrification of the Borderlands line is seen as a priority scheme.

- Transport information is seen as being very important

Freight

- Moving freight from road to rail, easing congestion through rail improvements, improving the Conwy Valley railway line and re-opening disused railway lines.

- It was felt that if modal shift is achieved then fewer improvements would be required. If freight traffic didn't use routes inappropriate for the size of vehicles there would be less damage to the roads and less maintenance required.

- If freight distribution centres were encouraged then smaller lorries could be used on smaller roads.

- Modal shift onto rail needs to be encouraged.

- Better use of coastal shipping

Parking

- Provide a Parking Framework for future provision and enforcement.

Figure 3.8 – Summary of issues for the North Wales Regional Transport Plan

Problems

These are a summary of the main points made on the preceding pages:

◊   Sustainability of connections between key settlements

◊   Climate Change and greenhouse gas emissions

◊   Increased flood risk due to Climate Change - fragile road and rail transport links on North Wales Coast

◊   Rural areas deprived of good access due to outdated infrastructure

◊   Deprived urban areas such as the northern coastal corridor and areas of Flintshire and around Wrexham

◊   Reduced economic activity in rural areas

◊   Congestion caused by commuting to work and car journeys to school

◊   Insufficient integrated ticketing on Public Transport

◊   Low levels of walking and cycling

◊   Lack of footways on roads between key settlements

◊   On the trunk road network there are issues with East - West and North - South connectivity which also impact on local road networks.

Opportunities

The Taith area has many opportunities to help to solve the problems outlined above:

◊   Collaborative working across boundaries provides an ideal opportunity to develop a holistic approach to the transport needs of this diverse region.

◊   Improvement of transport is being linked to the Strategic Regeneration Areas which have been set up in different parts of the region.

◊   Improving connectivity within the region can help links between businesses and suppliers and improve journey times to work.

◊   An efficient modern transport system can contribute towards creating better jobs and skills by increasing access to jobs and education.

◊   Effective travel planning promoted through the RTP can help to reduce emissions as well as cut congestion.

◊   Sustainable travel town projects can help to reduce emissions and assist towards a low carbon agenda.

◊   Better travel information and fulfillment of the Smarter Choices agenda.

4 Developing the North Wales RTP

4.1 Taith's Approach

North Wales encapsulates the whole range of national problems and opportunities. It is an economic powerhouse yet contains some of the most severe problems of industrial decline and deprivation; it has a natural environment and heritage that make it a world class centre for tourism but access and capacity issues need to be resolved; its communities display a diversity of skills, culture and sustained use of the Welsh language and ideals, all combining to create a unique North Wales character but requiring better connectivity to maximise the region's potential. The task for the RTP is to reflect the needs of our diverse region whilst achieving the visions of the Wales Spatial Plan (Figure 2.1) and the outcomes and priorities of the Wales Transport Strategy (Figures 2.8 and 2.9).

The process followed by Taith to develop the North Wales RTP is illustrated by the flowchart in Figure 4.1 showing how the policies of the Welsh Assembly Government expressed through the WSP and WTS (violet boxes) along with those of the six North Wales Councils (blue boxes) shaped the analysis by Taith flowing from identification of Transport Problems and Opportunities described in chapter 3 through to completion of the North Wales RTP (red boxes).

In this chapter the vision, objectives and regional transport priorities are developed building on the analysis of problems and opportunities in chapter 3. Chapter 5 shows how Taith's work has been tackled in workstreams organised to look at particular outcomes or groupings of issues. Chapter 6 describes the component strategies to the RTP which derive from the workstreams, and Chapter 7 the evaluation process based on use of the Welsh Assembly Government's Accession and WelTAG tools.

Complementing the RTP and fulfilling the statutory requirements for Strategic Environmental Assessment (SEA) consultants are liaising on preparation of a Strategic Environmental Assessment Statement. This has involved preparation of a scoping report in parallel with the Outline RTP presented to the Welsh Assembly Government early in 2007, an Environmental Report which informed the Consultative Summary RTP in mid 2008 and the currently on going Habitats Assessment. The Non-technical Summary of the Environmental Report is submitted to the Welsh Assembly Government together with this Provisional RTP. The SEA process is summarised in the green boxes in figure 4.1 and described in chapter 7.

As discussed later in this chapter consultation with stakeholders has been an integral part of RTP preparation, shown by the yellow rectangle running through the various levels of figure 4.1, and these consultations have also included discussion of the stages reached in preparation of the SEA . There was an extensive public consultation over the summer of 2008, and Taith intends that following a clear indication from the Welsh Assembly Government on the likely level of expenditure on transport in North Wales for the next 5 years there should be further consultation before the RTP is finalised.

Chapter 9 describes how Taith and the Councils will deliver the funded RTP programme in consultation as appropriate with neighbouring authorities, operator

partners and the Welsh Assembly Government. Further details of how this will be done are set out each year in Taith's Business Plan.

Chapter 8 examines cross cutting issues in the relationship between transport and other public sector concerns such as health, education, waste, the environment, regeneration and climate change.

Figure 4.1 – Taith's Approach to the Development of the RTP
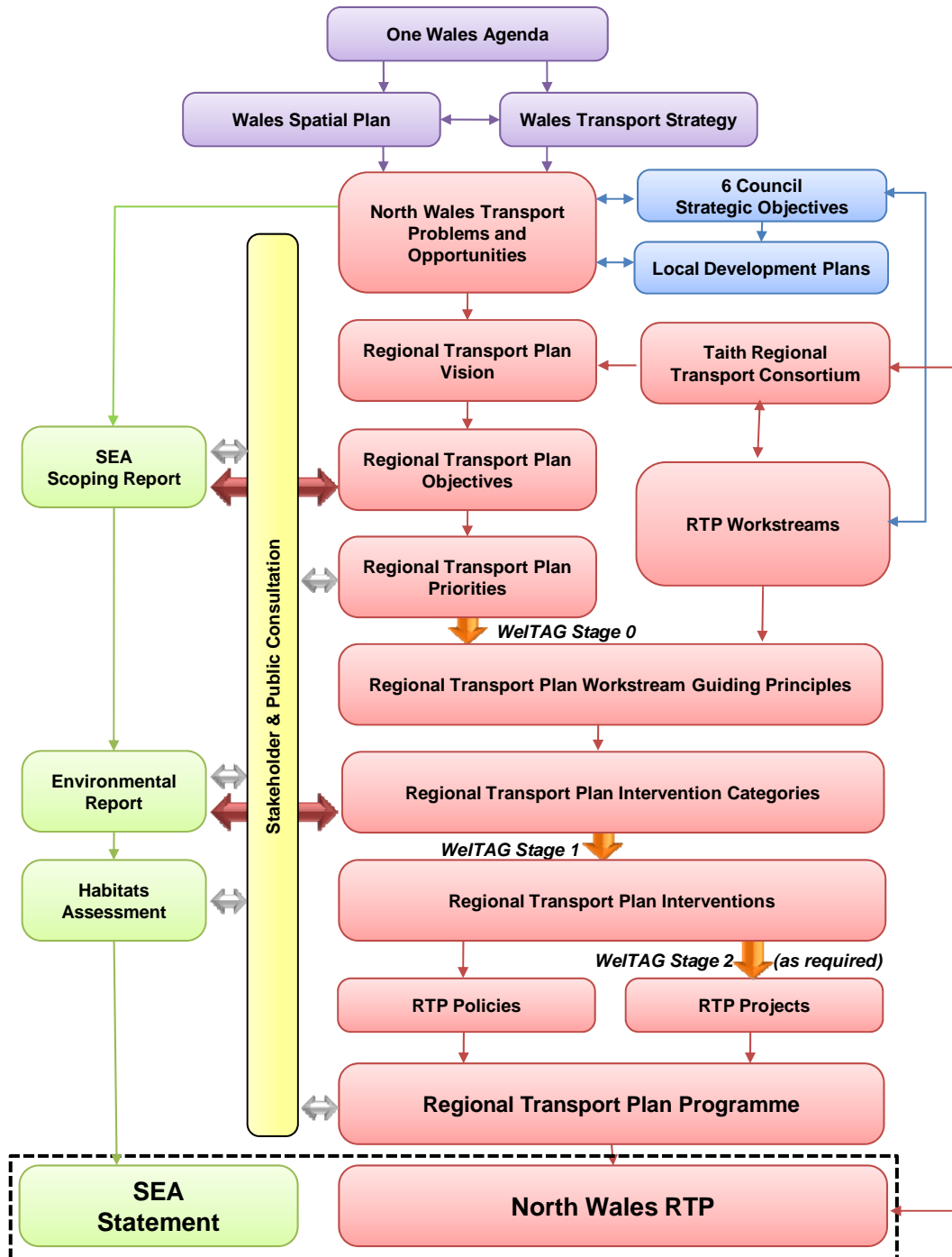
4.2 Vision

Transport in North Wales exists to serve the needs of the region's communities and businesses. Transport should be available to allow people to go about their daily life or business in safety without barriers such as poor access or excessive delay. We also need to minimise the disruptive effects of transport on the natural and built environments. Taking account of North Wales distinctive character and the national strategies and requirements set out in One Wales, the WSP and WTS, Taith's Vision for the North Wales Regional Transport Plan is:

> ***Taith's Vision for Transport in North Wales***
>
> ***"Taith will deliver safe, sustainable and efficient transport networks***
> ***to support the economic and social activities***
> ***of North Wales' diverse communities and businesses***
> ***having regard to its strategic European role."***

4.3 Objectives

The transport problems and opportunities identified by Taith for North Wales taking account of the WSP and WTS principles and outcomes led to the production of seven Regional Objectives consistent with the Wales Transport Strategy. Taith seeks to achieve these to fulfil their vision. The Regional Objectives are as follows:

> ***North Wales RTP Objectives***
>
> 1. **Optimise accessibility to employment, education, health and services for all the diverse communities of North Wales**
> 2. **Improve the quality and provision of passenger transport throughout North Wales and to and from the Region**
> 3. **Facilitate the efficient movement of freight supporting the Region's industry and commerce and its International Gateway functions**
> 4. **Provide, promote and improve sustainable forms of transport and infrastructure to minimise the negative impacts of transport on the local and global environment**
> 5. **Improve safety of all forms of transport**
> 6. **Enhance the efficiency and use of the transport network**
> 7. **Upgrade and maintain the transport infrastructure, providing new where necessary**

These Objectives have been numbered for cross referencing only, and this does not represent any priority order.

Taith's long term objectives are designed not only for the lives of the RTP, WSP and WTS which are inextricably linked but also refer to the very long term beyond 2030 when the impacts of climate change will become acute. They are derived from the problems and opportunities highlighted in chapter 3 which are based not only on issues raised in the WSP and WTS, but also Taith's own detailed review of the issues in North Wales.

RTP Objectives	Problems to be solved
1. Optimise accessibility to employment, education, health and services for all the diverse communities of North Wales	• Social factors such as remoteness, outdated infrastructure and facilities. • Economic factors – changing types of industry and congestion as a result of travel to work in different areas. • Centralisation of services / reduction in locally provided services • Longer journeys than previously made • Greater use of cars / less walking & cycling • Peak flows caused by journeys to work/school • Greater car ownership / increased mobility problems for those without a car • Congestion due to commuting particularly by car • Greenhouse gas emission targets
2. Improve the quality and provision of passenger transport throughout North Wales and to and from the Region	• Social factors such as remoteness, outdated infrastructure and facilities. • Economic factors – changing types of industry and congestion as a result of travel to work in different areas. • Greater use of cars / less walking & cycling • Peak flows caused by journeys to work/school • Greater car ownership / increased mobility problems for those without a car • Tourism has major implications for traffic flows • Congestion due to commuting particularly by car • Actual and perceived safety problems on public transport • Greenhouse gas emission targets
3. Facilitate the efficient movement of freight supporting the Region's industry and commerce and its International Gateway functions	• Economic factors – changing types of industry and freight flows. • High proportion of HGVs on some links of the highway network • Convoys of HGVs on main routes linked to Irish ferry sailings • Inter-regional and international HGV traffic combining with local traffic movements causing congestion and environmental problems • Greenhouse gas emission targets
4. Provide, promote and improve sustainable forms of transport and infrastructure to minimise the negative impacts of transport on the local and global environment	• Social factors such as remoteness, outdated infrastructure and facilities. • Economic factors – changing types of industry and congestion as a result of travel to work in different areas. • Centralisation of services / reduction in locally provided services • Longer journeys than previously made • Greater use of cars / less walking & cycling • Peak flows caused by journeys to work/school • Greater car ownership / increased mobility problems for those without a car

RTP Objectives	Problems to be solved
	• Congestion due to commuting particularly by car • Climate change • Greenhouse gas emission targets
5. Improve safety of all forms of transport	• Government casualty reduction targets • Actual and perceived safety problems on public transport • Safety issues impacting on all areas of transport
6. Enhance the efficiency and use of the transport network	• Social factors such as remoteness, outdated infrastructure and facilities. • Economic factors – changing types of industry and congestion as a result of travel to work in different areas. • Centralisation of services / reduction in locally provided services • Longer journeys than previously made • Greater use of cars / less walking & cycling • Peak flows caused by journeys to work/school • Greater car ownership / increased mobility problems for those without a car • Congestion due to commuting particularly by car • Greenhouse gas emission targets
7. Upgrade and maintain the transport infrastructure, providing new where necessary	• Social factors such as remoteness, outdated infrastructure and facilities. • Economic factors – changing types of industry and congestion as a result of travel to work in different areas. • Centralisation of services / reduction in locally provided services • Longer journeys than previously made • Greater use of cars / less walking & cycling • Peak flows caused by journeys to work/school • Greater car ownership / increased mobility problems for those without a car • Congestion due to commuting particularly by car • Climate change • Greenhouse gas emission targets • Flood risk including rising sea levels • Difficulty of travel between North and South Wales • Constraints on the highway network such as Britannia bridge, the roundabouts and tunnels on the A55. • Actual and perceived safety problems on public transport

The first three objectives establish the fundamental purpose of the transport networks in North Wales, namely to support its people and businesses in all aspects of their lives and at all levels from local to international.

Safety, sustainability and efficiency have often been separately considered in the past, but more recent practice confirms that efficient systems are likely to be those which are safest and provide a good base from which to achieve sustainability. Responding to these objectives will involve attention to regional and local initiatives to deal with the issues of climate change also included in the Wales Transport Strategy.

Maintenance has a vital role to play in achieving all of safety, efficiency and sustainability and not only in the host network – for example well maintained routes have lower accident risks and vehicles operate more smoothly and efficiently when using well maintained roads than on routes where maintenance has been neglected.

Working to these objectives ensures that the RTP addresses and responds to the needs of North Wales consistent with the outcomes of the WTS as shown in figure 4.2.

Figure 4.2 – Correspondence between North Wales Regional Transport Plan Objectives and Wales Transport Strategy Outcomes

North Wales Regional Transport Plan Objectives	Wales Transport Strategy Outcomes																
	Social					Economic					Environmental						
	1. Improve access to healthcare	2. Improve access to education, training and life long learning	3. Improve access to shopping and leisure facilities	4. Encourage healthy lifestyles	5. Improve the actual and perceived safety of travel	6. Improve connectivity within Wales and internationally	7. Improve the efficient, reliable & sustainable movement of people	8. Improve the efficient, reliable and sustainable movement of freight	9. Improve access to employment opportunities	10. Improve access to visitor attractions	11. Increase the use of more sustainable materials	12. Reduce the contribution of transport to greenhouse gas emissions	13. Adapt to the impacts of climate change	14. Reduce the contribution of transport to air pollution and other harmful emissions	15 Improve the impact of transport on the local environment	16. Improve the impact of transport on our heritage	17. Improve the impact of transport on biodiversity
1. Optimise accessibility to employment, education, health and services for all the diverse communities of North Wales	✓	✓	✓	✓		+	✓		✓			✓	+	+	+	+	+
2. Improve the quality and provision of passenger transport throughout North Wales and to and from the Region	✓	✓	✓	✓	✓	✓	✓		✓	✓	+	+	+	+	+	✓	+
3. Facilitate the efficient movement of freight supporting the Region's industry and commerce and its International Gateway functions					+	✓		✓			+	✓	+	✓	✓	+	+
4. Provide, promote and improve sustainable forms of transport and infrastructure to minimise the negative impacts of transport on the local and global environment	+	+	+	+	+	+	+	✓	+	+	+	✓	✓	✓	✓	✓	✓
5. Improve safety of all forms of transport		+			✓	+	✓	✓	+		+			+			
6. Enhance the efficiency and use of the transport network.	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	+	✓	✓	✓	✓
7. Upgrade and maintain the transport infrastructure, providing new where necessary	✓	✓	✓		✓	✓	✓	✓	✓	✓	+	+	+	+	✓	+	+
Key ✓ **Strong relationship** + **Positive relationship**																	

4.4 North Wales Regional Transport Priorities

The Vision and Objectives defined by Taith are statements of principle setting out what needs to be done to achieve the outcome of safe, efficient, sustainable and environmentally friendly transport meeting the needs of North Wales. To make the links between these high level objectives and the work needed to make them happen - the policies and project interventions that we shall discuss later - nine regional priorities were developed through workshops of transport officers with user input through consultation events. The regional priorities derived, headlined in figure 4.3 and set out in full in Appendix 11, conform nationally both to the Wales Spatial Plan and to the outcomes and strategic priorities of the Wales Transport Strategy.

Appendix 11 compares Taith's Regional Transport Priorities with the transport commitments in the One Wales agenda and the WTS Priorities. The fact that there is a clear correspondence between the Regional Priorities (which took account of both the WSP and WTS) and the later One Wales agenda is reassuring in two respects:

♦ both Taith and the Welsh Assembly Government share similar views of the issues facing Wales and its regions;

♦ the North Wales RTP and the NTP must be complementary both in content and phasing of implementation. National and regional strategic transport networks are inextricably interwoven throughout North Wales with common infrastructure and services simultaneously serving local, regional and national functions.

Figure 4.3 summarises the regional transport priorities but does not imply any order of importance as it will be seen later that any possible actions may relate to more than one priority. Figure 4.4 shows the relationship between the RTP Objectives used as the basis of early consultation and then in deriving the regional transport priorities.

Figure 4.3– North Wales Regional Transport Priorities

1. *Efficiently meeting North Wales' diverse transport needs*
Providing a transport network for North Wales that recognises the geographic and social diversity of the Region, making best use of the available resources to give efficient movement of both people and freight .

2. *Passenger transport profile and performance*
Raising the profile and performance of public transport services in North Wales within an integrated system including trains, high quality fast inter-urban bus and coach services, improved local bus networks and an appropriate mix of services involving smaller vehicles for rural areas.

3. *Reducing congestion and journey times*
Resolving congestion and highway access issues.

4. *Supporting development*
Supporting the development of towns and other key centres to increase their economic viability and to promote sustainable development and environmental improvement.

> **5.** **Safe, efficient, sustainable transport networks**
> *Maintaining safe, efficient, more sustainable transport networks.*
>
> **6.** **Improving rail services for North Wales**
> *Seeking improvements to all North Wales rail passenger services and facilities.*
>
> **7.** **Environmentally-friendly and efficient freight movement**
> Implementing road, rail and terminal improvements in conjunction with national and regional agencies and companies.
>
> **8.** **Smart traffic planning and management**
> Establishing an integrated North Wales traffic monitoring, information and control network and seeking to promote more sustainable travel behaviour through travel planning and better education in efficient travel choices and driving techniques.
>
> **9.** **Sustainable transport**
> Increasing current levels of cycling and walking by residents and visitors

Priorities linked to Objectives

Each priority contributes towards meeting several of the RTP Objectives. With the Objectives being linked to the problems identified for the region the Priorities for the first 5 years are aimed at solving first the most significant problems for the area.

Figure 4.4 –Relationships between North Wales Regional Transport Plan Objectives and Taith's Regional Transport Priorities

Shorter term RTP Priorities	Long Term RTP Objectives	
1. Efficiently meeting North Wales' diverse transport needs	1 Accessibility 2 Passenger transport 3 Freight	4 Sustainability 6 Efficiency 7 Infrastructure
2. Passenger transport profile and performance	1 Accessibility 2 Passenger transport 4 Sustainability	5 Safety 6 Efficiency
3. Reducing congestion and journey times	1 Accessibility 2 Passenger transport 3 Freight	5 Safety 6 Efficiency 7 Infrastructure
4. Supporting development	4 Sustainability	6 Efficiency
5. Safe, efficient, sustainable transport networks	4 Sustainability 5 Safety	6 Efficiency 7 Infrastructure
6. Improving rail services for North Wales	1 Accessibility 2 Passenger transport 3 Freight 4 Sustainability	5 Safety 6 Efficiency 7 Infrastructure
7. Environmentally-friendly and efficient freight movement	3 Freight 4 Sustainability	
8. Smart traffic planning and management	4 Sustainability 5 Safety	6 Efficiency
9. Sustainable transport	1 Accessibility	4 Sustainability

5 Strategies and Programmes

5.1 Introduction

Taking the problems and opportunities as a starting point and applying the objectives and priorities described in Chapter 4 to select potential interventions to solve problems and take opportunities, a long term strategy until 2030 has been developed. In the shorter term three strategic options have been developed which contain programmes of interventions to meet the requirements of delivering the long term strategy over the first five years.

The diagram below shows how the processes used to develop the strategy come together to create a 5 year programme leading to solutions for the next 20 years and illustrates the links between the different parts of this RTP document.

5.2   Long Term Strategy

The long term strategy for this RTP has at its heart the vision detailed in chapter 4:

"Taith will deliver safe, sustainable and efficient transport networks to support the economic and social activities of North Wales' diverse communities and businesses having regard to its strategic European role."

This vision takes into account the long term aims of the WSP which runs to 2021 and the WTS which runs to 2030. The long term strategy for the North Wales RTP looks towards the year 2030 and must be both robust and sufficiently flexible to provide a continuing framework for the development of transport in the region under the uncertainties of economic, social and environmental changes over the next 20 years.

Whilst taking into consideration all the outcomes and priorities of the WSP and WTS, Taith set up workstreams to explore different types of transport for the region. Each of the working groups developed their own component strategy to sit within the RTP and as part of this process developed sets of guiding principles which relate not only to the WSP and WTS but also this RTP's own objectives and priorities. These guiding principles form the basis of the RTP's long term strategy as well as its shorter term strategies for a 5 year programme of interventions.

The full lists of guiding principles for each workstream can be found at chapter 6 in the summary of the component strategies as well as in the full component strategies which appear on the Taith website.

The long term strategy is comprised of the longer term aims derived from the component strategy reports.

Accessibility

Having completed a strategic accessibility assessment of North Wales the aim is to achieve improved accessibility to facilities and services especially for socially excluded sections of society. Improvements will be identified and developed through partnership working with all relevant stakeholders including planning authorities, public transport providers, community groups and service providers.

Taith has already used Accessibility analysis to assist with developing bus and coach service proposals and will continue to carry out detailed accessibility analysis and assessment to address identified access issues. Local authorities will ensure that sustainable accessibility is a major consideration when planning new developments including Taith's proposals to investigate the potential for rural service provision hubs.

Network Management

Local authorities are required to comply with the statutory network management duty imposed by the Traffic Management Act 2004. Taith aims to ensure the best possible use is made of the transportation network whilst ensuring competing demands on the network are managed appropriately. Protecting the environment and enhancing the quality of life will be important considerations for Taith in developing tools and techniques to minimise disruption to the transportation network and improve its safety, reliability and resilience.

Maintenance

Local Authorities will develop and adopt highways/transport asset management plans to ensure effective decision making and best value solutions to local maintenance priorities. Taith, through the Local Authorities will adopt procedures as part of an 'All Wales' approach to network management to ensure that maintenance works are undertaken in a manner and at times that minimise network disruption. The requirement for the long term maintenance implications of new infrastructure will be considered as an essential component in the planning and design of future transport proposals taking account of whole life costing estimates. Local Authorities will adopt environmental best practice in respect of maintenance operations and incorporate design features within maintenance works that achieve wider regional and local transport objectives.

International Connectivity

North Wales has an important role to play linking the UK and Ireland in the west and to the North West and West Midlands regions of England to Wales. Benefits to the North Wales economy from international traffic should be maximised as well as encouraging the least environmentally damaging modes and fuel technologies. Taith will work with the Welsh Assembly Government, freight companies and customers to deliver the Wales Freight Strategy and particularly the aim of moving freight traffic from road to rail. Taith will ask WAG to ensure VOSA applies a fair and equal level of enforcement at all UK ports so as not to disadvantage ports when enforcement is in operation.

Road Safety

The aim is to achieve casualty reduction targets through strong partnership working through a range of measures that include; Road Safety education, training and publicity projects; Engineering solutions; Enforcement; Use of collision data; Speed Management; Traffic Regulation Orders; Parking Enforcement, Driver Training.

We have made good progress in reducing road casualties having already exceeded or on target to meet the government's 2010 targets. There are still unacceptably high levels of fatal, serious and slight injury accidents on our roads. The longer term aims will be to meet whatever the newly set targets are for accident reduction that the government will set for 2020.

Of particular concern will be the continual identification of our most vulnerable road users and the targeting of measures to further reduce injuries to children, young drivers and motorcyclists.

Smarter Choices - Walking and Cycling

More people need to walk or cycle on journeys such as the commute to work and school, trips to local shops, leisure or health facilities and for recreation. As people become more physically active their health will improve. More pedestrian and cycling activity on the streets also helps to increase community cohesion, deter crime and people's fear of crime and bring about a more vibrant economy as people are more likely to visit their local shops.

Taith aims to create a safe and sustainable environment encouraging walking as a healthy and viable transport mode that facilitates access within & between local communities. Also important is developing high quality, well maintained networks that facilitate existing and future demands for both local and cross-boundary cycling. Taith will ensure that walking & cycling are always considered in both the transport and land use planning processes and are integrated safely with other modes of transport. An important part of this is encouraging all relevant organisations to develop travel plans to influence the travel behaviour of their employees and customers, on journeys to, from and within North Wales.

Smarter Choices – ITS Strategy

Intelligent Transport Systems (ITS) play an increasingly important part at all stages of transport from planning through information systems to management and control. ITS also has a part to play in training of staff, new drivers and managers as well as in monitoring traffic flows and congestion. Taith aims to develop electronic ticketing in the region allowing multi-operator capability and greater flexibility. Providing appropriate information will be important notably real time and variable, message signs (VMS) but also to assist the provision of printed information. The control and management of systems will use data collected "real time" to manage dynamically the operation of public transport or freight vehicles and to guide road traffic through use of VMS signs controlled by the proposed integrated Traffic Management Centre for North Wales. This will also ensure that walking and cycling are integrated safely with other modes of transport. A variety of media will be utilized including electronic displays, VMS, the internet, and mobile devices including PDAs and telephones.

Public Transport and Third Sector Transport

Taith's aim is for all members of the community to be offered equitable travel opportunities, irrespective of method of travel, catering for the needs of every client group. Efficient transport solutions will demand real seamless integration of services with stable networks and attractive facilities at interchange points. Passenger journey times must be predictable and reliable, whilst the overall journey experience has to be good. Accurate information on alternative methods of travel must be easily available to inform decision making with the cost of travel being easily understood, fair and easy to transact. Transport solutions need to be sustainable economically (taking account of social benefits) and environmentally as well as safe and secure.

Freight

North Wales has a key role in delivering the Wales Freight Strategy (WFS) but also has its own specific freight issues. Involvement of all stakeholders in the development and implementation of specific freight proposals in the North Wales region is important. Taking account of the total capacity of the system and land use policy, an integrated and multimodal solution will deliver a more efficient freight network for North Wales and aim to maximise the economic benefits of freight. Taith needs to raise the profile of alternative modes, promote and create the delivery of potential non-wholly road based solutions whilst minimising Environmental Impact of Freight by raising the awareness of environmental damage generated by inefficient freight movement including the use of new technologies and alternative modes.

Reducing North Wales' Ecological Footprint

Taith will work towards the development of spatial and transport policies with land use and activity patterns that reduce the need for travel. Most travel will consume non-renewable resources and therefore not be sustainable as such, but infrastructure and services to support travel patterns necessary for required levels of economic and social activity can be managed to meet overall sustainability targets. Taith will identify prioritised programmes of sustainable travel areas (building on sustainable travel town pilots) as well as sustainable rural travel pilots, walking and cycling promotion initiatives and public transport interchanges and Park & Ride schemes. Taith will develop environmental driving training programmes, assisted by IT based training and assessment techniques, for fleet drivers, new drivers and other drivers wishing voluntarily to improve their techniques, and drivers requested to attend Police courses.

Parking

Parking is an important aspect of transport, given that most vehicles, particularly private cars, spend most of their time not moving and therefore have to be parked somewhere. Taith aims to ensure that the methods used for managing parking are consistent across the region wherever practicable, in line with current joint working on Decriminalised Parking, balancing the needs of all sectors of society in North Wales.

Monitoring

As part of the Regional Transport Plan (RTP), Taith will produce a Monitoring Framework which will monitor not only the objectives and priorities of the RTP but also assist in monitoring the Wales Transport Strategy (WTS) Outcomes and Priorities, and hence those of the Wales Spatial Plan.

Future Considerations and Possible Solutions

In the longer term, forces are already at work that will bring considerable changes to transport in the future. These can be categorised (without implying priority) as:

- *Economic*: the impact of the world financial crises of 2008, the "credit crunch", are certain to be long lasting. Already reductions in the expected funding for transport from the Welsh Assembly Government for Taith and the North Wales Councils has caused dramatic revisions to the expenditure programmes proposed in this RTP. The expectation is that recovery from the recession itself, probably involving stabilisation around a new base for world economic activity, will take several years. Short term measures to stabilise the economy now being implemented will effectively have to be paid off over a long period, contributing to the change in the UK's economic base. Taith has adopted a flexible approach to programme compilation, described in section 5.3 which responds to the availability of finance and the strategic priorities in such a way that the likely outcome will be that the short term programmes originally planned for completion within 5 years will be rolled forward together with any new priority interventions into the medium term.

- **Energy Availability and Price**: rapid depletion of commercially viable oil reserves has led to a situation described as "peak oil" in which global oil production reaches its maximum level and the goes into decline, a situation reached for the UK's own domestic oil reserves in 2006 and forecast to occur for the world as a whole in the decade starting in 2011. The consequences will inevitably include significant increases in oil prices, although this will lead to known untapped oilfields becoming economically viable and the discovery of new oil fields is also likely. However, by the 2020s petroleum based fuels are expected both to be more scarce and far more expensive so that the travel market will either move towards more collective solutions or vehicle suppliers will make alternatively powered vehicles (including true bio fuels, electricity and fuel cells) more affordable both in first and running costs. Hybrid vehicles will partly bridge this gap but the availability and environmental consequences of existing battery technology, particularly lithium batteries, suggest this may be only an interim solution especially as a hybrid vehicle effectively bears the costs of two power sources. Electric road vehicles may also meet problems of battery availability and range. Complete electrification of the railway network is a possibility under future scenarios and the potential availability of wave, wind and hydro power generation in Wales might make this an attractive option. The UK Government's Technology Foresight programme has looked at future vehicle technologies and research is continuing both by vehicle manufacturers and academic institutions.

- **Technology**: changes in vehicle propulsion technology are referred to in considering energy issues. Other important technological changes include those in Information and Communications technology which make possible a range of changes to the way we travel or need to travel including home-working or hot-desking in shared offices close to home, improved trip planning and real-time information services enabling both more efficient journeys and better recovery from disruptions in the course of a journey. They will also facilitate co-ordinated management of the different modes of transport as in Taith's proposal for a North Wales Integrated Transport Management Centre. Technology changes in other sectors will of course have consequences for transport. The Technology Foresight Programme has examined four different scenarios for future intelligent infrastructure for example, and it is likely that development of longer term programmes for Taith will also benefit from use of a scenario based approach, perhaps using the Annual Performance Reviews of the North Wales RTP as a vehicle for their development and updating.

- **Environment and Climate Change**: The significance of much of the North Wales natural environment and its heritage means that both environmental protection and the tourist industry will be important considerations. Overlaid on this are climate change issues which, as discussed in section 3.10, present opportunities in the longer term for multi-purpose schemes exploiting synergies between transport infrastructure at suitable locations with flood or coastal defence systems and potential poer generation schemes.

- **Lifestyles and Settlement patterns**: As a result of economic, energy, technology and other changes there will inevitably be changes to the way in

which we live and work, leading to significant social and mobility changes. The concept of "eco-towns", reasonably self-contained, sustainable settlements, is a current example. The Foresight Technology programme is currently investigating Land Use Futures on which it expects to report in 2010. Taith will continue to focus on transport interventions that protect and sustain the uniquely Welsh traditions of North Wales with its rural settlements and vibrant historic towns. This may well suggest that there will be a need to consider new settlement patterns to accommodate increased population and economic activity in the longer term, for example in Flintshire.

5.3 Short Term Strategic Options

Programmes of work have been developed to deliver Taith's Objectives and Priorities over the first five years of the RTP and are known as strategic options.

These options are:

- **Preferred**: the strategy that will most effectively deliver Taith's policies and the outcomes of the Wales Spatial Plan and Wales Transport Strategy in North Wales;

- **Best Alternative**: taking account of likely restraints on availability of finance this strategy will produce the best use of resources to progress towards delivery of the required outcomes and to take forward initiatives that will deliver the outputs specified in existing and future transport legislation;

- **Do minimum**: the minimum strategy to sustain acceptable social and economic progress in North Wales taking account of currently expected funding levels and constraints.

These strategic options consist of interventions (described in more detail in section 5.4) and programmes of schemes derived from the component strategies of the RTP (described in more detail in Chapter 6) which look at different aspects of transport in North Wales in more detail using the RTP Objectives and Priorities along with the problems and opportunities described in chapter 3 as their starting point.

The interventions and schemes will be evaluated using WelTAG and their environmental impacts will be evaluated in the Strategic Environmental Assessment (SEA).

In practice both the required outcomes and the level of resources will change over time as a result of changes in social, economic and external factors (changes in stakeholder priorities and legislation for example) since the analyses undertaken for the WSP, WTS and North Wales RTP. As the current situation is subject to considerable uncertainties, the Strategic Options have been concentrated on the short term specifying in detail only inherited commitments and those interventions able to start within the first five years. The strategy adopted needs to have the flexibility to respond to the evolving situation, and subsequent APRs will extend the programme appropriately for future years.

Against this background, the three strategic options effectively represent three reference points for different levels of resource availability within a continuum of strategies to produce the desired outcomes for the RTP as illustrated by Figure 5.1.

Figure 5.1 - Representation of the continuum of strategic options
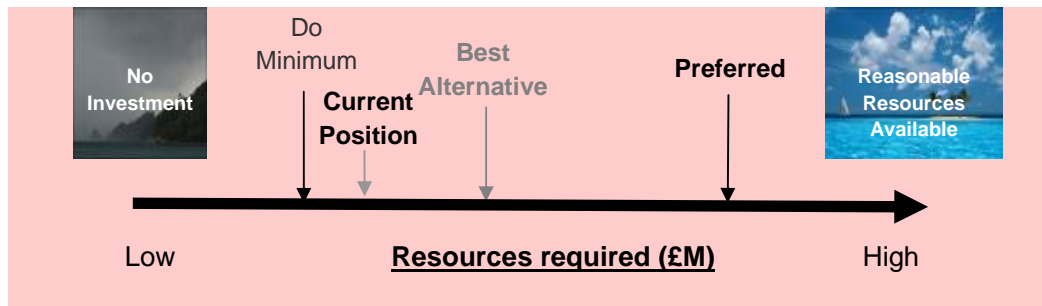
(figure not to scale)

Figure 5.1 shows also that "Do Minimum" may not be sufficient to continue present levels of activity. Since the Councils' Local Transport Plans were adopted there has been new legislation (for example the Traffic Management Act) whilst costs and maintenance backlogs have continued to increase, so it would not be unreasonable if the Best Alternative turned out to involve an increase in resources to deliver fully the intentions of both UK and Welsh legislation.

The difference between the three strategies may be best considered therefore in terms of the priorities and rate of implementation of the various interventions contained within them. This will give Taith and the Councils maximum flexibility in matching their programmes to the resources permitted by the Welsh Assembly Government and responding to changes that may occur in the interim between completion of the plan and implementation.

5.4   Interventions

UK national priorities in transport - for example those stated in the DfT paper "Developing a Sustainable Transport System" - concentrate on interventions to reduce congestion and support economic growth within a need to reduce environmental impacts, particularly CO_2 emissions, by promoting modal shift. They are focussed on international gateways, city regions and inter-urban movement

In North Wales, as recognised in the WSP and WTS outcomes, and as discussed in sections 3.2 - 3.6, it is essential to address the issues of rurality. Whilst we have to strive for modal shift, in large parts of North Wales the low volumes of movement often mean that the best solutions use cars whether in terms of economy, efficiency or emissions. Collective solutions in low demand areas, including shared car initiatives and community enterprises are desirable and will depend on the availability of revenue streams to support their operation. Evaluation of such interventions must capture the full range of social and economic benefits gained where revenue support is provided.

Based on the regional priorities, the transport issues which require interventions to be developed for inclusion in the RTP are:

- **Connectivity**: providing infrastructure and services to support economic and social outcomes
- **Access:** removing barriers, whether by absence of service or disability, so enabling everyone to use the transport networks

- **Resilience**: the ability of transport networks to cope with peaks, disruptions from accidents and other incidents including extreme weather.
- **Improving efficiency:** working in partnership at all levels of Government and public sector agencies, together with the private sector. Both the North Wales RTP and the WTS will depend heavily on the policies pursued by commercial transport operators, both passenger and freight, as well as the public sector.
- **Safer Journeys**: considering and minimising risks on the entire journey regardless of mode of travel.
- **Information and Awareness:** informing people of the travel choices available and assisting them to make the best decisions for themselves and society.
- **Smarter Choices:** helping people to make sustainable travel decisions and using technology to manage transport systems better.
- **Infrastructure:** physical construction interventions to improve or extend transport systems.
- **Maintenance:** pro-active maintenance to ensure effective, sustainable use of resources and efficient performance of the transport systems.
- **Monitoring and Studies:** collecting data and measuring performance of North Wales transport systems to inform future development.

The detailed interventions were devised through an extended process of specific scheme development by each authority as well as taking account of existing proposals, all of which were then grouped when possible.

An initial internal assessment was then made to ensure alignment of these grouped interventions with the aims of the Taith RTP (described as "WelTAG 0"). Successful interventions were then taken forward into the full WelTAG process (stages 1 and 2 as appropriate) as required by WAG.

These groups of interventions formed the basis of initial programme assembly, consultation and appraisal as described in subsequent sections.

Table 5.1 below lists the separate interventions considered for the North Wales RTP, developed from the Component Strategies, to deal with identified issues and contribute to achieving Taith objectives and WTS outcomes. These have been grouped as described in the list above. Interventions can be any of: policies (such as forming partnerships or developing regional approaches to issues such as climate change), programmes (for example, cycling initiatives or packages to deliver Route Management Strategies) or specific projects (such as railway station or junction improvements).

Table 5.1 Interventions

Number	Intervention	Strategy
	Connectivity	
1a)	Work with the Welsh Assembly Government to improve inter-regional connectivity within Wales and, where necessary, to English border regions	➲
1b)	Integration of all transport modes including walking	➲
1c)	Encourage the use of sustainable modes but acknowledge that the car can often be the best solution	➲
1d)	Maximise travel opportunities by providing and enhancing reliable and attractive interchanges with infrastructure and services to encourage use of shared modes including car parking, cycle storage and attractive pedestrian access	➲
1e)	Identify and develop schemes to facilitate walking and cycling in the community, removing real and perceived barriers, enabling users to access their destinations safely and without feeling threatened and meeting the needs of local movements and cross-boundary trips	➲
1f)	Liaise with transport providers to ensure the appropriate carriage of cycles on passenger transport services.	➲
1g)	Implement quality improvement partnerships for:	
	Operations (including general traffic, buses and freight)	➲
	Fixed assets	➲
1h)	Criteria for contracts for secured bus and other personal transport services must reflect quality as well as price with revenue risks appropriately shared	➲
1i)	Undertake scenario planning for significant potential freight developments identifying potential environmental impacts.	➲
1j)	Specific schemes involving additional infrastructure and services to improve access to	
	Employment	➲➲
	Health	➲➲
	Shopping	➲➲
	Civic Amenities (e.g. recreational and cultural)	➲➲
1k)	Appropriate schemes to develop and market a well maintained footpath network to increase walking by local people and tourists alike, catering for walkers of all abilities	➲➲
1l)	Implement Taith Express project to provide rail equivalent connectivity for all major towns even if not currently rail served	➲➲
1m)	Use concessionary travel scheme smartcard infrastructure as basis of a programme to implement Taith inter-operable ticketing across all bus and train services in North Wales	➲➲
1n)	Expand the availability of community based shared transport services	➲➲
1o)	Improve quality of Taxi and Private Hire vehicles	➲➲
1p)	Consolidation of services through partnership with public transport operators, logistics operators and other local delivery services.	➲➲
1q)	Identify possible sites to develop inter-modal road/rail or road/rail/sea environmentally sensitive freight interchanges and distribution centres in and serving Wales; sites within Wales to be included in the individual local authority LDPs	➲➲
1r)	Partnership work through the Taith and Wales Freight groups to ensure that the needs of the freight industry in North Wales are taken into account in making decisions about rail infrastructure and train path allocation	➲➲➲
	Access	
2a)	Ensure provision of accessible vehicles for personal transport services	➲
2b)	Ensure all new transport infrastructure is accessible (must become a mainstream design priority)	➲
2c)	Support the appropriate extension of concessionary travel to:	
	Young People (16 – 25 age group as for National Rail)	➲
	Local Rail Services	➲➲
	Cross Border (interoperability of Welsh and other UK national schemes)	➲➲➲
2d)	Maximise accessibility over all sections of the community irrespective of location or disability	➲➲
2e)	Encourage greater use of the public transport system through improved fares and ticketing policies and systems	➲➲
2f)	Programme to contribute to tackling health & mobility problems associated with physical inactivity and sedentary lifestyles by encouraging higher levels of walking and cycling in North Wales which will link with the Welsh Assembly Government's Climbing Higher Strategy.	➲➲
	Resilience	
3a)	Adopt programmes based on partnership working with all stakeholders	➲
3b)	Increase enforcement of TROs to reduce highway delays arising from illegal parking, waiting and other infringements, particularly in centres	➲
3c)	Consider restricted delivery times in certain locations;	➲
3d)	Improve bus service monitoring & enforcement	➲
3e)	Developing performance improvement strategies including all relevant traffic management, control and operational management methods to produce a public transport network that is highly reliable and perceived as such	➲➲
3f)	Work with the North Wales Trunk Road Agency to ensure that an integrated network of trunk, regional and local roads is identified for freight movement deterring use of inappropriate vehicles causing concern and inconvenience to the	➲➲

Number	Intervention	Strategy
	residents and businesses in rural areas and villages.	
3g)	Manage the existing network to ensure resilience and optimise the existing infrastructure through:	
	extending the remit of the NWTCC to cover the whole Taith strategic network, including non-trunk roads;	➲➲➲
	extending the availability of 'real time' travel for both highway conditions and public transport information to enable users to make informed travel decisions;	➲➲
	considering innovative methods such as variable speed limits or HGV free lanes on the strategic routes;	➲➲
	identifying and addressing the issues presented by the increased use of satellite navigation tools and developing linkages with software producers to capitalise on potential benefits.	➲➲
	identifying diversionary routes and developing an appropriate signage strategy including for emergency incidents and routine maintenance;	➲➲
	developing existing monitoring and variable message sign infrastructure	➲➲➲
3h)	Improvement of the urban road hierarchy	➲➲➲
	Improving public sector efficiency	
4a)	Local Authorities to utilise the powers contained in Local Transport Act	➲
4b)	Encourage the Welsh Assembly Government to establish a Welsh Traffic Commissioner and Enforcement Staff	➲
4c)	Identify and obtain membership of key organizations for the Taith Consortium.	➲
4d)	Establish effective delivery forums for:	
	Integrated Personal Transport (build on the Taith Operators' Group)	➲
	Sustainable Transport (Including Walking & Cycling and Smarter Choices)	➲
	Freight (develop the North Wales Freight Forum)	➲
	Safer Journeys (build on the North Wales Road Safety Group)	➲
4e)	Adopt a multi-modal approach to all transport policy areas when formulating strategies to achieve a balance between environmental and economic operational objectives.	➲
4f)	Support transport sector skills initiatives	➲
4g)	Encourage the delivery of rail service improvements by input to the Welsh Assembly Government's National Transport Plan (NTP)	➲
4h)	Encourage the delivery and use of an improved Traws Cambria service	➲
4i)	Promote best use of Air Service	➲
4j)	Work with public and private sector partners to develop integrated freight policies for ports and airports	➲
4k)	Ensure that the Welsh Assembly Government understands that regional transport capital and revenue funding must be sufficient to meet needs of North Wales identified in the RTP if WSP and WTS outcomes are to be delivered	➲
4l)	the Welsh Assembly Government and Councils to set an example by adopting best practice and:	
	ensuring continued adoption and implementation of standards and good practice across all modes	➲
	reviewing existing partnership working groups/ forums both within the region and with neighbouring consortia and counties and national administrations	➲
	reducing any areas of duplication	➲
	strengthening areas not currently covered	➲➲
	evaluating and adopting alternative methods of working, for example, integrated transport service units	➲
	extending Making the Connections studies between Transport and other services	➲
	influencing Spatial Plans	➲
	developing effective working relationships to ensure that integration and connectivity between all modes is considered at the planning application stage	➲
	exchanging information with other regions to identify good practice.	➲
4m)	In partnership with local planning authorities develop and adopt a consistent regional approach to require travel plans for new and major developments including sites with multiple employers such as industrial estates and business parks	➲➲
4n)	Co-ordinate parking policy to achieve common standards of provision and efficient management across North Wales with hypothecation of revenue to support more sustainable modes;	➲➲
4o)	Implement Slow Streets, Homezones, and Quiet Lanes pilot schemes.	➲➲
4p)	Address skills and staff shortages to ensure having the requisite number of qualified officers to deliver good services across the region	➲➲
4q)	Support the Welsh Assembly Government in investigating the role and sustainable growth of air freight, to assist inward investment	➲➲➲
4r)	Respond to the Welsh Assembly Government on the potential future impacts of charging for use of the road network including congestion charging	➲➲➲
	Safer Journeys	
5a)	Adopt an "end to end" approach to improving safety at all journey stages	➲
5b)	Raise the quality and use of school buses	➲
5c)	Coordinate CCTV strategies between operators and other agencies, enabling real-time exchange of images and information	➲

Number	Intervention	Strategy
5d)	Provide help points where public transport interchange takes place (combined with information points)	➲
5e)	Develop a programme of Safe Routes in the Community schemes in compliance with Welsh Assembly Government guidance.	➲
5f)	Review speed limits to ensure consistency and develop policies on limits across the region;	➲
5g)	Provide appropriate advice and resources to pre-school groups to support work associated with the delivery and promotion of the Children's Traffic Club.	➲
5h)	Continue Kerbcraft training with specific the Welsh Assembly Government funding increasing the numbers undertaking training where possible	➲
5i)	Continue to emphasise the importance of road safety education in the school curriculum.	➲
5j)	Develop the creation of safety zones around schools as appropriate.	➲
5k)	Manage the School Crossing Patrol service according to the guidelines of the Local Authority Road Safety Officers' Association.	➲
5l)	Investigate correlation between social deprivation and child casualties	➲
5m)	Support road safety training schemes for horse riders.	➲
5n)	Implement or augment CCTV coverage where appropriate including:	
	On buses	➲➲
	Town Centres	➲➲
	Railway stations	➲➲
	Bus Stops	➲➲
5o)	Investigate the use of IT based training tools to develop safe and environmentally efficient driving for appropriate groups of road users.	➲➲
5p)	Develop a structured syllabus of continued education and training for road users appropriate to each age and social group.	
	Support Pass Plus Cymru or a similar programme of post test training for newly qualified drivers	➲➲
	Driving skills refreshers for identified vulnerable road users such as powered two wheelers, young drivers and elderly drivers	➲
	Encourage drivers to attend advanced training courses	➲➲➲
	Support the BikeSafe initiative	➲
5q)	Encourage employers to become involved in Managing Occupational Road Risk.	➲➲➲
5r)	Undertake Child Road Safety Audits and attend appropriate events such as the main shows and eisteddfodau to promote road safety messages	➲➲➲
	Information and Awareness	
6a)	Ensure clarity of timetable information	➲
6b)	Provide adequate fixed information	➲
6c)	Provide comprehensive Real Time Public Transport Information	➲
6d)	Feed into the Wales 'Freight Direct' information service promoted by the Welsh Assembly Government	➲
6e)	Develop templates of local education & marketing initiatives with other interested Welsh and UK authorities.	➲➲
6f)	Develop a programme to evaluate cycle training standards for adults and young people and roll out across North Wales.	➲➲
6g)	Through Taith and the Welsh Assembly Government Freight groups promote:	
	Good practice in reducing the environmental impact of road freight vehicles, in particular the effects of emissions (including greenhouse gases) and pollutants	➲➲
	Use of inland waterways and coastal shipping wherever economically and environmentally advantageous	➲➲
	North Wales ports and shipping overseas and assess the potential through associated international freight market intelligence	➲➲
	Added value activities at ports, identifying environmental benefits	➲➲➲
	The increased use of pipelines by additional users in the region.	➲➲➲
6h)	Consider the development of localised lorry route maps where a need becomes apparent	➲➲➲
6i)	Presentation in schools about HGV issues	➲➲➲
	Smarter Choices	
7a)	Local Authorities to set an example to the wider community primarily through the implementation of travel plans	➲
7b)	Encourage the adoption and promotion of car sharing by private and public sector employers as well as private individuals.	➲
7c)	Encourage Car Clubs with potential for development of integration with Park & Ride schemes	➲
7d)	Develop the concept of sustainable travel towns in North Wales building on Welsh Assembly Government pilots	➲
7e)	Work in partnership with relevant local authority departments and large employers to encourage the use of ICT as a tool to minimise the need to travel by staff.	➲
7f)	Travel planning toolkits for all:	

Number	Intervention	Strategy
	Schools (emphasising the importance of transport information and travel plans as part of the curriculum)	➲
	Major Employers (single or multi-site)	➲
	Industrial & Commercial Parks	➲
	Stations & major interchanges	➲
	Individuals	➲➲
7g)	Develop and promote a programme of smarter choices initiatives.	➲➲
7h)	Develop policies regarding Climate Change and low Carbon Economy agendas	➲➲
7i)	Implement Park & Ride sites for towns within North Wales	➲➲
7j)	Devise and develop with internal and external stakeholders a "Campaign Calendar" for Sustainable Travel and Healthy Lifestyles education and promotion initiatives to be delivered on a regional basis through appropriate partnership working groups and co-ordinated with national initiatives.	➲➲
7k)	Implement measures to encourage sustainable tourism using public transport, walking and cycling building on Green Key initiatives	➲➲
7l)	Promote good practice in using Telematics to improve efficiency for freight and passenger transport	➲➲➲
	Infrastructure	
8a)	Compliance with the Traffic Management Act – namely to: reduce causes of congestion and disruption on the road network; coordinate and manage road and street works effectively; manage incidents; plan for events; control parking.	➲
8b)	Compile an updated inventory of all infrastructure	➲
8c)	Prioritise the maintenance of the highways infrastructure within the local authority Highways Asset Management Plans	➲
8d)	Devise a comprehensive buses on the highway plan	➲
8e)	Identify possible locations for providing parking for road freight transport (locations, facilities required and pricing)	➲
8f)	Review routes to ports for road freight, including signage, limitations and standards	➲
8g)	Implement infrastructure improvements to facilitate bus priority	➲➲
8h)	Provide bus hubs to encourage co-ordination of service by transport operators and as focus for rural interchange	➲➲
8i)	Minimise the environmental impacts of highway works through the use of sustainable techniques – including: - use of recycled aggregates in highway works across the region - sustainable urban drainage - use of LED technology and low energy bulbs in street lighting;	➲➲
8j)	Increase levels of walking and cycling through the provision and improvement of appropriate signage.	➲➲
8k)	Develop a regional policy on the criteria for the installation and use of interactive signs	➲➲
8l)	Implement road improvement schemes to enhance the Taith Express network, including proposed trunk road schemes	➲➲➲
8m)	Undertake localised capacity improvements;	➲➲➲
8n)	Ensure the provision of safe and secure cycle parking facilities at key transport interchanges & town centre locations in public ownership as well as encouraging provision at large employment & tourist centres.	➲➲➲
8o)	Investigate port-related rail freight gauge clearance and path availability	➲➲➲
	Maintenance	
9a)	Ensure Taith authorities develop a standard methodology for dealing with maintenance of walking and cycling routes across the region.	➲➲
9b)	Innovative approaches to highway maintenance	➲➲➲
9c)	Consider maintenance of a consistent freight network within local authority asset management plans (particularly in rural areas)	➲➲➲
	Monitoring & Studies	
10a)	Develop appropriate monitoring systems to measure the impact of future transport initiatives.	➲
10b)	Identify suitable data sources to be monitored and subsequent collation of statistics	➲
10c)	Provide accurate and detailed statistical information to develop reduction strategies for collisions.	➲
10d)	Continue to develop with partners, collation of hospital casualty data reporting	➲
10e)	Carry out child centred audit of RTP and other transport policies	➲
10f)	Undertake feasibility studies for significant schemes taken forward in the RTP.	➲
10g)	Assist the Welsh Assembly Government as appropriate in the development of monitoring of casualty rates per mode of travel	➲➲➲
10h)	Devise and develop a standardised database and mapping system for walking and cycling infrastructure which can also be used for maps and images contained in promotional material.	➲➲➲

Strategy: ➲ Do Minimumum   ➲➲ Best Alternative   ➲➲➲ Preferred Strategy

5.5   Schemes

Chapter 3 highlighted the problems and opportunities for North Wales' transport. The projects and schemes that are in the five year programme therefore, are directly linked to solving the issues identified earlier in this document.

Examples of schemes which can help to provide answers to some of the transport problems and issues in North Wales areas follow. Each scheme is also linked to the RTP Priorities that it will help to deliver.

Scheme	RTP Priorities
• The Dee Coastal Path in Flintshire will provide a direct commuter and leisure route linking residential communities, major employers and places of interest along the Dee corridor, such as those in Talacre, Mostyn, Flint, Holywell, Broughton, Deeside. The route provides a safe alternative to enable commuters, locals and visitors to access employment, facilities and places of interest by more sustainable forms of transport, thus reducing dependency on the private car.	1,4,5,9
• The provision of a high quality bus network within North East Wales to encourage greater use of the bus network within the area and reduce dependence on the private car.	1,2,5
• Lon Adda. A multi-user facility through the centre of Bangor involving a surfaced, shared-use, traffic free path following the Afon Adda. Such a facility would provide a strategic link within the central city area, whilst also linking to the National Cycle Route and All Wales Coastal Path. It will be a ribbon of connected green-spaces serving as a linear park and urban lung within a number of key regeneration areas throughout the city. This would help to generate more walking and cycling journeys in the city and to contribute to a reduction of local CO2 emissions. It would provide a facility that would help to break down accessibility barriers facing the young, disabled and all who need to make everyday journeys within the city. The scheme is within the Môn a Menai Action Plan Area.	4,5,9
• Transport interchange facilities on the north side of the railway line at Porthmadog station. This scheme aims to develop facilities such as safe cycle storage, travel information and to use part of the site for a bus interchange. This would encourage greater use of public transport and cycling, and reduce car journeys and congestion.	1,2,3,6,8,9
• Sustainable Travel Town - Bangor. This scheme will include: Green travel plans for main employers, Sustainable travel to school projects, Home shopping delivery project, Bus service improvements, Beic Bangor project, Local travel club, Travel awareness campaign. Bangor has a high student population which increases the local population and exacerbates the traffic problems. The university and hospital are large employers and both have a major impact	1,3,4,8,9

on the transport and movement of people in the city. There is an opportunity to significantly improve the situation in Bangor by working with these major employers. The city has been criticised for its level of CO_2 emissions and changing transport patterns could help to reduce this. The scheme is within the Môn a Menai Action Plan Area.	
• Porthdafarch Road Holyhead. This scheme will provide a footway between a large housing estate (Treseifion, which is within the Maeshyfryd Communities First disadvantaged area), and an established beach area. It will improve road safety for the large number of pedestrians using this road. The scheme is within the Môn a Menai Action Plan Area.	5,9
• Gaerwen to Afon Cefni Shared Use Path. This scheme creates a link for pedestrians and cyclists from Gaerwen and Pentre Berw to Lôn Las Cefni and through to Llangefni. It will provide a safe route for pedestrians and cyclists between Gaerwen and Llangefni creating a link to industrial estates in both towns and encouraging modal transfer for commuters. It will also Link Gaerwen and Pentre Berw to Lôn Las Cefni and NCN 5 & 8 to encourage leisure use with a consequent improvement in general health. The scheme is within the Môn a Menai Action Plan Area.	3,4,5,9
• Bodedern Walking in the Community. This will provide new footway links within the village where pedestrians currently share roadspace with motor vehicles improving access around the village and enabling pedestrians to safely make journeys within the community. The scheme is within the Môn a Menai Action Plan Area.	3,4,5,9
• Completion of Lôn Las Cefni and link to NCN 5 To complete Lôn Las Cefni as a circular route around Llyn Cefni and provide a link to NCN 5 at Rhosmeirch. This final section of Lôn Las Cefni will provide a high quality traffic free route which will be utilised by commuters and for leisure purposes. The link to NCN5, and therefore NCN8, will connect numerous settlements for cyclists therefore providing increased social inclusion for those who do not have access to a car and providing alternative means of transport for those who currently drive. The scheme is within the Môn a Menai Action Plan Area.	1,3,4,5,9
• A545 Corridor Integrated Access Improvement A scheme which will improve access to Beaumaris along the A545, addressing congestion issues at Menai Bridge, creating a safer environment for pedestrians and cyclists, and improved access by public transport. The scheme is within the Môn a Menai Action Plan Area and linked to the Bangor Sustainable Travel Town initiative.	1,3,4,5,9
• Weavers Lane, Dyserth – Cycleway link Construct shared use cycleway/pedestrian footway linking the existing cycle infrastructure in Dyserth.	3,4,5,9

This will complete the Dyserth section of the cycleway network. Providing the missing link between the two parts of Dyserth. It will provide a Safe Route for the children of Dyserth who currently have to travel by bus to school.	
• A525-Park, St Asaph Construct shared use cycle route/pedestrian footway. To complete the cycle network in St Asaph, assisting in the provision of Safer Routes in the Community and a largely traffic free route to the hospital. This route could also provide the starting point for a Vale of Clwyd route.	3,4,5,9
• Prestatyn Bus Station Improvements & Redevelopment The scheme will involve the relocation of the Bus Station in Prestatyn to facilitate improved access to the Railway Station and town centre, and assist the integration of transport modes, as well as providing improved disabled access to all areas helping to promote travel by public transport.	1,2,4,5
• Chirk Station Interchange Provide enhanced passenger transport interchange facilities at Chirk Station to enhance accessibility and increase travel choice.	1,2,5,6
• Remove Physical Access Barriers to Walking & Cycling Improvement and enhancement of sustainable travel networks to increase travel choice and improve sustainable travel modal split.	1,4,5,8,9
• The A548 - Kinmel Bay to Abergele cycle facility. This scheme would provide a direct link from Towyn to Abergele offering a shared use route to gain access to schools, shops and leisure facilities. This addresses issues of low figures for walking and cycling, reducing school journeys by car and improving access to facilities within a deprived area. Within the North Wales Coast Strategic Regeneration Area.	1,3,4,5,9
• Colwyn Bay Interchange. This scheme includes improvement to parking and interchange facilities to the front of Colwyn Bay railway station. People without access to cars will have improved access to alternative modes of transport. This addresses the issues of poor access to train stations by public transport and by walking and cycling. Within the North Wales Coast Strategic Regeneration Area.	1,3,4,5,6
• Gors Road, Towyn. This scheme is an improvement of a road which was used as a relief road for Towyn particularly when flooding occurred in the past. As well as catering for the possible effects of climate change and future flooding, it would improve walking and cycling links to rural areas with a proper standard of footway and shared use cycling. It would provide extra links to Ysbyty Glan Clwyd, the main hospital in the area. Within the North Wales Coast	1,3,4,5,9

Strategic Regeneration Area.	
• Kinmel Bay - improved cycle / walking links to strategic employment site at Tir Llwyd industrial park. This will help to increase the numbers of those walking and cycling to work but also those able to access work by providing direct links to employment sites from a deprived area in the County of Conwy being adjacent to a deprived ward in Rhyl in Denbighshire. Within the North Wales Coast Strategic Regeneration Area.	1,3,4,5,9
• A547 Tollbar to A55 improvement. This is an improved direct link from Tir Llwyd Industrial Park to the A55, supporting accessibility for HGVs and public transport. By improving freight access it will help to improve employment prospects as well as public transport links to get to the jobs in a regeneration area. Within the North Wales Coast Strategic Regeneration Area.	1,3,4,7
• Hubs Concept (across North Wales). Hubs at existing settlements will be developed to include facilities for park and ride, park and share, car hire including car clubs and real time transport information. Issues considered will include transport emissions, congestion and ticketing.	1,2,3,7,8
• Integration studies (across North Wales) will consider public transport services and how they are joined up to offer a real alternative to the car. They will also consider the integration of public transport services, voluntary transport services and transport services provided by local authorities. The issues that will be tackled include accessibility, ticketing, transport emissions and congestion.	1,2,3,7
• Intelligent Transport Systems (across North Wales) aims to address the use of ITS systems to manage transport networks and improve driver behaviour. This includes interventions to manage traffic flow to reduce congestion and transport emissions, together with driver education and training for efficient driving to improve road safety and reducing local climate change impacts.	1,3,5,8

These schemes are examples of what is included in the five year programme to help to solve the problems of transport in North Wales, but this list is not exhaustive and there are many more schemes within the programme which have similar aims. The full programme follows in section 5.6 Programme Assembly

5.6   Programme Assembly

Following identification of intervention categories, the schemes to address the issues were assigned to them.

After the list of schemes was assembled these underwent a prioritisation process to develop Taith's Do Minimum, Best Alternative and Preferred Strategies.

Scheme Prioritisation

The rules for scheme prioritisation are that:

- for a scheme to be considered within the Do-Minimum strategy it must have been categorised under an intervention which is classed as Do-Minimum;
- to be considered within the Best Alternative Strategy the scheme must be categorised in either interventions that fall within Best Alternative or Do-Minimum;
- for a scheme, which is classed within the Preferred Strategy or Best Alternative, to be considered for inclusion in either the Best Alternative or Do-Minimum Strategies, it must have full WelTAG appraisal carried out.

The schemes are then ranked within the following hierarchy of priorities:

1. Programme Development, Evidence Base and Monitoring
2. Intervention Category Rank (1-10)
3. WelTAG score (-9 to +9, with the grouped economic, environmental and social criteria all having the same weight: each scoring between -3 and +3)
4. Other funding available? (e.g. EU Convergence, S106, Strategic Regeneration Area Grants etc)
5. Local Authority Priority

Programme development and monitoring are areas where applying WelTAG is inappropriate.

Intervention categories were ranked by Taith as follows:

1. Connectivity
2. Infrastructure
3. Monitoring and Studies
4. Maintenance
5. Accessibility
6. Resilience
7. Safer Journeys
8. Public Sector Efficiency
9. Smarter Choices
10. Information and Awareness

WelTAG has been carried out on all interventions and a score between -9 and +9 has been derived. WAG are keen for schemes which qualify for other funding should be given priority. Local authority priority then enables a ranking within packages such that schemes are distributed equitably across North Wales.

Packaging

The above prioritisation may favour scheme development and certain interventions, so it is important that schemes are considered within packages so that funding can be allocated to give a smooth delivery profile for both expenditure and works.

For the five year programme schemes have been put into packages as follows:

- Programme Development (inc Monitoring)
- High Quality Bus Improvements
- Improving Walking & Cycling
- Integration
- Traffic Management Act requirements
- Improving Accessibility (Best Alternative and Preferred Strategy only)
- Reducing Congestion and Improving Road Safety (Preferred Strategy only)

Estimated Funding Profiles

Taith's Do-Minimum programme reflects the funding which has been made available over the past 5 years. This funding lies in the region of £100m.

This programme must also take into account major projects including: Wrexham IE access road, A55 Port Access, A499 and Llandudno Station[10] which total £55.6m.

For the Do-Minimum the first year is assumed and then a flattened profile for the further years of £10m per year such that the programme totals £92.3m which is in the quantum of historic funding.

For the Best Alternative the above allocations are taken into account with Taith taking an assumed 22.3% share of the consortia allocation each year. There is also the assumption in the best alternative that slippage will occur in year 1 of a major scheme (costing approx £20m) and Taith will be entitled to a share of this which has been assumed to be £5m but will be recouped in year 4 for the Major schemes.

Table 5.2 Estimated allocation of expenditure for Wales & Taith over 5 yrs, 2010 - 2015

Year	2010-11	2011-12	2012-13	2013-14	2014-15	Total
WAG Total Transport Spend - £m	100	100	100	100	100	500
Major Projects (all Wales) - £m	84	33	26	5	5	153
Consortia (RTP) allocation (CA) - £m	16	67	74	95	95	347
Taith Allocation (22.3% of CA) - £m	**3.52**	**14.74**	**16.28**	**20.9**	**20.9**	**76.34**

The Preferred Strategy assumes slippage in year 1 followed by greater funding becoming available for Transport in Wales for the following four years.

Table 5.3 Taith estimated Expenditure by Strategic Option, 2010 - 2015

Strategy (£m)	2010-11	2011-12	2012-13	2013-14	2014-15	Sub-Total	Major Schemes	TOTAL
Do Minimum	4.0	7.6	9.0	7.5	82	36.3		£91.9m
Best Alternative	8.7	14.4	15.4	15.1	20.6	74.2	55.6	£129.8m
Preferred Strategy	12.9	18.9	19.9	24.1	24.7	100.6		£156.3m

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[10] consideration is being given by the Welsh Assembly Government to directly funding Llandudno Station

Table 5.4: RTP 5 year programme - Do Minimum

LA	Scheme	2010-11 £k	2011-12 £k	2012-13 £k	2013-14 £k	2014-15 £k	Total £k
	TOTAL (Including major schemes)	26027	30242	17637	9892	8248	*92046*
	TAITH PROGRAMME SUB-TOTAL	4000	7647	9040	7490	8248	*36425*

Evidence and Programme / Project Development Package

LA	Scheme	2010-11 £k	2011-12 £k	2012-13 £k	2013-14 £k	2014-15 £k	Total £k
T	Taith Monitoring / Modelling	100	100	100	100	100	*500*
T	Area Bus Network Review (Phase 2)		100				*100*
T	Rural Hubs Concept		100				*100*
T	Multi-Modal Route Management Studies (RMS)	100	100	100	100	100	*500*
A	A545 Corridor Integrated Access Improvement (Phase 2)	100					*100*
		300	**400**	**200**	**200**	**200**	**1300**

HIGH QUALITY BUS NETWORK PACKAGE

LA	Scheme	2010-11 £k	2011-12 £k	2012-13 £k	2013-14 £k	2014-15 £k	Total £k
F	North Wales High Quality Network	290	1000	1000	1000	1000	*4290*
T	Punctuality Improvement Programme	60	500	500	500	500	*2060*
T	Public Transport Infrastructure - Stops/Shelters/etc	150	400	400	400	400	*1750*
T	Public Transport Information	0	60	60	60	60	*240*
T	Smartcards		50	50			*100*
		500	**2010**	**2010**	**1960**	**1960**	**8440**

IMPROVING WALKING AND CYCLING PACKAGE

LA	Scheme	2010-11 £k	2011-12 £k	2012-13 £k	2013-14 £k	2014-15 £k	Total £k
G	Lon Adda	190	285	200	150		*825*
C	Community Based Purposeful Routes - £20k retention, £490k North Shore to West Shore, £1m Penmaenbach to Conwy Morfa	510	1000				*1510*
C	Llanddulas - Pencoed Road footway provision		75	75			*150*
C	A548 Kinmel Bay to Abergele cycle facility		250	500			*750*
A	Holyhead - Porthdafarch Walking in the Community			200			*200*
W	Remove Physical Access Barriers to Walking & Cycling		75	100	250	300	*725*
D	Weavers Lane, Dyserth		400				*400*
A	General improvements to footways / cycleways in towns / villages to address pinch points and improve safety		30	30	30	30	*120*
W	Improving Community Cohesion		50	150	200	200	*600*
F	Dee Coastal Path	100	500	500	1000	1000	*3100*
A	Gaerwen to Lôn Las Cefni - shared use path					153	*153*
C	Llandudno - Gloddaeth Avenue/Street North Shore to West Shore link		25				*25*
F	Coastal Access Path		42				*42*
D	Park to A525, St Asaph		180				*180*
D	Cycle ramps Westbourne Avenue Bridge and connecting routes			500			*500*
D	Station Road to A525 cycle path, Rhuddlan			100			*100*
G	Felin Hen			300			*300*
D	Trefnant to HM Stanley/Ysgol Glan Clwyd, St Asaph			500			*500*
F	Bryn Road, Bryn y Baal			250			*250*
C	Llandudno - other in-town network links			75	75		*150*
G	Lon Llyn Deheuol			175	200	200	*575*
D	Ruthin urban cycle routes				300		*300*
D	A541 Cycle Route				500		*500*
D	Denbigh to Henllan					400	*400*
C	Llandudno - A470 Links Rbt/ Conway Road link					80	*80*
A	Protect the Gaerwen - Amlwch alignment as a transport corridor					100	*100*
C	Llandudno - Mostyn Broadway link from NCR 5					120	*120*
G	Lon Gwyrfai					300	*300*
A	Bodedern - Walking in the Community					30	*30*
A	Completing development of Lôn Las Cefni, linking to NCN Route 5 Complete link through Llangefni to link routes 5 and 8					325	*325*
A	To improve the gateway provision through Menai Bridge and Llanfairpwll for NCN 5 and 8					250	*250*
C	Creuddyn Peninsular network development					100	*100*
F	Springfield Hill, Pentre Halkyn					100	*100*
A	A545 Corridor Integrated Access Improvement (Phase 1)	100					*100*
A	A545 Corridor Integrated Access Improvement (Phase 2)		500	500	1000	1000	*3000*
D	Native Trails - Online website				75		*75*
		900	**3412**	**4155**	**3780**	**4688**	**16935**

INTEGRATION PACKAGE

G	Snowdonia Green Key	250					*250*
D	Prestatyn Bus Station	500					*500*
G	Bangor Railway Station Multi Modal Interchange	300					*300*
D	Prestatyn Rail Station	200					*200*
A	Menai Bridge bus terminus to NCN Route 8	50	25				*75*
W	Chirk Station - Interchange	75					*75*
C	Colwyn Bay Interchange	100	0				*100*
C	Llandudno Coach Station (Coach/bus)	0	75	1000			*1075*
G	Bangor STT Roll Out inc Caernarfon + Llangefni	250	350	300	250	250	*1400*
F	Deeside Sustainable Community (Phase 1+2)	275	350	350	350	350	*1675*
C / D	Llandudno / Rhyl Sustainable Community (Phase 1+2)	0	250	250	250	250	*1000*
T	Travel Plans - Walking and Cycling to Schools, Cycle Training, LA travel plans, etc		200	100	100	100	*500*
T	Set up car club based on (purchased) CC pool vehicles		50	50	50	50	*200*
C	Conwy Valley Promo		50				*50*
G	Pwllheli and Porthmadog Railway Stations		25	75	150		*250*
T	North Wales Rail Station Non Car Access Package	0	100	100	100	100	*400*
		2000	**1475**	**2225**	**1250**	**1100**	**8050**

TRAFFIC MANAGEMENT ACT PACKAGE

W	Network Management -Real Time Information.		50	150	150	150	*500*
T	Speed Management Review/Measures	300	300	300	150	150	*1200*
		300	**350**	**450**	**300**	**300**	**1700**

MAJOR SCHEMES

G	A499 Aberdesach to Llanaelhaearn	3095					*3095*
W	Improved Access to Wrexham Industrial Estate – Section 2 (New Access Road)	13000	14656	1214	433		*29303*
A	A55 Completion of link from Black Bridge to Salt Island & rail depot (without EU funding)	5232	7239	7383	1969.38		*21823.38*
C	Llandudno Railway Station	700	700				*1400*
		22027	**22595**	**8597**	**2402.38**	**0**	**55621.38**

Table 5.5: RTP 5 year programme - Best Alternative

LA	Scheme	2010-11 £k	2011-12 £k	2012-13 £k	2013-14 £k	2014-15 £k	Total £k
	TOTAL (Including major schemes)	**31032**	**36250**	**22722**	**16477.38**	**19095**	**125576.4**
	TAITH PROGRAMME SUB-TOTAL	**18010**	**27310**	**28250**	**28150**	**38190**	*139910*

Evidence and Programme / Project Development Package

LA	Scheme	2010-11 £k	2011-12 £k	2012-13 £k	2013-14 £k	2014-15 £k	Total £k
T	Taith Monitoring / Modelling	100	100	100	100	100	*500*
T	Area Bus Network Review (Phase 2)		100				*100*
T	Rural Hubs Concept		100				*100*
T	Multi-Modal Route management Studies	100	100	100	100	100	*500*
A	A545 Integrated Access Improvement (Phase 2)	100					*100*
		300	**400**	**200**	**200**	**200**	**1300**

HIGH QUALITY BUS NETWORK PACKAGE

LA	Scheme	2010-11 £k	2011-12 £k	2012-13 £k	2013-14 £k	2014-15 £k	Total £k
F	North Wales High Quality Network	400	1000	1000	1000	2000	*5400*
T	Punctuality Improvement Package	100	500	500	500	500	*2100*
C	Sherpa	75					*75*
C	Minor road improvements on bus routes	100					*100*
C	Turning facilities (Cwm/Penmaenan)	140					*140*
T	Public Transport Infrastructure - Stops/Shelters/etc	250	400	400	400	400	*1850*
F	Priority Routes for Deeside Shuttle	100	250	300	400	500	*1550*
T	Smartcards	50	50	50	50	50	*250*
T	CCTV	100	100	100	100	100	*500*
T	Public Transport Information	60	60	60	60	60	*300*
		1375	**2360**	**2410**	**2510**	**3610**	**12265**

IMPROVING WALKING AND CYCLING PACKAGE

LA	Scheme	2010-11 £k	2011-12 £k	2012-13 £k	2013-14 £k	2014-15 £k	Total £k
G	Lon Adda	325	150	200	150		*825*
C	Community Based Purposeful Routes - £20k retention, £490k North Shore to West Shore, £1m Penmaenbach to Conwy Morfa	510	1000				*1510*
C	Llanddulas - Pencoed Road footway provision	75	75				*150*
C	A548 Kinmel Bay to Abergele cycle facility	250	500				*750*
C	Kinmel Bay - improved cycle/walking links to strategic development at Tir	250	250				*500*
A	Holyhead - Porthdafarch Walking in the Community		200				*200*
W	Remove Physical Access Barriers to Walking & Cycling		75	100	250	300	*725*
D	Weavers Lane, Dyserth		400				*400*
A	General improvements to footways / cycleways in towns / villages to address pinch points and improve safety		30	30	30	30	*120*
W	Improving Community Cohesion		50	150	200	200	*600*
F	Dee Coastal Path	100	500	500	1000	1500	*3600*
A	Gaerwen to Lôn Las Cefni - shared use path		153				*153*
C	Llandudno - Gloddaeth Avenue/Street North Shore to West Shore link		25				*25*
F	Coastal Access Path		42				*42*
D	Park to A525, St Asaph		180				*180*
D	Cycle ramps Westbourne Avenue Bridge and connecting routes			500			*500*
D	Station Road to A525 cycle path, Rhuddlan			100			*100*
G	Felin Hen			300			*300*
D	Trefnant to HM Stanley/Ysgol Glan Clwyd, St Asaph			500			*500*
F	Bryn Road, Bryn y Baal			250			*250*
C	Llandudno - other in-town network links			75	75		*150*
G	Lon Llyn Deheuol			175	200	200	*575*
C	Llandudno Junction cycle facilities (Associated with Master Plan)			35	35		*70*
D	Ruthin urban cycle routes				300		*300*
D	A541 Cycle Route				500		*500*
D	Denbigh to Henllan					400	*400*
C	Llandudno - A470 Links Rbt/ Conway Road link					80	*80*
A	Protect the Gaerwen - Amlwch alignment as a transport corridor					100	*100*
C	Llandudno - Mostyn Broadway link from NCR 5					120	*120*
G	Lon Gwyrfai					300	*300*
A	Bodedern - Walking in the Community					30	*30*
A	Completing development of Lôn Las Cefni, linking to NCN Route 5 Complete link through Llangefni to link routes 5 and 8					325	*325*
A	To improve the gateway provision through Menai Bridge and Llanfairpwll for NCN 5 and 8					250	*250*
C	Creuddyn Peninsular network development					100	*100*
F	Springfield Hill, Pentre Halkyn					100	*100*
A	A545 Corridor Integrated Access Improvement (Phase 1)	100					*100*
A	A545 Corridor Integrated Access Improvement (Phase 2)		500	500	1000	1000	*3000*
D	Native Trails - Online website				75		*75*
		1610	**4130**	**3415**	**3815**	**5035**	**18005**

INTEGRATION PACKAGE

G	Snowdonia Green Key	250					*250*
D	Prestatyn Bus Station	500					*500*
G	Bangor Railway Station Multi Modal Interchange	300					*300*
D	Prestatyn Rail Station	200					*200*
A	Menai Bridge bus terminus to NCN Route 8	50	25				*75*
W	Chirk Station - Interchange	75					*75*
C	Colwyn Bay Interchange	100					*100*
C	Llandudno Coach Station (Coach/bus)	75	1000				*1075*
G	Bangor STT Roll Out inc Caernarfon + Llangefni	250	350	300	250	250	*1400*
F	Deeside Sustainable Community (Phase 1+2)	275	350	350	350	350	*1675*
C / D	Llandudno / Rhyl Sustainable Community (Phase 1+2)	100	250	250	250	250	*1100*
D	Llanelidan and Llanfair DC	75	75				*150*
G	Sustainable Travel Town	200	200	200	200	200	*1000*
A	Provide a Park & Ride between Anglesey & Gwynedd with bus priority	100	200	200			*500*
G	Bangor Park & Ride	50	350				*400*
W	Park & Ride - Wrexham	800					*800*
D	Rhyl Park & Ride	200	200				*400*
T	Travel Plans - Walking and Cycling to Schools, Cycle Training, LA travel plans, etc		200	100	100	100	*500*
T	Set up car club based on (purchased) CC pool vehicles		50	50	50	50	*200*
C	Conwy Valley Promo		50				*50*
G	Pwllheli and Porthmadog Railway Stations		25	75	150		*250*
T	North Wales Rail Station Non Car Access Package	100	100	100	100	100	*500*
		3700	**3425**	**1625**	**1450**	**1300**	**11500**

TRAFFIC MANAGEMENT ACT PACKAGE

W	Network Management -Real Time Information.		50	150	150	150	*500*
W	B5605 Rossett-Pulford Corridor Demand Management Measures.	25	50	75			*150*
C	Gors Road Towyn (Resilience Scheme)	100					*100*
T	Speed Management Review/Measures	300	300	300	150	150	*1200*
		425	**400**	**525**	**300**	**300**	**1950**

IMPROVING ACCESSIBILITY

A	A5025 Traeth Bychan	150					*150*
C	A548 (Pensarn) to A547 (Rhuddlan Road Link)	250	500	500	750		*2000*
C	A547 (Rhuddlan Road) to A548 South-East Abergele bypass		250	1000	1000	2750	*5000*
F	A548 Mostyn Dock Access	750					*750*
A	Beaumaris Link Road		1000	2500	2500	2000	*8000*
W	Wrexham Town Centre Access			300	300	400	*1000*
W	A525 Western Gateway Strategic Corridor Improvement.	100	100	100	500	1500	*2300*
W	A541 Strategic Urban Corridor Multi-Modal Improvement	100	100	800			*1000*
W	A541 Plas Coch Rd/Berse Rd Roundabout Improvement.	25	25	150	150		*350*
D	Improved coach parking facilities Rhyl, Denbigh and Llangollen	220	450				*670*
F	Mold to Saltney Greenway		500	600	600	2000	*3700*
C	A5/A4086 Capel Curig Interchange		15				*15*
		1595	**2940**	**5950**	**5800**	**8650**	**24935**

MAJOR SCHEMES

G	A499 Aberdesach to Llanaelhaearn	3095					*3095*
W	Improved Access to Wrexham Industrial Estate – Section 2 (New Access Road)	13000	14656	1214	433		*29303*
A	A55 Completion of link from Black Bridge to Salt Island & rail depot (without EU funding)	5232	7239	7383	1969.38		*21823.38*
C	Llandudno Railway Station	700	700				*1400*
		22027	**22595**	**8597**	**2402.38**	**0**	**55621.38**

Table 5.6: RTP 5 year programme - Preferred Strategy

LA	Scheme	2010-	2011-	2012-	2013-14	2014-	Total £k
	TOTAL (Including major schemes)	**71034**	**81540**	**54444**	**50054.76**	**46390**	***303462.8***
	TAITH PROGRAMME SUB-TOTAL	**26980**	**36350**	**37250**	**45250**	**46390**	***192220***
Evidence and Programme / Project Development Package						
T	Taith Monitoring / Modelling	100	100	100	100	100	*500*
T	Area Bus Network Review (Phase 2)		100				*100*
T	Rural Hubs Concept		100				*100*
T	Multi-Modal Route Management Studies	100	100	100	100	100	*500*
A	A545 Corridor Integrated Access Improvement (Phase 2)	100					*100*
		300	**400**	**200**	**200**	**200**	**1300**
	HIGH QUALITY BUS NETWORK PACKAGE						
F	North Wales High Quality Network	400	1000	2000	5000	2000	*10400*
T	Punctuality Improvement Packages on main corridors	100	500	500	500	500	*2100*
C	Sherpa	75					*75*
C	Minor road improvements on bus routes	100					*100*
C	Turning facilities (Cwm/Penmaenan)	140					*140*
T	Public Transport Infrastructure - Stops/Shelters/etc	250	400	400	400	400	*1850*
F	Priority Routes for Deeside Shuttle	100	250	300	400	500	*1550*
T	Smartcards	50	50	50	50	50	*250*
T	CCTV	100	100	100	100	100	*500*
T	Public Transport Information	60	60	60	60	60	*300*
		1375	**2360**	**3410**	**6510**	**3610**	**17265**
	IMPROVING WALKING AND CYCLING PACKAGE						
G	Lon Adda	325	150	200	150		*825*
C	Community Based Purposeful Routes - £20k retention, £490k North Shore to West	1510					*1510*
C	Llanddulas - Pencoed Road footway provision	75	75				*150*
C	A548 Kinmel Bay to Abergele cycle facility	250	500				*750*
C	Kinmel Bay - improved cycle/walking links to strategic development at Tir Llwyd	250	250				*500*
A	Holyhead - Porthdafarch Walking in the Community		200				*200*
W	Remove Physical Access Barriers to Walking & Cycling		75	100	250	300	*725*
A	General improvements to footways / cycleways in towns / villages to address pinch points and improve safety		30	30	30	30	*120*
D	Weavers Lane, Dyserth		400				*400*
W	Improving Community Cohesion		50	150	200	200	*600*
F	Dee Coastal Path	500	500	1000	1000	1000	*4000*
A	Gaerwen to Lôn Las Cefni - shared use path		153				*153*
C	Llandudno - Gloddaeth Avenue/Street North Shore to West Shore link		25				*25*
F	Coastal Access Path		42				*42*
D	Park to A525, St Asaph		180				*180*
D	Cycle ramps Westbourne Avenue Bridge and connecting routes			500			*500*
D	Station Road to A525 cycle path, Rhuddlan			100			*100*
G	Felin Hen		300				*300*
D	Trefnant to HM Stanley/Ysgol Glan Clwyd, St Asaph			500			*500*
F	Bryn Road, Bryn y Baal			250			*250*
C	Llandudno - other in-town network links			75	75		*150*
G	Lôn Llyn Deheuol			175	200	200	*575*
C	Llandudno Junction cycle facilities (Associated with Master Plan)			35	35		*70*
D	Ruthin urban cycle routes				300		*300*
D	A541 Cycle Route				500		*500*
D	Denbigh to Henllan					400	*400*
C	Llandudno - A470 Links Rbt/ Conway Road link					80	*80*
A	Protect the Gaerwen - Amlwch alignment as a transport corridor					100	*100*
C	Llandudno - Mostyn Broadway link from NCR 5					120	*120*
G	Lôn Gwyrfai					300	*300*
A	Bodedern - Walking in the Community					30	*30*
A	Completing development of Lôn Las Cefni, linking to NCN Route 5 Complete link through Llangefni to link routes 5 and 8					325	*325*
A	To improve the gateway provision through Menai Bridge and Llanfairpwll for NCN 5 and 8					250	*250*
C	Creuddyn Peninsular network development					100	*100*
F	Springfield Hill, Pentre Halkyn					100	*100*
A	A545 Corridor Integrated Access Improvement (Phase 1)	100					*100*
A	A545 Corridor Integrated Access Improvement (Phase 2)		500	500	1000	1000	*3000*
D	Native Trails - Online website				75		*75*
		3010	**3430**	**3615**	**3815**	**4535**	**18405**
	INTEGRATION PACKAGE						
G	Snowdonia Green Key	250					*250*
D	Prestatyn Bus Station	500					*500*
G	Bangor Railway Station Multi Modal Interchange	300					*300*
D	Prestatyn Rail Station	200					*200*

A	Menai Bridge bus terminus to NCN Route 8	50	25				*75*
W	Chirk Station - Interchange	75					*75*
C	Colwyn Bay Interchange	100					*100*
C	Llandudno Coach Station (Coach/bus)	75	1000				*1075*
G	Bangor STT Roll Out inc Caernarfon + Llangefni	250	350	300	250	250	*1400*
F	Deeside Sustainable Community (Phase 1+2)	275	350	350	350	350	*1675*
C /	Llandudno / Rhyl Sustainable Community (Phase 1+2)	100	250	250	250	250	*1100*
D	Llanelidan and Llanfair DC	75	75				*150*
G	Sustainable Travel Town	200	200	200	200	200	*1000*
A	Provide a Park & Ride between Anglesey & Gwynedd with bus priority	100	200	200			*500*
G	Bangor Park & Ride	50	350				*400*
W	Park & Ride - Wrexham	800					*800*
D	Rhyl Park & Ride	200	200				*400*
T	Travel Plans - Walking and Cycling to Schools, Cycle Training, LA travel plans, etc		200	100	100	100	*500*
T	Set up car club based on (purchased) CC pool vehicles		50	50	50	50	*200*
C	Conwy Valley Promo		50				*50*
G	Pwllheli and Porthmadog Railway Stations		25	75	150		*250*
T	North Wales Rail Station Non Car Access Package	100	100	100	100	100	*500*
		3700	**3425**	**1625**	**1450**	**1300**	**11500**

TRAFFIC MANAGEMENT ACT PACKAGE

W	Network Management -Real Time Information.		50	150	150	150	*500*
C	Gors Road Towyn (Resilience Scheme)	100					*100*
W	B5605 Rossett-Pulford Corridor Demand Management Measures.	25	50	75			*150*
T	Speed Management Review/Measures	300	300	300	150	150	*1200*
		425	**400**	**525**	**300**	**300**	**1950**

IMPROVING ACCESSIBILITY PACKAGE

A	A5025 Traeth Bychan	150					*150*
C	A548 (Pensarn) to A547 (Rhuddlan Road Link)	250	1750				*2000*
C	A547 (Rhuddlan Road) to A548 South-East Abergele bypass	250	1000	1000	1000	1750	*5000*
F	A548 Mostyn Dock Access	750					*750*
A	Beaumaris Link Road		1000	2500	2500	2000	*8000*
W	Wrexham Town Centre Access			300	300	400	*1000*
W	A525 Western Gateway Strategic Corridor Improvement.	100	100	100	500	1500	*2300*
W	A541 Strategic Urban Corridor Multi-Modal Improvement	100	100	800			*1000*
W	A541 Plas Coch Rd/Berse Rd Roundabout Improvement.	25	25	150	150		*350*
D	Improved coach parking facilities Rhyl, Denbigh and Llangollen	220	450				*670*
F	Mold to Saltney Greenway		1000	1000	1000	3000	*6000*
C	A5/A4086 Capel Curig Interchange		15				*15*
		1845	**5440**	**5850**	**5450**	**8650**	**27235**

REDUCING CONGESTION AND IMPROVING ROAD SAFETY PACKAGE

C	A547 Tollbar to A55 Improvement, Abergele	250	500				*750*
C	B5279 Ty'n y groes to Tal y cafn Improvement	250	750				*1000*
F	B5129 Chemistry Lane to Wepre Drive			2000	3000	3000	*8000*
D	A539/A542 Castle Street Junction, Llangollen	60	220				*280*
G	A4086 Between Seiont Nurseries and Pont Rhug	150	400	300	600	600	*2050*
G	B4366 Tyddyn Hen Roundabout, Caernarfon	50	300	400	500	500	*1750*
G	A499 Bryn Bella to Pwllheli	200	400	500	800	500	*2400*
W	A541 Gwersyllt Junction Improvement (Phase 2)	875					*875*
W	The Crown Inn Crossroads, Llay Junction Improvement.	20	30	200			*250*
A	A5/B4422 Cefn Cwmwd junction	750					*750*
W	The B5425/Plas Acton Road, Rhosrobin junction improvement.	30	120				*150*
G	A499 Bryncir Rhoslan and Llanystumdwy	200					*200*
		2835	**2720**	**3400**	**4900**	**4600**	**18455**

MAJOR SCHEMES

G	A499 Aberdesach to Llanaelhaearn	3095					*3095*
W	Improved Access to Wrexham Industrial Estate – Section 2 (New Access Road)	13000	14656	1214	433		*29303*
A	A55 Completion of link from Black Bridge to Salt Island & rail depot (without EU	5232	7239	7383	1969.38		*21823.38*
C	Llandudno Railway Station	700	700				*1400*
		22027	**22595**	**8597**	**2402.38**	**0**	**55621.38**

Table 5.7: Multi-Modal Route Management Strategy Programme

Timescale	Multi-Modal RMS Description
Current	Wrexham Town Centre to Mold Town Centre (A541) (F/Wr) Denbigh - St Asaph - Rhyl (A525) (D) Pwllheli - Caernarfon - Bangor (A499/A487) (G)
Year 1	A545 Corridor Integrated Access-Menai Bridge to Beaumaris(A) A470 Glan Conwy to Llandudno (C) B5129 Queensferry through Shotton and Connah's Quay (F) Prestatyn to the A55 (D) Town Centre Strategic Corridor Access Study - Incorporating Links form the A483 (A5152 Rhostyllen, A525 Ruthin Rd, A541 Mold Rd, A5152 Chester Rd, A534 Llan Y Pwll - A534 Holt Rd) and residential area to the west (A525 Kings Mill) (Wr)
Year 2	A5025 Valley to Amlwch, Cefn Du to Gaerwen Ind Est. (A) A548 Llanrwst to Rhyl (C) A548 From A550 at Deeside Park through to Flint and on to Prestatyn and Rhyl (F) A547 Prestatyn to Abergele (D) A525 West County Boundary to Wrexham (Wr)
Year 3	A5025 Amlwch to Menai Bridge (A) A547 Llandudno Junction to Rhuddlan (C) A5119 Mold to Flint (F) A548 Coast Road (D) Wrexham to Chester (A483 & A5152/B5445) (Wr)
Year 4	A55 Link B4545 to Llaingoch Holyhead (A) A546 Conwy to Llandudno (C) A550 Wrexham to Deeside (F) A5104 Corwen to Pen-y-Ffordd (D) A534 Wrexham to Nantwich (Wr)
Year 5	Llangefni to Bryn Cefni link, Llangefni to Amlwch (A) A544 Llansannan to Abergele (C) A541 Mold through to Denbigh (F) A525 Ruthin to Wrexham (D) A525 East Wrexham to Whitchurch (Wr)
Others	A4086 Capel Curig to Llanberis (C)

5.7   Revenue Expenditure

Whilst capital expenditure represents the largest proportion of funding for securing improvements in transport infrastructure including vehicles, revenue funding both for existing infrastructure and for maintaining new facilities is as important an element in the overall package of funding available for transportation. A shortage of revenue funding could potentially lead to a reduction in the quality of the assets that capital funding had been used to secure, and would undermine the process of improving the quality of facilities and services.

Revenue funding is also used to operate passenger transport services including socially necessary bus services, education transport services, and social services transport, and to operate facilities such as bus stations, and Anglesey Airport at RAF Valley.

The source of revenue funding is varied and includes resources from within each local authority's budgets, as well as various grants, many of which are administered by the Welsh Assembly Government which includes concessionary fares funding, Local Transport Services Grant (LTSG), Terminal operating grant (Anglesey Airport), and section 156 grants for passenger transport services which is used as a "Kickstart" for services which have the potential to operate commercially or with a much lower level of support if given time to develop.

Each of the Taith local authorities spends a substantial amount of revenue funding on transportation, which includes maintenance of the highway network, providing street lighting, and operating passenger transport services. Isle of Anglesey County Council, the smallest both geographically and in terms of population of the six Taith authorities spends approximately £11m per annum of revenue on transportation, of which over £9m comes from its own authority's resources with the balance made up from grants from WAG.

It is vital to maintain existing revenue budgets and also to take into account any revenue implications of all new infrastructure works and schemes that will need an ongoing commitment, otherwise the benefits of providing improved facilities would soon be lost and the finite funding available will not have been made best use of.

5.8   Projects funded outside this RTP

As well as a programme of schemes requesting funding through the Regional Transport Plan, Taith also supports schemes which benefit transport but do not currently require funding through the RTP. These schemes include:

♦ The Welsh Assembly Government Trunk Road forward programme, especially those projects within and connecting North Wales. High ranking schemes are:
   ◊ A470 Penloyn Tan Lan, Llanwrst
   ◊ A487 Porthmadog, Minffordd and Tremadog
   ◊ A470 Gelligemlyn
   ◊ A470 Maes yr Helmau to Cross Foxes
   ◊ A470 Pentrefelin to Bodnant West Lodge

♦ The Welsh Assembly Government Rail forward programme, which should take into account the Taith Rail Strategy for which the short term strategy is to:
   ◊ Extend Llandudno train to Manchester airport
   ◊ 30min interval for Wrexham – Bidston service with better connections at Shotton
   ◊ Extra Chester – Manchester train allowing the Llandudno to Manchester Airport service to run with fewer stops

♦ Welsh Assembly Government studies on the Britannia Bridge
♦ The air service between Valley and Cardiff
♦ Safe Routes in Communities
♦ Rights ofWay Improvement Plan (RoWIP) schemes
♦ Local Road Safety scheme funded by the Local Road Safety Grant including training schemes such as Kerbcraft
♦ Foryd Harbour Pedestrian Cycle Bridge - Welsh Assembly Government Regeneration and Connect2 project
♦ Car Park cycle routes, Rhyl Railway/Bus Station – Welsh Assembly Government Strategic Regeneration Area Funding
♦ 'The Cut' cycle route, Rhyl – Welsh Assembly Government Strategic Regeneration Area Funding
♦ Urban Walks and Let's Walk Cymru
♦ Awareness events such as 'In town without my car' and Bike week
♦ The Welsh Free Concessionary Travel scheme
♦ The Blue Badge scheme
♦ Police Speed Awareness initiative
♦ Pass Plus Cymru
♦ Traveline Cymru and Traffic Wales information services

6 Component Strategies

6.1 Taith Workstreams

Work on the North Wales Regional Transport Plan has been organised into a number of "workstreams" focussed on outcomes rather than means of transport. This was to generate analysis and proposals relating to people and goods moving around North Wales rather than the more conventional transport planning approach that often concentrates on solving identified transport problems in the existing networks rather than looking more widely at the causes and alternative solutions. For example, congestion might be identified as a problem at particular junctions and conventionally solutions such as roundabouts might be investigated. By looking more widely at the composition of traffic moving through the network it might be that alternative solutions such as re-routing through traffic by use of advisory signage or better public transport services would be more effective.

The topics for the Taith workstreams were:

- **Personal Transport**, looking at the needs of individuals to travel. Exploring issues such as car sharing, taxis, community transport and interchange were important parts of the work of this group as well as public transport services; Interventions meeting WTS outcomes

- **Networks**, including rail, road, ports and air terminals, focussing on infrastructure and responding to needs arising from other workstreams;

- **Safer Journeys**, interpreted on a "whole journey" basis so that as well as road accident reduction, personal safety for public transport users, cyclists and pedestrians was considered

- **Walking & Cycling** together with **Smarter Choices** at the personal level through techniques such as travel awareness and travel planning;

- **Intelligent Transport Systems**, using information and communications technology in the planning and management of journeys both at individual and network levels;

- **Accessibility**, which divides into the components:

  o **Connectivity** – seeking to ensure that places are appropriately linked by both road and public transport networks to allow access to facilities and services appropriate to the needs of all in society: accessibility modelling is a useful tool for this;

  o **Access** (or "inclusive mobility") - seeking to ensure that appropriate facilities are provided so that people can travel regardless of any physical or other disability that they may have;

- **Freight**, which for Taith is essentially delivery of the Wales Freight Strategy at regional level, including issues such as lorry routing and parking and exploring opportunities to transfer bulk or consolidated loads to rail or coastal shipping;

- **National & International Connectivity** using road, rail, sea and air with particular consideration of opportunities to improve the handling of international traffic through the ports of Holyhead and Mostyn;

- **Maintenance** of networks and facilities;

- **Monitoring.** Taith has a particular problem arising from the relative lack of good transport planning data as there has been a long period since completion of local transport plans in which investment levels have dropped and Councils have lost skilled staff to better opportunities elsewhere or natural wastage;

- **Reducing North Wales' Ecological Footprint** responding to rapidly developing Climate Change agenda to develop effective regional interventions to complement those sought nationally by the Climate Change Commission.

Each workstream developed a set of Guiding Principles. As a check on their validity, Taith added a preliminary sift to the WelTAG process. This "WelTAG 0" appraised the Guiding Principles against the Regional Transport Priorities and WelTAG implementability criteria. Only those Guiding Principles which achieved a positive result at "WelTAG 0" were carried forward.

From the Guiding Principles the policies and potential projects which formed the workstream outputs were derived. These are referred to as Interventions to provide solutions to the problems and opportunities for transport in North Wales as identified in chapter 3. They are the actions that Taith and the Councils will need to take to implement the North Wales RTP.

6.2 Component Strategies
The component strategies of the RTP are summarised below:

6.3 Safer Journeys Strategy
Introduction

Road safety is about collision and danger reduction. Known problems are addressed and a focus on prevention of collisions where risks are minimised or eliminated is of equal importance. However, it is a difficult balance to strike between funding of measures aimed at existing problems and those designed to prevent collisions happening in the first place. To ensure that appropriate funding is efficiently allocated and spent, investigation of the collision database is essential in finding out where the problems are that need tackling.

The principal means of addressing road safety lie in the elements of education, training and publicity, engineering and enforcement.

Issues

- Collision reduction targets set by the EU, UK Government and the Welsh Assembly Government
- Road Safety Strategy for Wales - outstanding actions
- The need to adhere to the Traffic Management Act 2004
- Improving the actual and perceived safety of travel

- All Wales Safety Camera Partnership

Guiding Principles

- Taith will support each of the local authorities in North Wales in producing and implementing their road safety strategies.
- Taith will support the extension and improvement of the current road safety education, training and publicity provision, and through the use of engineering and enforcement, work towards achieving and exceeding casualty reduction targets.
- Taith will develop appropriate strategies and actions based on its statutory review of collision data.
- Taith will adopt relevant regional performance indicators.
- Taith will build on the existing partnership working and strengthen links with other appropriate groups in the promotion, education and enforcement of road safety.
- Taith will support regional and national campaigns aimed at improving road user behaviour and casualty reduction.
- Taith will support the promotion of the development and use of safer vehicles and safer transport infrastructure.
- Taith will support the provision of a School Crossing Patrol service commensurate with the available resources.

Application

An action plan has been developed which includes the actions required under the Road Safety Strategy for Wales.

The aim is to achieve casualty reduction targets through strong partnership working on a range of activities including; Road Safety education, training and publicity projects; Engineering solutions; Enforcement; Use of collision data; Speed Management; Traffic Regulation Orders; Parking Enforcement, Driver Training.

6.4   Regional Parking Framework

Introduction

Parking is an important aspect of transport, given that most vehicles, particularly private cars, spend most of their time not moving and therefore have to be parked somewhere. There are many options for managing the parking of vehicles and this framework aims to ensure that the methods used are consistent across the region wherever practicable, balancing the needs of all sectors of society in North Wales.

Issues

There are two broad areas of concern for parking;
Planning:

- parking standards for various land uses - retail, education, commuter, visitor etc
- maximum parking standards
- new developments
- conversion of existing developments
- travel plans
- residential parking
- town centre parking
- balance of on and off street parking provision
- disability parking standards
- cycle parking standards
- motorcycle parking standards

- ◆ sustainability
- ◆ rural / urban differences

Management:
- ◆ off street car parks - Local Authority controlled
- ◆ off street car parks - privately controlled
- ◆ uncontrolled on street parking
- ◆ controlled on street parking
- ◆ Civil Parking Enforcement (CPE)
- ◆ principles for parking charges
- ◆ park and ride
- ◆ park and share
- ◆ coach parking

Guiding Principles

The Car Parking Strategy is being developed and includes adoption by constituent Local Authorities of:

- ♦ parking standards which are consistent with TAN 18.
- ♦ a regional strategy for CPE.
- ♦ coordinated approaches to other car parking management issues.

Application

CPE is carried out by individual authorities. A joint project in North Wales sees Anglesey, Gwynedd, Denbighshire and Wrexham carrying out their notice processing through the Wales Penalty Processing Partnership (WPPP), hosted by Denbighshire. Conwy carries out its own enforcement and Flintshire is working towards the introduction of CPE. All authorities are involved in the quarterly meetings of the WPPP to look at parking problems across the whole region.

The group is currently involved in several projects to manage parking:

- ♦ A CPE procedures document has been produced which is used by the five authorities operating CPE.
- ♦ A standard template for the annual report which has to be produced for CPE is being produced to make monitoring and reporting easier and compatible.
- ♦ The group has agreed to create a set of regional parking policies for use across all six authorities.
- ♦ Other collaborative working includes a recent report on residents parking commissioned by Anglesey, Gwynedd and Conwy Counties.
- ♦ All Taith authorities are members of the British Parking Association and a Welsh Branch is likely to be set up that can deal with specific Welsh issues.

6.5 Public Transport Strategy
Introduction

One Wales focuses on sustainable transport within which public transport has a key role to play. Public transport covers a broad range of modes, giving rise to diverse issues and solutions. Solutions usually require action by partnerships of various public and private stakeholders, some such partnerships are more active than others.

The geography of North Wales also adds to the diversity of the issues with rural and urban areas needing to be covered.

Issues

- ♦ Accessibility/Connectivity – particularly in rural areas.
- ♦ Access – not all transport and infrastructure meets the requirement of the Disability and Discrimination Act.
- ♦ No fixed park and ride sites in the region.
- ♦ Limited knowledge of public transport options by the public.
- ♦ Uneven service delivery.
- ♦ Personal security unsafe perception.

Guiding Principles

- ♦ Access - Access for all members of the community should be equitable, irrespective of method of travel, based on the needs of each client group.
- ♦ Disability Discrimination Act (1995) - Need to conform to the spirit of the Disability Discrimination Act.
- ♦ Connectivity - All citizens should be offered the maximum range of travel opportunities.
- ♦ Integration - Efficient transport solutions demand real seamless integration of services with stable networks and attractive facilities at interchange points.
- ♦ Quality of service - Passenger journey times should be predictable and reliable, whilst the overall journey experience should be good.
- ♦ Information - Accurate information on alternative methods of travel should be easily available to inform travel decision making.
- ♦ Easy and transparent payment - The cost of travel should be easily understood, fair and easy to transact
- ♦ Sustainability - Transport solutions should be sustainable in an economic and environmental sense
- ♦ Safe travel - Transport solutions should be safe and secure (fitting in with the Safer Journeys groups principles)

Application

Both conventional and innovative solutions are put forward in the RTP which include:

- ♦ Demand Responsive Transport – maintaining current service and expansion
- ♦ Rail Equivalent Bus/Coach services for those without rail access
- ♦ Ticketing – Smart and multimodal to build on the existing ticket offering
- ♦ Information provision
- ♦ Making interchange more attractive
- ♦ CCTV to improve personal security
- ♦ Improving physical public transport access
- ♦ Quality contracts and partnerships between local authorities and transport operators

6.6 Third Sector Transport Strategy

Introduction

Third sector transport is an essential form of transport for those who do not have access to public or private transport. Community transport also has an important role to play in rural communities, especially those not served by conventional public transport. As part of the consultation process a dedicated session was held with the Community Transport Sector in June 2008.

Issues

♦ Reliant on volunteers

Guiding Principles

♦ Access - Access for all members of the community should be equitable, irrespective of method of travel, based on the needs of each client group.
♦ Disability Discrimination Act (1995) - Need to conform to the spirit of the Disability Discrimination Act.
♦ Connectivity - All citizens should be offered the maximum range of travel opportunities.
♦ Integration - Efficient transport solutions demand real seamless integration of services with stable networks and attractive facilities at interchange points.
♦ Quality of service - Passenger journey times should be predictable and reliable, whilst the overall journey experience should be good.
♦ Information - Accurate information on alternative methods of travel should be easily available to inform travel decision making.
♦ Easy and transparent payment - The cost of travel should be easily understood, fair and easy to transact
♦ Sustainability - Transport solutions should be sustainable in an economic and environmental sense
♦ Safe travel - Transport solutions should be safe and secure (fitting in with the Safer Journeys groups principles)
♦ Volunteers – Adequate staff to co-ordinate volunteers

Application

Partnership working with voluntary groups is an essential in any third sector transport scheme. Other schemes which could be put forward through the RTP include: the provision of accessible vehicles, rural hubs and integration with other services, for example control centres taking bookings for Community Transport and DRT.

6.7 Network Management Strategy

Introduction

The Traffic Management Act 2004 applicable from 1/04/2008, imposes a network management duty on all local traffic Authorities.

> *"It is the duty of a local traffic authority to manage their road network with a view to achieving, so far as may be reasonable practicable having regard to their other obligations, policies and objectives:*
>
> > a. *Securing the expeditious movement of traffic (all road users) on the authority's road network;*
> > *and*
> >
> > b. *Facilitating the expeditious movement of traffic on road networks for which another authority is the traffic authority."*

Objectives

The objectives of the network strategy will be to:

♦ ensure local authorities comply with the statutory network management duty imposed by the TMA 2004

♦ ensure the best possible use is made of the transportation network
♦ ensure competing demands on the network are managed appropriately
♦ protect the environment and enhance the quality of life
♦ minimise disruption to the transportation network
♦ improve the safety, reliability and resilience of the network

Guiding Principles - Network Management Arrangements

Local Authorities will meet the objectives of the strategy by;

♦ ensuring a nominated Traffic Manager is in post to be responsible for the development and implementation of a co-ordinated, planned and effective approach to network management.
♦ developing objectives and policies for different roads to reflect function and usage levels.
♦ ensuring appropriate systems are put in place to monitor the state of the transport network.
♦ developing and adopting a consistent, evidence led approach to the identification and remedy of current and future congestion problems.
♦ taking a proactive and planned approach to the management and co-ordination of street works.
♦ continuing to develop and review planning and management processes to minimise disruption caused by planned events.
♦ implementing and enforcing appropriate moving and stationary traffic regulations.
♦ periodically reviewing the appropriateness, adequacy and relevance of traffic regulations.
♦ continuing to work with the emergency services and neighbouring authorities in developing contingency plans to deal with incidents on key routes.
♦ using, where appropriate, innovative technologies to help address network problems and relay up to date information to road users on the state of the network.
♦ developing and implementing appropriate policies relating to the management and enforcement of on and off street parking provision.
♦ periodically reviewing network management arrangements to ensure they remain relevant and effective.

Application

This strategy is intended to serve as a framework for the six highways authorities in Taith in developing a co-ordinated and consistent approach to network management that best delivers local and regional transport priorities. As part of this the use and development of a Control Centre is seen as an important tool to co-ordinate effective cross border network operations.

6.8 Smarter Choices - Walking and Cycling Strategy
Introduction

The aim of this strategy is to encourage more people to walk or cycle for journeys, such as the commute to work and school, trips to local shops, leisure and health facilities and for leisure activities. As people become more physically active their health will improve, also people present on the streets will create greater community

cohesion, deter crime and people's fear of crime and bring about a more vibrant economy as people are more likely to visit their local shops.

Issues

In North Wales 21% of the Workplace population live within 2km of their employment site, however, only 10.4% travel to work on foot. A further 16% live within 5km and yet only 1.8% of the total workplace population choose to cycle to work. Whilst the opportunity to walk and cycle is available to those living in close proximity to work, few choose these options as modes of transport.

Guiding Principles

- ♦ *Climate Change* - Encourage modal shift to healthier forms of transport to contribute towards climate change targets and reduction in CO2 emissions.
- ♦ *Improved walking environment* - Creating a safe and sustainable environment encouraging walking as a healthy and viable transport mode that facilitates access within & between local communities.
- ♦ *Extensive Cycle Networks* - Developing high quality maintained networks that facilitate existing and future demands for both local and cross-boundary cycling.
- ♦ *Integration of Walking and Cycling in Land Use & Transport Strategies* - Ensuring walking & cycling are always considered in both the transport and land use planning processes.
- ♦ *Integration of Transport Modes* - Ensuring that walking and cycling are integrated safely with other modes of transport.
- ♦ *Regional Partnership Working & Communication* - Developing and strengthening partnership-working to facilitate, promote and encourage the use of sustainable transport modes across the region and to/from neighbouring authorities with internal and external stakeholders including commercial and voluntary organisations.
- ♦ *Education, Promotion & Publicity* - Developing and supporting local, regional & national campaigns and initiatives aimed at promoting more sustainable forms of transport and raising levels of physical activity.
- ♦ *Travel Plans*
  - o Encouraging all relevant organisations to develop travel plans to influence the travel behaviour of their employees and customers, on journeys to, from and within North Wales
  - o Securing personal travel planning services delivered electronically or through appropriate agencies, for example NHS and educational establishments or operators.
  - o Station travel plans to improve sustainable travel options to access North Wales stations.
- ♦ *Monitoring* - Evaluating the impacts of sustainable transport initiatives using the results to influence future development of policies, actions and funding bids

Application

An action plan has been developed which aims to encourage more people to walk and cycle on a regular basis. This includes the improvement of existing and implementation of new infrastructure which is supplemented by marketing initiatives and travel planning.

6.9 Smarter Choices – ITS Strategy

<u>Introduction</u>

Intelligent Transport Systems (ITS) play an increasingly important part at all stages of transport from planning through information systems to management and control. This strategy is still under development having "spun out" of the travel planning and walking and cycling oriented "smarter choices". ITS also has a part to play in training of staff, new drivers and managers as well as in monitoring traffic flows and congestion.

<u>Issues</u>

Although North Wales has a number of ITS systems including real time passenger information systems and the North Wales Trunk Road Agency's control centre for the tunnels and variable message signs on the A55, there is no coherent strategy for evaluating and introducing appropriate ITS systems to assist integration of the different transport modes

<u>Guiding Principles</u>

- *Collecting and organising data* – to assist also with the monitoring strategy.
- *Electronic ticketing* – allowing multi-operator capability and greater flexibility
- *Providing appropriate information* – notably real time and variable, message signs (VMS) but also to assist the provision of printed information.
- *Control and management* – using data collected "real time" to manage dynamically the operation of public transport or freight vehicles and to guide road traffic through use of VMS signs.
- *Integration of Transport Modes* - Ensuring that walking and cycling are integrated safely with other modes of transport.
- *Variety of media* – Electronic displays, VMS, the internet, mobile devices including PDAs and telephones.

<u>Application</u>

Proposals are under development for:

a. Taith driver education project

b. Smartcard ticketing

c. Integrated control centre.

6.10 Access Strategy

<u>Introduction</u>

Accessibility relates to the ease by which people can access the services and facilities they require or desire. Addressing accessibility issues is about improving access to services for all society but in particular socially excluded communities. It also can contribute to reducing the environmental impact of transport. Accessibility planning not only encompasses land use or transport provision it also should influence service provision both in terms of location and method of provision.

Issues

- Wales Transport Strategy 2008 social & economic long term outcomes
- Wales Transport Strategy 2008 reduce environmental impact of transport system
- Wales Spatial Plan 2004 Improving accessibility between settlements and their hinterland
- Planning Policy Wales TAN 18 Transport sustainability appraisal
- MDA Accessibility Strategy 2008/9

Strategy Elements

- Taith will support each of the local authorities in developing improved accessibility through planning mechanisms.
- Taith will carry out detailed accessibility analysis and assessment at a local level
- Taith will support each of the local authorities in ensuring that sustainable accessibility is a major consideration when planning new developments
- Taith will evaluate options to address identified access issues
- Taith will develop an accessibility Action Plan
- Taith will monitor and evaluate the effectiveness of the accessibility plan continuously
- Taith will build on the existing partnership working and strengthen links with other appropriate groups to identify access issues and develop suitable solutions.
- Taith will use accessibility analysis in the process of identification of potential rural service provision hubs.

Application

A strategic accessibility assessment of the Taith region has been completed.

The aim is to achieve improve accessibility to facilities and services especially for the socially excluded sections of society. Improvements will be identified and developed through partnership working with all relevant stakeholders including planning authorities, public transport providers, community groups and service providers.

6.11 Freight Strategy

Introduction

North Wales has a key role in delivering the Wales Freight Strategy (WFS) but also has its own specific freight issues. Whilst freight operators work in a deregulated environment the movement of goods particularly on North Wales' Roads creates many issues and opportunities for Taith. Key European routes also run through the region which are increasingly important to freight operators and will be covered through the International Connectivity component strategy.

Issues

- Structure of the Industry – including sharing of commercially sensitive information
- Emergency Planning – structures need to be put in place
- Rural Issues – including hubs, inappropriate vehicles and routing
- Lack of driver facilities along key routes
- No Freight Quality Partnerships in place

- ♦ Low rail freight traffic (only 10% regular freight traffic when compared to South Wales)
- ♦ Rail gauge issues along North Wales Mainline
- ♦ Access to key port of Holyhead inadequate
- ♦ Low level of coastal shipping
- ♦ Air freight not publicly available in North Wales (Airbus use own airfield)

Guiding Principles

- ♦ Stakeholder Partnerships - Involvement of all stakeholders in the development and implementation of specific freight proposals in the North Wales region.
- ♦ Maximising Efficiency of the Freight Network - Taking account of the total capacity of the system and land use policy, an integrated and multimodal solution will deliver a more efficient freight network for North Wales.
- ♦ Raising the profile of alternative modes - Promote and create the delivery of potential non-wholly road based solutions.
- ♦ Monitoring and understanding - Improve monitoring including trends of all freight flows in and across North Wales.
- ♦ Maximising Economic Benefits of Freight - Recognise the potential for further community benefits within a network which caters for strategic and local demand.
- ♦ Minimising Environmental Impact of Freight - Raise the awareness of environmental damage generated by inefficient freight movement including the use of new technologies and alternative modes.
- ♦ Resilience - Ensure adequate supply of goods to all communities of North Wales.

Application

An action plan has been developed based on the WFS "Steps towards delivery" but in the North Wales context which cover Strategic Issues, Road Freight, Rail Freight, Ports & Shipping, Air Freight and Pipelines. Additional actions have also been developed by Taith which cover Emergency Planning, Rural Issues and Planning Considerations. Consolidation centres, lorry parking and lorry routing are all possible projects for consideration.

The action plan will be delivered through partnership working and the formation of a Taith Freight Forum.

6.12 Maintenance Strategy

Introduction

The Maintenance of the region's highways and transport assets is fundamental to the efficient and reliable movement of people and goods. Historical under-investment in highways and transport infrastructure has resulted in a 'fire - fighting' culture towards maintenance. Expenditure is primarily focussed on resolving today's issues rather than the prevention of those likely to occur in the future. Maintenance of assets in the short term will reduce their whole life costs over the long term.

The purpose of the strategy is to attempt to reverse the trend of deterioration and to provide a network that is safe, efficient, fit for purpose and sustainable in the long term.

Objectives

The objectives of the maintenance strategy will be to:

♦ ensure the transport network is 'fit for purpose'
♦ maintain the asset value of the highway and transport infrastructure
♦ prioritise expenditure in accordance with regional and local transportation objectives.
♦ improve the efficiency and reliability of the transport network
♦ improve the safety of the transport network
♦ reduce liability
♦ minimise environmental impacts through specifications and methods of working.
♦ reverse the trend of deterioration and in time, move more resources away from reactive works towards preventative and planned maintenance.

Guiding Principles

These objectives of the strategy will be met through:

♦ the development and adoption of highways/transport asset management plans by the constituent individual authorities to ensure effective decision making and best value solutions to local maintenance priorities.
♦ the adoption of procedures as part of an 'All Wales' approach to network management to ensure that maintenance works are undertaken in a manner and at times that minimise network disruption
♦ the requirement for the long term maintenance implications of new infrastructure to be considered as an essential component in the planning and design of future transport proposals (i.e. whole life costing))
♦ the adoption of environmental best practice in respect of maintenance operations.
♦ the incorporation of design features within maintenance works that achieve wider regional and local transport objectives.
♦ the regular review of policies, procedures and monitoring to ensure the effectiveness of maintenance programs.

Application

This strategy is intended to serve as a framework for the six Taith highways authorities in developing robust maintenance programmes via the HAMP/TAMP process, that best deliver local and regional transport priorities.

6.13   International Connectivity Strategy

Introduction

North Wales has an important role to play linking the UK and Ireland in the west and to the North West and West Midlands regions of England to Wales. Both the A55 road and North Wales mainline rail corridor are Trans-European Network Transport (TEN-T) routes, along with the A494.

Issues

Common Issues:

♦ Access to the port of Holyhead from A55 is unsatisfactory
♦ Increasing fuel prices threatening (smaller) hauliers and ferry companies

♦ Availability of information on end to end flows of goods due to commercial issues
♦ Lack of lorry parking facilities in North Wales
♦ Delays along A55 – regular road works and the roundabouts in Conwy
♦ Rail – capacity and gauge of North Wales Mainline
♦ Coastal Shipping – access to market unknown and marketing of mode inadequate Individual issues:
♦ The threat to ferry companies of low cost airlines
♦ Key representatives missing at British Irish meeting
♦ Disagreement on issues by key stakeholders:
♦ Freight Traffic causing delay on Britannia Bridge – operators and port do not agree and think delay is all local traffic due to shipping times being off-peak
♦ The Vehicle and Operator Services Agency (VOSA) checkpoint on Anglesey diverts trade away from the port but support for service due to safety reasons
♦ Moving freight from road to rail – supported by government but not commercially viable by operators
♦ Holyhead as a deep sea port – funding disagreement for a new jetty between port and the Welsh Assembly Government

Guiding Principles

♦ Economy – benefits to North Wales from international traffic should be maximised.
♦ Environmental impacts – the least environmentally damaging modes and fuel technologies should be encouraged for international traffic.
♦ Enforcement – Work with VOSA to ensure a fair and equal level of enforcement at all UK ports so as not to disadvantage ports when enforcement is in operation.
♦ Freight to rail – work with the Welsh Assembly Government to deliver the Wales Freight Strategy aims of moving freight traffic from road to rail.

Application

The International Connectivity actions will be delivered through partnership working drawing on the work of the networks and freight workstreams.

Taith will continue to participate in transport activities promoted by the British Irish Council so improving links between the region and Ireland.

Taith will seek closer working with the Vehicle and Operator Services Agency (VOSA) and the Police on enforcement issues.

Projects to identify potential consolidation centres and lorry parking sites, especially along the A55, are under consideration.

Taith is undertaking a strategic rail study that will evaluate the potential for transfer of international and long distance freight traffic from road to rail.

6.14   Strategy to reduce North Wales' Ecological Footprint
Introduction

In recent months rather more information has become available on the carbon implications of transport and other activities and in particular the Stockholm Institute

has published evidence on Wales' Ecological footprints and their modelling of interventions to reduce these.   For transport a target reduction of 5% per year is being considered. This topic has achieved rather higher prominence than originally implied by the WSP and WTS and has therefore been identified by Taith as an additional topic for consideration in North Wales**.**

Issues
- North Wales footprint (by Council area) from Stockholm Institute report
- Tension between WSP objective of sustaining rural communities and reducing travel distances
- Long time horizon before technological improvements to cars/lorries have significant impact (fleet replacement cycles)
- Difficulty of increasing awareness and enforcing significant behavioural changes, public resistance to measures like reduced speed limits
- Revenue scarce for most effective short term measures (expanding travel planning, public awareness and education campaigns)
- Opportunities for innovative use of IT in traffic management and driver education
- Most measures need to be led nationally and implemented locally

Guiding Principles
- An over-arching principle must be the development of spatial and transport policies and land use and activity patterns that reduce the need for non-sustainable travel
- The 6 Councils will consider programmes to replace their fleets with vehicles which have maximum environmental efficiency (emissions reduction, alternative fuel etc.) – leading by example
- Research has shown that the largest gains in carbon emissions from cars come from the stricter enforcement of the highest speed limits such as motorways and dual carriageways which are subject to a 70mph speed limit.
- Taith will identify prioritised programmes of:
  - Sustainable Travel Towns and appropriate initiatives for rural areas.
  - Walking and cycling promotion initiatives
  - Public transport interchanges and Park & Rides
- Car-competitive (in cost/journey time/capacity terms) public transport routes
- Taith will look at the feasibility of developing environmental driving training programmes, assisted by IT based assessment, for:
  - Fleet drivers (requires commercial operator co-operation)
  - New drivers (requires driving school co-operation) and other drivers wishing voluntarily to improve their techniques
  - Drivers requested to attend Police courses
- All developers of significant new sites in North Wales should be required to submit transport and environment impact assessments with proposed mitigation methods before planning permission is granted
- Taith will support national initiatives (WAG and UK) to reduce ecological footprints and encourage governments to research and introduce further appropriate measures for national or local use.

Application

Various proposals brought forward as part of the regional aspects of the Wales Freight Strategy and the Sustainable Transport / Behavioural Change packages in the RTP.

6.15   Monitoring Strategy

Introduction

As part of the Regional Transport Plan (RTP), Taith is required to produce a Monitoring Framework which will monitor not only the objectives and priorities of the RTP but also assist in monitoring the Wales Transport Strategy (WTS) Outcomes and Priorities, and hence those of the Wales Spatial Plan.

Issues

In developing a Monitoring Framework the issues that Taith will consider are:
- ♦ How to monitor progress towards :
  - o The WTS Outcomes and Priorities
  - o The RTP Objectives and Priorities
- ♦ Data already collected in the Taith Region which includes :
  - o the Welsh Assembly Government Performance Indicators
  - o CSS Benchmarking Indicators
  - o Local Performance Indicators
- ♦ Any gaps in the above two points :
  - o Possible new data sources
  - o Possible changes to existing data sources
- ♦ Setting of targets as appropriate

Types of indicators for which data will be gathered are:
- ♦ National Indicators for the WTS,
- ♦ Core Regional Indicators which will focus on the RTP Priorities and will form the basis for evaluating the effectiveness of RTP delivery.
- ♦ Others as required may be :
  - o Sub Regional Indicators for specific issues of importance
  - o Secondary Indicators which would be additional for evaluating the RTP but may not be affordable in the RTP1 period.

Guiding Principles

Guiding Principles have not yet been fully developed but are likely to include:
- ♦ Data for Monitoring Indicators for the RTP will be collected by each Local Authority in a standard format.
- ♦ Data will be analysed to evaluate trends and determine effectiveness of interventions.
- ♦ The results and any actions arising will be reported in the Annual Progress Report

Implementation

Taith will implement a Monitoring Framework and delivery mechanism which will draw on current best practice in Local Authorities.

7 Evaluation

7.1 Accession

Accession is a tool based on the use of Geographical Information Systems (GIS) developed initially for the Department of Transport and adopted by the Welsh Assembly Government for accessibility planning. It enables the time or generalised cost of reaching selected centres or services from their hinterlands to be compared through generation of a set of accessibility contours.

The table below shows the accessibility runs that have been completed for the RTP. Similar runs were done by other consortia using national data sets supplied by the Welsh Assembly Government as suggested in RTP guidance.

Table 7.1: Accession Runs for North Wales RTP

Runs relating to	Number of runs
Education	11
Health	41
Food retail	41
Employment	41
Tourism & leisure	11

For runs involving Important Centres as destinations, namely various Employment, Food retail and Tourism & leisure runs, the initial destination set derived from the Wales Transport Strategy is shown below. These centres have been used for consistency with the Welsh Assembly Government's national requirements. For Taith's own purposes, others such as Mold and Denbigh have been added in strategic modelling work.

Table 7.2 Key Centres in Each Consortium Area Used in Accession

Sewta	SWWITCH	Taith	TraCC	England
Bridgend	Carmarthen	Bangor	Aberystwyth	Bristol
Cardiff	Haverfordwest	Caernarfon	Cardigan	Chester
Cwmbran	Llanelli	Colwyn Bay	Newtown	Hereford
Ebbw Vale	Milford Haven	Conwy		Liverpool
	Neath	Holyhead		Shrewsbury
	Pembroke Dock	Llandudno		
	Port Talbot	Llangefni		
	Swansea	Menai Bridge		
		Porthmadog		
		Rhyl		
		Wrexham		

Taith has followed with interest the proactive use of Accessibility analysis by English authorities for both planning of transport services and for the location of new facilities, the information shared by Merseytravel through the MDA being particularly instructive. As more local information becomes available as a result of Taith's monitoring strategy greater use can be made of tools such as Accession both for planning and for monitoring changes in accessibility.

Taith has used Accession in key studies such as the North East Wales High Quality Bus and Taith Express Integrated Transport Networks. Figure 7.3 shows current car and public transport access contours compared to two public transport improvement packages based on the two studies. By making improvements to the public transport networks Taith has been able to determine which services offer the greatest benefits, for example increasing social inclusion, and these have been carried forward into subsequent WelTAG appraisal. A good example of this is the comparison in choice of timings for the Taith Express services which have the greatest benefits for the west of the region, Parc Menai as a developing employment centre has been chosen as a good location to show this. The green areas in the second set of plots in figure 7.1 show journey times of under 2 hours and it is therefore preferable to introduce the timings related to service TX2 first.

Figure 7.1: Accessibility to Parc Menai comparisons between current car and public transport accessibility and different public transport improvements.

7.2 WelTAG
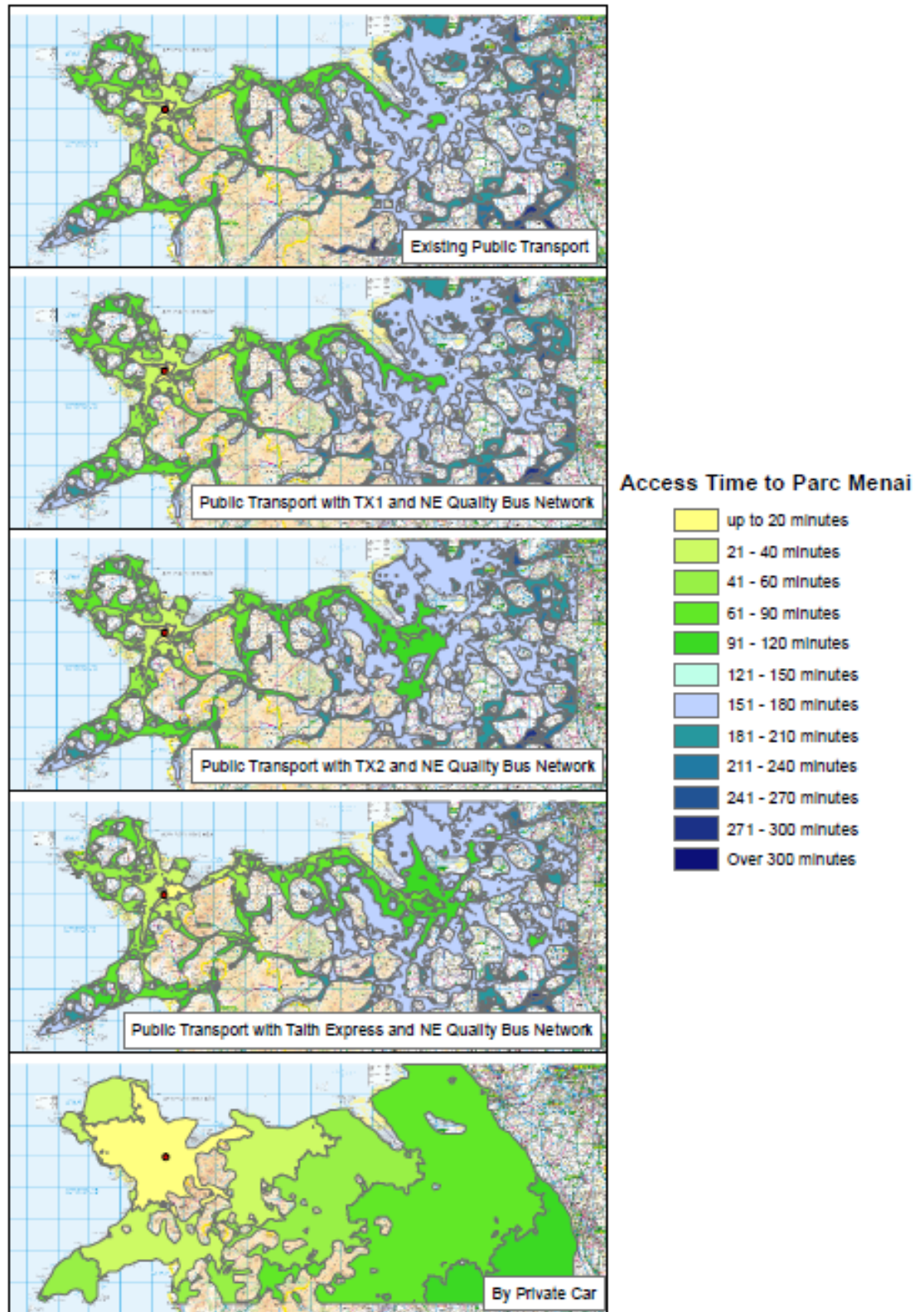
The WelTAG appraisal tool developed for the Welsh Assembly Government has been used to appraise the proposed strategies and interventions included in the North Wales RTP.

Taith has added a preliminary sifting stage to WelTAG (termed "WelTAG 0") to assist generation of viable options. This enables rapid ranking of candidate options against the WSP objectives, WTS outcomes, Taith objectives and priorities and implementability criteria. WelTAG 0 has been found valuable in informing the process of selecting good candidate interventions for further development.

WelTAG appraisal criteria have been applied to each individual intervention through a series of internal workshops followed by discussion with Welsh Assembly Government representatives. All selected interventions are included in the Preferred Strategy.

The Preferred Strategy has then been appraised by considering all of the selected interventions together. Appraisal of the Best Alternative Strategy follows by removing interventions included only in the Preferred Strategy from the appraisal worksheets, and correspondingly appraisal of the Do-Minimum strategy is completed after removal of the interventions only relevant to the Best Alternative Strategy.

An Appraisal Summary Table (AST) presents the core findings of the economic, environmental, social and other impacts from each WelTAG appraisal. The AST for each strategy has been populated by summarising the appraisal worksheets in workshop sessions conducted by consultants with key local authority and Taith staff. The significance used in the AST has been derived by making a judgement based on the number of instances of each significance score (-3 to 3). A simple scoring formula was used to confirm these scores designed to eliminate the distorting effects of appraisal criteria not relevant to the intervention being considered and showed general agreement.

Table 7.3 shows the scores for all three strategies with the score used in the AST highlighted in yellow. These scores remain the same for all strategies because the strategic options build progressively from "Do Minimum" through "Best Alternative" to "Preferred" with phasing and the rate of implementation being the major differences between the strategies. The proportional contributions of each intervention to the option score are similar for all strategies. This table enabled us to confirm that interventions were placed appropriately in each strategic option. For example, intervention 1 j) referring to improving access to civic amenities was found to be better placed in Best Alternative rather than Do-Minimum as it scored poorly on the Transport Economic Efficiency (TEE) criteria and did not wholly match the definition of the Do-Minimum strategy. This change is highlighted in the full WelTAG worksheets and further information on how the WelTAG appraisal contributed to the RTP process can be found in the WelTAG report[11].

The assessment has been made using the following impacts and assumptions.

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[11] WelTAG Report??

- Transport Efficiency and Economics (TEE) – changes in journey time against capital and revenue costs elements of the traditional Cost Benefit Analysis.

- Economic Activity and Location Impacts (EALI) – improvements in opportunity to gain access to employment and other activities plus any job creation through implementation of schemes.

- Noise – a significant change in noise is considered to be $\pm$3dB which roughly corresponds to a halving or doubling of busy road traffic flow.

- Local Air Quality – improvements resulting from modal shift from cars or lorries and reducing the number of single occupancy vehicles.

- Greenhouse Gas Emissions – improvements again coming from modal shift and reducing the number of single occupancy vehicles.

- Landscape and Townscape – effects on AONBs, National Park and town centres.

- Bio-diversity – effects on Ramsar, National Nature Reserves and Sites of Specific Scientific Interest.

- Heritage – effects on world heritage sites, listed buildings, ancient monuments and historic parks/gardens.

- Water Environment – effects on water courses, water bodies and flood risk locations.

- Soil – effects on agricultural land.

- Transport Safety – effects on the number of accidents.

- Personal Security – effects on the perception of being a victim of crime.

- Permeability – if interventions will improve or reduce opportunities to cross major transport arteries (railways, motorways, etc) or new barriers created.

- Physical Fitness – increase or decrease in the number of people walking, cycling or horse riding.

- Social Inclusion – the ability to access services without barriers.

- Equality Diversity and Human Rights – a neutral impact does not favour one group over another, a positive impact helps restore equality for a certain group.

- Public Acceptability – a summary of the summer 2008 public consultation exercise

- Acceptability from other stakeholders – any objections likely to be raised or have been raised through consultation by stakeholders.

- Technical and operational feasibility – how technically difficult will the schemes be to implement and how difficult will this be to manage.

- Financial affordability and deliverability – how likely are the Welsh Assembly Government and others to fund the different elements of the RTP.

- Risks – what are the risks if the plan isn't delivered or funded?

The ASTs for all strategies and the WelTAG appraisal worksheets are included in the WelTAG Appraisal Report. The AST for the preferred strategy is in table 7.4.

Table 7.3 – WelTAG Significance Comparisons for all strategies

	TEE	EALI	Noise	Local Air Quality	Greenhouse Gas Emissions	Landscape and Townscape	Biodiversity	Heritage	Water Environment	Soil	Transport Safety	Personal Security	Permeability	Physical Fitness	Social Inclusion	Equality, Diversity and Human Rights
PREFERRED STRATEGY																
N/A	22	67	99	53	53	140	138	146	145	148	73	113	103	94	92	72
0	83	56	43	38	38	8	11	5	6	3	39	4	4	22	17	79
1	16	24	7	55	55	3	1	0	0	0	31	29	38	29	26	0
2	0	4	0	2	2	0	1	0	0	0	8	4	5	5	13	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0
-1	29	0	2	3	3	0	0	0	0	0	0	1	1	0	0	0
-2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AST	0	1	0	1	1	0	0	0	0	0	1	1	1	1	2	0
BEST ALTERNATIVE STRATEGY																
N/A	17	55	84	42	42	120	117	123	124	125	62	91	83	75	71	55
0	70	47	38	35	35	5	9	5	4	3	33	4	3	20	16	73
1	13	22	5	46	46	3	1	0	0	0	26	28	36	28	25	0
2	0	4	0	2	2	0	1	0	0	0	7	4	5	4	13	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0
-1	27	0	1	3	3	0	0	0	0	0	0	1	1	0	0	0
-2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AST	0	1	0	1	1	0	0	0	0	0	1	1	1	1	2	0
DO-MINIMUM STRATEGY																
N/A	10	33	56	31	31	77	75	78	79	79	39	59	52	47	44	33
0	48	34	22	22	22	1	4	2	1	1	18	3	1	11	12	47
1	9	11	2	24	24	2	0	0	0	0	17	17	23	21	16	0
2	0	2	0	1	1	0	1	0	0	0	6	0	3	1	7	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
-1	13	0	0	2	2	0	0	0	0	0	0	1	1	0	0	0
-2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AST	0	1	0	1	1	0	0	0	0	0	1	1	1	1	2	0

Table 7.4 WelTAG Appraisal Summary Table of Preferred Strategy

Option Description:	Preferred Strategy		
Appraisal Criteria	**Assessment**	**Distribution**	**Significance**
Welsh Impact Areas			
Economy			
Transport Economic Efficiency	Preferred Strategy Capital Cost £257m over 5 years with high revenue costs for a wide range of interventions, many of which are targeted at efficiency gains. However, for some schemes the costs might not match the transport economic benefits	Costs: the Welsh Assembly Government, Local Authorities, Transport Providers, Developers and EU Benefits: Transport Users	0
EALI	Improved accessibility increases: opportunities for employees and employers, access to new markets, increases in tourism and economic efficiency.	Employees and businesses within the regional economy	1
Environment			
Noise	No significant (above 3dB) increases or decreases in noise	Local benefits through diversion of heavy vehicles.	0
Local Air Quality	Modal shift and reducing vehicle miles/congestion will have the biggest potential to improve air quality.	All	1
Greenhouse Gas Emissions	An estimated 1810 kilo tonnes (kt) of Carbon dioxide (CO2) was emitted from road transport in North Wales in 2004. Modal shift and reducing vehicle miles/congestion will have the biggest potential to reduce greenhouse gas emissions.	All	1
Landscape and townscape	Transport schemes will be designed to respect local Landscape and townscape and may have a positive impact.	There are three Areas of Outstanding Natural Beauty (AONB) - the Clwydian Range, Lleyn and Anglesey. Snowdonia National park lies partially within the area covered by the Taith Consortium.	0
Bio-diversity	Transport schemes will be designed to respect local Bio-diversity and may have a positive impact.	There are 5 Ramsar Sites, 26 National Nature Reserves (NNR) and 308 nationally important Site of Special Scientific Interest (SSSI).	0

Heritage	Transport schemes will be designed to respect Heritage sites and may have a positive impact as travel patterns become more sustainable. DDA access requirements may have an impact but could be mitigated by good design.	There is 1 World Heritage site within North Wales, 1165 scheduled ancient monuments, over 7400 listed buildings and 127 registered historic parks and gardens.	0
Water environment	All schemes will adopt best practice in respect of protecting water courses, separation of run-off effluent and pollution incidents. Opportunities will be taken to exploit synergies with flood protection works	Flood risk locations, water courses and water bodies	0
Soil	The RTP will follow planning requirements in respect of new developments including transport facilities, with a presumption for use of brown field sites and avoidance of adverse agricultural impacts.	The North Wales is covered by approximately 0.4% of Grade 1 agricultural land, 5.4% of Grade 2 agricultural land and 32.3% Grade 3 agricultural land.	0
Society			
Transport safety	Planning, Education, Infrastructure, Enforcement and Maintenance reduce the potential for accidents across all modes	All users	1
Personal security	Improved waiting, walking and cycling environments and CCTV together with public transport reliability have greatest impact on reducing personal risks	Mainly non-motorised and public transport users	1
Permeability	Better management of infrastructure and parking will facilitate greater use of non-motorised modes	Non-motorised users	1
Physical fitness	Promotion and greater use of walking, cycling and equestrian facilities will improve individual physical fitness, health and wellbeing	Everyone	1
Social inclusion	Reduction in transport barriers that impact on quality of life	Everyone	2
Equality, Diversity & Human Rights	Reduces inequality by improving transport provision for disadvantaged groups	Young persons, concessionary pass holders, those travelling with young children and mobility impaired	0

Public acceptability	Consultation indicated general support for the Taith Regional Transport Plan Interventions. There may be some local opposition to specific schemes.
Acceptability to other stakeholders	General Stakeholder support and involvement developing the Taith RTP Vision, Objectives, Priorities and Interventions.
Technical and operational feasibility	All interventions are technically and operationally feasible.
Financial affordability and deliverability	Funding required for Preferred Option is significantly higher than previous allocations. This places significant demands on the Welsh Assembly Government, local authorities and stakeholders to deliver.
Risks	The primary risk is a potential lack of sufficient funding to implement the North Wales RTP. Secondary risks include planning uncertainty, lack of buy in from third parties and availability of technical resources. Feasibility studies for future years will decrease risk.

7.3 Environmental Impacts: Strategic Environmental Assessment

SEA is a legal requirement for certain plans and programmes in Wales under the Environmental Assessment of Plans and Programmes (Wales) Regulations 2004 (Statutory Instrument No.1656) which entered into force in July 2004.

The purpose of the SEA is to integrate environmental concerns into the RTP throughout its development, from the inception stage through to plan adoption. It is a policy-aiding rather than policy-making tool, and is a systematic process that assists with identifying and assessing the significant environmental effects of a plan or programme.

Work on the SEA for the RTP commenced in November 2006 alongside the early stages of the development of the RTP. The initial stage was the preparation of and consultation of the SEA Scoping Report which was published alongside the Outline RTP on the 31st January 2007.

As part of the RTP Consultation Summary which was published in July 2008, the Strategic Environmental Assessment – Environmental Report was issued at the same time for consultation including the three statutory consultees, Countryside Council for Wales (CCW), Environment Agency Wales (EAW), and Cadw.

Consultation comments were received from both EAW and CCW in respect of the Consultative Summary and were incorporated along with revisions to the Regional Transport Plan into a revision of the Strategic Environmental Assessment document.

As set out in the RTP guidance, a Habitats Regulation Assessment (HRA) and an Appropriate Assessment on the RTP was commissioned in October 2008 with AECOM. An early meeting was sought with the Environment Agency and Countryside Council for Wales to set out and agree the proposed approach for undertaking these two crucial assessments.

As part of the engagement process with CCW, a draft screening report was submitted to CCW in early December 2008. Following feedback on the draft report, work continued on the HRA as the detailed five year programme continued to be developed.

The final screening report was formally submitted for approval to CCW in early August 2009. It is hoped that a formal response on this document will be known by the end of September 2009.

A final Strategic Environmental Assessment, together with the monitoring and review arrangements will be published when the Final Regional Transport Plan is submitted to the Welsh Assembly Government by the end of September 2009. The HRA document will be published as soon as approval is given by CCW.

Following approval of the Regional Transport Plan by the Welsh Assembly Government by the 31st December 2009, the final stage will be the publication of a SEA Post Adoption Statement by the 31st March 2010 prior to the Regional Transport Plan taking effect on the 1st April 2010.

8 Cross-cutting Issues

8.1 Cross-cutting issues

An analysis of cross-cutting issues has been carried out for the North Wales RTP with the results set out in Table 8.1.

Key issues are:

o Impacts of Climate change: flood defence and resilience of transport networks which will be highly important in the longer term

o Siting of key public facilities such as hospitals, civic facilities and prisons together with their transport implications where the full implications of decisions on transport, especially continuing revenue costs, have been inadequately considered

o Commercial activities (including those in the public sector such as Post Offices) depend on transport and their withdrawal imposes extra demands on the transport sector.

o Education: schools policy including closures and education transport requirements

o Peak tourist traffic and its impacts on the natural and heritage environments as well as conditions on the transport system

o Sources of revenue funding to support enhanced public transport and community based services.

The table shows the extent to which planned developments in most sectors of the economy create issues for transport (explicitly and implicitly). Both public and private sector organisations are involved in the RTP process and it is intended to continue this consultative process with stakeholders as plans and proposals are brought to implementation.

It should be noted that the various documents reviewed are a selection of relatively recent publications setting out developments which have transport implications and are potentially significant for the RTP. However the list is not exhaustive. In the case of the Spatial Planning documents, these have been fully taken into account throughout the development of the RTP.

The various outputs from each document have been compared with the established RTP priorities on the basis of compatibility. In some cases the comparison document has focused on non-transport issues and as a consequence the transport implications have not been quantified. In these instances, and where relevant, the cross-cutting implications may be expressed as either "uncertain" or "no-inter-relation".

It is apparent that despite good work already achieved in some areas of integrating transport with other areas of activity (for example "Making the Connections"), further potential has yet to be fully realised.

North Wales Regional Transport Plan

RTP Priority	Spatial	Environmental			North Wales Economic Forum	Tourism		Locational		
Sphere of Activity / Relevant Local Document	Wales Spatial Plan and Area Plans	Wales Environment Strategy	Climate Change Strategy	Wise About Waste	North Wales Development Strategy 2004	Coastal Tourism Strategy	Acheiving our Potential (Tourism Strategy for Wales)	Prison Located in North Wales	Nuclear Power Station on Anglesey	Closure of Post Office Branches
1. Efficiently meeting North Wales' diverse transport needs	C	C	C	?	?	C	C	C	?	N
2. Passenger transport profile and performance	C	?	?	-	-	C	C	-	-	-
3. Reducing congestion and journey times	C	?	C	-	-	C	?	?	-	N
4. Supporting development	C	C	?	-	C	C	C	?	?	N
5. Safe, efficient, sustainable transport networks	C	C	C	-	-	C	C	-	-	?
6. Improving rail services for North Wales	C	?	?	-	-	C	C	-	-	-
7. Environmentally-friendly and efficient freight movement	C	C	C	?	C	?	-	-	?	?
8. Smart traffic planning and management	C	?	C	-	-	?	C	-	-	-
9. Sustainable transport	C	?	C	-	-	C	C	?	-	-

	KEY	
C	Policies Compatible	
?	Uncertain Relationship	
N	Policies NOT Compatible	
-	No Inter-relation	

North Wales Regional Transport Plan

RTP Prioriity / Sphere of Activity / Relevant Local Document	Health					Social Services	Education and Social Services	Education		Police
	Designed for North Wales	Delivering Emergency Care Services	Designed to Add Value - a Third Dimension	Our Healthy Future	Rural Health Planning (consultation)	Fulfilled Lives, Supportive Communities	Making the Connections	Learner Travel Measure plus 16-19 Learning Pathways	Schools Reviews	North Wales Police Three Year Strategic Plan 2008 - 2011
1. Efficiently meeting North Wales' diverse transport needs	N	?	C	-	C	-	C	-	N	-
2. Passenger transport profile and performance	?	?	C	?	C	?	C	C	?	-
3. Reducing congestion and journey times	N	-	-	-	C	-	C	?	N	-
4. Supporting development	N	-	-	-	C	-	-	-	-	-
5. Safe, efficient, sustainable transport networks	N	?	-	C	C	-	C	C	?	C
6. Improving rail services for North Wales	-	-	-	-	-	-	-	-	?	-
7. Environmentally-friendly and efficient freight movement	-	-	-	-	-	-	-	-	?	-
8. Smart traffic planning and management	-	-	-	-	-	-	-	-	?	-
9. Sustainable transport	-	-	-	C	-	-	-	-	N	-

	KEY	
C	Policies Compatible	
?	Uncertain Relationship	
N	Policies NOT Compatible	
-	No Inter-relation	

9 Delivery

9.1 Taith's role

Taith is evolving from a consortium that has led on the co-ordination and delivery of a region wide public transport infrastructure programme funded by Transport Grant from the Welsh Assembly Government to one in which it will play a central co-ordinating role in which its constituent authorities will deliver the Regional Transport Plan for North Wales. It is crucial that finite resources, both people and funding, are used to ensure the success of the RTP in delivering the regional objectives, the national objectives of the Wales Spatial Plan, Wales Transport Strategy, National Transport Plan, the three WSP area plans, cross border arrangements (with England), local development plans and community strategies.

9.2 Taith's Structure

Currently Taith has a formally constituted Joint Committee which normally meets four times a year with the Annual General Meeting held in June of each year. Each Local Authority has two members on the Board with each Local Authority having one vote. The constitution allows for decisions to be taken on a majority vote basis. Flintshire County Council acts in a host authority capacity in providing legal, Human Resources, financial and procurement functions to the Consortia.

The Consortia has access to a number of frameworks and collaboration agreements which exist between its constituent local authorities and with the North Wales Trunk Road Agency which allow for the use of private sector involvement to plug any capacity / specialist gaps.

The Joint Committee is supported by a Management Group (North Wales Strategic Directors) Group. There is a small Management Unit based at Flint Station where four core Taith staff are based. There is also a part time secondee from Isle of Anglesey County Council who supports the Taith core team.

At present there are two main operational groups, the Regional Transport Programme Group and the Taith Public Transport Infrastructure Sub Group.

The Programme Group is composed of the operational heads of service from each local authority for the programme co-ordination of the current Taith Public Transport Infrastructure Programme and the future Taith RTP 5 year programme. The Taith Public Transport Infrastructure Sub Group is currently charged with the delivery of the Taith Public Transport Infrastructure Transport Grant Programme.

To date the core costs for the Taith Management Unit have been met by means of a revenue grant which has been payable to Flintshire County Council. This provides for the costs involved with the operation of the Taith Management Unit including the staff, consultancy support, and office costs. For the current financial year this equates to £321,000.

9.3 Proposed Delivery Arrangements

It is presently unclear as to the proposed funding arrangements for the 5 year capital programme and the funding arrangements for the core consortia operations of the core team which include the Programme Management and policy / forward planning functions.

It is currently envisaged that a small core unit will be retained supported by key co-ordinating officers in the constituent local authorities.

The Programme Management function will be supported by the evolution of the current Programme Group and the Taith Public Transport Infrastructure Sub Group which will at a strategic level manage the RTP programme. This will implement a formal stage gate system to project development and implementation. This group will monitor and manage the RTP allocation across the region and subject to a scheme of delegation agreed by the Board will shift funding between schemes to take account of risks/delays/cost increases to ensure that capital allocation is fully spent within each financial year.

The Policy and Planning function of the consortia will be responsible for undertaking the following functions;

- o   Continuing to developing the RTP component policies,

- o   Production of the Annual Progress Report (including the RTP and SEA Monitoring Report)

- o   Undertaking evidence base studies,

- o   Development of the next Regional Transport Plan

- o   Managing Consultation exercises and in responding to consultations

- o   External stakeholder relationships

- o   Representation on Wales Spatial Plan, Economic Fora, Mersey Dee Alliance and other groups.

Crucial to the delivery process is the role of many of the stakeholders which contributed to the development of the Regional Transport Plan including. Recently this has been developed with engagement between the consortia and the local authorities with the development of Arriva Bus Wales business strategy.

The relationship between the RTP objectives and key priorities will be particularly important in their consideration in the ongoing development of each local authority's Local Development Plan (and National Park Authority where appropriate). It is important that the link between land use planning and transport is strengthened.

Once the funding arrangements and the size of the Transport Grant award for the RTP become known, the detailed operating arrangements for the Taith Management Unit and the delivery of the 5 year programme will be included in the Taith Business Plan for consideration by and ratification by the Taith Board.

It is also proposed that a programme of Member briefing sessions will be developed to assist Taith Board members in effectively and efficiently conducting their role on the Taith Board.