



Llywodraeth Cymru
Welsh Government

ACTIVE TRAVEL (WALES) BILL

Explanatory Memorandum
incorporating the Regulatory Impact
Assessment and Explanatory Notes

September 2013

Title: Active Travel (Wales) Bill

Explanatory Memorandum to Active Travel (Wales) Bill

This Explanatory Memorandum has been prepared by the Economy, Science and Transport - Transport Department of the Welsh Government and is laid before the National Assembly for Wales.

Member's Declaration

In my view the provisions of the Active Travel (Wales) Bill, introduced by the then Minister for Local Government and Communities on the 18 February 2013, would be within the legislative competence of the National Assembly for Wales.

John Griffiths AM

Minister for Culture and Sport
Assembly Member in charge of the Bill

24 September 2013

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ANNEX 1 – Explanatory Notes

1. Description

1. The purpose of the Bill is to require local authorities to make year on year improvements to facilities and routes for pedestrians and cyclists and to prepare maps identifying current and potential future routes for their use. The Bill will also require local authorities and the Welsh Ministers to take reasonable steps to enhance provision for walkers and cyclists in new road schemes (including road improvement schemes).

2. Legislative background

Government of Wales Act 2006

2. The powers to make the Bill are contained in Part 4 of, and Schedule 7 to, the Government of Wales Act 2006 (the Act). These proposals are considered to fall within the Assembly's legislative competence. Specifically they relate to the following subject listed under the Highways and Transport heading in Part 1 of Schedule 7 to the Act, namely "Highways, including bridges and tunnels. Streetworks. Traffic management and regulation. Transport facilities and services."

Highways Act 1980

3. Subject to some exceptions, the Welsh Ministers are the highway authority in Wales for trunk roads, special roads provided by them, highways for which they are expressly responsible by virtue of an Order made by them under any enactment, highways transferred to them under section 14 or 18 of the Highways Act 1980 ("the 1980 Act") and highways constructed by them that have not been transferred to any local highway authority (see s1(1) of the 1980 Act).
4. The council of a county or county borough (a "local council") is the highway authority for all highways in their area, whether or not maintainable at public expense, where the Minister is not the highway authority under s1(1) of the 1980 Act (s.1(3A) of the 1980 Act).
5. Section 36 of the 1980 Act provides that certain highways, including footpaths, shall be maintainable at public expense.
6. Section 41 of the 1980 Act places a duty on the highway authority to maintain a highway at public expense. In practice, it is very rare for the Welsh Ministers to be the highway authority for public paths that are maintainable at public expense. The duty generally rests with local councils, who may create footpaths, bridleways and restricted byways by agreement or compulsorily (Sections 25 and 26 of the 1980 Act).
7. By virtue of s.65(1) of the 1980 Act, a highway authority may construct a cycle track as part of a highway maintainable at the public expense. This power is exercisable by the Welsh Ministers in respect of trunk roads and by local councils in respect of highways for which they are the highway authority.
8. The term 'highway' is not defined in the 1980 Act. In common law, a highway may be defined as a way over which all members of the public have the right to pass and to re-pass. The public's use of the way must be as of right, not on sufferance or by licence. Classes of highway include the following:
 - (a) carriageway highways, with vehicular rights;

- (b) byways open to all traffic;
- (c) restricted byways, for travel by foot, on horseback, and for vehicles other than mechanically propelled vehicles;
- (d) bridleways, for travel on foot and horseback. Cyclists have the right to ride pedal cycles on bridleways (subject to any byelaws or orders made by the local authority);
- (e) footpaths, which carry only a right of way by foot;
- (f) cycle tracks, which may or may not also include the right of way on foot.

Wildlife and Countryside Act 1981

9. Section 53 of the Wildlife and Countryside Act 1981 imposes a duty on local councils to record certain highways on definitive maps and statements, and to keep those maps and statements under continuous review. In practice, local councils will record the highways described in paragraph 8 (b) to (e) above.

Cycle Tracks Act 1984

10. Section 3 of the Cycle Tracks Act 1984 allows local councils, by order, to convert footpaths into cycle tracks. Once the Order is made, the public has a right of way over the cycle track on pedal cycles and also on foot. The two ways may be separated (e.g. by the provision of barriers or markings) in the interests of public safety. A council cannot however make an order under this section which crosses any agricultural land unless every person having a legal interest in that land has consented. If rights of way are turned into cycle tracks they are removed from the definitive map and statement.

Countryside and Rights of Way Act 2000

11. Section 60 of the Countryside and Rights of Way Act 2000 requires local highway authorities (other than inner London authorities) to prepare and publish a rights of way improvement plan within five years of the commencement of the section. The plans must contain a statement of actions the local authority proposes to take for managing local rights of way to meet present and likely needs of the populace, and securing an improved network of local rights of way, along with other such material as the Welsh Ministers specify in Wales. The plans must be reviewed after intervals of no longer than ten years.

Transport (Wales) Act 2006

12. Section 1 of the Transport (Wales) Act 2006 imposes a general transport duty on the Welsh Ministers. It requires them to develop policies for the promotion and encouragement of safe, integrated, sustainable, efficient and economic facilities and services for pedestrians and cyclists and to carry out their functions so as to implement those policies. Section 2 requires the Welsh Ministers to publish, and to keep under review, the

Wales Transport Strategy, which must set out those policies and how it is proposed to implement the general transport duty. Section 3 and the Schedule to the Act amended the Transport Act 2000 in a number of respects. In particular it required local authorities in developing local transport plans to develop policies to implement the Wales Transport Strategy and to be approved by Welsh Ministers. Plans must be reviewed every five years and Welsh Ministers have powers to modify aspects of the planning process by order and issue guidance. The Welsh Ministers subsequently made the Regional Transport Planning (Wales) Order 2006 which permits local authorities to make transport plans on a regional basis. They are required to carry out their functions so as to implement the policies in such plans, which require the approval of the Welsh Ministers. The Welsh Ministers may by order require such plans to be prepared on a regional basis, by two or more local authorities jointly. There is currently such an Order in force (SI 2006/2993) to allow regional transport plans to be created.

Local Government (Wales) Measure 2009

13. The Local Government (Wales) Measure 2009 requires Welsh improvement authorities (which includes Local Authorities) to make arrangements to secure continuous improvement in the exercise of their functions. These improvements will be in terms of: strategic effectiveness; service quality; service availability; fairness; sustainability; efficiency; and innovation. The Measure requires Local Authorities to set themselves improvement objective. The Measure sets out how these will be audited, the powers of the Local Authorities to collaborate, how information may be shared and how the Ministers may intervene if the improvement objectives are not met.

3. Purpose & intended effect of the legislation

14. The Active Travel Bill is a key action in the Programme for Government and is included in the Welsh Government's Legislative Programme. The aim of the Bill is to enable more people to walk and cycle and generally travel by non-motorised transport. We want to make walking and cycling the most natural and normal way of making getting about. We want to do this so that more people can experience the health benefits, we can reduce our greenhouse gas emissions, and we can help address poverty and disadvantage. At the same time, we want to help our economy to grow, and we want to take steps that will unlock sustainable economic growth.
15. The Walking and Cycling Action Plan Annual Report 2009-10 showed only a marginal increase in the number of people walking to work in Wales, 11% compared to the 2007 baseline figure of 10.3%. The Report also showed that there has been no overall change in the percentage of people for whom the main mode of travel to work is cycling, just 1.4%, equating to 16,500 people.
16. Research indicates that for many people the biggest barrier to walking and cycling is concern for their safety. These concerns relate mainly to the existing infrastructure, the speed and proximity of traffic, and concerns for personal safety. After safety, the practical difficulties of walking and cycling are the biggest barriers. These are issues such as storing bikes and outdoor clothing, both at home and at the destination; the logistics of transporting bags, children and so on by foot or by bike; and time constraints.
17. The third significant barrier is the lack of a walking and cycling culture, where walking and cycling is seen as the most natural and obvious way of making shorter journeys. The absence of this culture leads to a perception that walking and cycling is something abnormal, done by eccentrics and enthusiasts only. The provisions we would like to see in the Bill are aimed at both infrastructure improvements and enabling people to change their behaviour through promoting and normalising active travel.

Deficiencies in Current System

18. At present, active travel is not always given serious consideration as a mode of transport, and is instead considered as a leisure or a sports activity. This means that pedestrian and cycling access can be seen as dispensable during new developments and new road schemes, or are not given sufficiently high priority. It also means that much of the large scale infrastructure for walking and cycling has been designed primarily for leisure purposes (the Wales Coastal Path, the National Cycle Network etc.). These routes are an asset for leisure and tourism in Wales, but have not always been in the best places to encourage active travel as a mode of transport. Under the provision of the Bill local authorities will be expected

to make use of existing routes where they are in suitable locations as part of their network (e.g. the Taff Trail is a popular commuter route, and stretches of the Wales Coastal Path are well located for access and commuting).

19. The Bill has an urban focus, though rural routes might be appropriate for connecting settlements where the distance and gradient make it possible to travel actively. We do not expect the definitive maps of rights of way to be duplicated in producing the maps required by this Bill, unless the routes could be sensibly used for every day journeys. This does not mean that the Bill will only apply in Cardiff, Swansea, Newport and Wrexham; smaller settlements such as Carmarthen, Llanidloes and Flint will be included in the mapping requirements in the Bill under the proposed population threshold (2,000 people). The difference is that we would recognise that the relative isolation of these settlements means that the routes are more likely to be within settlements rather than connecting settlements to each other.
20. There are currently varying standards of routes for pedestrian use and cycling in Wales. The lack of clear standards can discourage modal shift because potential active travellers can lack confidence in the quality of the route. In a car journey you can be reasonably confident that the road will be continuous and safe, but this may not be the case with pedestrian and cycle routes. Many streets (although not all) have pavements alongside for pedestrians, but in many cases cyclists are expected to use on road provision which can be unsuitable.
21. Under the current system there is a lack of sustained investment in pedestrian and cycling routes. Dedicated pedestrian and cycling or active travel officers are not always employed in each local authority and in many cases the teams that do exist are reducing in numbers. Many local authorities are using project based funding from the Regional Transport Consortia, Lottery funding, regeneration schemes and so on to carry out work. This leads to a project-based approach, rather than a strategy-led approach. This makes it more difficult for local authorities to take a longer term view of what will be needed and when it will be needed by in order to create integrated routes. It means that schemes are often prioritised on the basis of what is easiest to deliver, rather than what would be most useful to deliver.
22. Changing travel behaviour also includes promoting routes to the public. Presently (outside of Cardiff and Swansea) there is limited information about where people could make safe active journeys. While there are rights of way maps, these only show statutory footpaths, bridleways and other byways. They would not show, for example, pavements alongside carriageways, routes through parks or through public access areas such as shopping arcades and pedestrianised routes. Cycle paths are also removed from the definitive map, even though the right of way still remains, making it difficult to discover where the best routes for cycling are located. Finally, the rights of way maps are not easily available in many

areas or always available in easily accessible forms (e.g. electronically). The Bill does not change the law in relation to the rights of way definitive maps.

Improvements sought

23. The Bill will reinforce the idea of active travel as a viable mode of transport and a suitable alternative to motorised transport for shorter journeys. We want to have better information provision, and better forward planning processes, which allow a more strategic use of funding and drives activity so that it is focused on promoting active travel. The ultimate aim of the Bill is to create an environment where it is safer and more practical to walk and cycle and than it is at present.

24. The Programme for Government set out the overall aims of the Welsh Government for this term. Increasing rates of walking and cycling will directly contribute to the Government's aims, and will reflect how we have put sustainable development, as our central organising principle, at the heart of government - specifically:

- better health for all with reduced inequalities;
- reducing poverty, especially persistent poverty amongst some of the poorest people and communities, and reducing the likelihood that people will become poor;
- to become a "One Planet Nation", putting sustainable development at the heart of government;
- to strengthen the conditions that will enable businesses to create jobs and sustainable economic growth.

25. The Active Travel (Wales) Bill will be supported by a broader programme of work to deliver a step change in active travel within Wales. This includes a review of funding streams from the Welsh Government Transport department to support the aims of the Active Travel (Wales) Bill, a renewed Walking and Cycling Action Plan, and new design guidance for walking and cycling routes. This will enable the Bill to achieve the improvements sought through legislation.

4. Consultation

26. There were two early engagement events with some key external stakeholders in January, one in Cardiff and one in Llandudno Junction. The attendees included representatives of third sector bodies and public sector bodies. Attendees were listed at Annex B of the White Paper, which is available from the Welsh Government website (see link below). These sessions were very positive and productive and assisted in the development of the Active Travel White Paper.

27. The White Paper was launched for consultation on the 9 May 2012, with a media campaign to encourage people to respond to the consultation. A large consultation event was held by Sustrans on the 18 June 2012 at the Pierhead building in Cardiff. There were approximately 120 attendees from a wide range of interest groups. The session consisted of presentations and small group sessions exploring the benefits of legislating in this area and the likely operational impacts.
28. Smaller consultation events focusing on specific issues raised by the consultation were held by the Welsh Government in Aberystwyth (11 July 2012), Cardiff (18 July 2012) and Llandudno (20 July 2012). Briefings on the White Paper were given to the Local Access Forum Conference in Builth Wells (13 June 2012) and to the National Access Forum meeting (10 July 2012). The consultation closed on the 14 August 2012. We received 358 responses in total.
29. The outcome of the consultation was published on the Welsh Government internet pages mid-October 2012, along with a summary of responses. The consultation outcome summarised the changes to the proposals that the Welsh Government will make following the consultation. These documents can be accessed at the following link:
<http://wales.gov.uk/consultations/transport/activetravelbill/?status=closed&lang=en>
30. A key reference group was established after the close of the consultation comprising of stakeholders from active travel, equalities, landowning and non-motorised transport users bodies. Their expertise has been used to inform the development of impact assessments and the broader programme associated with the delivery of the Bill.

5. Power to make subordinate legislation

31. The Bill contains minimal provisions to make subordinate legislation but does contain powers in relation to direction and issuing guidance.

32. The table below sets out in relation to each provision:

- the person upon whom, or the body upon which, the power is conferred;
- the form in which the power is to be exercised;
- the appropriateness of the delegated power;
- the applied procedure (affirmative, negative, no procedure) if any.

Section	Power conferred on	Form	Appropriateness of delegated power	Procedure	Reason for procedure
2(4)	Welsh Ministers	Direction	Considered to be appropriate as this relates to operational detail	No procedure	To ensure consistent implementation of the requirements of the legislation in accordance with Welsh Ministers policy.
2(6)	Welsh Ministers	Guidance	Considered to be appropriate as this relates to operational detail	No procedure	To support local authorities in meeting the requirements of the legislation and to ensure consistency in delivery.
2(9)	Welsh Ministers	Guidance	Considered to be appropriate as this relates to operational detail	No procedure	To support local authorities in meeting the requirements of the legislation and to ensure consistency in delivery.
3(4)	Welsh Ministers	Guidance	Considered to be appropriate as this relates to operational detail	No procedure	To support local authorities in meeting the requirements of the legislation
3(5)(b)	Welsh Ministers	Direction	Considered to be appropriate as this relates to operational detail	No procedure	To allow flexibility in delivery procedures.
3(7)	Welsh Ministers	Direction	Considered to be appropriate as this relates to operational detail	No procedure	To enforce a suitable and consistent standard for mapping active travel routes across Wales.

Section	Power conferred on	Form	Appropriateness of delegated power	Procedure	Reason for procedure
3(10)	Welsh Ministers	Direction	Considered to be appropriate as this relates to operational detail	No procedure	To allow flexibility in delivery timescales.
4(4)	Welsh Ministers	Guidance	Considered to be appropriate as this relates to operational detail	No procedure	To support local authorities in meeting the requirements of the legislation
4(5)(b)	Welsh Ministers	Direction	Considered to be appropriate as this relates to operational detail	No procedure	To allow flexibility in delivery procedures
4(6)	Welsh Ministers	Direction	Considered to be appropriate as this relates to operational detail	No procedure	To enforce a suitable and consistent standard for mapping active travel routes across Wales.
4(9)	Welsh Ministers	Direction	Considered to be appropriate as this relates to operational detail	No procedure	To allow flexibility in delivery timescales.
5(2)	Welsh Ministers	Guidance	Considered to be appropriate as this relates to operational detail	No procedure	To ensure that there is consistent access to the statutory maps across Wales.
7(2)	Welsh Ministers	Guidance	Considered to be appropriate as this relates to operational detail	No procedure	To support highway authorities in meeting the requirements of the legislation
12(1)	Welsh Ministers	Order	Considered to be appropriate as this relates to operational detail	No procedure	Commencement

6. Regulatory Impact Assessment (RIA)

33. A Regulatory Impact Assessment has been completed in accordance with Standing Order 26.6 (vi) for the Bill and follows in Part 2.

Background

34. Nearly a quarter of car journeys in Great Britain are of less than two miles, and over half of all journeys made by car are of less than five miles¹. Research has suggested that cycling is a viable alternative for 30% of car trips within towns - a greater potential than for walking or public transport².

35. Most people in Wales are not physically active enough to benefit their health. Only 29% of adults in Wales achieve the recommended level of 30 minutes of moderate intensity activity on at least five days a week. Physical inactivity is a major risk factor for many chronic diseases including cardiovascular disease, some cancers, diabetes and osteoporosis. Inactive people are also more likely to be overweight, have higher blood pressure and/or high cholesterol levels and to suffer from mental health problems. Physical inactivity in Wales is estimated to cost approximately £650 million per annum. This includes the cost to the NHS, the cost of reduced productivity/lost work days and premature death³.

36. Encouraging more people to participate in active travel is one policy aimed at addressing physical inactivity in Wales. Data from the Labour Force Survey (LFS) showed that 1.4% and 10.3% of people in Wales reported cycling and walking as the main method of getting to work respectively in 2011. There have been only marginal changes in the proportion of people cycling to work during the last five years, with the rate consistently lying between 1.4% and 1.6% since 2007.

37. Census data from 2001 shows that there is a wide variation in walking and cycling rates in the 22 local authorities, with 0.5% of people in Rhondda Cynon Taf reporting that cycling is the main mode of travel to work compared to 2.9% in Cardiff. Walking rates are similarly varied with 7.8% of people in Flintshire reporting that as the main mode of travel to work compared to 16.4% in Gwynedd.

38. The UK compares poorly to the rest of Europe on active travel. It is estimated that only 2% of trips in the UK are made by bicycle compared to 10% in Germany, 19% in Denmark and 26% in the Netherlands. Average distances walked per person in the UK are also lower than most other European countries.

¹ National Travel Survey, 2010. Department for Transport

² The Effects of Smarter Choice Programmes in the Sustainable Travel Towns: Sloman, L., Cairns, S., Newson, C., Anable, J., Pridmore, A. and Goodwin, P. Report to the Department for Transport, February 2010

³ Creating an Active Wales, Welsh Assembly Government, 2009

39. The aim of the Active Travel (Wales) Bill is to encourage more people to undertake journeys by 'active' means rather than by car by providing more information about safe active travel routes and the facilities that are available for pedestrians and cyclists, and by requiring continuous improvement to be made to the infrastructure.

Rationale for Government Intervention

40. Physical inactivity imposes significant costs on society in the form of medical costs and lost productivity. There is a wide body of evidence showing that encouraging more people to engage in active travel can generate significant health benefits and reduce the costs associated with physical inactivity.

41. Encouraging more people to walk or cycle rather than travel by car is also expected to deliver wider benefits through lower greenhouse gas emissions and reduced congestion.

Evidence

42. There are a number of studies linking physical inactivity with an increased risk of unfavourable health outcomes such as coronary heart disease, diabetes, stroke, cancer of the colon and breast cancer. It has been estimated that the cost of these five conditions to the NHS across the UK is approximately £1.06 billion per annum⁴. This figure is considered to be a conservative estimate of the cost of physical inactivity since it only considers a relatively narrow range of conditions and excludes the costs of other health problems, such as osteoporosis and falls, which affect many older people. There is also evidence linking physical activity and improved mental health. The Department for Health's report 'Let's Get Moving' suggests that when indirect costs to the wider economy (such as working days lost to sickness absence and premature mortality) are included, the cost of physical inactivity that may be as high as £8.3 billion per year.

43. Research by Cardiff University⁵ considered the main barriers to cycling to work with 90% of respondents to a survey reporting that concerns about traffic was the biggest risk and difficult junctions the second highest risk. 82% of respondents reported that the availability of safer routes would encourage them to cycle to work and 67% stating that better facilities at work would encourage them to cycle more often.

4 Allender S, Foster C, Scarborough P and Rayner M (2007) The burden of physical activity-related ill health in the UK, *Journal of Epidemiology and Community Health* 61: 344–8.

5 Patterson J. Evaluating the success of urban cycle networks. Published on Department for Transport website 21/12/07.

7. Options

Background

44. Activity has been undertaken in previous years to promote the take up of walking and cycling. The Walking and Cycling Strategy, published in December 2003 and the subsequent Action Plan, published in December 2008 aimed to increase levels of walking and cycling for shorter journeys. These measures are represented in the 'Option 1 -Do Nothing' option below.

45. Despite this activity, the Walking and Cycling Action Plan Annual Report 2009-10 showed a very marginal increase in the number of people walking to work in Wales and no change to the percentage of people cycling.

46. Enshrining this commitment in primary legislation will mean that it remains in place until it is deliberately overturned by new legislation. This means the proposals for creating an integrated network are most likely to remain in force for the timescales it would take to make a significant difference to infrastructure. This option is represented in the 'Option 2 – Legislation' option below.

47. This Regulatory Impact Assessment presents two different options in relation to the policy objectives of the Bill. The second option is split to reflect different population thresholds at which the legislation may apply. Each of the options has been analysed in terms of how far they would achieve the Government's objectives, along with the costs and benefits associated with each.

Option 1 – Do Nothing

48. Under this option, there would be no changes made to the existing policies aimed at promoting active travel. The option does not address one of the perceived barriers to increased active travel, namely the lack of information about safe routes for active travel and the location of suitable facilities. The option is not expected to result in a long-term approach for delivering an integrated active travel network.

Option 2 – Legislation requiring local authorities to map walking and cycling provision in towns and cities and to make continuous improvement towards delivering an integrated active travel network.

49. There are four sub-options reflecting different population thresholds at which the legislation will be applied. The sub-options are as follows:

- **Option 2a: All towns and cities in Wales with a population above 10,000 people.** Demographic data for Wales from the 2011 Census has been analysed, with settlements grouped into 'Built Up Areas'

(BUAs) and 'Built Up Area Sub-Divisions' (BUASDs). The data shows that there are 58 settlements in Wales with a population above 10,000. The combined population of these settlements is around 1.82 million which represents almost 60% of the total Welsh population.

- **Option 2b: All towns and cities in Wales with a population above 5,000 people.** 2011 Census data shows that there are 104 settlements with a population above 5,000 people in Wales, with a total population of 2.16 million (approximately 70% of the total Welsh population).
- **Option 2c: All towns and cities in Wales with a population above 3,000 people.** 2011 Census data shows that there are 150 settlements with a population above 3,000 people in Wales, with a total population of 2.34 million (approximately 76% of the total Welsh population).
- **Option 2d: All towns and cities in Wales with a population above 2,000 people.** The number of settlements included in this sub-option is 191, with a total population of 2.43 million people. This covers almost 80% of the total Welsh population.

50. There are three main elements to the legislation.

Current infrastructure

51. Local authorities would be required to produce a map identifying the routes and facilities in their area that are suitable and appropriate for active travel. The routes can include traffic-free routes, on-road provision and access through public spaces such as parks. Facilities include cycle storage, pedestrian/toucan crossings and wash facilities. These maps are referred to as "existing route maps" in the Active Travel (Wales) Bill.

52. Each local authority would be required to make the existing routes maps publically available in accessible formats and would be responsible for promoting them 'as appropriate'. Local authorities will be required to update their existing routes maps within two years in the first instance and then every three years to reflect the improvements that have been made to the infrastructure for pedestrians and cyclists.

Required improvements to infrastructure

53. Having established the existing provision of walking and cycling infrastructure, local authorities would need to identify what enhancements, upgrades and new infrastructure would be required to enable people to make continuous and safe journeys by foot or by bike. They will be required to produce a second map showing the proposed improvements, with the map illustrating an integrated network which would allow the majority of shorter journeys to be made by walking or cycling. The second maps are referred to as integrated network maps in the Active Travel (Wales) Bill.

54. The integrated network map is intended to be a visual representation of the local authorities' plans for active travel over a 15 year period. Once identified, local authorities will be required to deliver year on year improvements working towards their integrated network, subject to statutory processes.

New Road Schemes

55. Local authorities and the Welsh Ministers (all the highway authorities in Wales) will have a duty to take reasonable steps to enhance walking and cycling provision when designing new road schemes or making improvements to the existing infrastructure. It is more efficient and cost effective to incorporate walking and cycling provision into a scheme design rather than to retro-fit this provision into a completed scheme. Incorporating walking and cycling provision into new road schemes could help local authorities to deliver their plans for integrating their active travel routes (as set out on their maps), or could present new opportunities for connecting existing infrastructure.

8. Costs and Benefits

56. The costs and benefits of the proposals have been considered over a 15-year appraisal period. Future costs and benefits have been discounted using HM Treasury's central discount rate of 3.5%. This is in line with the recommendations in the Green Book.

Costs

Option 1 – Do nothing

57. As this option proposes no change it is considered that there are no additional costs associated with this option.

Option 2 - Legislation

Costs to Local Authorities

58. All of the direct costs associated with the legislation are expected to fall on the local authorities in Wales. Each local authority will be responsible for identifying and mapping the existing active travel infrastructure in their area and the improvements needed to create an integrated active travel network. Guidance will be provided by Welsh Government to facilitate the mapping exercises.

59. The impact of the legislation on each local authority will depend upon the number and size of towns within their boundary. There is at least one town and/or city with a population of 10,000 or over in each local authority, however, one local authority will be required to map seven settlements. The

size of these settlements (in population terms) also varies significantly from a little over to 10,000 to 335,000 (Cardiff). At the smallest population threshold, some local authorities will be required to map three or four towns while another will be required to map 18 areas. The impact of the legislation on each local authority is therefore expected to vary significantly.

Mapping current infrastructure

Option 2a:

60. The estimated cost of mapping the current infrastructure in towns across Wales is based on a recent mapping exercise in the City and County of Swansea (Swansea). That exercise identified both on and off-road cycling routes and pedestrian/toucan crossings across the local authority (including both the city centre and surrounding towns) and involved a number of days of survey and cartographic work.

61. There are a number of options for extending the Swansea estimates to cover the whole of Wales, for example population or area, however, given the number of existing routes that are located on or alongside roads, it was decided that road length would be the most appropriate method.

62. Statistics on road length by Welsh local authority are produced by Welsh Government statisticians and published by the Department for Transport⁶. For the purposes of this RIA, it has been assumed that the mapping exercise will be concentrated on those roads classed as 'minor' roads in the statistics. Motorways and major roads (e.g. trunk roads) are excluded from the analysis due to the emphasis that is being placed on promoting safe active travel. In the data, minor roads are further split between urban and rural roads, the former being those in towns with a population of 10,000 people or above. For this sub-option, only minor urban roads are included in the analysis.

63. The information provided by Swansea shows that the mapping exercise involved 28 days of survey work. Given that there are around 685km of minor urban roads in the local authority, this suggests that an average of approximately 24.5km of road can be surveyed per day. Clearly, the actual distance that can be surveyed in a day will vary depending upon local conditions and topography etc. This figure could be considered an underestimate of the average distance that can be surveyed in a day because the Swansea mapping exercise included off-road routes and some roads that would be classed as rural minor roads (i.e. those outside of towns with a population above 10,000). It is also unlikely that every km of minor urban roads would have been surveyed (for example cul-de-sacs and housing estates). Other towns and cities in Wales will also have off-road provision that will require mapping and also some roads (cul-de-sacs etc.) that will not require mapping. On balance, the 24.5km per day is therefore considered to be a reasonable proxy for the average distance that can be surveyed in a day.

⁶ Total road length (kilometres) by road type and local authority in Great Britain, Department for Transport 2011

Sensitivity testing has been undertaken on this assumption (see paragraph 156)

64. Applying this average figure of almost 24.5km per day to the total distance of minor urban roads in Wales suggests that a total of 289 survey days would be required to map walking and cycling routes in all towns in Wales with a population above 10,000. Swansea, Cardiff and Newport have all completed similar mapping exercises in recent years and the time required to re-map these cities is expected to be significantly lower than the initial mapping exercise. For the purposes of this assessment it is estimated that re-mapping a town or city will require 10% of the original surveying time. On this basis, the total time to survey (or re-survey) all of the towns and cities in Wales with a population above 10,000 people is estimated to be 218 days.

65. The consultancy rate for this type of work is assumed to be £350 per day. On this basis, the cost of surveying large towns in Wales is approximately £76,300.

66. In addition to the survey costs, there will be further costs associated with designing and producing the maps. The information provided by Swansea, suggests a ratio of surveying to cartographic work of 7:2 (28:8). Producing each map is also expected to require 2 days of design work. Extending this to the 22 Welsh local authorities (and again recognising that much of this work has already been completed in Swansea, Cardiff & Newport) suggests that approximately 62 days of cartographics work will be required along with 44 days of design work. The cost of the cartographics and design work are estimated to be approximately £21,800 and £15,400 respectively, totalling £37,200. Again, this assumes a daily rate of £350.

67. Each local authority will be required to make the map publically available and to promote the map 'as appropriate'. There is some flexibility in how local authorities choose to publicise their map. However, it is assumed that a web version and a number of hard copies will be made available. The maps will also need to be produced in accessible formats. It is assumed that each local authority will print 1 map for every 10 members of the population of the relevant towns for distribution through schools, leisure centres, libraries and council offices etc. Printing costs will vary according to volumes but based on commercial rates, the cost of printing and distributing the maps is assumed to be approximately £41,900.

68. No allowance has been made in these calculations for the purchase of Ordnance Survey (OS) 'raster' tiles or for the licenses from the OS for printing and publishing the maps. These costs are covered by the existing Public Sector Mapping Agreement (PSMA).

69. Each local authority will be required to provide a statement outlining where the routes identified on their map do not conform to design standards and explaining why those routes have nevertheless been included on the map. It has been estimated that gathering the necessary evidence and preparing the statement will take an average of 2 days per local authority with

an extra day assumed for Cardiff, Swansea and Newport reflecting the greater size and population density of these cities. The input required is therefore assumed to be 47 days, which at a cost per day of £350, equates to approximately £16,500.

70. Local authorities will be required to consult with organisations representing walkers and cyclists and other organisations prior to publication of the existing routes maps and the integrated network maps. There are a number of existing groups and fora involving walking and cycling organisations in Wales with which local authorities could consult on the proposed maps. The additional cost of the consultation requirement is therefore not expected to exceed an average of £2,500 per unitary authority or £55,000 in total. This cost would be incurred each time a new set of maps is published.

71. The total cost of mapping the walking and cycling routes and facilities in towns with a population above 10,000 people is therefore estimated to be approximately £226,900.

72. This figure is based on the assumption that local authorities will choose to contract out the surveying and cartographics work to a specialist contractor (as Swansea, Cardiff & Newport chose to do). If local authorities opted to deliver the required work through a different channel (for example, 'in house') then the costs could potentially be lower. Adopting a collaborative approach (e.g. regional or 'all-Wales') may also generate economies of scale and secure a lower cost.

73. The legislation contains a requirement that the maps are updated on a regular basis (every two years in the first instance, then every three years). The cost of each subsequent re-mapping exercise is expected to be lower than the initial exercise due to the reduction in the number of days of survey and cartographics work required to up-date an existing map. It has been assumed that the surveying requirement will be approximately 10% of the initial exercise (sensitivity analysis has been undertaken to test the impact of changing this assumption – see paragraph 157). The calculations also assume half a day per local authority for any re-design work that is required. On this basis, 63⁷ days of surveying, cartographics and design work will be required each re-mapping exercise at a cost of £22,300. Printing/publication costs are expected to remain the same as in the initial mapping exercise (i.e. £41,900). The cost to local authorities of producing a statement identifying where existing active travel routes do not conform to design standards is expected to be lower than in the initial mapping exercise. This cost is assumed to be 10% of the cost of the original statement or approximately £1,650. As noted above, the consultation costs incurred by local authorities each time a set of maps is published are estimated to be £55,000. The total cost of each re-mapping exercise is expected to be approximately £120,800.

⁷ This is not 10% of the days required in the initial mapping exercise because that assessment already includes a reduced survey and cartographics requirement in Swansea, Cardiff and Newport (due to the mapping work already undertaken in those cities).

Option 2b

74. The analysis for Option 2a suggests that small towns (those with a population of between 10,000 and 11,000 people) will require approximately two days of survey work and a maximum of one day of cartographic work. Assuming that the 46 towns with a population of between 5,000 and 10,000 people require similar input, suggests an additional 92 days of survey work and an additional 46 days of cartographics work will be required in this option. The cost of these additional days is estimated to be approximately £48,300. The additional printing costs are estimated to be £7,700. The design costs identified under Option 2a (£15,400) are assumed to remain the same in each option.

75. Reducing the threshold to include settlements with a population lower than 10,000 people is expected to increase the cost to some local authorities of gathering evidence on where identified routes do not conform to design standards. A total requirement of 53 days input is assumed at a total cost of £18,550. As with Option 2a, consultation costs are expected to be approximately £55,000.

76. Including the cost of mapping towns with a population above 10,000 people, the total cost of this option is estimated to be £285,000.

77. The cost of each re-mapping exercise is estimated to be approximately £133,600. This is made up of £63,200 for re-mapping towns with a population above 10,000 people and £12,500 for re-mapping towns with a population between 5,000 and 10,000 people. The statement on conformity to design standards is expected to cost approximately £1,900 and consultation a further £55,000.

Option 2c

78. Surveying each smaller town (i.e. those with a population below 5,000 people) is estimated to require one day of survey work and no more than one day of cartographics work. The additional surveying and cartographics time associated with extending the legislation to cover the 46 towns with a population between 3,000 and 5,000 people is therefore estimated to be 92 days at a cost of £32,200. Additional printing costs are approximately £4,100.

79. The cost to local authorities of preparing a statement outlining where the routes identified on their map do not conform to design standards and explaining why those routes have nevertheless been included on the map is estimated to be £18,550. Consultation costs are estimated to be £55,000.

80. The total cost of mapping existing walking and cycling provision across all towns and cities with a population above 3,000 is therefore estimated to be approximately £321,300.

81. The cost of each subsequent mapping exercise in towns and cities with a population above 3,000 people is estimated to be £140,900.

Option 2d

82. As noted above, surveying each smaller town is estimated to require one day of survey work and no more than one day of cartographics work. The additional surveying and cartographics time associated with extending the legislation to cover the 41 towns with a population between 2,000 and 3,000 people is therefore estimated to be 82 days at a cost of £28,700. Additional printing costs are estimated to be approximately £2,300.

83. Including the cost of consultation and preparing a statement of conformity of routes to design standards, the total cost of mapping existing walking and cycling provision across all towns and cities with a population above 2,000 is estimated to be approximately £352,300.

84. The cost of each subsequent mapping exercise in towns and cities with a population above 2,000 people is estimated to be £146,100.

85. Table 1 presents a summary of the costs for the four options. As noted above, these costs will fall to Welsh local authorities. The Net Present Value (NPV) figure is calculated over a 15-year period, with the maps re-produced every three years.

Table 1. Summary of cost to local authorities of mapping current walking and cycling provision (£)¹

Population threshold	Option 2a 10,000+	Option 2b 5,000+	Option 2c 3,000+	Option 2d 2,000+
Initial mapping costs				
Population 10,000+				
Survey	76,300	76,300	76,300	76,300
Design & Cartographic	37,200	37,200	37,200	37,200
Printing/distribution	41,900	41,900	41,900	41,900
Population 5,000 - 10,000				
Survey		32,200	32,200	32,200
Cartographics		16,100	16,100	16,100
Printing/distribution		7,700	7,700	7,700
Population 3,000 - 5,000				
Survey			16,100	16,100
Cartographics			16,100	16,100
Printing/distribution			4,100	4,100
Population 2,000 - 3,000				
Survey				14,350
Cartographics				14,350
Printing/distribution				2,300

Statement on conformity to design standards	16,500	18,600	18,600	18,600
Consultation	55,000	55,000	55,000	55,000
Total initial mapping costs	226,900	285,000	321,300	352,300
Re-mapping cost				
Population 10,000+	64,200	64,200	64,200	64,200
Population 5,000 – 10,000		12,500	12,500	12,500
Population 3,000 – 5,000			7,300	7,300
Population 2,000 – 3,000				5,200
Statement on conformity to design standards	1,600	1,900	1,900	1,900
Consultation	55,000	55,000	55,000	55,000
Total re-mapping costs (per re-mapping exercise)	120,800	133,600	140,900	146,100
Net Present Value (NPV)²	595,100	690,800	748,600	794,700

Notes: 1) figures have been rounded to the nearest hundred pounds, totals may not sum due to rounding. 2) For the purpose of the NPV calculations, all existing routes maps are assumed to be produced in year 1 with re-mapping occurring in years 3, 6, 9, and 12.

86. As would be expected, the cost associated with mapping walking and cycling provision in towns across Wales increases as the population threshold decreases. However, the size of the population which could potentially benefit from the mapping and therefore be encouraged to engage in active travel is also larger.

Integrated Network Maps

87. The second requirement in the legislation is for local authorities to produce a second map showing the improvements to the infrastructure to provide a continuous and integrated active travel network (the integrated network map). This map will need to be produced within three years of the legislation coming into force. In considering the improvements, local authorities will be expected to identify routes where significant numbers of shorter journeys are being undertaken but there is no appropriate provision for pedestrians or cyclists. There is less detailed information available on which to estimate the cost of producing integrated network maps, for that reason the assessment has been undertaken at a local authority level rather than town level.

88. A number of local authorities in Wales have already taken steps towards developing long-term plans for investing in walking and cycling provision. For example, Cardiff Council have used a combination of existing evidence (e.g. traffic and cycle flow figures, casualty data, feedback from stakeholder groups and existing plans/strategies) and geo-demographic modelling (identifying and

mapping those groups most likely to start cycling) to develop a list of potential investments in the cycling infrastructure. The plans were then subject to public consultation. The strategic plan for Cardiff suggests that delivering the identified schemes will cost approximately £6.5million and will take a number of years.

89. Sustrans are undertaking two studies in Wrexham and Newport which are expected to contribute towards the delivery of the integrated networks maps. The objectives of these studies include an analysis of existing transport and socio-economic data and the identification of a network of routes which would encourage more people to engage in active travel. The studies are being undertaken as part of the Connect2 Lottery funded legacy work.

90. The expectation is that much of the information needed to produce the integrated networks map will be available to local authorities through existing sources such as road safety plans, local development plans, rights of way improvement plans and operational plans for parks and other open spaces. Similarly, data on the number and location of current journeys is available from existing sources such as, Average Annual Daily Flow (AADF) data, travel surveys, travel plans, school censuses and local knowledge on the location of schools, colleges, bus and railway stations, shopping centres and employment hubs etc. Where there are gaps in the evidence base, there is likely to be a cost to local authorities for collecting the additional information.

91. A collaborative approach will be needed to produce the integrated network map involving planning, transport, leisure & culture teams and the relevant transport consortia. In a number of areas there will also be a need to work with neighbouring local authorities to ensure a continuous network. It is anticipated that much of the work involved in producing the integrated network map could be undertaken 'in-house' by local authorities, however, it is recognised that even if this were the case then there would be an opportunity cost for the local authorities.

92. An alternative approach would be for local authorities to use an external organisation/consultancy to produce the integrated network map. As noted above, much of the data needed to deliver the integrated network maps is believed to be readily available. Producing the maps is therefore expected to be a largely 'desk-based' exercise.

93. The estimated cost for producing the integrated network maps is £400,000 (this is approximately £20,000 per local authority but adjusted to reflect the work that has/will have been undertaken in areas such as Cardiff, Newport and Wrexham before the legislation is introduced). This cost falls to the local authorities and includes the cost of collecting any additional information required and the cost of local authority staff time and/or any consultancy fees.

94. Local authorities will be required to consult with cycling and walking groups on the integrated network maps. This consultation is expected to take

place at the same time as the consultation on the existing routes maps and the cost is therefore assumed to be included in the costs estimated above.

95. As with the existing routes maps, local authorities will be required to promote the integrated network maps 'as appropriate'. The expectation is that copies of the integrated network maps will be made available on each local authority's website with hard copies available in libraries, leisure centres and other council buildings. However, they are not expected to be printed and distributed in the same volumes as the existing routes maps. The cost of promoting the integrated network maps is estimated to be approximately £11,000.

96. The integrated network maps will also need to be updated on a regular basis (at least every three years) to reflect any identified routes that have been implemented and any changes within local authorities that may affect the demand for walking and cycling routes (for example, new developments etc.). As with the existing route maps, the cost of updating the integrated network maps is expected to be lower than the initial mapping exercise. Adopting the same 10% assumption, the cost to local authorities for each re-mapping exercise is assumed to be approximately £44,000. The cost of promoting the amended integrated network maps is assumed to remain £11,000.

97. The net present value (NPV) of the cost of producing the integrated network maps during the 15-year appraisal period is estimated to be £492,200. The NPV calculation assumes that the integrated network maps are produced in years 3, 6, 9, and 12.

98. As well as the cost of producing the two maps, there are a number of potential additional direct and indirect costs associated with the legislation. These costs are discussed below. The discussion is relevant to all four sub-options of option 2.

Continuous improvements

99. The cost of making continuous improvements to the active travel network will depend upon a number of factors, not least the type, number/length of improvements required and the impact on existing infrastructure. The delivery of the continuous improvements will have to be within the constraints of budget availability. Local authorities will not be required to commit additional funding above what is already being spent on active travel as a consequence of this piece of legislation. However, they will be encouraged to invest in active travel, and the new duties should assist local authorities in prioritising funding more effectively in delivering active travel.

100. The Welsh Government currently provides approximately £14.3 million per annum direct funding for active travel related projects through a number of schemes, including Safe Routes in Communities, the Regional Transport Consortia's walking & cycling schemes and through direct expenditure on the

trunk road network. The expectation is that a proportion of this funding will be focused on developing the integrated networks.

101. Table 2 presents average cost data for a range of road safety improvements. The data, which was provided by Cardiff Council, is presented here for illustrative purposes. Costs of individual schemes can vary widely depending on the nature of the scheme and the related work that is required (for example, whether new street lighting is required, or drainage work needs to be addressed and so on).

Table 2. Illustrative cost of road safety improvements

Element	Cost
Zebra crossing	£20,000
Narrowed Zebra crossing	£25,000
Tabled, narrowed, Zebra crossing	£30,000
Cushions	£1,500
Refuge	£2,500
Basic pedestrian facilities (tactiles, dropped kerbs and studs)	£2,000
Zebra flex (per sq.m)	£26 / sq.m
white lining (per lin.m)	£2 / lin.m
Cycle reservoir and approach lanes - 5m deep reservoir, 20m x 1.2m approach cycle lane. Therefore area = $[(1.2 + 6)*5] + (20*1.2) = 7.2 \times 5 + 20 \times 1.2 = 36 + 24 = 60$ sq.m. Therefore cost per arm = $60 \times 26 =$	£1,560 per arm
Tabled gateways (including table, narrowing and sign)	£10,000
Start/end 20mph zone signs	£1,000
School safety zone gateway - including signs and slight narrowing (no table)	£7,000
School safety zone signs	£500
Controlled crossing (including associated street lighting)	£25,000
Speed table	£2,000
Tactiles	£250
Pedestrian facilities (studs and tactiles)	£12,000
Footpath per square metre	£150
Table	£2,000
Tabled junction	£4,000
Buildouts	£2,500
Covered and secured cycle stands.	£4,000

Source: Cardiff Council

102. Information has been provided on the cost of delivering various traffic-free paths under the Heads of the Valleys, Valleys Regional Park and European funded programmes. These costs range from around £40,000 per km to almost £600,000 per km with an average of approximately £200,000 per km. The cost is dependent upon the complexity of the individual scheme and the need for various different features/structures such as bridges, crossings

and junctions. These figures are presented for illustrative purposes and to give an indication of the potential scale of costs involved in developing the walking and cycling network in Wales.

New & Improved Road Schemes

103. The need to take reasonable steps to enhance provision for cyclists and/or pedestrians when developing new road schemes or improvements to the existing road network will result in an increase in the cost of some schemes. As noted above, the actual cost of incorporating pedestrian or cyclist provision will depend on a number of factors such as the scale of the work, the complexity of the design, the number of junctions and the number of crossings etc. For large projects in particular, the cost of incorporating safe walking and cycling routes at the point of design would tend to represent a relatively small proportion of total costs and would almost always be cheaper than 'retro-fitting' at a later stage. The costs of incorporating active travel provision will fall to Local Authorities or Welsh Government, depending on the nature of the road scheme.

104. A full cost-benefit analysis would be expected to form part of the appraisal process for any new road scheme.

Maintenance costs

105. As with any transport scheme, there will be additional costs after the original investment in order to maintain and repair the new pedestrian and cycling routes and facilities. The scale of these costs will be dependent on the nature of the provision made. Maintenance costs will need to be factored into the assessment of any proposed investment.

Wider Costs

106. In addition to the direct costs outlined above, there are a number of potential wider costs associated with the legislation. These wider costs include the risk of additional accidents and the risk of increased exposure to air pollution. The impact of the legislation on the number of road accidents or exposure to air pollution is unknown at this stage because it depends upon a number of factors such as the nature and design of changes to the active travel infrastructure (for example, whether new routes are located away from or alongside roads) and the number of additional people that are encouraged to walk or cycle. The level of uncertainty surrounding these wider costs means that it has not been possible to quantify them at this stage.

Traffic Accidents

107. There is a risk that encouraging active travel may result in a net increase in the number of road traffic accidents. In particular, there is a risk of more fatalities and serious injuries due to the greater vulnerability of cyclists and pedestrians compared to car drivers and passengers.

108. Table 3 compares casualty rates for pedestrians, cyclists and car drivers/passengers on roads in Great Britain between 2008 and 2010. The figures are quoted in terms of casualties per billion passenger kilometres travelled. As can be seen, casualty rates are significantly higher for pedestrians and cyclists than for those travelling by car.

Table 3. Road casualties by mode per billion kilometres travelled

Mode & Severity	2008	2009	2010
Car			
Killed	1.9	1.6	1.3
Killed or Seriously Injured	18	17	15
All	224	218	206
Pedal cycle			
Killed	24	21	22
Killed or Seriously Injured	541	547	553
All	3,435	3,444	3,428
Pedestrian			
Killed	31	26	23
Killed or Seriously Injured	358	319	322
All	1,536	1,420	1,486

Source: Department for Transport

109. After successive annual declines between 2004 and 2010, the number of pedestrian casualties in Wales increased between 2010 and 2011 from 1,108 to 1,154. Similarly, the number of pedal cyclist casualties in Wales decreased between 2006 and 2010 but increased from 447 in 2010 to 521 in 2011. The latest data suggests that there was a further increase in casualty rates in the first quarter of 2012.

110. The Department for Transport (DfT) publish estimates of the cost associated with transport accidents. These are split by severity and broad categories of costs – economic, human and medical. The latest estimates from DfT are presented in table 4. The weighted average cost across all accidents is estimated to be approximately £49,800, within a range of £14,320 (for slight injuries) to £1.65 million for a fatal accident.

Table 4. Cost of a road accident by severity, 2010 (£)

	Economic (Lost output)	Human costs	Medical & ambulance costs	Total
Fatal	568,477	1,084,230	980	1,653,687
Serious	21,903	150,661	13,267	185,831
Slight	2,315	11,025	980	14,320
Average, all casualties	10,159	37,277	2,347	49,782

Source: Department for Transport, Transport Appraisal Guidance Unit 3.4.1, August 2012

111. Using the data in Tables 3 and 4, it is possible to generate an illustrative example of the potential impact on accident numbers of encouraging more people to walk or cycle as opposed to travel by car. If the policy is successful in encouraging 1,000 people to commute 5km to work by bike for a year rather than travel by car then there would be an expected 0.05 additional fatalities, 1.24 additional serious injuries and 6.4 additional slight injuries each year. The cost associated with these additional accidents would be approximately £405,000. Breaking this figure down, £70,300 reflects lost output (a cost to employers), £311,900 is the human cost (i.e. to the individual and family) and £22,800 falls to the NHS in medical and ambulance costs. As noted above, this is purely an illustrative example.

112. There is evidence to suggest that higher numbers of pedestrians and cyclists are associated with fewer serious accidents on the road. This finding has been termed 'safety in numbers' and reflects increased levels of awareness amongst motorists. However, much of this evidence relates to countries where there is already a strong cycling culture. For example, the number of cyclists killed per million km travelled is far lower in countries such as the Netherlands and Denmark than the likes of the UK, France and Spain where the walking and cycling is less prevalent.

113. Jacobsen⁸ used data from a number of international studies and estimated that a doubling of the number of pedestrians and cyclists would result in a 32% increase in the number of road accidents involving walkers and cyclists, making it proportionately safer to walk and cycle. He concluded that policies that increase the numbers of people walking and bicycling appear to be an effective route to improving the safety of people walking and cycling.

114. The Department for Transport commissioned TRL to undertake a literature review on the relationship between infrastructure and cyclist safety⁹. The report suggested that it is difficult to draw any firm conclusions from the literature due to the limited strength and depth of the available evidence. One of the main findings of the report is that reducing motor vehicle speed is expected to deliver the greatest benefits in terms of improving cyclist safety. As with other road users, junctions are recognised as holding a high risk of injury for cyclists. The report identifies a number of potential interventions at junctions although the evidence for these is not particularly strong. The report also suggests that while providing segregated cycle networks may reduce risks to cyclists, the point at which the segregated network intersects with the road network can be relatively high risk and that in some cases, this risk offsets any benefit from removing cyclists from roads.

8 Jacobsen, P. Safety in numbers: more walkers and bicyclists, safer walking and bicycling. *Injury Prevention* 2003;9:205–209

9 TRL, *Infrastructure & Cyclist Safety*, for Department for Transport

115. Cavill et al¹⁰ undertook a review of the evidence on cycling participation and accident rates and concluded that ‘Overall, evidence suggests that if promotion of active commuting is accompanied by suitable transport planning and safety measures (which could at the same time lead to decreased air pollution exposure if more cycling occurs away from main roads), active commuters are likely to benefit from the “safety-in-numbers” effect.

Exposure to pollution

116. A second potentially negative health consequence associated with the legislation relates to air quality. Although encouraging more people to walk or cycle is expected to lead to improvements in air quality (by reducing the number of journeys made by car), for the individuals concerned there is a potential risk of greater exposure to air pollution.

117. Exposure to pollution is linked to a number of health issues such as heart irregularities and impaired lung function. However, the evidence on the relative exposure of cyclists, pedestrians and car drivers/passengers is complicated. A number of studies (for example van Wijnen¹¹ et al and Rank¹² et al) have found that car occupants can be exposed to significantly higher levels of pollutants than cyclists or pedestrians, particularly in slow moving traffic. On the other hand, higher respiratory rates (cyclists in particular would tend to breath at a quicker rate than someone travelling in car) may increase the number of airborne particles penetrating the lungs.

118. Despite the concerns about potential accidents and exposure to pollution, the majority of evidence suggests that the net health impact associated with increased walking and cycling is positive. This will be considered further in the benefits section of this Regulatory Impact Assessment.

Employers’ costs

119. Finally, the legislation could potentially generate pressure on employers (or schools and shopping centres etc.) to invest in additional facilities such as bike storage, changing rooms and lockers. However, to be set against this potential cost is evidence which suggests that employers will benefit from increased physical activity through reduced absenteeism (see paragraphs 145-147). It should be noted that employers will not be required to make any changes as a result of this legislation.

Benefits

¹⁰ Cavill, N., Kahlmeier, S., Rutter, H., Racioppa, F. and Oja, P. Guidance on the economic appraisal of health effects related to walking and cycling, World Health Organisation 2007

¹¹ Van Wijnen, J., Verhoeff, A., Jans, H. and van Bruggan, M. The exposure of cyclists, car drivers and pedestrians to traffic-related air pollutants. International Archives of Occupational and Environmental Health, 67(3), 1995.

¹² Rank, J., Folke, J. and Jespersen, P. Differences in cyclists and car drivers exposure to air pollution from traffic in the city of Copenhagen. The Science of the Total Environment, 279, 2001.

120. The following sections provide a summary of the economic evidence on i) the effectiveness of interventions to promote active travel and ii) the health, environmental and economic benefits associated with active travel. Although research in this area has been ongoing for a number of years there are still a number of weaknesses in the available evidence base (see Yang et al¹³). Most of the economic evidence relates to cycling, with far less quantified information available on the benefits of walking or investment in walking related infrastructure. This absence of evidence in relation to walking should not be regarded as an absence of benefit from encouraging or enabling people to complete journeys on foot. Finally, it should also be noted that some of the evidence was commissioned or undertaken by interested parties.

Evidence on the impact of interventions to promote active travel

121. There have been a number of reviews looking at the evidence on interventions to promote active travel. Much of the evidence relates to a package of measures such as infrastructure provision and better marketing of safe routes and facilities. The impact of the policies has varied significantly in different areas and based on the existing studies it is difficult to attribute any increase in participation rates to a single factor (for example, the provision of maps).

122. Yang et al¹⁴ undertook a review of various interventions aimed at encouraging cycling. The main conclusion from that work was that changing the built environment had the potential to influence cycling behaviour but too little data from controlled intervention studies are available to confirm the finding.

123. Pucher et al¹⁵ conducted a review of international evidence on the effectiveness of various interventions aimed at promoting cycling. They concluded that 'some individual interventions can increase cycling to varying degrees, but the increases are not normally large and 'substantial increases in bicycling require an integrated package of many different, complimentary interventions, including infrastructure provision and pro-bicycle programs, as well as supportive land use planning and restrictions on car use'.

124. The English Cycling Demonstration Towns project provided six towns with funding of £18 million over a three year period to invest in infrastructure, promotion and other 'smart' measures aimed at encouraging more people to cycle. Surveys undertaken in the towns towards the beginning and end of the funding period found that the proportion of people doing any cycling in a

13 See for example 'Interventions to promote cycling: systematic review' by Yang et al published in BMJ 2010;341:c5293; 'Promoting walking and cycling as an alternative to using cars: systematic review' by Ogilvie et al published in the BMJ 2004

14 *ibid*

15 Pucher, J., Dill, J. and Handy, S. Infrastructure, programs and policies to increase bicycling: An international review' published in Preventative Medicine 50 (2010).

typical week had risen from 24.3% to 27.7% while the proportion of adults classed as inactive had fallen from 26.2% to 23.6%.

125. A study into the effects of improving the connectivity of the cycle route network in one area of the Dutch city of Delft found that the proportion of household trips made by bicycle rose from 40% to 43% in the intervention area over a three year period compared to an increase of 38% to 39% in a 'control area' of the city.

126. In a Department for Transport project, Darlington, Peterborough and Worcester were designated Sustainable Travel Towns and implemented a series of measures aimed at reducing car travel. The measures included travel planning, public transport information, promotion of walking and cycling (including the provision of maps) and travel awareness campaigns. The review¹⁶ of the scheme reported an increase in the number of cycle trips taken across each of the three towns of between 26% and 30%. This compared to a decline in cycle trips in medium sized towns across GB during the same period. Similarly, the number of walking trips in the three towns increased by between 10% and 13% between 2004 and 2009. Again, the national trend amongst similar sized towns during the same period showed a decline in the average number of walking trips. The proportion of people across the three towns who reported that they walked or cycled 'almost daily' increased by 6%.

127. Hull City Council invested £125,000 on introducing cycle lanes along seven busy routes in the city. Monitoring of the routes before and after the schemes were implemented showed that the percentage change in the number of cyclists using the routes ranged from -5% to +138%. The number of accidents on the seven routes (which totalled almost 24km in length) decreased by between 38% and 48%¹⁷.

128. Ogilvie et al¹⁸ undertook a systematic review of policies aimed at promoting walking. They found that the most successful interventions increased average time spent walking each week by 30-60 minutes. However, most of the evidence considered was at the individual or household level with less evidence on community or area based interventions.

Evidence on the impact of active travel on health

129. Paragraphs 107-118 discussed the potential negative health consequences of increasing active travel - increased fatalities and increased exposure to air pollution. However, there are numerous studies which assess both the relative risks and benefits associated with increased walking and cycling. The majority of the evidence suggests that there is a net health benefit from encouraging walking and cycling.

16 The Effects of Smarter Choice Programmes in the Sustainable Travel Towns: Sloman, L., Cairns, S., Newson, C., Anable, J., Pridmore, A. and Goodwin, P. Report to the Department for Transport, February 2010

17 http://www.cyclingnorthwales.co.uk/pages/hull_encrages.htm

18 Ogilvie, D., Foster, C., Rothnie, H., Cavill, N., Hamilton, V., Fitzsimons, C. and Mutrie, N. Interventions to promote walking: systematic review. *BMJ* 2007;334:1204-7

130. de Hartog¹⁹ et al compared the health benefits from physical activity with the risks related to air pollution and traffic accidents for individuals who shifted from cars to bicycles in the Netherlands. The researchers found that the life years gained from increased physical activity were approximately nine times greater than the reduction due to pollution and accidents.

131. Woodcock²⁰ et al modelled the potential impact of increasing walking and cycling rates in London on health and found a benefit to risk ratio of 15:1 for Disability Adjusted Life Years (DALYs). Again, this model considered the risks associated with greater exposure to pollution and traffic accidents.

132. Rojas-Rueda²¹ et al considered the impact of a bike share scheme in Barcelona, Spain on 'all cause mortality' and concluded that the net effect of the scheme was a reduction in the annual number of deaths each year of 12.3.

133. In an early cost-benefit analysis, Jones and Eaton considered the costs associated with coronary heart disease in the US and estimated that encouraging 10% more people to walk regularly would generate savings of \$5.6 billion per annum (1992 prices).

134. Cavill²² et al undertook a systematic review of international evidence on cycling and walking infrastructure projects. The research identified 16 papers containing an economic valuation of a walking and/or cycling policy (these included the three studies mentioned in paragraphs (130-132)). Of the 16 studies considered, only one reported a negative net health impact associated with a policy intervention. The review found that the median benefit to cost ratio from the 16 studies was 5:1 within a range of -0.4 to 32.5. Seven of the studies presented their results in terms of the monetary value of each additional cyclist or walker. These values ranged from €127 to €1,290 (2007 values). The authors did caution that the different studies considered a range of different health outcomes and employed a number of different assumptions. The studies were not therefore directly comparable.

19 de Hartog, J., Boogaard, H., Nijland, H., and Hoek, G. Do the Health Benefits of Cycling Outweigh the Risks? *Environmental Health Perspective*. 2010 August; 118(8): 1109–1116.

20 Woodcock J, Edwards P, Tonne C, Armstrong BG, Ashiru O, Banister D, Beevers S, Chalabi Z, et al, 2009. Public health benefits of strategies to reduce greenhouse-gas emissions: urban land transport. *The Lancet* 2009;374(9705):1930-1943.

21 Rojas-Rueda D, de Nazelle A, Tainio M, Nieuwenhuijsen MJ, 2011. The health risks and benefits of cycling in urban environments compared with car use: health impact assessment study. *British Medical Journal BMJ* 2011; 343:d4521

22 Cavill, N., Kahlmeier, S., Rutter, H., Racioppa, F. and Oja, P. Review of transport economic analyses including health effects related to cycling and walking. *Transport Policy*, vol. 15(2008):291–304. doi:10.1016/j.tranpol.2008.11.001

135. Pucher et al²³ identify a number of studies that consider the impact of cycling on a number of adverse health outcomes and state that ‘the combined evidence presented in these studies indicates that the health benefits of bicycling far exceed the health risks from traffic injuries’.

136. In a recent paper published in *The Lancet*, Jarrett et al²⁴ attempted to estimate the potential impact on NHS costs of increased walking and cycling in urban England & Wales. The costs associated with seven diseases were considered – type 2 diabetes, dementia, heart disease, cerebrovascular disease, breast cancer, colorectal cancer and depression. The calculations are based on a doubling of average distances walked each day and an eight-fold increase in average distances cycled. However, the paper did **not** consider in detail the policy interventions that might be required to generate the assumed shift in behaviour. The assessment included the potential increase in NHS costs associated with additional road traffic accidents. In the central scenario, the researchers report potential NHS cost savings of approximately £17 billion (in 2010 prices) after 20 years.

137. The research included a number of sensitivity analyses on the modelling assumptions including halving the increase in average distances walked or cycled, halving the number of cases prevented, reducing the disease duration and extending the period it takes for benefits to be fully realised. Even in the most conservative scenario, increasing walking and cycling participation rates generated NHS cost savings of approximately £5 billion after 20 years.

138. Using the same modelling framework, Jarrett et al²⁵ have undertaken a similar study on behalf of Sustrans Cymru looking at the impact on NHS costs of increasing walking and cycling rates in urban Wales. Adopting the same scenarios as those summarised above, the researchers found potential NHS cost savings in Wales of £517 million over a 20 year period. In the most conservative sensitivity scenario, potential cost savings over a 20 year period were still over £125 million.

139. It should be noted that the studies referred to above only consider the direct costs and cost-savings associated with specific diseases and a specific intervention. There is evidence to suggest that interventions to reduce the occurrence of one health issue (in this case physical inactivity) will reduce the cost of treating that particular health issue but will increase future costs

²³ Pucher, J., Dill, J. and Handy, S. Infrastructure, programs and policies to increase bicycling: An international review' published in *Preventative Medicine* 50 (2010).

²⁴ Jarrett, J., Woodcock, J., Griffiths, U., Chalabi, Z., Edwards, P., Roberts, I. and Haines, A. Effect of increasing active travel in urban England and Wales on costs to the National Health Service. *The Lancet*, vol 379, pages 2198-2205.

²⁵ Jarrett, J., Woodcock, J., Griffiths, U., Chalabi, Z., Edwards, P., Roberts, I. and Haines, A. Effect of increasing active travel in urban Wales on costs to the National Health Service. *Sustrans Cymru* August 2012

associated with other health issues. For example, van Baal et al²⁶ considered the lifetime costs associated with obesity and concluded that whilst preventing obesity would reduce obesity related costs, these savings are offset (and potentially exceeded) by treating non-obesity related diseases during the life years gained. This suggests that the health benefits experienced by an individual from engaging in active travel will exceed the net NHS cost savings.

Evidence on the impact of active travel on the environment

140. In addition to reducing physical inactivity, encouraging more people to participate in active travel rather than making journeys by car has the potential to generate environmental benefits through reduced air and noise pollution.

141. Encouraging people to walk or cycle to work or school instead of driving will help to reduce CO₂ emissions in Wales. The latest data suggests that road transportation generated emissions of approximately 5.6 mega tonnes of CO₂e in 2010, contributing around 12% to Wales' total greenhouse gas emissions²⁷.

142. In a report commissioned by the English Passenger Transport Executives, AEA estimate that the average car emissions range from 135 – 360 gmCO₂ per km driven (depending upon the fuel and size of car etc.) with an average of approximately 204 gmCO₂ per km²⁸. Given that the average journey taken by bike or on foot in Great Britain in 2010 was 4.5 kilometres (2.8 miles) and 1.1 kilometres (0.7 miles) respectively, this suggests that the average emissions saving for each car journey that is replaced by cycling or walking is 918gm and 224 gm CO₂ respectively.

143. The European Cyclists Federation recently carried out a study of the relative carbon emissions of cycling compared to motorised transport. This study included consideration of the carbon costs of production, maintenance, the fuel consumption of a car making a similar journey to one that might be made by bike and even the carbon costs of the additional calories that cyclists would be expected to eat as a result of being more active. The study concluded that a passenger car emits about 271gm CO₂ per passenger-kilometre, compared to just 21gm CO₂ per passenger-kilometre for a cyclist.²⁹

144. The environmental benefits of walking and cycling go beyond greenhouse gas emission savings. Active travel in all its forms generates less air pollution, particularly in terms of nitrogen dioxide and sulphur dioxide which are found in fossil fuel exhausts. Both walking and cycling are quieter than

26 Van Baal, P., Polder, J., Ardine de Wit, G., Hoogenveen, R., Feenstra, T., Boshuizen, H., Engelfriet, P. and Brouwer, W. Lifetime Medical Costs of Obesity: Prevention No Cure for Increasing Health Expenditure PLOS Medicine, February 2008, Volume 5.

27 G Thistlethwaite, J Goodwin, E Salisbury, J MacCarthy, Y Pang, A Thomson and L Cardenas Greenhouse Gas Inventories for England, Scotland, Wales and Northern Ireland: 1990 – 2010, 2012

28 Carbon Footprinting of Policies, Programmes and Projects, AEA 2009

29 Cycle More Often 2 Cool Down the Planet: Quantifying CO₂ Savings of Cycling, Benoit Blondel, Chloe Mispelon, Julian Ferguson, European Cyclists Federation, November 2011

motorised transport and so create less noise pollution. Grous³⁰ estimates that a 20% increase in cycling levels by 2015 could save the UK £207m in reduced congestion and £71m in reduced pollution levels each year.

Evidence on physical activity and economic benefits

145. The Department for Health report 'Be Active, Be Healthy' suggests that sickness absence related to physical inactivity costs the UK economy around £5.5 billion each year.

146. Transport for London commissioned research to look at the evidence on physical activity and productivity, the study concluded that 'the most significant finding is that an increase in physical activity of over one hour per week (e.g. 90minutes), easily achieved through walking or cycling to work, would be expected to lead to a measurable reduction in levels of absenteeism'.

147. Two Dutch studies have found a link between active commuting (walking and cycling) and reduced absenteeism. Hendriksen et al³¹ undertook a survey of Dutch Civil Servants and found that, after adjusting for other factors, the average number of days of absence for regular cyclists was 7.4, compared to 8.7 for non-cyclists. Similarly, Koenders and van Deursen³² undertook a study of Dutch bank workers and concluded that active commuting was related to lower absenteeism compared with commuting by car or public transport.

'Break-even' Analysis

148. SQW³³, in a study commissioned by Cycling England, attempted to estimate the value of benefit of each additional cyclist, taking into account the potential health, environmental and economic benefits associated with cycling. The study assumes that 50% of additional cycling trips would otherwise have been made by car. It is also assumed that each additional cyclist makes frequent trips (on average three per week), that the exercise does not displace other physical activity and that there are no thresholds at which additional physical activity fails to generate health benefits. Finally, the report assumes that an increase in the number of cyclists will have no impact on the number of accidents that occur.

149. The SQW report considered four different scenarios: urban on-road, urban off-road, rural on-road and rural off-road and estimated that the value of benefits per additional cyclist is between £538 and £641 per annum. A breakdown of the benefits for each scenario is presented in Table 5.

30 The British Cycling Economy, the Gross Cycling Product Report, Dr Alexander Grous, LSE, August 2011

31 Hendriksen, I., Simons, M., Gree, F. and Hildebrandt, V. The association between commuter cycling and sickness absence, Preventative Medicine 51 (2010) 132-135

32 Koenders, p. and van Deursen, C. Travelling to and/or work and sickness absence in the banking sector, 2008

33 SQW Consulting, 'Planning for Cycling: 2008

Table 5 Annual values attributed to each additional cyclist (£)

	Urban		Rural		Average
	On Road	Off Road	On Road	Off Road	
Value of loss of life	409	409	409	409	409
NHS Savings	28	28	28	28	28
Productivity Gains	48	48	48	48	48
Pollution	35	35	6	6	21
Congestion	69	69	34	34	51
Ambience	13	54	13	54	33
Total Benefits	601	641	538	579	590

Source: SQW. Totals may not sum due to rounding

150. The majority of the benefit in each scenario can be attributed to the health benefits that accrue to the individual through reduced physical inactivity. The NHS costs savings are a relatively minor element of the overall benefit. The difference between the urban and rural scenarios reflects differing levels of congestion and pollution.

151. Using the data from Table 5, it is possible to estimate the minimum number of additional cyclists that would be required to ensure that the benefits are at least equal to the costs of an investment in the cycling infrastructure. Table 6 presents this information for a number of different levels of initial investment. For example, a £250,000 investment in cycling infrastructure would need to encourage between 45 and 54 additional regular cyclists each year for the 15-year period for the benefits to be at least equal to the cost.

Table 6. Number of additional cyclists required for an investment to 'break-even'

Investment (a) (£)	Urban		Rural		Average
	On Road	Off Road	On Road	Off Road	
10,000	2	2	3	2	2
50,000	10	9	11	10	10
100,000	20	18	22	20	20
250,000	48	45	54	50	49
500,000	96	90	107	99	97
1,000,000	191	179	213	198	194
2,000,000	381	357	425	395	388
5,000,000	951	891	1,061	987	969

(a) This represents the initial investment, in addition, there is assumed to be a maintenance charge after 10 years.

152. Table 1 presented an estimate of the cost of mapping the existing walking and cycling provision in all towns in Wales with a population of 2,000 people and above and the cost of a re-mapping exercise conducted every three years (i.e. Option 2d). The discounted cost of this mapping (and re-mapping) over a 15-year period is approximately £794,700. Using the methodology described above and assuming SQW's average value for the benefit per additional cyclist (£590), it is estimated that the mapping exercise would need to encourage 124 additional cyclists per year over the 15-year period to justify the additional cost³⁴. This is equivalent to a 0.01 percentage point increase in the proportion of people reporting that their main mode of travel to work is cycling (i.e. from 1.4% to 1.41%). Option 2d is the highest cost option, the number of additional cyclists needed to justify the cost of Options 2a, 2b and 2c would be lower.

153. As noted above, less economic research has been undertaken in relation to the benefits of walking and this prevents a similar analysis of the number of additional walkers required to justify the expenditure

Summary of the preferred option

154. The preferred option is Option 2d which places a requirement on local authorities to map active travel provision in all towns with a population above 2,000 people. This is the highest cost option however, the option also has the potential to influence a higher proportion of the population and thus generate greater health benefits.

155. The evidence suggests that only a relatively small increase in the number of regular cyclists would be required to justify the cost of mapping existing routes (see paragraph 152). Although there is less economic evidence in relation to walking, the evidence which is available suggests that there would also be an additional benefit from encouraging more people to complete journeys on foot.

Assumptions & sensitivity analysis

156. As noted in paragraph 64, the cost of surveying existing walking and cycling provision is based on an assumption that 24.5km of road can be surveyed per day. Decreasing this figure to 15km of road per day increases the number of days of survey work required in option 2a from 218 days to 343 days and increases the cost of the survey work from £76,300 to £120,000. Conversely, increasing the distance that can be surveyed in a single day to 35 km reduces the number of days of survey work required to 159 days and reduces the cost of the survey work to £55,600.

157. The estimates of the cost of the re-mapping exercise are based on the assumption that the survey and cartographics time required to re-map a town

³⁴ It doesn't necessarily have to be the same 124 cyclists for the full period, just 124 additional regular cyclists over and above what would otherwise have been the case.

is 10% of the original requirement. Table 7 illustrates the impact on the re-mapping costs of changing this assumption.

Table 7. Impact on re-mapping cost (£)

Time for re-mapping	Option 2a	Option 2b	Option 2c	Option 2d
10%	120,800	133,600	140,900	146,100
25%	141,300	161,600	173,800	183,300
50%	176,900	209,900	230,100	246,800

158. This RIA assumes that the cost for the surveying and cartographics work required in the mapping exercises is £350 per day. If local authorities were to procure these services on a collaborative basis then they may be able to negotiate a lower rate. Table 8 shows the impact on the initial survey costs of assuming a £250 daily rate.

Table 8. Impact on initial mapping cost of changing the daily surveying and cartographics charge.

Daily cost	Option 2a	Option 2b	Option 2c	Option 2d
£250	189,100	233,500	260,600	283,400
£350	226,900	285,000	321,300	352,300

159. There is an inverse relationship between the value of each additional cyclist and the number of additional cyclists that would be required to justify an investment. The relationship is broadly linear meaning that doubling the assumed value of benefit per additional cyclist halves the number of additional cyclists required for an investment to 'breakeven' (i.e. for the benefits to at least equal the costs). Similarly, halving the assumed value per additional cyclist doubles the number of additional cyclists required to justify an investment.

160. Changing the length of the appraisal period will also change the number of additional cyclists needed to ensure that the value benefits is at least equal to the cost of an investment. Paragraph 152 states that 124 additional cyclists would be required to justify the mapping costs associated with Option 2d if a 15-year appraisal period is used. Increasing the appraisal period but keeping all other factors constant reduces the number of additional cyclists that would be needed to justify an investment. It is worth noting that the typical appraisal period for transport projects (e.g. a new road) is 60-years.

Specific Impact Assessments

The following specific assessments have been carried out and have been published on the Welsh Government website and are available at:

<http://wales.gov.uk/topics/transport/integrated/walkingcycling/active-travel-bill-impact-assessments/?lang=en>

Health Impact Assessment
Equalities Impact Assessment
Rights of the Child Assessment
Welsh Language Assessment
Rural Proofing Assessment

9. Competition Assessment

161. A competition filter test has been completed for the legislation, this is presented below:

The competition filter test	
Question	Answer yes or no
Q1: In the market(s) affected by the new regulation, does any firm have more than 10% market share?	No
Q2: In the market(s) affected by the new regulation, does any firm have more than 20% market share?	No
Q3: In the market(s) affected by the new regulation, do the largest three firms together have at least 50% market share?	No
Q4: Would the costs of the regulation affect some businesses/organisation substantially more than others?	No
Q5: Is the regulation likely to affect the market structure, changing the number or size of firms?	No
Q6: Would the regulation lead to higher set-up costs for new or potential suppliers that existing suppliers do not have to meet?	No
Q7: Would the regulation lead to higher ongoing costs for new or potential suppliers that existing suppliers do not have to meet?	No
Q8: Is the sector characterised by rapid technological change?	No
Q9: Would the regulation restrict the ability of suppliers to choose the price, quality, range or location of their products?	No

162. The legislation is not expected to have any impact on competition or place any restrictions on new or existing suppliers. The majority of the costs associated with the legislation are expected to fall to local authorities as opposed to businesses.

Impact on small business

163. The legislation is not expected to have any negative impact on Small and Medium sized Enterprises (SMEs) in Wales. By promoting walking and cycling, the legislation has the potential to benefit firms linked to these activities, for example specific retailers and bike repair and maintenance outlets (the majority of which will be classified as SMEs).

10. Post implementation review

164. The Active Travel (Wales) Bill is intended to support modal shift for shorter journeys; less than 3 miles by foot and 10 miles by bicycle. For this reason we will be monitoring the rates of walking and cycling, and the rates of car use for shorter journeys in the settlements that are covered by the provisions in the Active Travel (Wales) Bill. If the rates of walking and cycling for shorter journeys increase year on year, and the rates of use of motorised travel decrease, then the Bill is contributing towards the outcomes it is intended to seek. We intend to monitor the change in rates of active travel through surveys such as the National Survey and the Labour Force Survey and existing data that is collected from surveys and trip counters. This will provide a clear picture of rates of change across Wales.
165. The Active Travel Action Plan will support the delivery of the Active Travel Bill. It will set out the broader work programme that the Welsh Government will be carrying out to support our objectives of increasing rates of active travel, including the behavioural change measures and other non-infrastructure measures as well as supporting infrastructure investment. The Action Plan will include details of arrangements for monitoring the outcomes and success of the programme. These measures and indicators will be used in assessing whether Active Travel (Wales) Bill has achieved its objectives.
166. The Bill requires that the Welsh Ministers conduct a review of the legislative provisions five years after the first sets of integrated network maps have been submitted. This will consider the impact of the maps and the changes to the infrastructure in Wales, taking an overarching look at the changes to the outcomes we are seeking to influence over the preceding years, as well as an assessment of the outputs (maps and infrastructure) and the lessons learnt during the delivery of the legislation.

Annex 1

Explanatory Notes

1. These Explanatory Notes relate to the Active Travel (Wales) Bill. The Welsh Government's Directorate General for Economy, Science and Transport has prepared them in order to assist the reader of the Bill and to help inform debate on it. They do not form part of the Bill and have not been endorsed by the National Assembly for Wales. They should be read in conjunction with the Bill.
2. The Explanatory Notes are not, and are not meant to be, a comprehensive description of the Bill. Where a section or part of a section is self-explanatory, no further explanation or comment is provided.
3. The powers to make the Bill are contained in Part 4 of, and Schedule 7 to, the Government of Wales Act 2006 (the Act). These proposals are considered to fall within the Assembly's legislative competence. Specifically they relate to the following subject listed under the Highways and Transport heading in Part 1 of Schedule 7 to the Act, namely "Highways, including bridges and tunnels. Streetworks. Traffic management and regulation. Transport facilities and services."
4. There are numerous exceptions to legislative competence specified in Part 1 of Schedule 7 to the Act. The proposals are not considered to fall within any of the exceptions specified in that Part of that Schedule.
5. A reference to a local authority in these Explanatory Notes is a reference to a county council or a county borough council.

COMMENTARY ON SECTIONS

2. Meaning of "active travel route" and "related facilities"

6. Section 2 sets out the meaning of an active travel route and of related facilities. An active travel route for the purposes of the Bill must be within a designated locality in a local authority area. Designated localities (such as towns and cities) will be specified by direction of the Welsh Ministers. It will be for local authorities to determine which routes within those localities are appropriate to be regarded as active travel routes.
7. An active travel route comprising a highway may be a vehicular highway or it may be another type of highway such as a footpath, cycle path or bridleway. It may also be a route not comprising a highway where the landowner allows the public to have access. However, private roads where the public are not allowed access are not capable of being active travel routes.

8. For the purpose of the Bill, “walkers and cyclists” means people who walk, people who use pedal cycles (including electronic bicycles/e-bikes but excluding motorised cycles) and people who use mobility aids (including motorised wheelchairs and mobility scooters).
9. The Welsh Ministers may specify a locality by name. They may also give a description of the localities with reference to criteria, including those listed in subsection 5. They might for example designate towns with a population greater than a specified amount, settlements within a certain radius of such towns, or areas with a population density greater than a specified number of people per km². This specification will be included in a direction of the Welsh Ministers.
10. Subsection 6 requires a local authority to consider whether potential travel routes are suitable for active travel. In doing so, a local authority should consider whether the route facilitates the making of active travel journeys and whether the location, nature and condition of the route makes it suitable for safe use. The Welsh Ministers intend to issue guidance under this subsection, to which local authorities must have regard.
11. Subsection 7 sets out what is meant by an active travel journey. For the purpose of the Bill, an active travel journey is a journey made to work or education or to access health, leisure or other services or facilities.
12. Subsection 8 sets out what is meant by related facilities in relation to active travel. These might for example include shelters and storage for cycles and toilets and washing facilities, as long as they are available for use by walkers and cyclists. The Welsh Ministers intend to issue guidance on related facilities under subsection 9.

Maps

3. Existing routes maps

13. Every local authority must prepare a map showing the existing active travel routes and related facilities in their area. Local authorities will be required to consult on these maps, which will then need to be approved by the Welsh Ministers. The Welsh Ministers intend to issue guidance under this subsection, which might include how the routes are depicted, the form of the maps and the process that must be undertaken to prepare and consult on the maps.
14. Local authorities must submit their existing routes maps to the Welsh Ministers for approval within one year of the commencement of section 3, or by a later date where this is specified by a direction of the Welsh Ministers. At the same time as submitting their existing routes maps, local authorities will be required to also submit a statement detailing any active travel routes that have been included on the maps that do not meet standards specified in guidance and explaining why these routes are

considered appropriate active travel routes. If the Welsh Ministers do not approve the maps, they may direct the local authorities to revise them and resubmit them by a date specified in the direction. If the maps are still not to the required standard, this process can be repeated. In approving the maps, the Welsh Ministers will be considering whether the local authority has mapped the routes and related facilities in accordance with their guidance, and whether they have consulted in line with such guidance.

15. The local authority must update and submit the maps to the Welsh Ministers for approval each time they submit their integrated network maps. This will mean that on the first occasion the maps will need to be re-submitted within two years, and from then onwards the maps will need to be re-submitted every three years. However, local authorities are free to update and revise the maps between submissions without the approval of the Welsh Ministers. The Welsh Ministers will issue guidance on the maps to support the local authorities in completing this task.

4. Integrated network maps

16. Local authorities will have to prepare a second map, which will depict an integrated network for active travel, showing both new and improved active travel routes and facilities. This will be a forward looking map which will show how the existing network could be advanced in future years. The period to which the map is to relate will be included in guidance to be given by the Welsh Ministers under section 4.
17. The same arrangements for Ministerial approval, revising of the maps and guidance will apply to the integrated network maps as they apply to the existing routes maps. However, there will be no requirement for the submission of a statement and explanation and the integrated network maps will be required to be resubmitted every three years.

5. Publication etc of maps

18. Section 5 sets out the publication requirements in respect of the maps. Local authorities will be required to publish the maps and make them available free or at cost price on request. They will also be required to circulate the maps amongst people who they consider appropriate and bring the maps to public attention via notices. The Welsh Ministers will issue guidance to local authorities to support them in determining what is appropriate for the circulation of their maps.

6. Developing transport policies with regard to integrated network map

19. Local authorities are required to produce local transport plans under the Transport Act 2000. These are currently prepared jointly by local authorities on a regional basis. These plans set out the local transport policies for the region, including policies for the implementation in the region of the Wales Transport Strategy prepared by the Welsh Ministers pursuant to section 2(1) of the Transport (Wales) Act 2006.

20. Section 6 requires that local authorities must have regard to their integrated network maps in developing policies forming the basis of local transport plans. They will not be required to deliver all of the schemes within the maps, recognising that these are reliant on statutory processes. However, the policies and plans in the local transport plans will need to be set out in such a way as to facilitate the delivery of the routes and facilities in the integrated network maps.

Other provisions

7. Securing continuous improvement in active travel routes

21. Local authorities will be required in every year to secure new active travel routes and related facilities together with improvements to the existing routes and facilities for active travel. This means that local authorities will be expected to make year on year improvements to their routes and facilities by expanding the amount that is available and by upgrading existing provision. The Welsh Ministers will issue guidance to support local authorities in carrying out this duty.

8. Provision for walkers and cyclists in highway construction and improvement

22. Section 8 requires local authorities and the Welsh Ministers (as highway authority) to take reasonable steps to enhance provision for walkers and cyclists when designing schemes for the construction or improvement of roads.

Supplementary

9. Review of operation of Act

23. Section 9 requires the Welsh Ministers to review the Act within five years of the deadline for the first submission of the integrated network maps. This review should assess the success of the Act in creating new and improving existing routes and facilities.

10. Directions and Guidance

24. The Welsh Ministers will issue guidance to support the delivery of the Bill. They will also be making a Direction to specify which settlements are to be covered by the Bill. They may also need to make directions regarding the existing routes maps or the integrated network maps, if the maps submitted to the Welsh Ministers are not of sufficient standard. The Welsh Ministers may make changes to the guidance and directions or revoke them.

12. Commencement

25. The provisions in the Bill surrounding the maps, the development of local transport plan policies, the continuous improvement duty, the provision for walkers and cyclists in highway construction and improvement and guidance about disabled walkers and cyclists will come into force following a commencement order. This is to reflect to amount of time it will require for each local authority to prepare their maps. The other provisions will come into force once the Bill has received Royal Assent.