

SEA Environmental Report: Appendix B

Description and Assessment of the Interventions

Table B1: High Level Interventions and Associated Schemes

High Level Intervention	Scheme Name	Local Authority	Description
Encouraging Walking and Cycling	Bow Street to Aberystwyth & C1010 links to Penrhyncoch (Phases 1 to 3) Cycle Route	Ceredigion	This scheme proposes to build a new segregated, shared use route to link Aberystwyth to Bow Street and Aberystwyth University's IBERS facility. The route is proposed in three phases: Phase 1 links from Bow Street to IBERS, Phase 2 - a route along the C1010 to link the IBERS facility with Penrhyncoch and Phase 3 proposes linking the 3 sites of Bow Street, Penrhyncoch and IBERS with Aberystwyth. The route would be an important north-south connection as well as link to employment.
Encouraging Walking and Cycling	Ystwyth Trail Extension - Cors Caron to Tregaron and Tynygraig Section	Ceredigion	The Ystwyth Trail is a 21 mile multi-user trail which is predominantly off road, providing safe traffic free cycling on these sections. The Ystwyth Trail also forms part of the National Cycle Network route number 82 known as Lôn Teifi between Aberystwyth and Fishguard. The proposed scheme has two phases. The Ystwyth Trail currently finishes near Cors Caron approximately 2km north of Tregaron which means that cyclists need to use the B4343 highway between this point and Tregaron. The Cors Caron section will complete the off road route between Cors Caron and Tregaron with provision of a new car parking area at the destination /starting point in Tregaron. The proposed extension on the Tynygraig section will provide an off road route which avoids the steep on-road section.
Encouraging Walking and Cycling	Rheidol Cycle Trail - Off road options at Capel Bangor	Ceredigion	The Rheidol Cycle Trail is a Ceredigion Tourism promoted cycle route between Aberystwyth and Devils Bridge. The route currently follows the C1028 road from Glanyrafon Industrial Estate to Capel Bangor where the route then joins the TRA44 for several hundred meters before turning off onto the minor road leading to Cwm Rheidol. This proposal will explore potential off road options to avoid the need for cyclists to join the busy TRA44.
Encouraging Walking and Cycling	A486 Footway/Cycleway	Ceredigion	The staged improvements of the A486 Ceredigion Link Road have resulted in the creation of a footway / cycleway for much of its length between Llandysul and the A487 at Synod Inn. However there are some long gaps. The objective of this project is to complete the creation of a continuous footway / cycleway along the A486 Ceredigion link Road. There are three phases comprising a total of 3.5km between Post Bach and Horeb.
Encouraging Walking and Cycling	Active Travel for "designated" localities	All Authorities	<p>The proposed scheme will aim to meet the requirements of the new Active Travel Act in each of the Local Authority areas by funding improvements to walking and cycling links.</p> <p>In Southern Gwynedd this will cover the four designated localities of Blaenau Ffestiniog, Tywyn, Dolgellau & Barmouth.</p> <p>In Powys it is proposed that Phase 1 implementation will cover 3 of the Powys designated Active Travel Act settlements areas. These are - Welshpool, Ystradgynlais, and Presteigne.</p>

High Level Intervention	Scheme Name	Local Authority	Description
			In Ceredigion, there will be a project for Cardigan and Lampeter. A scheme to identify areas for improvement in Cardigan and Lampeter will be developed which could include provision of new cycleway and improved signage. This will enhance active travel routes including the signing of National Cycle Network Route 82 known as Lôn Teifi which is a 98 mile route from Aberystwyth to Fishguard. This includes Tregaron, Lampeter, Newcastle Emlyn, Llandysul and Cardigan which are located within the Teifi Valley Local Growth Zone.
Encouraging Walking and Cycling	Lon Tryweryn Multi User Path	Gwynedd	The scheme would create a multi-user path between Bala via Fron Goch to the National White Water Rafting Centre, Tryweryn. The proposed route largely follows part of the former Great Western Railway branch line from Bala to Blaenau Ffestiniog and is 6.8km long.
Encouraging Walking and Cycling	Tywyn to Aberdyfi Multi User Path	Gwynedd	Construction of a cycle path alongside the A493, which is continues the route between the coastal communities of Tywyn and Aberdyfi. The route has both a tourism and community function, and could form part of the Wales Coastal Path.
Improving Accessibility to Employment and Services	Aberystwyth Area Active Travel Project - Improve cycle infrastructure between Penparcau and Rheidol Cycle Trail (Heol y Bont, West)	Ceredigion	A package of improvements to the walking and cycling infrastructure in Aberystwyth is proposed to provide improved access to jobs and services in the town, where there is considerable potential for active travel use. The eight schemes include: a new shared use link between the settlements of Penparcau & Southgate with Aberystwyth Town Centre; improved cycle infrastructure between Penparcau and Rheidol Cycle Trail; upgrade pedestrian controlled crossing on Boulevard St Brieuc; improved cycle provision from Starling Cloud along Boulevard St Brieuc into town; upgrade of Penygraig Lane between Llanbadarn and Waunfawr; enhanced pedestrian and cycling infrastructure between Plascrug Avenue and the Leisure Centre; options for a continuous footway/ cycle link from the University to Coleg Ceredigion; a shared use route adjacent to Hafan y Waun in Waunfawr; and a shared use route fronting Maesceinion Estate, Waunfawr.
Improving Accessibility to Employment and Services	Devils Bridge Footway Scheme Phase 3 Safe Routes in Communities Scheme	Ceredigion	A three Phase scheme to implement new footway in Devils Bridge was developed and Phases 1 and 2 were completed under the Safe Routes in Communities Scheme funding in years 2012/13 and 2013/14 respectively. Phase 3 requires a retaining structure and thus is more difficult, however it is this section that is most heavily used by pedestrians as it is near the centre of Devils Bridge and its tourist attractions and provides an important link to the Vale of Rheidol train station which transports large numbers of visitors to Devils Bridge.
Improving Accessibility to Employment and Services	Central Wales Sustainable Distribution Project	Ceredigion	Project to initially bring together potential partners from the public and private sectors to identify opportunities to develop one or more multi-modal freight transport facilities to enable the transfer of goods from road to rail and to enable more environmentally sustainable local goods distribution and to conduct a study into current distribution patterns. The Council is seeking to support rail freight as a means of reducing heavy goods vehicle movements.
Improving	Aberystwyth Park & Ride	Ceredigion	The scheme will develop and implement two proposed new Park & Ride schemes at Rhydyfelin, adjacent to

High Level Intervention	Scheme Name	Local Authority	Description
Accessibility to Employment and Services			the A487 Trunk Road, 2.5 miles south of Aberystwyth and at Bow Street – adjacent to the A487 Trunk Road, 3.5 miles north of Aberystwyth. Both sites are located in a strategic position to serve/ intercept local commuters into Aberystwyth thus reducing congestion on the trunk road and improving access to jobs and services. The Bow Street scheme will complement the proposal to construct a Railway Station at Bow Street.
Improving Accessibility to Employment and Services	Llanbedr Airfield Access (SEZ)	Gwynedd	To provide the delivery of the preferred option for the A496 transport solution scheme that will provide a new multi-user access road to connect the Llanbedr Airfield site to the A496. This will improve access to the Snowdonia Enterprise Zone and the connections to the others in the triangle of EZs (Anglesey and Deeside).
Improving Accessibility to Employment and Services	Active Travel for Growth Zones	Powys	The proposed schemes that meet the requirements of the new Active Travel Act in Local Growth Zones will cover 3 of the “designated localities” in Powys: Newtown, Llandrindod Wells and Brecon. There are many journeys with these Powys Local Growth Zones that are less than 5km. These journeys are being made to access employment or local services and are one of the main reasons for localised congestion at peak times. A programme of improvements to Active Travel infrastructure supported by other “soft measures” would assist localised congestion and promote modal shift.
Improving Accessibility to Employment and Services	Local Growth Zones - Congestion & Parking	Powys	The scheme aims to improve access to employment sites by looking to reduce congestion and improving existing parking facilities. The scheme will focus on the 3 Local Growth Zones in Powys; Brecon, Newtown and Llandrindod Wells. The scheme will be split into two distinct sections, the first will be a study of congestion in the towns, to identify trends, peak time issues and offer recommendations to reduce congestion. Recommendations could include changes to junctions, road space rationalising, minor improvements, signage review, etc. The second will be a review of the parking facilities on offer in the three towns and suggest improvements that can be made.
Improving Accessibility to Employment and Services	Newtown Active Travel Centre (pre & post bypass) Study and Detailed Design	Powys	<p>These measures are active travel improvements to complement the construction of the Newtown Bypass and thus further the Welsh Government’s agenda of promoting economic activity through connectivity and access to employment, training and educational opportunities in this area of the Severn Valley Local Growth Zone. Three sections of interventions are envisaged: i) Pre-bypass activity on the A483 / A489 corridor to be de-trunked; ii) Post-bypass activity on the A483 / A489 corridor to be de-trunked; and iii) Local network.</p> <p>The proposed interventions are designed to break-down active travel barriers to north – south movement in the town which result from the River Severn and the current A483 / A489 corridor; improve active travel access on the main east – west corridor; and thus maximise connectivity by active travel to the main employment areas (i.e. the industrial estates, the town centre, the eastern retail area), the railway and bus stations, the further education college and other educational establishments.</p>

High Level Intervention	Scheme Name	Local Authority	Description
Improving Accessibility to Employment and Services	Park & Ride Hubs	All Authorities	<p>The scheme is to provide park and ride hubs at strategic locations. There are large employment areas situated outside the County boundaries within reach of residents which offer more diverse employment opportunities than can be found locally. The Park & Ride Hub Scheme aims to open up these employment markets to residents by reducing costs of travel.</p> <p>There are opportunities to create a number of park and share facilities on main routes to allow people to park safely and share vehicles to their ultimate destinations and to develop passenger transport interchange at these hubs. Initially 5 key strategic sites to be identified, with the intention to increase the number up to 12 depending on the relative success of the initial sites.</p>
Improving Safety and Security	Energy Efficiency/Safety - Street Lighting Renewal	All Authorities	<p>Many street lighting columns across the region are more than 40 years old and are currently fitted with inefficient lanterns/lamps. In Ceredigion as an example, the Council has recently converted thousands of streetlights across Ceredigion to the latest energy efficient LED technology. The old columns, however, are unsuitable for LED conversion. Renewing them would allow the Councils to complete the LED conversion programme. Unless the columns are replaced soon, the Councils will be forced to remove them.</p>
Improving Safety and Security	Motorcycle Safety	All Authorities	<p>The Local Authorities Road Safety Officers work in Partnership with the Emergency services and the Police initiatives to improve motorcyclist safety which is a significant issue in the region. The scheme is to analyse collision reports and implement improvements to enhance safety such as motorcycle safety barriers, signage, road markings and minor physical works.</p>
Improving Safety and Security	Interactive Traffic Speed Signing	All Authorities	<p>The scheme provides for the replacement or installation of interactive speed signs to reduce speeding through the region's towns and villages.</p>
Improving Safety and Security	Junction Safety Enhancements	All Authorities	<p>The scheme involves improvements to locations, particularly at junctions, where there have been significant problems with road traffic collisions. The schemes will involve the following types of improvement: removal of acceleration de-acceleration lanes; signing and lining enhancement; realignment; surface re-grade and surface construction design and improved sight lines (low maintenance visibility lines).</p> <p>As an example the Innovation Campus development at IBERS, Plas Gogerddan with £40m investment requires highway junction improvements on the A4159 to facilitate jobs and growth on the campus. In addition, pedestrian road safety and access improvements will be required on the highway adjacent to the Campus. These works will complement further proposed active and sustainable travel interventions connecting the site with neighbouring communities and proposed improvements to public transport infrastructure and services.</p>

High Level Intervention	Scheme Name	Local Authority	Description
Improving strategic connections	Pont Rheidiol, Rhiwarthen, Capel Bangor	Ceredigion	Construction of a new bridge on the C1082 across the River Rheidol at Capel Bangor, to replace a deteriorated weak structure. Consideration will soon have to be given to closing it which would have an impact on a number of rural businesses and communities. The construction of a new bridge would maintain connectivity between rural communities and safeguard the Rheidol Valley Cycleway.
Improving strategic connections	A486 Post Bach to Synod Inn Highway Improvement Phase 2	Ceredigion	Phase 2 of the A486 Post Bach to Synod Inn Transport Improvement scheme will complete the final element of the Ceredigion Link Road Stage 1, which delivers highway enhancements to improve the regional highway network. The A486 is the vital artery between Ceredigion and the M4 corridor as well as an important tourist route to the Cardigan Bay coast.
Improving strategic connections	A44/A4120 Llanbadarn Fawr Technical Appraisal WeITAG	Ceredigion	The expansion of Aberystwyth University and recent retail and office developments in the town, together with population growth, have generated significant increases in the flow of traffic, leading to significant peak period congestion at Llanbadarn Fawr, where the A44 Trunk Road joins the A4120 – the main link to the A487 trunk road coastal corridor. A Planning Stage WeITAG study of Llanbadarn Fawr has recently been completed and it is proposed to follow on with a Technical Appraisal WeITAG study, to appraise options in detail.
Improving strategic connections	Bridge Strengthening (Pinch Points)	Gwynedd	Parts of the county are deeply rural, having dispersed settlements with few centres that offer a wide choice of employment opportunities. A significant number of bridges have been assessed as having substandard vehicle load capacity and are subject to monitoring regimes in order to minimise disruption to the local communities. 14 sites have been identified where current weight limits or substandard capacities are inhibiting economic growth. The proposed scheme is to re-deck, refurbish or strengthen these bridges in a phased programme according to priority. A significant issue in determining priority will be whether a structure carries an emergency route for use in the event of a Trunk or Principal Road closure.
Improving strategic connections	A496 Llandecwyn Roundabout	Gwynedd	To improve access to the Snowdonia EZ (Llanbedr area) via the A496 in Llandecwyn and from the A487(T) over Pont Briwet from Penrhyndeudraeth by implementing improvements to the roundabout junction at Llandecwyn. The scheme will address accident issues and improve traffic flow and capacity. The A496 is the strategic link between the Snowdonia Enterprise Zone and the trunk road network.
Improving strategic connections	A496 Maentwrog to Blaenau Ffestiniog	Gwynedd	To improve the standard and safety of transportation along a 7.7km (4.8 mile) section of the A496 County Road between the junction with the A487 near Maentwrog, north to the junction with the A470 in Commercial Square, Blaenau Ffestiniog. The A496 is the strategic link between the Snowdonia Enterprise Zone and the trunk road network.
Improving strategic connections	Pont Briwet Bridge Replacement Scheme	Gwynedd	The Pont Briwet project is almost complete following substantial funding from European Regional Development Fund, through the Welsh Government, as well as Network Rail, TraCC and Gwynedd Council. The scheme involves the construction of a replacement rail and road bridge across the Dwyryd River near Penrhyndeudraeth, a new cycle/footpath, widened access roads and improvements to Llandecwyn station.

High Level Intervention	Scheme Name	Local Authority	Description
			<p>The new improved bridge provides the important economic link to the rural communities of Ardudwy as well as safeguarding the future of the Cambrian Coast railway. There is a need for funding in order to enable the scheme to be completed, following issues that led to delays and the timing of the ERDF programme closure. Following completion of the scheme there is a need to consider the impacts on Penrhyndeudraeth from the changes in infrastructure and implement improvements if necessary.</p>
Improving strategic connections	Route Restrictions - Structures height	Powys	<p>There are 28 bridges in Powys where clear headroom is less than the standard required for vehicles complying with the Construction and Use Regulations (minimum 5.03 m); 5 of these structures are on Trunk Roads. 15 sites have been identified where height restricted county road bridges are currently inhibiting economic growth. The majority of these sites are live railway bridges and it is recognised that economic options for improved access at these sites will invariably be based on carriageway alterations. Several of the proposed sites are on Class II roads and one is on a Principal Road; restrictions on structures on the primary network have a significant impact across the whole geographic area. The proposed scheme is to carry out an initial feasibility study on all 15 sites to identify those sites where improving headroom to national standards is likely to provide significant economic benefit and to prepare a prioritised list of structures for further study. The second phase of the proposal is to carry out individual studies on the prioritised sites.</p>
Improving strategic connections	Route Restrictions - Weight Capacity	Powys	<p>There are structural weight limits on 46 bridges in Powys in addition a significant number of bridges have been assessed as having substandard vehicle load capacity and are subject to monitoring regimes in order to minimise disruption to the local communities. Temporary bridges have been used to maintain access until capital funds become available for re-decking; many of these have been in use for more than 25years and are coming to the end of their useful life. 8 sites have been identified where current weight limits, substandard capacity or aging temporary bridges are inhibiting economic growth. A prioritised list of structures will be used to rank the projects according to impact on economic impact of weight restriction or removal of temporary bridging. A significant issue in determining priority will be whether a structure carries an emergency route for use in the event of a Trunk or Principal Road closure.</p>
Improving strategic connections	Central Powys E-W Links: B4358 Beulah to A4081 Llanyre	Powys	<p>The B4358 is currently the preferred route for light vehicles travelling from Llandovery to Llandrindod Wells. The greater part of the route has a minimum 6.0m width carriageway and a flowing alignment with good forward visibility; however, some sections of the route are narrow and tortuous particularly the section through the village of Troedriwdalar. Currently the whole section of route between Beulah and Newbridge on Wye is subject to a 7.5t amenity weight restriction to prevent large vehicle using the route as an alternative to the Trunk Road through Builth Wells. The route which is used when there are incidents on the trunk road. There are significant areas of forestry in the south west of the county which are due to harvested in the near future. The improvement of the route would provide business and employment opportunities for a local sawmill company and the scheme would also be located near Newbridge on Wye will be in competition with other</p>

High Level Intervention	Scheme Name	Local Authority	Description
			sawmills outside the county to process the harvested timber; the availability of a direct route avoiding Builth Wells could be a major advantage in winning work which will have a significant impact on local employment.
Improving strategic connections	A44 Radnor Forest Bends	Powys	The A44 Forest bends are a tortuous section of road in which some sections have previously been identified as cluster sites and some relatively low cost localised works have taken place within the existing highway boundary under capital scheme funding. However there remains a residual risk of accidents occurring along this route and the whole section is in need of upgrading. The scope of the 'scheme' could be widened to include other east/west routes such as A488, A44, A489, A438 and A495 that have similar issues, and allow ranking / prioritisation. These routes are commuter and business links as well as significant tourist routes that attract in particular motorcycles. There is a need for route studies to assess accidents, flows, economic and environmental factors, that could develop into ranking specific road/safety improvements such as signing, lining, junction improvements, visibility improvements to junctions, reprofiling or retexturing of the surface.
Improving strategic connections	Teifi Valley Strategic Signing	Ceredigion	The Teifi Valley Local Growth Zone recommends (R21) giving greater attention to the importance of road transport to the economic development for the Teifi Valley and developing and maintaining the local road infrastructure and the Valley's connections to the main transport networks is a priority. The completion of the North - South Road link between Carmarthen and Ceredigion is sought, as well as highway improvements along the Teifi Valley. There is a need to improve signing from the strategic road network including the M4 and other key routes to the north and south, as identified in Recommendation (R9) in the TVLGZ. The County Council will work with cross border authorities and Welsh Government to improve signing and connectivity to the area.
Improving strategic connections	Strategic Routes Alleviation of Flood Risk Areas	All Authorities	A large proportion of the region is deeply rural, having dispersed settlements with few centres that offer a wide choice of employment opportunities. Despite low average income there are necessarily high levels of car ownership. Where flood events impact on connections to these areas this impacts on access to employment and services. The project will be to address areas where flooding leads to impacts on connections.
Integrated public transport networks	Strategic Bus Corridor Infrastructure Improvements	All Authorities	The Local Authorities are seeking to improve local bus service infrastructure along key strategic routes by providing a high quality, consistent waiting facilities in line with Statutory Quality Bus Partnership Standards. The provision will include as a minimum standard, raised kerbs, consistent bus stop information (co-ordinated through Traveline Cymru) and where possible a lit bus stop sign and bus shelter.
Integrated public transport networks	Actual Time 'Passenger Transport Information via Smart Mobile App	All Authorities	The project is to roll out a mobile app on bus routes that can deliver 'actual time' passenger information by communicating via a device on the service bus with smart phones. It has the potential to provide better than 'real time' passenger information, as it 'learns' the route and the time it takes to travel between stops and can then relay this information to waiting passengers. The data source will be Traveline Cymru. The app has been trialled successfully on one route in mid Wales. It also has the potential (with further development) to become an integrated public transport information & prepaid ticket 'portal' all in one place.

High Level Intervention	Scheme Name	Local Authority	Description
Integrated public transport networks	Access Improvements to the Rail Network	Ceredigion	The scheme package will seek to provide a local authority capital funding contribution towards improving access to existing rail services and infrastructure. This will include working with the rail Industry, Welsh Government, rail user groups and local communities to identify potential schemes and to progress development and funding of these schemes.
Integrated public transport networks	Bwcabus Capital Investment Programme	Ceredigion	The scheme package will seek to support the continued operation and possible extension of the highly successful Bwcabus scheme within Ceredigion. Whilst Bwcabus is primarily a revenue scheme, there is a requirement for capital funding of associated infrastructure and for dedicated new or replacement vehicles.
Integrated public transport networks	Capital Enhancements for Public, Fleet and Community Transport	All Authorities	The scheme package will seek to provide a capital funding stream for public transport, County Council and partner fleet and community transport/ voluntary sector to purchase new or replacement vehicles and to support central journey management and scheduling systems to improve efficiency of operations and to increase capacity.
Integrated public transport networks	Ceredigion Passenger Transport Infrastructure	Ceredigion	Package of key passenger transport corridor infrastructure improvements to be implemented across Ceredigion. To include purchase and installation of new bus shelters, poles and flags, timetable cases/ information displays, raised kerbs (where required), cycle parking provision, improved and safer pedestrian access, lighting (where required) and the extension of Real Time Information to Aberystwyth (Passenger Transport 'Gateway') with associated improvements to the presentation and availability of travel information.
Integrated public transport networks	Bow Street Railway Station	Ceredigion	This scheme will complement the proposal to construct a Park & Ride car park at Bow Street and is a second phase to an overall integrated public transport scheme in Bow Street. Initially there is a need to update the business case provided as part of the WeITAG Transport Appraisal, funded by the Welsh Government and published by TraCC in 2011. The Business case will focus on Bow Street only and will need to take account of more recent developments that will strengthen the Business: Cost Ratio (BCR) for constructing a new station – in particular, the development plans for Aberystwyth University's IBERS site at nearby Gogerddan.
Integrated public transport networks	Public Transport Information	All Authorities	This scheme will seek to deliver the following in the region: <ul style="list-style-type: none"> • Real Time Bus Information – fixed information displays at key interchange locations – such as at Aberystwyth Passenger Transport 'Gateway' • Wi-Fi at strategic public transport interchanges and hubs where there is little or no mobile telephone coverage to enable public transport users to access existing/ new web and app--based travel information • Associated improvements to the general presentation, accessibility and availability of travel information.
Integrated public transport networks	Real Time Bus Information - Smart Mobile App	Powys	The project is to roll out a mobile app on bus routes linking first to the Local Growth Zones that can deliver 'actual time' passenger information by communicating via a device on the service bus with smart phones. It has the potential to provide better than 'real time' passenger information, as it 'learns' the route and the time it takes to travel between stops and can then relay this information to waiting passengers. The data source will

High Level Intervention	Scheme Name	Local Authority	Description
			be Traveline Cymru. The app has been trialled successfully on one route in mid Wales. It also has the potential (with further development) to become an integrated public transport information & prepaid ticket 'portal' all in one place.
Integrated public transport networks	Rail Hub Improvements	All Authorities	The scheme comprises improvements to access to rail stations. In Powys this includes Scheme A - Machynlleth Railway Station Interchange: rail/bus interchange and enhanced car park and Scheme B) Welshpool Railway Station Additional Car Parking.

Table B2: Improving Strategic Connections Assessment

High Level Intervention							
Improving Strategic Connections							
SEA Objective	Scheme	Local Authority	Assessment of effect				Commentary
			Impact	Timescale	Reversibility	Certainty	
SEA Objective 1: To minimise transport related air pollution	Pont Rheidiol, Rhiwarthen, Capel Bangor	Ceredigion	+	M	R	M	<p>The proposed interventions will result in mixed impacts when considered against SEA objective 1 with some positive impacts being brought about through reduction in vehicle miles travelled. However, some adverse impacts may also occur locally where increased numbers of HGVs occur on the network.</p> <ul style="list-style-type: none"> The Pont Rheidiol Bridge replacement will ensure network connectivity and reduce the potential for lengthy diversions. It also continues to promote the Rheidiol Valley Cycleway thereby promoting sustainable travel options, and reducing vehicle journey lengths. It is currently unclear whether the A486 scheme will improve traffic flows / relieve congestion so it is considered that the effects are currently uncertain. The A44/A4120 scheme will aid in relieving congestion associated with increased traffic flows which is considered to result in beneficial to impacts to air pollution through reduced congestion and vehicle idling. The A496 schemes will result in a positive impact where congestion is relieved at the Llandecwyn roundabout, however it is considered that the measures to increase safety between Maentwrog and Blaneau Ffestiniog will have a negligible impact upon air pollution. The provision of an active travel link along the Pont Briwet Bridge will aid in facilitating a modal shift. The improvements to the Central Powys E-W Links may result the potential for increased numbers of HGVs utilising these stretches of road which will have adverse impacts to air pollution locally. <p>Mitigation Measures</p> <ul style="list-style-type: none"> <i>Route options / appraisals studies should be undertaken for all new routes to ensure that impacts to air pollution are identified and appropriately mitigated</i>
	A486 Post Bach to Synod Inn Highway Improvement Phase 2	Ceredigion	?	L	R	L	
	A44/A4120 Llanbadarn Fawr Technical Appraisal WeITAG	Ceredigion	+	M	R	M	
	Bridge Strengthening (Pinch Points)	Gwynedd	0	S	R	H	
	A496 Llandecwyn Roundabout	Gwynedd	+	L	R	M	
	A496 Maentwrog to Blaenau Ffestiniog	Gwynedd	0	L	R	H	
	Pont Briwet Bridge Replacement Scheme	Gwynedd	+	L	R	M	
	Route Restrictions - Structures height	Powys	0	L	R	H	
	Route Restrictions - Weight Capacity	Powys	0	L	R	H	
	Central Powys E-W Links: B4358 Beulah to A4081 Llanyre	Powys	-	L	R	M	
	A44 Radnor Forest Bends	Powys	0	L	R	H	
	Teifi Valley Strategic Signing	Ceredigion	0	L	R	H	
Strategic Routes Alleviation of Flood Risk Areas	All Authorities	0	L	R	H		
SEA Objective 2: To reduce transport related greenhouse gas emissions and	Pont Rheidiol, Rhiwarthen, Capel Bangor	Ceredigion	+	M	R	M	<p>The potential impacts are considered mixed with some of the interventions potentially affecting areas of flood risk if not appropriately mitigated. It is however considered that improvements to greenhouse gases will also be seen through a reduction in journey times. Key impacts have been identified as:</p> <ul style="list-style-type: none"> The Pont Rheidiol Bridge replacement will ensure network connectivity and
	A486 Post Bach to Synod Inn Highway Improvement Phase 2	Ceredigion	?	L	R	L	

High Level Intervention	Improving Strategic Connections						
SEA Objective	Scheme	Local Authority	Assessment of effect				Commentary
			Impact	Timescale	Reversibility	Certainty	
ensure that adequate adaptation measures to climate change are in place.	A44/A4120 Llanbadarn Fawr Technical Appraisal WeITAG	Ceredigion	+	M	R	M	<p>reduce the potential for lengthy diversions. It also continues to promote the Rheidol Valley Cycleway thereby promoting sustainable travel options. Construction of the bridge will increase resilience to climate change events.</p> <ul style="list-style-type: none"> It is currently unclear whether the A486 scheme will improve traffic flows / relieve congestion, and the routing of the proposed alignment in respect of areas of flood risk is currently unknown. The A44/A4120 scheme will aid in relieving congestion associated with increased traffic flows which is considered to result in beneficial to impacts to greenhouse gas emissions. Impacts to climate change risks such as flooding are currently unknown. The Llandecwyn Roundabout is located in an area of known flood risk and as such an improvements have the potential to exacerbate flooding if appropriate mitigation is not implemented. The improvements will however alleviate congestion and will lead to lower greenhouse gas emissions. The provision of an active travel link along the Pont Briwet Bridge will aid in facilitating a modal shift. It is considered that the bridge crossing will have been designed to ensure that flood risk is not exacerbated as a result of the scheme. The improvements to the Central Powys E-W Links may result the potential for increased numbers of HGVs utilising these stretches of road which will have adverse impacts to greenhouse gas emissions on this stretch of the road network. Alleviation of flood risk areas on key routes along the network will result in positive impacts against climate change and SEA Objective 2. <p><i>Mitigation</i></p> <ul style="list-style-type: none"> The Pont Rheidol Bridge will require to be designed to ensure flood risk from climate change events in assessed and appropriately mitigated at site and downstream. Appropriate mitigation such as Sustainable Urban Drainage Systems (SuDS) will require to be implemented within scheme designs to ensure that the construction and operation of the schemes does not adversely affect flooding either upstream or downstream of the proposals;
	Bridge Strengthening (Pinch Points)	Gwynedd	0	S	R	H	
	A496 Llandecwyn Roundabout	Gwynedd	+/-	L	R	M	
	A496 Maentwrog to Blaenau Ffestiniog	Gwynedd	0	L	R	H	
	Pont Briwet Bridge Replacement Scheme	Gwynedd	+	L	R	M	
	Route Restrictions - Structures height	Powys	0	L	R	H	
	Route Restrictions - Weight Capacity	Powys	0	L	R	H	
	Central Powys E-W Links: B4358 Beulah to A4081 Llanyre	Powys	-	L	R	M	
	A44 Radnor Forest Bends	Powys	0	L	R	H	
	Teifi Valley Strategic Signing	Ceredigion	0	L	R	H	
Strategic Routes Alleviation of Flood Risk Areas	All Authorities	++	L	R	H		

High Level Intervention	Improving Strategic Connections						
SEA Objective	Scheme	Local Authority	Assessment of effect				Commentary
			Impact	Timescale	Reversibility	Certainty	
							<ul style="list-style-type: none"> Priority should be given to those interventions which seek to reduce greenhouse gas emissions; Consider the implications of climate change on the design, construction and maintenance of interventions, taking into account increased rainfall and warmer summer temperatures; and Use porous surfaces on areas of hard surfaces to reduce the risk of flooding and encourage infiltration.
SEA Objective 3: To minimise transport related noise and vibration.	Pont Rheidol, Rhiwarthen, Capel Bangor	Ceredigion	+	M	R	M	<p>The proposed interventions generally result in positive impacts when compared against SEA Objective 3, however, increased HGV movements may occur on certain areas of the road network leading to localised adverse impacts.</p> <ul style="list-style-type: none"> The Pont Rheidol bridge replacement will reduce the potential for journey diversions and increased vehicle distances. It also promotes the use of sustainable travel via the Rheidol Valley Cycleway. It is currently unclear whether the A486 scheme will improve traffic flows / relieve congestion so it is considered that the effects are currently uncertain. The A44/A4120 scheme will aid in relieving congestion associated with increased traffic flows which is considered to result in beneficial to impacts to noise and vibration through reduced congestion and vehicle idling. The A496 schemes will result in a positive impact where congestion is relieved at the Llandecwyn roundabout, however it is considered that the measures to increase safety between Maentwrog and Blaneau Ffestiniog will have a negligible impact upon noise and vibration. The provision of an active travel link along the Pont Briwet Bridge will aid in facilitating a modal shift. The improvements to the Central Powys E-W Links may result the potential for increased numbers of HGVs utilising these stretches of road which will have adverse impacts to noise and vibration locally. <p><i>Mitigation</i></p> <ul style="list-style-type: none"> Route options / appraisals studies should be undertaken for all new routes to
	A486 Post Bach to Synod Inn Highway Improvement Phase 2	Ceredigion	?	L	R	L	
	A44/A4120 Llanbadarn Fawr Technical Appraisal WeITAG	Ceredigion	+	M	R	M	
	Bridge Strengthening (Pinch Points)	Gwynedd	0	S	R	H	
	A496 Llandecwyn Roundabout	Gwynedd	+	L	R	M	
	A496 Maentwrog to Blaenau Ffestiniog	Gwynedd	0	L	R	H	
	Pont Briwet Bridge Replacement Scheme	Gwynedd	+	L	R	M	
	Route Restrictions - Structures height	Powys	0	L	R	H	
	Route Restrictions - Weight Capacity	Powys	0	L	R	H	
	Central Powys E-W Links: B4358 Beulah to A4081 Llanyre	Powys	-	L	R	M	
A44 Radnor Forest Bends	Powys	0	L	R	H		
Teifi Valley Strategic Signing	Ceredigion	0	L	R	H		

High Level Intervention	Improving Strategic Connections						
SEA Objective	Scheme	Local Authority	Assessment of effect				Commentary
			Impact	Timescale	Reversibility	Certainty	
	Strategic Routes Alleviation of Flood Risk Areas	All Authorities	0	L	R	H	<p>ensure that impacts to noise and vibration are identified and appropriately mitigated.</p> <ul style="list-style-type: none"> The design of new road links should consider the implementation of a cycle / walking route along their length to encourage the use of sustainable travel options.
SEA Objective 4: To ensure that biodiversity is valued, protected and enhanced	Pont Rheidiol, Rhiwarthen, Capel Bangor	Ceredigion	--	M	R	H	<p>There is the potential for the proposed interventions to result in adverse impacts when considered against the SEA objective through impacts to habitats / species, and potential through impacts to designated sites within Mid Wales. Key impacts are seen as:</p> <ul style="list-style-type: none"> The Pont Rheidiol Bridge is located adjacent to the Afon Rheidiol ger Capel Bangor SSSI which is of special interest for both its fluvial geomorphological and biological features with the ecological setting and types of heathland communities which have developed on the shingle being highly distinctive and very unusual. The construction of the bridge has the potential to result in adverse impacts upon this nationally important feature if not appropriately mitigated. Bridge Strengthening (Pinch Points) - The majority of the 14 bridges are situated either within or adjacent to European designated sites. Impacts to European designated sites would be assessed at the project level when full details of the schemes are available. The creation of the A486 link and the A44/A4120 interventions will potentially impact upon habitats and potentially protected species in the area, routes alignments are currently unknown and as such the potential for impacts to designated sites cannot be ascertained. Improvements to the Llandecwyn roundabout are not considered likely to affect biodiversity interests. It is currently unknown what improvements will be implemented between Maentwrog and Blaenau Ffestiniog and as such impacts are unknown. Some widening of the route on the Central Powys E-W Links may occur which has the potential to affect adjacent habitats. There are a number of designated features along this route including the River Wye SAC and as such there is the potential for significant adverse impacts to occur if these sites are
	A486 Post Bach to Synod Inn Highway Improvement Phase 2	Ceredigion	-	M	R	H	
	A44/A4120 Llanbadarn Fawr Technical Appraisal WeITAG	Ceredigion	-	M	R	H	
	Bridge Strengthening (Pinch Points)	Gwynedd	--	L	R	H	
	A496 Llandecwyn Roundabout	Gwynedd	0	S	R	H	
	A496 Maentwrog to Blaenau Ffestiniog	Gwynedd	?	L	R	L	
	Pont Briwet Bridge Replacement Scheme	Gwynedd	-	L	R	H	
	Route Restrictions - Structures height	Powys	0	L	R	H	
	Route Restrictions - Weight Capacity	Powys	0	L	R	H	
	Central Powys E-W Links: B4358 Beulah to A4081 Llanyre	Powys	--	L	I	H	
	A44 Radnor Forest Bends	Powys	?	L	R	L	
Teifi Valley Strategic Signing	Ceredigion	0	L	R	H		
Strategic Routes Alleviation of Flood Risk Areas	All Authorities	0	L	R	H		

High Level Intervention	Improving Strategic Connections						Commentary
SEA Objective	Scheme	Local Authority	Assessment of effect				
			Impact	Timescale	Reversibility	Certainty	
							<p>affected by the proposed intervention.</p> <ul style="list-style-type: none"> The location and nature of the interventions on the A44 Radnor Forest Bends are not currently known and as such impacts to biodiversity cannot be assessed at this stage. <p><i>Mitigation</i></p> <ul style="list-style-type: none"> Appropriate surveys and assessments of the nature conservation interests around the Pont Rheidiol Bridge will be required to ensure appropriate mitigation is designed in to prevent deterioration of the SSSI. Ecological surveys should be undertaken along the length of proposed interventions to identify features of biodiversity interest which require protection. Provision of species-specific mitigation measures, such as mammal fencing and crossings to be implemented where required in order to ensure continued connectivity for commuting and foraging protected species; Consideration should be given to identifying areas for ecological enhancements across new interventions.
SEA Objective 5: To provide inclusive access to all services and facilities and reduce severance.	Pont Rheidiol, Rhiwarthen, Capel Bangor	Ceredigion	+	M	R	M	<p>The interventions will support SEA Objective 5 with the proposals specifically identified to improve access to services across Mid Wales. Key impacts have been identified for specific interventions (as set out below) and the cumulative impact is seen as being a positive impact.</p> <ul style="list-style-type: none"> The Pont Rheidiol Bridge replacement will maintain access for the local community as well as reducing severance issues. The creation of the A486 scheme will provide improvements to the existing road network on a key link to Cardiff and it is considered therefore that there will be a positive impact in terms of access to services / facilities. Improved traffic flows and relieved congestion on the road network within Aberystwyth will increase access to services and facilities within the town including Aberystwyth University. Improving traffic flows on the A496 will improve access to services and facilities including those in the Snowdonia Enterprise Zone. The Pont Briwet Bridge replacement will improve access for all modes of
	A486 Post Bach to Synod Inn Highway Improvement Phase 2	Ceredigion	+	M	R	M	
	A44/A4120 Llanbadarn Fawr Technical Appraisal WeITAG	Ceredigion	+	M	R	M	
	Bridge Strengthening (Pinch Points)	Gwynedd	0	S	R	H	
	A496 Llandecwyn Roundabout	Gwynedd	+	L	R	M	
	A496 Maentwrog to Blaenau Ffestiniog	Gwynedd	0	L	R	H	
	Pont Briwet Bridge Replacement Scheme	Gwynedd	+	L	R	M	
	Route Restrictions - Structures height	Powys	0	L	R	H	

High Level Intervention	Improving Strategic Connections						Commentary
SEA Objective	Scheme	Local Authority	Assessment of effect				
			Impact	Timescale	Reversibility	Certainty	
	Route Restrictions - Weight Capacity	Powys	0	L	R	H	<p>transport (road, rail and active travel) and improves issues related to severance brought about by the capacity of the old bridge.</p> <p><i>Mitigation</i></p> <ul style="list-style-type: none"> None required
	Central Powys E-W Links: B4358 Beulah to A4081 Llanyre	Powys	+	L	R	M	
	A44 Radnor Forest Bends	Powys	+	L	R	M	
	Teifi Valley Strategic Signing	Ceredigion	0	L	R	H	
	Strategic Routes Alleviation of Flood Risk Areas	All Authorities	+	L	R	H	
SEA Objective 6: To protect and promote everyone's physical and mental wellbeing.	Pont Rheidiol, Rhiwarthen, Capel Bangor	Ceredigion	+	M	R	L	<p>The proposed interventions will lead to cumulative benefits across the transport network in Mid Wales, although some adverse impacts may occur as a result of increased HGV movements on part of the network.</p> <ul style="list-style-type: none"> The Pont Rheidiol Bridge replacement promotes the use of sustainable travel via the Rheidiol Valley Cycleway which will benefit the physical well-being of the local population. Improving congestion on the A44/A4120 scheme will aid in reducing driver stress on the network. Improved congestion and safety associated with the A496 schemes will result in improvements to safety on the network and reduced driver stress resulting in overall benefits to people's physical and mental well-being The provision of an active travel link on the Point Briwet Bridge will aid in increasing levels of physical fitness. Widening along the B4358 will benefit mental well-being through improving safety on this route which is noted for being narrow in sections. However, the improvements will potentially lead to an increase in HGV movements along the route leading to adverse safety impacts. <p><i>Mitigation measures</i></p> <ul style="list-style-type: none"> Where new road links are proposed consideration should be given to the
	A486 Post Bach to Synod Inn Highway Improvement Phase 2	Ceredigion	0	M	R	L	
	A44/A4120 Llanbadarn Fawr Technical Appraisal WeITAG	Ceredigion	+	M	R	L	
	Bridge Strengthening (Pinch Points)	Gwynedd	0	S	R	H	
	A496 Llandecwyn Roundabout	Gwynedd	+	L	R	M	
	A496 Maentwrog to Blaenau Ffestiniog	Gwynedd	+	L	R	M	
	Pont Briwet Bridge Replacement Scheme	Gwynedd	+	L	R	M	
	Route Restrictions - Structures height	Powys	0	L	R	H	
	Route Restrictions - Weight Capacity	Powys	0	L	R	H	
	Central Powys E-W Links: B4358 Beulah to A4081 Llanyre	Powys	+/-	L	R	M	
A44 Radnor Forest Bends	Powys	+	L	R	H		

High Level Intervention	Improving Strategic Connections						Commentary
SEA Objective	Scheme	Local Authority	Assessment of effect				
			Impact	Timescale	Reversibility	Certainty	
	Teifi Valley Strategic Signing	Ceredigion	0	L	R	H	<i>provision of active travel links along their alignment during the scheme design</i>
	Strategic Routes Alleviation of Flood Risk Areas	All Authorities	+	L	R	H	
SEA Objective 7: To reduce transport related contamination and safeguard soil quality and quantity.	Pont Rheidiol, Rhiwarthen, Capel Bangor	Ceredigion	0	M	R	L	<p>The proposed interventions will adversely affect the soils of Mid Wales primarily through the construction of new offline links / wider carriageways result in a direct loss of resource.</p> <ul style="list-style-type: none"> New offline links such as the A486 will result in a loss of the soil resource and potential adverse impacts to agricultural land loss. They also have the potential to increase the potential for the contamination of the surrounding land through a release of transport related contaminants. The construction of the A44/A4120 scheme has the potential to impact upon contaminated land adjacent to the existing road network, it is unlikely that an agricultural land will be impacted. Improvements at the Llandecwyn Roundabout have the potential to impact upon contaminated land associated with the existing road network. The improvements between Maentwrog and Blaneau Ffestiniog are unknown and as such their impact cannot be determined at this stage. Widening of the B4358 may impact upon areas of contamination alongside the existing road, increased numbers of HGVs using the route may also result in increased contamination from fuel deposition during the operation of the intervention. <p><i>Mitigation</i></p> <ul style="list-style-type: none"> <i>Appropriate geo-environmental assessments will be required at a project level to ensure proposed interventions do not adversely affect areas of contaminated land.</i> <i>In order to ensure the appropriate control and management of non-native invasive weed species, site-specific eradication and control strategies will be required to be developed where invasive weeds are identified. Plans would be required which set out the management of excavated soil contaminated with invasive weed species (such as Japanese Knotweed, Himalayan Balsam and</i>
	A486 Post Bach to Synod Inn Highway Improvement Phase 2	Ceredigion	-	M	R	H	
	A44/A4120 Llanbadarn Fawr Technical Appraisal WeITAG	Ceredigion	-	M	R	H	
	Bridge Strengthening (Pinch Points)	Gwynedd	0	S	R	H	
	A496 Llandecwyn Roundabout	Gwynedd	-	M	R	H	
	A496 Maentwrog to Blaenau Ffestiniog	Gwynedd	?	L	R	L	
	Pont Briwet Bridge Replacement Scheme	Gwynedd	0	M	R	H	
	Route Restrictions - Structures height	Powys	0	L	R	H	
	Route Restrictions - Weight Capacity	Powys	0	L	R	H	
	Central Powys E-W Links: B4358 Beulah to A4081 Llanyre	Powys	-	M	R	H	
	A44 Radnor Forest Bends	Powys	0	L	R	H	
	Teifi Valley Strategic Signing	Ceredigion	0	L	R	H	
Strategic Routes Alleviation of Flood Risk Areas	All Authorities	0	L	R	H		

High Level Intervention	Improving Strategic Connections						Commentary
SEA Objective	Scheme	Local Authority	Assessment of effect				
			Impact	Timescale	Reversibility	Certainty	
							<i>Giant Hogweed) and vehicle movements to control the potential transfer of contaminated soil, plant material and/or seeds off-site.</i>
SEA Objective 8: To minimise transport related impacts on water resources, flood plains and areas of flood risk.	Pont Rheidiol, Rhiwarthen, Capel Bangor	Ceredigion	-	M	R	H	<p>Adverse impacts will occur where the proposed interventions are constructed within areas of known flood risk or adjacent to water resources. However, the implementation of effective mitigation measures is likely to mitigate these impacts. It is considered that the intervention to alleviate flood risk on strategic routes in Mid Wales will result in a significant benefit to this objective. Key issues have been identified as:</p> <ul style="list-style-type: none"> The Pont Rheidiol Bridge is located adjacent to the Afon Rheidiol ger Capel Bangor SSSI which is of special interest for both its fluvial geomorphological and biological features. Without appropriate mitigation there is the potential for the intervention to adversely affect flood risk and the geomorphological features of the SSSI. The alignment of the A486 and A44/A4120 interventions are currently unknown so its impact to flood risk cannot be assessed at this stage. The increase in hardstanding area resulting from the provision of the new link has the potential to increase run-off rates along the length of the scheme. The Llandecwyn Roundabout is located in an area of known flood risk and as such an improvements have the potential to exacerbate flooding if appropriate mitigation is not implemented. <p><i>Mitigation</i></p> <ul style="list-style-type: none"> <i>The Pont Rheidiol Bridge will require to be designed to ensure flood risk from climate change events in assessed and appropriately mitigated at site and downstream. Mitigation will also require to take in to account the protection of the SSSI.</i> <i>Appropriate mitigation such as Sustainable Urban Drainage Systems (SuDS) will require to be implemented within scheme designs to ensure that the construction and operation of the schemes does not adversely affect flooding either upstream or downstream of the proposals;</i> <i>Consider the implications of climate change on the design, construction and maintenance of interventions, taking into account increased rainfall and warmer summer temperatures; and</i>
	A486 Post Bach to Synod Inn Highway Improvement Phase 2	Ceredigion	-	M	R	H	
	A44/A4120 Llanbadarn Fawr Technical Appraisal WelTAG	Ceredigion	-	M	R	H	
	Bridge Strengthening (Pinch Points)	Gwynedd	0	S	R	H	
	A496 Llandecwyn Roundabout	Gwynedd	-	M	R	H	
	A496 Maentwrog to Blaenau Ffestiniog	Gwynedd	?	L	R	L	
	Pont Briwet Bridge Replacement Scheme	Gwynedd	-	M	R	H	
	Route Restrictions - Structures height	Powys	0	L	R	H	
	Route Restrictions - Weight Capacity	Powys	0	L	R	H	
	Central Powys E-W Links: B4358 Beulah to A4081 Llanyre	Powys	0	L	R	H	
	A44 Radnor Forest Bends	Powys	0	L	R	H	
	Teifi Valley Strategic Signing	Ceredigion	0	L	R	H	
Strategic Routes Alleviation of Flood Risk Areas	All Authorities	++	H	R	L		

High Level Intervention	Improving Strategic Connections						Commentary
SEA Objective	Scheme	Local Authority	Assessment of effect				
			Impact	Timescale	Reversibility	Certainty	
							<ul style="list-style-type: none"> Use porous surfaces on areas of hard surfaces to reduce the risk of flooding and encourage infiltration. Consideration of SuDs at all interventions should be given to mitigate flood risk. Where interventions are identified within areas of known flood risk, consideration should be given to undertaken a flood risk assessment to inform intervention design Where possible interventions should be routed to avoid areas of flood risk
SEA Objective 9: To ensure that natural resources and energy are used efficiently.	Pont Rheidol, Rhiwarthen, Capel Bangor	Ceredigion	+	M	R	L	<p>This SEA Objective achieves benefits primarily as a result of a decreased dependency of fossil fuels associated with a modal shifts away from private vehicles to more sustainable modes of transport. Some adverse impacts may however occur where road improvements are proposed with increased capacity and relieved congestion on the network promoting further use of private vehicles.</p> <ul style="list-style-type: none"> The Pont Rheidol and Pont Briwet Bridges will be designed and constructed to ensure that material and energy use are appropriate to the final design. The creation of new road links such as the A486 and new infrastructure at the A44/A4120 intersection will require the use of natural resources for their construction. However, the A44/A4120 scheme will lower congestion and vehicle idling leading to reduced fossil fuel usage. It is considered that the material usage for increasing capacity on the A496 Llandecwyn scheme will be relatively low given the existing infrastructure that is in place. The construction of the Pont Briwet Bridge will require the use of large amounts of materials, however there will be some carbon offsetting through the implementation of a new active travel route and the associated reduction in fossil fuel consumption through a modal shift. Flood Risk Alleviation measures will result in improvements to resource use in the long-term will less resources required to deal with rectifying impacts to the road network resulting from flood risk events.
	A486 Post Bach to Synod Inn Highway Improvement Phase 2	Ceredigion	-	L	R	H	
	A44/A4120 Llanbadarn Fawr Technical Appraisal WelTAG	Ceredigion	+/-	L	R	M	
	Bridge Strengthening (Pinch Points)	Gwynedd	0	S	R	H	
	A496 Llandecwyn Roundabout	Gwynedd	0	S	R	H	
	A496 Maentwrog to Blaenau Ffestiniog	Gwynedd	?	L	R	L	
	Pont Briwet Bridge Replacement Scheme	Gwynedd	+	M	R	L	
	Route Restrictions - Structures height	Powys	0	L	R	H	
	Route Restrictions - Weight Capacity	Powys	0	L	R	H	
	Central Powys E-W Links: B4358 Beulah to A4081 Llanyre	Powys	+	M	R	L	
A44 Radnor Forest Bends	Powys	?	L	R	L		
Teifi Valley Strategic Signing	Ceredigion	0	L	R	H	Mitigation	

High Level Intervention	Improving Strategic Connections						Commentary
SEA Objective	Scheme	Local Authority	Assessment of effect				
			Impact	Timescale	Reversibility	Certainty	
	Strategic Routes Alleviation of Flood Risk Areas	All Authorities	+	H	R	L	<ul style="list-style-type: none"> The final scheme design of the Pont Rheidiol Bridge will be required to take account of local character and materials. Recommendations for recycled materials rather than primary aggregates will help to reduce the carbon footprint of the intervention. Where new road links are proposed consideration should be given to the provision of active travel links along their alignment during the scheme design to offset the embodied carbon in the scheme.
SEA Objective 10: To ensure that diversity, local distinctiveness, cultural heritage assets are valued, protected and enhanced.	Pont Rheidiol, Rhiwarthen, Capel Bangor	Ceredigion	+	M	R	L	<p>The proposed interventions result in largely unknown or negligible impacts, the key impacts that have been identified are:</p> <ul style="list-style-type: none"> The design and location of the Pont Briwet Bridge will be required to demonstrate that no cultural heritage features are significantly affected by its construction and operation. The A44/A4120 scheme is not located in the vicinity of any designated cultural heritage assets and as such it is considered that a negligible impact will occur. It is not considered that the A496 schemes will result in any significant impacts to the cultural heritage resources of the area at this stage of the assessment process, however, the detail of the intervention between Maentwrog and Blaenau Ffestiniog is currently unknown. The Former Pont Briwet Bridge is a Grade II Listed Structure and will potentially be removed following construction of the new bridge, it is therefore considered that potential adverse impacts will occur. The proposed route restriction interventions may have impacts to cultural heritage features if the structures are listed, however at this stage the nature of the works, and the exact bridges that will be subject to alterations are not known. <p><i>Mitigation</i></p> <ul style="list-style-type: none"> The identification of route alignments and areas of widening should take account of the presence of known historical features and should seek to avoid direct impacts and impacts to their setting where possible.
	A486 Post Bach to Synod Inn Highway Improvement Phase 2	Ceredigion	?	L	R	L	
	A44/A4120 Llanbadarn Fawr Technical Appraisal WeITAG	Ceredigion	0	L	R	H	
	Bridge Strengthening (Pinch Points)	Gwynedd	0	S	R	H	
	A496 Llandecwyn Roundabout	Gwynedd	0	L	R	H	
	A496 Maentwrog to Blaenau Ffestiniog	Gwynedd	?	L	R	L	
	Pont Briwet Bridge Replacement Scheme	Gwynedd	-	L	R	H	
	Route Restrictions - Structures height	Powys	?	L	R	L	
	Route Restrictions - Weight Capacity	Powys	?	L	R	L	
	Central Powys E-W Links: B4358 Beulah to A4081 Llanyre	Powys	0	L	R	H	
	A44 Radnor Forest Bends	Powys	0	L	R	H	
	Teifi Valley Strategic Signing	Ceredigion	0	L	R	H	

High Level Intervention	Improving Strategic Connections						
SEA Objective	Scheme	Local Authority	Assessment of effect				Commentary
			Impact	Timescale	Reversibility	Certainty	
	Strategic Routes Alleviation of Flood Risk Areas	All Authorities	0	L	R	H	<ul style="list-style-type: none"> An assessment of the potential for interventions to impact upon buried archaeological resources should be undertaken to inform the identification of final route alignments. Use sensitive design and construction techniques in areas of historical importance; Adopt design principles for works being carried out in areas of historical importance to maintain cultural distinctiveness. <p>Cognisance should also be given to the mitigation associated with SEA Objective 11.</p> <ul style="list-style-type: none">
SEA Objective 11: To ensure that landscape is valued, protected and enhanced.	Pont Rheidiol, Rhiwarthen, Capel Bangor	Ceredigion	+	M	R	L	<p>The interventions have a mixed impact when considered against SEA Objective 11 with key impacts being identified as:</p> <ul style="list-style-type: none"> The design and location of the Pont Briwet Bridge Replacement will be required to demonstrate that no landscape / townscape features are significantly affected by its construction and operation. The A486 alignment is currently unknown however it is considered that the proposed improvements will introduce new road infrastructure in to the landscape which has the potential to result in adverse effects to the landscape character and key views along the scheme. The A44/A4120 scheme is located within the urban area of Aberystwyth and it is considered that the scheme will result in negligible impacts to the landscape of the area. The Pont Briwet scheme introduces a significant new piece of infrastructure in to the surrounding landscape which is considered to result in minor adverse impacts. <p>Given the strategic nature of many of the interventions a number of the assessments result in unknown impacts at this stage and further detail is required in order for effective mitigation to be implemented.</p>
	A486 Post Bach to Synod Inn Highway Improvement Phase 2	Ceredigion	-	L	R	H	
	A44/A4120 Llanbadarn Fawr Technical Appraisal WeITAG	Ceredigion	0	L	R	H	
	Bridge Strengthening (Pinch Points)	Gwynedd	0	S	R	H	
	A496 Llandecwyn Roundabout	Gwynedd	0	S	R	H	
	A496 Maentwrog to Blaenau Ffestiniog	Gwynedd	?	L	R	L	
	Pont Briwet Bridge Replacement Scheme	Gwynedd	-	L	R	H	
	Route Restrictions - Structures height	Powys	0	L	R	H	
	Route Restrictions - Weight Capacity	Powys	0	L	R	H	
	Central Powys E-W Links: B4358 Beulah to A4081 Llanyre	Powys	0	L	R	H	
A44 Radnor Forest Bends	Powys	?	L	R	L		

High Level Intervention	Improving Strategic Connections						Commentary
SEA Objective	Scheme	Local Authority	Assessment of effect				
			Impact	Timescale	Reversibility	Certainty	
	Teifi Valley Strategic Signing	Ceredigion	0	L	R	H	<p><i>Mitigation measures</i></p> <ul style="list-style-type: none"> • <i>Appropriate landscape and visual assessments will be required to be undertaken to support the development of the interventions identified as resulting in adverse impacts upon the environment. Where route alignments are not currently known the landscape assessments should inform the route selection assessments to ensure that impacts are minimised or avoided where possible.</i> • <i>Measures to integrate schemes into the surrounding landscape and reduce visual impact on properties should be considered including scheme alignment, retention of existing trees, and new tree planting;</i> • <i>Sensitive scheme design and construction will be required in order to integrate the interventions sympathetically into the landscape;</i> • <i>Lighting Strategies should be developed in order to minimise light spill and seek to achieve 'dark sky compliance' where possible</i> •
	Strategic Routes Alleviation of Flood Risk Areas	All Authorities	0	L	R	H	
SEA Objective 12: To support the business environment	Pont Rheidiol, Rhiwarthen, Capel Bangor	Ceredigion	+	M	R	M	<p>The interventions proposed largely support the SEA objective through increasing the efficiency of the transport network and providing links to services / employment areas. Implementing strategic connections will have associated beneficial impacts by increasing access to the business environment. A modal shift away from private cars will help to ease congestion and in turn will aid in improving freight movements and journey times across the region.</p> <ul style="list-style-type: none"> • The Pont Rheidiol Bridge replacement will maintain access for the local community and businesses as well as reducing severance issues. • The creation of the A486 scheme will provide improvements to the existing road network on a key link to Cardiff and it is considered therefore that there will be a positive impact in terms of support for the business environment. • Improved traffic flows and reduced congestion will benefit business in Aberystwyth through improving access to the businesses themselves, and through improving traffic flows which will benefit freight movements. • Improvements on the A496 will aid in improving access to the Snowdonia Enterprise Zone which will benefit businesses locally. • Improving existing restriction of height and weight on the existing road network will have associated benefits to the business environment through improving
	A486 Post Bach to Synod Inn Highway Improvement Phase 2	Ceredigion	+	L	R	H	
	A44/A4120 Llanbadarn Fawr Technical Appraisal WeITAG	Ceredigion	+	L	R	H	
	Bridge Strengthening (Pinch Points)	Gwynedd	0	S	R	H	
	A496 Llandecwyn Roundabout	Gwynedd	+	L	R	H	
	A496 Maentwrog to Blaenau Ffestiniog	Gwynedd	?	L	R	L	
	Pont Briwet Bridge Replacement Scheme	Gwynedd	+	L	R	H	
	Route Restrictions - Structures height	Powys	+	L	R	H	
	Route Restrictions - Weight Capacity	Powys	+	L	R	H	
Central Powys E-W Links: B4358	Powys	+	L	R	H		

High Level Intervention	Improving Strategic Connections						
SEA Objective	Scheme	Local Authority	Assessment of effect				Commentary
			Impact	Timescale	Reversibility	Certainty	
	Beulah to A4081 Llanyre						accessibility on the network for freight movements.
	A44 Radnor Forest Bends	Powys	+	L	R	H	Mitigation measures • <i>None required</i>
	Teifi Valley Strategic Signing	Ceredigion	+	L	R	L	
	Strategic Routes Alleviation of Flood Risk Areas	All Authorities	+	L	R	H	
Qualitative Summary/ Cumulative	<p>A range of key investment interventions are promoted to improve strategic connections across the JLTP area with specific interventions targeting improved links to current and future areas of employment, and improving the resilience of the transport network through bridge improvements / replacements and flood alleviation schemes. These interventions will improve flows on the local network contributing to a reduction in vehicle emissions (including noise and air quality), It is, however, acknowledged that localised adverse impacts may occur where traffic displacement takes place.</p> <p>Cumulatively it is considered that the measures to improve strategic connections will result in beneficial impacts, some adverse impacts are identified with key adverse impacts being upon biodiversity, water quality and flood risk cultural heritage and landscape features, however appropriate mitigation has been recommended to reduce the impacts identified at the project level.</p>						
Assumptions and uncertainty	Uncertainty does exist regarding the alignment of the proposed new road interventions. No quantitative assessment has been undertaken to support this assessment.						

Table B3: Improving Accessibility to Employment and Services Assessment

High Level Intervention		Improving Accessibility to Employment and Services					Commentary
SEA Objective	Scheme	Local Authority	Assessment of effect				
			Impact	Timescale	Reversibility	Certainty	
SEA Objective 1: To minimise transport related air pollution	Aberystwyth Area Active Travel Project - Improve cycle infrastructure between Penparcau and Rheidol Cycle Trail (Heol y Bont, West)	Ceredigion	+	S	R	M	<p>It is considered that the proposed interventions will broadly encourage an improvement in air pollution related to transport through encouraging a modal shift towards active and public transport modes. There is the potential for some local impacts to occur as a result of a new link road Llanbedr Airfield. The following key impacts have been identified:</p> <ul style="list-style-type: none"> The Active Travel schemes will help to facilitate a modal shift through the provision of improved footways, cycleways and associated signage. The Devil's Bridge scheme will help to facilitate a modal shift through the provision of improved footways. Active Travel interventions will improve active travel facilities in the region which will encourage a modal shift away from private vehicles. Provision of improvements over a 98 mile stretch of national cycle network route will have wide ranging benefits. The transfer of freight movements from road to rail at distribution hubs will have a benefit to transport related air pollution across the region. The Aberystwyth Park & Ride scheme will result in a greater modal shift towards public transport leading to a reduction in transport related air pollution. The new multi-user access road to Llanbedr Airfield will encourage car use in the area which will potentially lead to an increase in air pollution locally. However, the multi-user road may also support the provision of an active travel link which promotes walking and cycling in the area and therefore leads to a modal shift and a beneficial impact upon transport related air pollution. Improvements in congestion will result in localised improvements to transport related air pollution <p><i>Mitigation</i></p> <ul style="list-style-type: none"> Consideration should be given to connecting walking and cycling links to
	Devils Bridge Footway Scheme Phase 3 Safe Routes in Communities Scheme	Ceredigion	+	S	R	M	
	Central Wales Sustainable Distribution Project	Ceredigion	+	L	R	M	
	Aberystwyth Park & Ride	Ceredigion	+	L	R	M	
	Llanbedr Airfield Access (SEZ)	Gwynedd	+/-	L	R	M	
	Active Travel for Growth Zones	Powys	+	L	R	M	
	Local Growth Zones - Congestion & Parking	Powys	+	L	R	M	
	Newtown Active Travel Centre (pre & post bypass) Study and Detailed Design	Powys	+	L	R	M	
Park & Ride Hubs	All Authorities	+	L	R	M		

Table B3: Improving Accessibility to Employment and Services Assessment

High Level Intervention							
Improving Accessibility to Employment and Services							
SEA Objective	Scheme	Local Authority	Assessment of effect				Commentary
			Impact	Timescale	Reversibility	Certainty	
							<p>areas of high deprivation across the region.</p> <ul style="list-style-type: none"> Route options / appraisals studies should be undertaken for all new routes to ensure that impacts to air pollution are identified and appropriately mitigated.
SEA Objective 2: To reduce transport related greenhouse gas emissions and ensure that adequate adaptation measures to climate change are in place.	Aberystwyth Area Active Travel Project - Improve cycle infrastructure between Penparcau and Rheidol Cycle Trail (Heol y Bont, West)	Ceredigion	+	S	R	M	<p>It is considered that the proposed interventions will broadly encourage an improvement in relation to climate change, however some interventions do have the potential to increase flood risk if not appropriately mitigated. The following key impacts have been identified:</p> <ul style="list-style-type: none"> The Aberystwyth Active Travel Project will help to facilitate a modal shift through the provision of improved footways, cycleways and associated signage. The Devil's Bridge scheme will help to facilitate a modal shift through the provision of improved footways. Active Travel interventions will improve active travel facilities in the region which will encourage a modal shift away from private vehicles. Provision of improvements over a 98 mile stretch of national cycle network route will have wide ranging benefits. The location of the schemes is not yet known and as such impacts to areas at risk of flooding and other climate change events are currently unknown. Greenhouse gas emissions will potentially be lowered as a result of the Central Wales Sustainable Distribution Project, however the location of the distribution hubs is currently unknown so its impact to areas at risk from climate change events such as flooding cannot be determined at this stage. The proposed Park & Ride schemes at Aberystwyth both have the potential to exacerbate flooding given their location within, or adjacent to zones identified as being at risk of flooding along the road network The Park & Ride schemes will result in a greater modal shift towards public transport leading to a reduction in greenhouse gas emissions. It is currently unclear where the proposed Park & Ride hubs will be located
	Devils Bridge Footway Scheme Phase 3 Safe Routes in Communities Scheme	Ceredigion	+	S	R	M	
	Central Wales Sustainable Distribution Project	Ceredigion	+/-	L	R	M	
	Aberystwyth Park & Ride	Ceredigion	+/-	S	R	M	
	Llanbedr Airfield Access (SEZ)	Gwynedd	+/-	L	R	M	
	Active Travel for Growth Zones	Powys	+	L	R	M	
	Local Growth Zones - Congestion & Parking	Powys	+	L	R	H	
	Newtown Active Travel Centre (pre & post bypass) Study and Detailed Design	Powys	+	L	R	M	
Park & Ride Hubs	All Authorities	+ / ?	S	R	M		

Table B3: Improving Accessibility to Employment and Services Assessment

Improving Accessibility to Employment and Services							
High Level Intervention							
SEA Objective	Scheme	Local Authority	Assessment of effect				Commentary
			Impact	Timescale	Reversibility	Certainty	
							<p>and as such their impact upon climate change is unknown.</p> <ul style="list-style-type: none"> The new multi-user access road to Llanbedr Airfield will encourage car use in the area which will potentially lead to an increase in air pollution locally. However, the multi-user road may also support the provision of an active travel link which promotes walking and cycling in the area and therefore leads to a modal shift and a beneficial impact upon transport related air pollution. The airfield lies in an area at risk of flooding and as such potential adverse impacts will be associated by an increase in hardstanding in this area. Improvements in congestion will result in localised improvements to transport related noise and vibration <p><i>Mitigation</i></p> <ul style="list-style-type: none"> Consideration should be given to connecting walking and cycling links to areas of high deprivation across the region. New intervention development should identify climate change risks such as flooding and ensure that appropriate assessments are undertaken so that the intervention and the surrounding area are protected from climate change events. Appropriate SuDs to be designed in to mitigate potential contamination and flood risk. Priority should be given to those interventions which seek to reduce greenhouse gas emissions; Consider the implications of climate change on the design, construction and maintenance of interventions, taking into account increased rainfall and warmer summer temperatures; and Use porous surfaces on areas of hard surfaces to reduce the risk of flooding and encourage infiltration.
SEA Objective 3: To minimise	Aberystwyth Area Active Travel Project - Improve cycle infrastructure between	Ceredigion	+	S	R	M	It is considered that the proposed interventions will broadly encourage an improvement in noise and vibration through encouraging a modal shift towards

Table B3: Improving Accessibility to Employment and Services Assessment

High Level Intervention		Improving Accessibility to Employment and Services					Commentary
SEA Objective	Scheme	Local Authority	Assessment of effect				
			Impact	Timescale	Reversibility	Certainty	
transport related noise and vibration.	Penparcau and Rheidiol Cycle Trail (Heol y Bont, West)						<p>active and public transport modes. There is the potential for some local impacts to occur adjacent to the proposed interventions. The following key impacts have been identified:</p> <ul style="list-style-type: none"> The Active Travel schemes will help to facilitate a modal shift through the provision of improved footways, cycleways and associated signage. The Devil's Bridge scheme will help to facilitate a modal shift thereby reducing congestion and associated noise on the local road network through the provision of improved footways. Active Travel interventions will improve facilities in the region which will encourage a modal shift away from private vehicles. Provision of improvements over a 98 mile stretch of national cycle network route will have wide ranging benefits. The modal shift of freight from road to rail will benefit noise and vibration levels across the region, however some adverse impacts may occur to receptors located adjacent to the proposed distribution hubs and their access roads. Transport related noise and vibration will be lowered as a result of a modal shift to public transport modes, however there is the potential for localised changes in the noise climate in the vicinity of the Park & Ride sites as a result of the increased number of buses on the network. The new multi-user access road to Llanbedr Airfield will encourage car use in the area which will potentially lead to an increase in noise and vibration locally. However, the multi-user road may also support the provision of an active travel link which promotes walking and cycling in the area and therefore leads to a modal shift and a beneficial impact upon transport related noise. <p><i>Mitigation Measures</i></p> <ul style="list-style-type: none"> Options / appraisals studies should be undertaken for all new routes / sites to ensure that impacts to noise and vibration are identified and
	Devils Bridge Footway Scheme Phase 3 Safe Routes in Communities Scheme	Ceredigion	+	S	R	M	
	Central Wales Sustainable Distribution Project	Ceredigion	+/-	L	R	M	
	Aberystwyth Park & Ride	Ceredigion	+/-	L	R	M	
	Llanbedr Airfield Access (SEZ)	Gwynedd	+/-	L	R	M	
	Active Travel for Growth Zones	Powys	+	L	R	M	
	Local Growth Zones - Congestion & Parking	Powys	+	L	R	H	
	Newtown Active Travel Centre (pre & post bypass) Study and Detailed Design	Powys	+	L	R	M	
Park & Ride Hubs	All Authorities	+/-	L	R	M		

Table B3: Improving Accessibility to Employment and Services Assessment

High Level Intervention							
Improving Accessibility to Employment and Services							
SEA Objective	Scheme	Local Authority	Assessment of effect				Commentary
			Impact	Timescale	Reversibility	Certainty	
							<p><i>appropriately mitigated.</i></p> <ul style="list-style-type: none"> The design of new road infrastructure should consider the implementation of a cycle / walking route along its length to encourage a modal shift to sustainable travel options
SEA Objective 4: To ensure that biodiversity is valued, protected and enhanced	Aberystwyth Area Active Travel Project - Improve cycle infrastructure between Penparcau and Rheidol Cycle Trail (Heol y Bont, West)	Ceredigion	-	S	R	M	<p>It is generally considered that the proposed sustainable travel modes will result in a negative impact when considered against SEA Objective 4. This impact relates to the implementation of new infrastructure on the verges of existing roads, and on new offline routes where existing habitats will be directly affected by the construction and operation of the scheme. It is key that the implementation of effective mitigation is incorporated in to the scheme design in order for the identified adverse impacts to be addressed.</p> <ul style="list-style-type: none"> Devils Bridge is immediately adjacent to Rheidol Woods and Gorge SAC. Works have potential to cause habitat degradation through transfer of pollutants into SAC during works. The locations of the Active Travel interventions across the region are not currently known, as such it is unclear whether there will be any impacts upon the biodiversity of the region. The location of the distribution hubs is currently unknown and as such their impact upon biodiversity is currently uncertain. The new offline link to Llanbedr Airfield has the potential to directly impact upon habitats and protected species in the area, through direct impacts, and through a severance of territories. Meirionnydd Oakwoods and Bat Sites is present to the south and east of Llanbedr. Lleyn Peninsula and the Sarnau SAC is also present in close proximity to the A496 and a route alignment assessment will be required to determine the likely impacts. <p><i>Mitigation Measures</i></p> <ul style="list-style-type: none"> Ecological surveys should be undertaken along the length of proposed interventions to identify features of biodiversity interest which require protection.
	Devils Bridge Footway Scheme Phase 3 Safe Routes in Communities Scheme	Ceredigion	0	S	R	H	
	Central Wales Sustainable Distribution Project	Ceredigion	?	L	R	L	
	Aberystwyth Park & Ride	Ceredigion	-	L	R	M	
	Llanbedr Airfield Access (SEZ)	Gwynedd	-	L	R	L	
	Active Travel for Growth Zones	Powys	?	L	R	L	
	Local Growth Zones - Congestion & Parking	Powys	0	L	R	H	
	Newtown Active Travel Centre (pre & post bypass) Study and Detailed Design	Powys	0	L	R	H	
Park & Ride Hubs	All Authorities	?	L	R	L		

Table B3: Improving Accessibility to Employment and Services Assessment

High Level Intervention							
Improving Accessibility to Employment and Services							
SEA Objective	Scheme	Local Authority	Assessment of effect				Commentary
			Impact	Timescale	Reversibility	Certainty	
							<ul style="list-style-type: none"> Provision of species-specific mitigation measures, such as mammal fencing and crossings to be implemented where required in order to ensure continued connectivity for commuting and foraging protected species; Consideration should be given to identifying areas for ecological enhancements across new interventions.
SEA Objective 5: To provide inclusive access to all services and facilities and reduce severance.	Aberystwyth Area Active Travel Project - Improve cycle infrastructure between Penparcau and Rheidol Cycle Trail (Heol y Bont, West)	Ceredigion	+	S	R	M	<p>The interventions will support SEA Objective 5 with the proposals specifically identified to improve accessibility to employment sites across Mid Wales. Key impacts have been identified for specific schemes (as set out below) and the cumulative impact is seen as being a major positive impact. It should however be noted that mitigation measures are recommended to seek to maximise the benefits to areas of deprivation in Mid Wales.</p> <ul style="list-style-type: none"> The provision of sustainable travel improvements across the region will lead to benefits through increasing access to services and centres of employment. The Devil's Bridge Footway Scheme will support SEA Objective 5 with the proposal identified to improve sustainable travel access to a key tourist attraction in the region. The Park & Ride facilities will increase access in to towns across Mid Wales through improved bus services and a reduction in congestion. <p><i>Mitigation Measures</i></p> <ul style="list-style-type: none"> Consideration should be given to providing walking and cycling connections to areas of high deprivation across the region. By providing additional links and increasing access to services / areas of employment for these areas, further long term benefits may be experienced.
	Devils Bridge Footway Scheme Phase 3 Safe Routes in Communities Scheme	Ceredigion	+	S	R	H	
	Central Wales Sustainable Distribution Project	Ceredigion	+	S	R	H	
	Aberystwyth Park & Ride	Ceredigion	+	S	R	H	
	Llanbedr Airfield Access (SEZ)	Gwynedd	+	S	R	M	
	Active Travel for Growth Zones	Powys	+	L	R	M	
	Local Growth Zones - Congestion & Parking	Powys	+	L	R	H	
	Newtown Active Travel Centre (pre & post bypass) Study and Detailed Design	Powys	+	L	R	H	
Park & Ride Hubs	All Authorities	+	S	R	H		
SEA Objective 6: To protect and	Aberystwyth Area Active Travel Project - Improve cycle infrastructure between	Ceredigion	+	S	R	H	The proposed interventions support SEA Objective 6 and are considered to lead to improvements in physical and mental well-being through the provision

Table B3: Improving Accessibility to Employment and Services Assessment

High Level Intervention		Improving Accessibility to Employment and Services					Commentary
SEA Objective	Scheme	Local Authority	Assessment of effect				
			Impact	Timescale	Reversibility	Certainty	
promote everyone's physical and mental wellbeing.	Penparcau and Rheidol Cycle Trail (Heol y Bont, West)						<p>of improved active and public transport facilities leading to lowered congestion and improved accessibility through sustainable modes. Key impacts are considered to be:</p> <ul style="list-style-type: none"> The Aberystwyth Active Travel Project will incorporate measures such as footpaths and cycleways which will further promote cycling and walking in the region leading to further long-term benefits to physical health through increased use. The widening of the Devil's Bridge Footway will further promote physical well-being through the enhancement of sustainable transport options in the area encouraging a modal shift to walking rather than private vehicle trips. A modal shift encouraged by the proposed Park & Ride sites will lead to lower emissions on the road network and within the towns leading to an improved air quality climate which will have associated health benefits. <p><i>Mitigation Measures</i></p> <ul style="list-style-type: none"> Consideration should be given to providing walking and cycling links to areas of high deprivation across the region. By providing additional links and increasing access from these areas, further long term benefits may be experienced.
	Devils Bridge Footway Scheme Phase 3 Safe Routes in Communities Scheme	Ceredigion	+	S	R	H	
	Central Wales Sustainable Distribution Project	Ceredigion	+	S	R	H	
	Aberystwyth Park & Ride	Ceredigion	+	S	R	H	
	Llanbedr Airfield Access (SEZ)	Gwynedd	+	S	R	M	
	Active Travel for Growth Zones	Powys	+	L	R	M	
	Local Growth Zones - Congestion & Parking	Powys	0	L	R	H	
	Newtown Active Travel Centre (pre & post bypass) Study and Detailed Design	Powys	+	L	R	H	
Park & Ride Hubs	All Authorities	+	S	R	H		
SEA Objective 7: To reduce transport related contamination and safeguard soil quality and quantity.	Aberystwyth Area Active Travel Project - Improve cycle infrastructure between Penparcau and Rheidol Cycle Trail (Heol y Bont, West)	Ceredigion	-	S	R	M	<p>Impacts to soils and contaminated land may occur where new routes are proposed to be constructed. The implementation of the cycle routes will result in linear areas of soils being impacted across the region. It is considered that a negative impact will result, however, mitigation measures through design will be implemented to reduce this impact where possible.</p> <ul style="list-style-type: none"> It is considered that the widening of the Devil's Bridge Footway may result in some adverse impacts if contamination associated with the existing road and rail networks is disturbed The location of the Active Travel schemes are currently unknown, furthermore it is not clear whether the interventions will be online or offline
	Devils Bridge Footway Scheme Phase 3 Safe Routes in Communities Scheme	Ceredigion	-	S	R	M	
	Central Wales Sustainable Distribution Project	Ceredigion	?	S	R	L	
	Aberystwyth Park & Ride	Ceredigion	-	S	R	M	

Table B3: Improving Accessibility to Employment and Services Assessment

High Level Intervention		Improving Accessibility to Employment and Services					Commentary
SEA Objective	Scheme	Local Authority	Assessment of effect				
			Impact	Timescale	Reversibility	Certainty	
	Llanbedr Airfield Access (SEZ)	Gwynedd	-	M	R	H	<p>so the impacts to the soil resource of the region is currently unknown.</p> <ul style="list-style-type: none"> The Aberystwyth Park & Ride sites will be developed adjacent to the road network so have the potential to disturb contaminants. It is currently unclear whether the sites will be developed on brownfield / greenfield sites and as such the impacts upon agricultural soils are unknown. The location and built-form of the distribution hubs and th Park & Ride sites is currently unknown and as such their impact upon soils and contamination is currently uncertain. New road alignments will have a direct impact upon agricultural land and soils across Mid Wales. The extent of the loss will only be clear once route alignments have been identified. The presence of new road links increases the potential for contamination of the surrounding land and environment. <p><i>Mitigation Measures</i></p> <ul style="list-style-type: none"> The provision of new cycle routes along existing road network routes provides the opportunity for land adjacent to the roads to be assessed for contamination to inform design and construction. New route alignments should seek to avoid impacts to Prime Quality Agricultural Land Appropriate controls are to be implemented throughout the construction and operation of the interventions to ensure that potential contamination impacts are minimised In order to ensure the appropriate control and management of non-native invasive weed species, site-specific eradication and control strategies will be required to be developed where invasive weeds are identified. Plans would be required which set out the management of excavated soil contaminated with invasive weed species (such as Japanese Knotweed, Himalayan Balsam and Giant Hogweed) and vehicle movements to control the potential transfer of contaminated soil, plant material and/or seeds off-
	Active Travel for Growth Zones	Powys	?	S	R	L	
	Local Growth Zones - Congestion & Parking	Powys	0	L	R	H	
	Newtown Active Travel Centre (pre & post bypass) Study and Detailed Design	Powys	0	L	R	H	
	Park & Ride Hubs	All Authorities	?	S	R	L	

Table B3: Improving Accessibility to Employment and Services Assessment

High Level Intervention							
Improving Accessibility to Employment and Services							
SEA Objective	Scheme	Local Authority	Assessment of effect				Commentary
			Impact	Timescale	Reversibility	Certainty	
							site.
SEA Objective 8: To minimise transport related impacts on water resources, flood plains and areas of flood risk.	Aberystwyth Area Active Travel Project - Improve cycle infrastructure between Penparcau and Rheidol Cycle Trail (Heol y Bont, West)	Ceredigion	0	S	R	M	<p>Many of the interventions identified are currently at a stage where little detail on their final location or form is currently known. As such it is unclear what impacts to the water environment will occur. However, some of the interventions identified are proposed in areas which currently suffer from a high degree of flood risk so impacts to flooding, and water quality have the potential to be adverse, however given the size and nature of some of the interventions it is considered that some impacts will be negligible.</p> <ul style="list-style-type: none"> The location of the Active Travel schemes are currently unknown, furthermore it is not clear whether the interventions will be online or offline so the impacts to the water environment of the region is currently unknown. The location and form of the distribution hubs and Park & Ride sites is currently unknown and as such their impact upon the water environment is currently uncertain. The area around Llanbedr Airfield is identified as being at risk of flooding, any new access road through this area has the potential to increase the likelihood of flooding in the surrounding area through an increasing in hardstanding in an area already identified as being at risk of flooding. The Aberystwyth Park & Ride sites have yet to have their locations finalised, however large areas at risk of flooding exist around both Rhydyfelin and Bow Street, and this, combined with the large area of hardstanding required for the sites has the potential for a significant impact upon flooding in the area. <p><i>Mitigation Measures</i></p> <ul style="list-style-type: none"> New intervention development should identify climate change risks such as flooding and ensure that appropriate assessments are undertaken so that the intervention and the surrounding area are protected from climate change events. Appropriate mitigation such as Sustainable Urban Drainage Systems (SuDS) will require to be implemented within scheme
	Devils Bridge Footway Scheme Phase 3 Safe Routes in Communities Scheme	Ceredigion	0	M	R	H	
	Central Wales Sustainable Distribution Project	Ceredigion	?	L	R	L	
	Aberystwyth Park & Ride	Ceredigion	--	M	R	H	
	Llanbedr Airfield Access (SEZ)	Gwynedd	--	M	R	H	
	Active Travel for Growth Zones	Powys	0	S	R	M	
	Local Growth Zones - Congestion & Parking	Powys	0	L	R	H	
	Newtown Active Travel Centre (pre & post bypass) Study and Detailed Design	Powys	0	L	R	H	
Park & Ride Hubs	All Authorities	?	L	R	L		

Table B3: Improving Accessibility to Employment and Services Assessment

High Level Intervention		Improving Accessibility to Employment and Services					Commentary
SEA Objective	Scheme	Local Authority	Assessment of effect				
			Impact	Timescale	Reversibility	Certainty	
							<p>designs to ensure that the construction and operation of the schemes does not adversely affect flooding either upstream or downstream of the proposals;</p> <ul style="list-style-type: none"> Consider the implications of climate change on the design, construction and maintenance of interventions, taking into account increased rainfall and warmer summer temperatures; and Use porous surfaces on areas of hard surfaces to reduce the risk of flooding and encourage infiltration. Route alignments for new interventions should seek to avoid areas identified as being of high flood risk.
SEA Objective 9: To ensure that natural resources and energy are used efficiently.	Aberystwyth Area Active Travel Project - Improve cycle infrastructure between Penparcau and Rheidol Cycle Trail (Heol y Bont, West)	Ceredigion	+	S	R	M	<p>The proposed interventions result in mixed support for the SEA Objective, the likely benefits will occur through a decreased dependency on fossil fuels associated with a modal shifts away from private vehicles to more sustainable modes of transport. Some potentially adverse impacts may occur where new infrastructure is required and therefore material usage will increase, however, appropriate mitigation has been identified in order to reduce the carbon footprint of new scheme in the region.</p> <ul style="list-style-type: none"> The widening of the footway and new retaining wall required for the Devil's Footbridge scheme will result in a modal shift to sustainable travel, but will also result in increased material usage and associated embodied carbon increases. Reduction in fossil fuels through modal shift to sustainable travel options as a result improved facilities across the region. The Park & Ride and Llanbedr Airfield interventions will require the use of natural resources to facilitate its construction. However it is considered that there will be less of a reliance on private vehicle trips between the sites and their associated towns, and through the provision of active travel links and as such there will be a reduction in fossil fuel consumption. <p><i>Mitigation Measures</i></p>
	Devils Bridge Footway Scheme Phase 3 Safe Routes in Communities Scheme	Ceredigion	+/-	S	R	M	
	Central Wales Sustainable Distribution Project	Ceredigion	+	S	R	M	
	Aberystwyth Park & Ride	Ceredigion	+/-	M	R	H	
	Llanbedr Airfield Access (SEZ)	Gwynedd	+/-	M	R	H	
	Active Travel for Growth Zones	Powys	+	S	R	M	
	Local Growth Zones - Congestion & Parking	Powys	0	L	R	H	
	Newtown Active Travel Centre (pre & post bypass) Study and Detailed Design	Powys	+	L	R	H	
Park & Ride Hubs	All	+/-	M	R	H		

Table B3: Improving Accessibility to Employment and Services Assessment

High Level Intervention							
Improving Accessibility to Employment and Services							
SEA Objective	Scheme	Local Authority	Assessment of effect				Commentary
			Impact	Timescale	Reversibility	Certainty	
		Authorities					<ul style="list-style-type: none"> Consideration of recycled materials for the construction of the various sustainable transport routes across the region to reduce the carbon footprint. Opportunities for the re-use of excavated materials on site should be explored for all interventions. Opportunities for the use of locally sourced materials and recycled aggregates should be explored for each intervention.
SEA Objective 10: To ensure that diversity, local distinctiveness, cultural heritage and heritage assets are valued, protected and enhanced.	Aberystwyth Area Active Travel Project - Improve cycle infrastructure between Penparcau and Rheidol Cycle Trail (Heol y Bont, West)	Ceredigion	?	S	R	L	<p>Many of the interventions identified are currently at a stage where little detail on their final location or form is currently known. As such it is unclear what impacts to the cultural heritage receptors are likely to occur. Route options / site assessments will be required to determine final sites / alignments before an accurate assessment of the impact can be undertaken. Of the schemes that have sufficient detail at this stage the following key impacts have been identified:</p> <ul style="list-style-type: none"> The Devil's Bridge scheme has the potential to result in adverse impacts to the setting of the Category II* Listed Devil's Bridge. The location of the Active Travel schemes are currently unknown, furthermore it is not clear whether the interventions will be online or offline so the impacts to the cultural heritage resource of the region is currently unknown. The location and form of the distribution hubs and Park & Ride sites is currently unknown and as such their impact upon the cultural heritage assets of the region currently uncertain Potential for adverse impacts to the area of Historic Coast surrounding the Llanbedr Airfield, final alignment may also impact indirectly on the setting of listed buildings located on the A496. Potential impacts to the listed buildings at Bow Street and Rhydyfelin Park and Rides sites. The severity of the impact is currently unclear and will be dependent upon the final site selection.
	Devils Bridge Footway Scheme Phase 3 Safe Routes in Communities Scheme	Ceredigion	-	S	R	M	
	Central Wales Sustainable Distribution Project	Ceredigion	?	L	R	L	
	Aberystwyth Park & Ride	Ceredigion	-	L	R	M	
	Llanbedr Airfield Access (SEZ)	Gwynedd	-	S	R	M	
	Active Travel for Growth Zones	Powys	?	L	R	L	
	Local Growth Zones - Congestion & Parking	Powys	0	L	R	H	
	Newtown Active Travel Centre (pre & post bypass) Study and Detailed Design	Powys	0	L	R	H	
Park & Ride Hubs	All Authorities	?	L	R	L		

Table B3: Improving Accessibility to Employment and Services Assessment

High Level Intervention							
Improving Accessibility to Employment and Services							
SEA Objective	Scheme	Local Authority	Assessment of effect				Commentary
			Impact	Timescale	Reversibility	Certainty	
							<p><i>Mitigation Measures</i></p> <ul style="list-style-type: none"> • <i>Appropriate route assessments should be undertaken to inform the final identification of route alignments and areas of widening should take account of the presence of known historical features and should seek to avoid direct impacts and impacts to their setting where possible.</i> • <i>An assessment of the potential for interventions to impact upon buried archaeological resources should be undertaken to inform the identification of final route alignments.</i> • <i>Use sensitive design and construction techniques in areas of historical importance;</i> • <i>Adopt design principles for works being carried out in areas of historical importance to maintain cultural distinctiveness.</i> <p>Cognisance should also be given to the mitigation associated with SEA Objective 11.</p> <ul style="list-style-type: none"> •
SEA Objective 11: To ensure that landscape is valued, protected and enhanced.	Aberystwyth Area Active Travel Project - Improve cycle infrastructure between Penparcau and Rheidol Cycle Trail (Heol y Bont, West)	Ceredigion	0	L	R	M	<p>Many of the interventions identified are currently at a stage where little detail on their final location or form is currently known. As such it is unclear what impacts to the landscape are likely to occur. Route options / site assessments will be required to determine final sites / alignments before an accurate assessment of the impact to the landscape can be undertaken, however it is considered that potential impacts from active travel interventions are likely to result in negligible impacts given the size and scale of the infrastructure required..</p> <ul style="list-style-type: none"> • The proposed footway at Devil's Bridge required to construction of a retaining wall. This new structure may result in some associated landscape and visual impacts which will require mitigation. • The location and form of the distribution hubs and Park & Ride sites is currently unknown and as such their impact upon the landscape of the region currently uncertain
	Devils Bridge Footway Scheme Phase 3 Safe Routes in Communities Scheme	Ceredigion	-	S	R	M	
	Central Wales Sustainable Distribution Project	Ceredigion	-	L	R	M	
	Aberystwyth Park & Ride	Ceredigion	-	S	R	M	
	Llanbedr Airfield Access (SEZ)	Gwynedd	-	S	R	M	
	Active Travel for Growth Zones	Powys	?	L	R	L	

Table B3: Improving Accessibility to Employment and Services Assessment

High Level Intervention							
Improving Accessibility to Employment and Services							
SEA Objective	Scheme	Local Authority	Assessment of effect				Commentary
			Impact	Timescale	Reversibility	Certainty	
	Local Growth Zones - Congestion & Parking	Powys	0	L	R	H	<ul style="list-style-type: none"> The Llanbedr Airfield Access road will adversely affect the surrounding landscape through the introduction of new linear infrastructure in to the surrounding landscape The Aberystwyth Park & Ride sites are not located within a designated area but will potentially result in adverse impacts to the landscape character of the area through the implementation of the required infrastructure. <p><i>Mitigation</i></p> <ul style="list-style-type: none"> Appropriate landscape assessment and design should be undertaken to ensure the impact of the retaining wall at Devil's Bridge is mitigated. Where new structures are proposed materials should be selected to reflect the wider landscape setting of the scheme. Appropriate landscape and visual assessments will be required to be undertaken to support the development of the interventions identified as resulting in adverse impacts upon the environment. Where route alignments are not currently known the landscape assessments should inform the route selection assessments to ensure that impacts are minimised or avoided where possible. Measures to integrate schemes into the surrounding landscape and reduce visual impact on properties should be considered including scheme alignment, retention of existing trees, and new tree planting; Sensitive scheme design and construction will be required in order to integrate the interventions sympathetically into the landscape; Lighting Strategies should be developed in order to minimise light spill and seek to achieve 'dark sky compliance' where possible
	Newtown Active Travel Centre (pre & post bypass) Study and Detailed Design	Powys	0	L	R	H	
	Park & Ride Hubs	All Authorities	?	L	R	L	
SEA Objective 12: To support the business	Aberystwyth Area Active Travel Project - Improve cycle infrastructure between Penparcau and Rheidol Cycle Trail	Ceredigion	+	S	R	H	It is considered that through implementation of the measures to increase accessibility to areas of employment that some increased efficiency on the transport network as a result of reducing congestion may occur. A modal shift

Table B3: Improving Accessibility to Employment and Services Assessment

High Level Intervention		Improving Accessibility to Employment and Services					Commentary
SEA Objective	Scheme	Local Authority	Assessment of effect				
			Impact	Timescale	Reversibility	Certainty	
environment	(Heol y Bont, West)						away from private cars will help to ease congestion and in turn will aide in improving freight movements and journey times across the region. <ul style="list-style-type: none"> The interventions have been specifically identified to improve access to areas of employment and the Active Travel interventions will also improve links to areas such as the Teifi Valley Enterprise Zone. It is considered that the creation of a sustainable distribution hub could have significant benefits to employment and businesses throughout Mid Wales. The re-routing of freight from road to rail will benefits businesses by improving journey time reliability, and also through creating a more efficient road network within Mid Wales. Improved traffic flows on the local road network through the implementation of Park & Ride sites across the region will support businesses in the region through improving ease of access for freight. Easing congestion and improving parking in town centres across the region will improve access to and for the business environment. <i>Mitigation Measures</i> <ul style="list-style-type: none"> None required
	Devils Bridge Footway Scheme Phase 3 Safe Routes in Communities Scheme	Ceredigion	0	S	R	H	
	Central Wales Sustainable Distribution Project	Ceredigion	++	S	R	H	
	Aberystwyth Park & Ride	Ceredigion	+	S	R	H	
	Llanbedr Airfield Access (SEZ)	Gwynedd	+	S	R	H	
	Active Travel for Growth Zones	Powys	+	S	R	H	
	Local Growth Zones - Congestion & Parking	Powys	+	L	R	H	
	Newtown Active Travel Centre (pre & post bypass) Study and Detailed Design	Powys	+	L	R	H	
Park & Ride Hubs	All Authorities	+	S	R	H		
Qualitative Summary/ Cumulative	A range of key investment interventions are promoted to encourage modal shift to both public and sustainable transport options and increase access to services and employment areas across the JLTP area which will potentially lead to reduce vehicle emissions (including noise and air quality). Cumulatively the measures are expected to result in broadly positive outcomes. However it is recommended that measures should, where possible, be targeted at areas most in need, such as those which suffer high levels of deprivation.						
	Some adverse impacts are identified as potentially occurring such as direct impacts protected habitats and / or species. However, these impacts will be mitigated at the project level and throughout intervention design and construction.						
Assumptions and uncertainty	Uncertainty does exist regarding the level of uptake of measures such as increased walking and cycling and behavioural change measures. No quantitative assessment has been undertaken to support this assessment.						

Table B4: Improving Safety and Security

High Level Intervention	Improving Safety and Security						
SEA Objective	Scheme	Local Authority	Assessment of effect				Commentary
			Impact	Timescale	Reversibility	Certainty	
SEA Objective 1: To minimise transport related air pollution	Energy Efficiency /Safety - Street Lighting Renewal	All Authorities	0	S	R	H	<p>It is considered that the proposed interventions to improve safety and security will have negligible impacts upon air pollution.</p> <p>Mitigation</p> <ul style="list-style-type: none"> • <i>None Required</i>
	Motorcycle Safety	All Authorities	0	S	R	H	
	Interactive Traffic Speed Signing	All Authorities	0	S	R	H	
	Junction Safety Enhancements	All Authorities	0	S	R	H	
SEA Objective 2: To reduce transport related greenhouse gas emissions and ensure that adequate adaptation measures to climate change are in place.	Energy Efficiency /Safety - Street Lighting Renewal	All Authorities	0	S	R	H	<p>It is considered that the proposed interventions to improve safety and security will have negligible impacts upon noise and vibration.</p> <p>Mitigation</p> <ul style="list-style-type: none"> • <i>None Required</i>
	Motorcycle Safety	All Authorities	0	S	R	H	
	Interactive Traffic Speed Signing	All Authorities	0	S	R	H	
	Junction Safety Enhancements	All Authorities	0	S	R	H	
SEA Objective 3: To minimise	Energy Efficiency /Safety - Street Lighting Renewal	All Authorities	0	S	R	H	<p>It is considered that the proposed interventions to improve safety and security will have negligible impacts upon climate change.</p>

Table B4: Improving Safety and Security

High Level Intervention								Improving Safety and Security							
SEA Objective	Scheme	Local Authority	Assessment of effect				Commentary								
			Impact	Timescale	Reversibility	Certainty									
transport related noise and vibration.	Motorcycle Safety	All Authorities	0	S	R	H	Mitigation • <i>None Required</i>								
	Interactive Traffic Speed Signing	All Authorities	0	S	R	H									
	Junction Safety Enhancements	All Authorities	0	S	R	H									
SEA Objective 4: To ensure that biodiversity is valued, protected and enhanced	Energy Efficiency /Safety - Street Lighting Renewal	All Authorities	0	S	R	H	It is considered that the proposed interventions to improve safety and security will have negligible impacts upon biodiversity. Mitigation • <i>None Required</i>								
	Motorcycle Safety	All Authorities	0	S	R	H									
	Interactive Traffic Speed Signing	All Authorities	0	S	R	H									
	Junction Safety Enhancements	All Authorities	0	S	R	H									
SEA Objective 5: To provide inclusive access to all services and facilities and reduce severance.	Energy Efficiency /Safety - Street Lighting Renewal	All Authorities	0	S	R	H	It is considered that the proposed interventions to improve safety and security will have negligible impacts upon access to services and facilities. Mitigation • <i>None Required</i>								
	Motorcycle Safety	All Authorities	0	S	R	H									
	Interactive Traffic Speed Signing	All Authorities	0	S	R	H									
	Junction Safety Enhancements	All Authorities	0	S	R	H									

Table B4: Improving Safety and Security

Improving Safety and Security							
High Level Intervention							
SEA Objective	Scheme	Local Authority	Assessment of effect				Commentary
			Impact	Timescale	Reversibility	Certainty	
SEA Objective 6: To protect and promote everyone's physical and mental wellbeing.	Energy Efficiency /Safety - Street Lighting Renewal	All Authorities	0	S	R	H	<p>The proposed interventions have a broadly positive impact when considered against SEA Objective 6. A number of the interventions identified are specifically targeted at improving safety on the road network including:</p> <ul style="list-style-type: none"> Improved signage in towns across Ceredigion in order to reduce speeding; Improved signage, road markings, implementation of motorcycle barriers and improvements to the road surface will all contribute to improving safety on the road network in Mid Wales. <p>Mitigation</p> <ul style="list-style-type: none"> <i>None Required</i>
	Motorcycle Safety	All Authorities	+	S	R	H	
	Interactive Traffic Speed Signing	All Authorities	+	S	R	H	
	Junction Safety Enhancements	All Authorities	+	S	R	H	
SEA Objective 7: To reduce transport related contamination and safeguard soil quality and quantity.	Energy Efficiency /Safety - Street Lighting Renewal	All Authorities	0	S	R	H	<p>It is considered that the proposed interventions to improve safety and security will have negligible impacts upon soils and contaminated land.</p> <p>Mitigation</p> <ul style="list-style-type: none"> <i>None Required</i>
	Motorcycle Safety	All Authorities	0	S	R	H	
	Interactive Traffic Speed Signing	All Authorities	0	S	R	H	
	Junction Safety Enhancements	All Authorities	0	S	R	H	
SEA Objective 8: To minimise transport related impacts on water resources, flood plains and areas	Energy Efficiency /Safety - Street Lighting Renewal	All Authorities	0	S	R	H	<p>It is considered that the proposed interventions to improve safety and security will have negligible impacts upon water resources and flood risk.</p> <p>Mitigation</p> <ul style="list-style-type: none"> <i>None Required</i>
	Motorcycle Safety	All Authorities	0	S	R	H	
	Interactive Traffic Speed Signing	All Authorities	0	S	R	H	

Table B4: Improving Safety and Security

Improving Safety and Security							
High Level Intervention							
SEA Objective	Scheme	Local Authority	Assessment of effect				Commentary
			Impact	Timescale	Reversibility	Certainty	
of flood risk.	Junction Safety Enhancements	All Authorities	0	S	R	H	
SEA Objective 9: To ensure that natural resources and energy are used efficiently.	Energy Efficiency /Safety - Street Lighting Renewal	All Authorities	+	S	R	H	It is considered that renewing the lighting columns across Ceredigion with the latest technology would aid in reducing energy consumption. It is considered that the remaining interventions proposed would result in negligible impacts to the use of natural resources. Mitigation • <i>None Required</i>
	Motorcycle Safety	All Authorities	0	S	R	H	
	Interactive Traffic Speed Signing	All Authorities	0	S	R	H	
	Junction Safety Enhancements	All Authorities	0	S	R	H	
SEA Objective 10: To ensure that diversity, local distinctiveness, cultural heritage and heritage assets are valued, protected and enhanced.	Energy Efficiency/Safety - Street Lighting Renewal	All Authorities	0	S	R	H	It is considered that the proposed interventions to improve safety and security will have negligible impacts upon cultural heritage features. Mitigation <i>None Required</i>
	Motorcycle Safety	All Authorities	0	S	R	H	
	Interactive Traffic Speed Signing	All Authorities	0	S	R	H	
	Junction Safety Enhancements	All Authorities	0	S	R	H	
SEA Objective 11: To ensure that landscape is valued, protected	Energy Efficiency/Safety - Street Lighting Renewal	All Authorities	0	S	R	H	It is considered that the proposed interventions to improve safety and security will have negligible impacts upon the landscape. Mitigation <i>None Required</i>
	Motorcycle Safety	All Authorities	0	S	R	H	

Table B4: Improving Safety and Security

Improving Safety and Security							
High Level Intervention							
SEA Objective	Scheme	Local Authority	Assessment of effect				Commentary
			Impact	Timescale	Reversibility	Certainty	
and enhanced.	Interactive Traffic Speed Signing	All Authorities	0	S	R	H	
	Junction Safety Enhancements	All Authorities	0	S	R	H	
SEA Objective 12: To support the business environment	Energy Efficiency/Safety - Street Lighting Renewal	All Authorities	0	S	R	H	It is considered that the proposed interventions to improve safety and security will have negligible impacts upon support for the business environment. Mitigation • <i>None Required</i>
	Motorcycle Safety	All Authorities	0	S	R	H	
	Interactive Traffic Speed Signing	All Authorities	0	S	R	H	
	Junction Safety Enhancements	All Authorities	0	S	R	H	
Qualitative Summary/ Cumulative	It is considered that the impacts resulting from the Safety and Security interventions will be largely negligible, however the interventions will potentially result in beneficial impacts against SEA objective 6 through positive impacts in relation to the physical and mental well-being of the North Wales Population. It is not considered that any mitigation will be required.						
Assumptions and uncertainty	None.						

Table B5: Encouraging Walking and Cycling Assessment

High Level Intervention	Encouraging Walking and Cycling						
SEA Objective	Scheme	Local Authority	Assessment of effect				Commentary
			Impact	Timescale	Reversibility	Certainty	
SEA Objective 1: To minimise transport related air pollution	Bow Street to Aberystwyth & C1010 links to Penrhyncoch (Phases 1 to 3) Cycle Route	Ceredigion	+	L	R	H	<p>It is considered that the proposed walking and cycling improvements will result in positive impacts when considered against SEA Objective 1, each of the proposed interventions seeks to promote active travel and a modal shift away from private vehicles.</p> <p>Mitigation measures</p> <ul style="list-style-type: none"> • <i>None Required</i>
	Ystwyth Trail Extension - Cors Caron to Tregaron and Tynygraig Section	Ceredigion	+	L	R	H	
	Rheidiol Cycle Trail - Off road options at Capel Bangor	Ceredigion	+	L	R	H	
	A486 Footway/Cycleway	Ceredigion	+	L	R	H	
	Active Travel for "designated" localities	All Authorities	+	L	R	H	
	Lon Tryweryn Multi User Path	Gwynedd	+	L	R	H	
	Tywyn to Aberdyfi Multi User Path	Gwynedd	+	L	R	H	
SEA Objective 2: To reduce transport related greenhouse gas emissions and ensure that adequate adaptation measures to climate change are in place.	Bow Street to Aberystwyth & C1010 links to Penrhyncoch (Phases 1 to 3) Cycle Route	Ceredigion	+	L	R	H	<p>It is considered that the proposed walking and cycling improvements will result in positive impacts when considered against SEA Objective 2, each of the proposed interventions seeks to promote active travel and a modal shift away from private vehicles.</p> <p>Mitigation measures</p> <ul style="list-style-type: none"> • <i>Appropriate mitigation such as Sustainable Urban Drainage Systems (SuDS) will require to be implemented within scheme designs to ensure that the construction and operation of the schemes does not adversely affect flooding either upstream or downstream of the proposals;</i> • <i>Use porous surfaces on areas of hard surfaces to reduce the risk of flooding and encourage infiltration.</i> •
	Ystwyth Trail Extension - Cors Caron to Tregaron and Tynygraig Section	Ceredigion	+	L	R	H	
	Rheidiol Cycle Trail - Off road options at Capel Bangor	Ceredigion	+	L	R	H	
	A486 Footway/Cycleway	Ceredigion	+	L	R	H	
	Active Travel for "designated" localities	All Authorities	+	L	R	H	
	Lon Tryweryn Multi User Path	Gwynedd	+	L	R	H	

Table B5: Encouraging Walking and Cycling Assessment

Encouraging Walking and Cycling							
High Level Intervention							
SEA Objective	Scheme	Local Authority	Assessment of effect				Commentary
			Impact	Timescale	Reversibility	Certainty	
	Tywyn to Aberdyfi Multi User Path	Gwynedd	+	L	R	H	
SEA Objective 3: To minimise transport related noise and vibration.	Bow Street to Aberystwyth & C1010 links to Penrhyncoch (Phases 1 to 3) Cycle Route	Ceredigion	+	L	R	H	It is considered that the proposed walking and cycling improvements will result in positive impacts when considered against SEA Objective 3, each of the proposed interventions seeks to promote active travel and a modal shift away from private vehicles which will aid in reducing traffic related noise and vibration. Mitigation measures <i>None Required</i>
	Ystwyth Trail Extension - Cors Caron to Tregaron and Tynygraig Section	Ceredigion	+	L	R	H	
	Rheidiol Cycle Trail - Off road options at Capel Bangor	Ceredigion	+	L	R	H	
	A486 Footway/Cycleway	Ceredigion	+	L	R	H	
	Active Travel for "designated" localities	All Authorities	+	L	R	H	
	Lon Tryweryn Multi User Path	Gwynedd	+	L	R	H	
	Tywyn to Aberdyfi Multi User Path	Gwynedd	+	L	R	H	
SEA Objective 4: To ensure that biodiversity is valued, protected and enhanced	Bow Street to Aberystwyth & C1010 links to Penrhyncoch (Phases 1 to 3) Cycle Route	Ceredigion	0	S	R	M	The creation of new offline active travel routes has the potential to result in adverse impacts to biodiversity through severance of existing habitats, as well as direct impacts to habitats and species, however the scale of infrastructure required is considered to result in negligible impacts at this scale, however appropriate assessment of routes will be required at the project scale. The proposed interventions will require mitigation to ensure that impacts are reduced, offset or avoided where possible. The following key impacts will potentially occur: <ul style="list-style-type: none"> The proposed Caron to Tregaron route has the potential to impact directly / indirectly (depending upon the final offline alignment) upon the Cors Caron SSSI, SAC and Ramsar site. Any impacts upon this site are considered to be significant negative impacts and as such appropriate mitigation will be required early in the process to minimise the environmental risks. A486 Footway / Cycleway - River Teifi SAC passes through Llandysul.
	Ystwyth Trail Extension - Cors Caron to Tregaron and Tynygraig Section	Ceredigion	--	L	I	L	
	Rheidiol Cycle Trail - Off road options at Capel Bangor	Ceredigion	0	L	R	M	
	A486 Footway/Cycleway	Ceredigion	--	L	I	L	
	Active Travel for "designated" localities	All Authorities	?	L	R	L	
	Lon Tryweryn Multi User Path	Gwynedd	--	L	I	L	

Table B5: Encouraging Walking and Cycling Assessment

High Level Intervention	Encouraging Walking and Cycling						
SEA Objective	Scheme	Local Authority	Assessment of effect				Commentary
			Impact	Timescale	Reversibility	Certainty	
	Tywyn to Aberdyfi Multi User Path	Gwynedd	--	L	I	L	<p>Also the Rhos Llawr-Cwrt is also present close the route. However, at this stage it is not clear which sections of the route will require footway / cycleway creation. Therefore, likely significant effects cannot be accurately assessed at this stage.</p> <ul style="list-style-type: none"> • Lon Tryweryn Multi User Path - The River Dee and Bala Lake SAC crosses the dismantled railway line upon which the multi user path would be routed. Therefore potential exists for direct habitat loss and degradation through the transfer of construction-related pollutants during the works. Migneint-Arenig-Dduallt SAC SPA and Llyn Tegid Ramsar are also present within a 1km radius. An accurate assessment is not possible at this stage as project has not yet reached the detailed design stage. • Trwyn to Aberdyfi Multi User Path -A493 passes alongside various European designated sites including Cors Fochno and Dyfi Ramsar, Llyn Peninsula and the Sarnau SAC and Dyfi Estuary SPA. It is not therefore possible at this stage to conclusively rule out likely significant effects to European designated sites. <p>Mitigation measures</p> <ul style="list-style-type: none"> • <i>Ecological surveys should be undertaken along the length of proposed interventions to identify features of biodiversity interest which require protection.</i> • <i>Along the Ystwyth Trail Extension, In order to protect peatland habitats and the associated flora, the use of calcareous materials for the construction of the cycleway extension would be avoided.</i> • <i>Provision of species-specific mitigation measures, such as mammal fencing and crossings to be implemented where required in order to ensure continued connectivity for commuting and foraging protected species;</i> • <i>Consideration should be given to identifying areas for ecological enhancements across new interventions.</i> • <i>The Lon Tryweryn Path proposes to utilise a former railway corridor which provides an opportunity to enhance the green network. Pollution</i>

Table B5: Encouraging Walking and Cycling Assessment

High Level Intervention	Encouraging Walking and Cycling						Commentary
SEA Objective	Scheme	Local Authority	Assessment of effect				
			Impact	Timescale	Reversibility	Certainty	
							<i>prevention control measures would be undertaken during the works to prevent the pollution of watercourses</i>
SEA Objective 5: To provide inclusive access to all services and facilities and reduce severance.	Bow Street to Aberystwyth & C1010 links to Penrhyncoch (Phases 1 to 3) Cycle Route	Ceredigion	+	L	R	H	<p>It is considered that the proposed walking and cycling improvements will result in positive impacts when considered against SEA Objective 5, each of the proposed interventions seeks to promote active travel and link existing routes to areas of employment and / or town centres which will result in increased access for all users.</p> <p>Mitigation measures</p> <ul style="list-style-type: none"> • <i>None Required</i>
	Ystwyth Trail Extension - Cors Caron to Tregaron and Tynygraig Section	Ceredigion	+	L	R	H	
	Rheidiol Cycle Trail - Off road options at Capel Bangor	Ceredigion	+	L	R	H	
	A486 Footway/Cycleway	Ceredigion	+	L	R	H	
	Active Travel for "designated" localities	All Authorities	+	L	R	H	
	Lon Tryweryn Multi User Path	Gwynedd	+	L	R	H	
	Tywyn to Aberdyfi Multi User Path	Gwynedd	+	L	R	H	
SEA Objective 6: To protect and promote everyone's physical and mental wellbeing.	Bow Street to Aberystwyth & C1010 links to Penrhyncoch (Phases 1 to 3) Cycle Route	Ceredigion	+	L	R	H	<p>It is considered that the proposed walking and cycling improvements will result in positive impacts when considered against SEA Objective 6. Each of the proposed interventions seeks to promote active travel which encourages and promotes physical fitness, but the following interventions also propose route that will result in existing cycling / walking routes being segregated from their current on-line alignments thereby leading to improvements in safety:</p> <ul style="list-style-type: none"> • Ystwyth Trail Extension; and • Rheidiol Cycle Trail <p>Mitigation measures</p> <ul style="list-style-type: none"> • <i>None Required</i>
	Ystwyth Trail Extension - Cors Caron to Tregaron and Tynygraig Section	Ceredigion	+	L	R	H	
	Rheidiol Cycle Trail - Off road options at Capel Bangor	Ceredigion	+	L	R	H	
	A486 Footway/Cycleway	Ceredigion	+	L	R	H	
	Active Travel for "designated" localities	All Authorities	+	L	R	H	
	Lon Tryweryn Multi User Path	Gwynedd	+	L	R	H	

Table B5: Encouraging Walking and Cycling Assessment

High Level Intervention	Encouraging Walking and Cycling						Commentary
SEA Objective	Scheme	Local Authority	Assessment of effect				
			Impact	Timescale	Reversibility	Certainty	
	Tywyn to Aberdyfi Multi User Path	Gwynedd	+	L	R	H	
SEA Objective 7: To reduce transport related contamination and safeguard soil quality and quantity.	Bow Street to Aberystwyth & C1010 links to Penrhyncoch (Phases 1 to 3) Cycle Route	Ceredigion	-	L	R	M	Each of the proposed interventions has the potential to impact upon areas of contaminated land, however the proposed route of the Lon Tryweryn Multi-User path follows the route of a former railway line and has the potential to directly impact upon contaminants associated with the railway.
	Ystwyth Trail Extension - Cors Caron to Tregaron and Tynygraig Section	Ceredigion	-	L	R	M	
	Rheidiol Cycle Trail - Off road options at Capel Bangor	Ceredigion	-	L	R	M	The proposed offline cycle routes also have the potential to result in a loss of agricultural land and soils, and a severance of fields if not appropriately designed. Mitigation measures <ul style="list-style-type: none"> • <i>New route alignments should seek to avoid impacts to Prime Quality Agricultural Land</i> • <i>Appropriate controls are to be implemented throughout the construction and operation of the interventions to ensure that potential contamination impacts are minimised</i> • <i>In order to ensure the appropriate control and management of non-native invasive weed species, site-specific eradication and control strategies will be required to be developed where invasive weeds are identified. Plans would be required which set out the management of excavated soil contaminated with invasive weed species (such as Japanese Knotweed, Himalayan Balsam and Giant Hogweed) and vehicle movements to control the potential transfer of contaminated soil, plant material and/or seeds off-site.</i>
	A486 Footway/Cycleway	Ceredigion	-	L	R	M	
	Active Travel for "designated" localities	All Authorities	-	L	R	M	
	Lon Tryweryn Multi User Path	Gwynedd	-	L	R	M	
	Tywyn to Aberdyfi Multi User Path	Gwynedd	-	L	R	M	
SEA Objective 8: To minimise transport related impacts on water resources, flood	Bow Street to Aberystwyth & C1010 links to Penrhyncoch (Phases 1 to 3) Cycle Route	Ceredigion	-	M	R	M	Many of the interventions identified will require to cross area of known flood risk and the increase in hardstanding areas associated with the schemes has the potential to exacerbate flooding further in these areas. It is however considered that the size of the schemes are unlikely to result in significant changes to flooding in the region, mitigation will however be required in the development of the interventions. The following key issues have been
	Ystwyth Trail Extension - Cors Caron to Tregaron and Tynygraig Section	Ceredigion	-	M	R	M	

Table B5: Encouraging Walking and Cycling Assessment

High Level Intervention	Encouraging Walking and Cycling						Commentary
SEA Objective	Scheme	Local Authority	Assessment of effect				
			Impact	Timescale	Reversibility	Certainty	
plains and areas of flood risk.	Rheidiol Cycle Trail - Off road options at Capel Bangor	Ceredigion	-	M	R	M	<p>identified:</p> <ul style="list-style-type: none"> The Aberystwyth to Penrhyncoch and the Yswyth Trail Extension interventions will require to cross areas of flood risk, increasing the amount of hardstanding in this area is considered to potentially increase the risk of flooding in the surrounding area. The proposed Rheidiol Cycle Trail and Lon Tryweryn interventions will be constructed off line and crosses a number of areas currently at risk of flooding. The A486 scheme will be constructed along sections of the existing carriageway, it is considered that the scheme will be sufficiently small-scale that it will tie in to the existing drainage network associated with the road and no significant impacts are likely to occur. <p>Mitigation measures</p> <ul style="list-style-type: none"> Appropriate mitigation such as Sustainable Urban Drainage Systems (SuDS) will require to be implemented within scheme designs to ensure that the construction and operation of the schemes does not adversely affect flooding either upstream or downstream of the proposals; Consider the implications of climate change on the design, construction and maintenance of interventions, taking into account increased rainfall and warmer summer temperatures; and Use porous surfaces on areas of hard surfaces to reduce the risk of flooding and encourage infiltration. Route alignment assessments should be undertaken and areas of flood risk should form part of the final route selection process
	A486 Footway/Cycleway	Ceredigion	0	S	R	H	
	Active Travel for "designated" localities	All Authorities	?	L	R	L	
	Lon Tryweryn Multi User Path	Gwynedd	-	M	R	M	
	Tywyn to Aberdyfi Multi User Path	Gwynedd	-	M	R	M	
SEA Objective 9: To ensure that natural resources and energy are used efficiently.	Bow Street to Aberystwyth & C1010 links to Penrhyncoch (Phases 1 to 3) Cycle Route	Ceredigion	+/-	M	R	M	<p>It is considered that each of the proposed interventions will result in adverse impacts against the SEA Objective as each will require the use of natural resources in their construction. However, in the long-term it is considered that the implementation, operation and promotion of active travel routes across Mid Wales will lead to an increase in the uptake and usage of active travel and an associated reduction in fossil fuel emissions leading to benefits against the</p>
	Ystwyth Trail Extension - Cors Caron to Tregaron and Tynygraig Section	Ceredigion	+/-	M	R	M	

Table B5: Encouraging Walking and Cycling Assessment

High Level Intervention	Encouraging Walking and Cycling						Commentary	
SEA Objective	Scheme	Local Authority	Assessment of effect					
			Impact	Timescale	Reversibility	Certainty		
	Rheidiol Cycle Trail - Off road options at Capel Bangor	Ceredigion	+/-	M	R	M	<p>SEA Objective in the long-term.</p> <p>Mitigation Measures</p> <ul style="list-style-type: none"> Consideration of recycled materials for the construction of the interventions should be given to reduce the carbon footprint. 	
	A486 Footway/Cycleway	Ceredigion	+/-	M	R	M		
	Active Travel for "designated" localities	All Authorities	+/-	M	R	M		
	Lon Tryweryn Multi User Path	Gwynedd	+/-	M	R	M		
	Tywyn to Aberdyfi Multi User Path	Gwynedd	+/-	M	R	M		
SEA Objective 10: To ensure that diversity, local distinctiveness, cultural heritage and heritage assets are valued, protected and enhanced.	Bow Street to Aberystwyth & C1010 links to Penrhyncoch (Phases 1 to 3) Cycle Route	Ceredigion	-	M	R	M	<p>Many of the proposed interventions will result in potentially adverse impacts to the cultural heritage resources of the Mid Wales area, however the significance of these impacts is not assured given the limited information regarding the routing of the interventions. Key impacts to cultural heritage resources have been identified as follows:</p> <ul style="list-style-type: none"> Offline of the proposed cycle route between Bow Street and Aberystwyth has the potential to cause indirect impacts to cultural heritage resources including listed buildings located within, and between the two towns depending upon the final route alignment identified. The Ystwyth Trail extension and the Tywyn to Aberdyfi Path will be constructed within Historic Landscape Areas, however, the proximity of the trails to the existing road infrastructure and the limited area of the landscape that will be affected is considered to result in negligible impacts. The Rheidiol Cycle Trail and Lon Tryweryn Multi User Paths have the potential to impact upon numerous heritage assets including listed building, scheduled monuments and a historic landscape area, it is therefore considered that adverse impacts will potentially occur. Details on Active Travel for designated localities are not yet known and as such the impact of these schemes is currently uncertain. <p>Mitigation Measures</p> <ul style="list-style-type: none"> Appropriate route assessments should be undertaken to inform the final 	
		Ystwyth Trail Extension - Cors Caron to Tregaron and Tynygraig Section	Ceredigion	0	S	R		H
		Rheidiol Cycle Trail - Off road options at Capel Bangor	Ceredigion	-	M	R		M
		A486 Footway/Cycleway	Ceredigion	0	S	R		H
		Active Travel for "designated" localities	All Authorities	?	L	R		L
		Lon Tryweryn Multi User Path	Gwynedd	-	M	R		M
		Tywyn to Aberdyfi Multi User Path	Gwynedd	0	S	R		H

Table B5: Encouraging Walking and Cycling Assessment

High Level Intervention	Encouraging Walking and Cycling						Commentary
SEA Objective	Scheme	Local Authority	Assessment of effect				
			Impact	Timescale	Reversibility	Certainty	
							<p>route alignments for new road and active travel links. These assessments should take account of the presence of cultural heritage features in the area.</p> <ul style="list-style-type: none"> Use sensitive design and construction techniques in areas of historical importance; Adopt design principles for works being carried out in areas of historical importance to maintain cultural distinctiveness. <p>Cognisance should also be given to the mitigation associated with SEA Objective 11.</p>
SEA Objective 11: To ensure that landscape is valued, protected and enhanced.	Bow Street to Aberystwyth & C1010 links to Penrhyncoch (Phases 1 to 3) Cycle Route	Ceredigion	0	M	R	M	<p>There will be a mixed impact upon the landscape of Mid Wales, the creation of new offline routes will have an adverse effect through introducing new infrastructure elements in to the landscape, however, the provision of new active travel routes will increase access to areas such as the Snowdonia National Park. Key impacts are identified as being:</p> <ul style="list-style-type: none"> The Ystwyth Trail extension and the Tywyn to Aberdyfi Path will be constructed within Historic Landscape Areas, however, the proximity of the trails to the existing road infrastructure and the limited area of the landscape that will be affected is considered to result in negligible impacts. Details on Active Travel for designated localities are not yet known and as such the impact of these schemes is currently uncertain. The Rheidiol Cycle Trail will route through the Upland Ceredigion Historic Landscape Area which is designated as a Landscape of Outstanding Historic Interest. The creation of a new offline route through this area is considered to result in adverse impacts through impacts to the landscape character and vegetation in the area. The Lon Tryweryn Multi User Path will route through the Bala and Bala Lakesides Historic Landscape Area, and the Snowdonia National Park. Impacts to the landscape will be adverse, however there will be beneficial impacts that occur where the landscape is opened up to existing and new users via the path.
	Ystwyth Trail Extension - Cors Caron to Tregaron and Tynygraig Section	Ceredigion	-	M	R	M	
	Rheidiol Cycle Trail - Off road options at Capel Bangor	Ceredigion	0	S	R	H	
	A486 Footway/Cycleway	Ceredigion	0	S	R	H	
	Active Travel for "designated" localities	All Authorities	?	L	R	L	
	Lon Tryweryn Multi User Path	Gwynedd	+/-	M	R	M	
	Tywyn to Aberdyfi Multi User Path	Gwynedd	0	S	R	H	

Table B5: Encouraging Walking and Cycling Assessment

High Level Intervention	Encouraging Walking and Cycling						
SEA Objective	Scheme	Local Authority	Assessment of effect				Commentary
			Impact	Timescale	Reversibility	Certainty	
							<p>Mitigation measures</p> <ul style="list-style-type: none"> Where new offline routes are proposed landscape assessment should be undertaken to select alignments that minimise adverse impacts whilst also seeking to maximise benefits through integration of the intervention in to the existing landscape and maximising accessibility to the high quality landscapes across Mid Wales. Measures to integrate schemes into the surrounding landscape and reduce visual impact on properties should be considered including scheme alignment, retention of existing trees, and new tree planting; Sensitive scheme design and construction will be required in order to integrate the interventions sympathetically into the landscape; Lighting Strategies should be developed in order to minimise light spill and seek to achieve 'dark sky compliance' where possible
SEA Objective 12: To support the business environment	Bow Street to Aberystwyth & C1010 links to Penrhyncoch (Phases 1 to 3) Cycle Route	Ceredigion	+	L	R	H	<p>It is considered that the proposed walking and cycling improvements will result in positive impacts when considered against SEA Objective 12, each of the proposed interventions seeks to promote active travel and link existing routes to areas of employment and / or town centres which will result in increased access for all users.</p> <p>The possible modal shift will also aid in improving traffic flows on the network which will be of benefit to freight movements in the region.</p> <p>Mitigation measures</p> <ul style="list-style-type: none"> None Required
	Ystwyth Trail Extension - Cors Caron to Tregaron and Tynygraig Section	Ceredigion	+	L	R	H	
	Rheidiol Cycle Trail - Off road options at Capel Bangor	Ceredigion	+	L	R	H	
	A486 Footway/Cycleway	Ceredigion	+	L	R	H	
	Active Travel for "designated" localities	All Authorities	+	L	R	H	
	Lon Tryweryn Multi User Path	Gwynedd	+	L	R	H	
	Tywyn to Aberdyfi Multi User Path	Gwynedd	+	L	R	H	
Qualitative	This intervention promotes a range of key investment interventions and policy measures to encourage modal shift and reduce vehicle emissions. Cumulatively the						

Table B5: Encouraging Walking and Cycling Assessment

High Level Intervention	Encouraging Walking and Cycling						
SEA Objective	Scheme	Local Authority	Assessment of effect				Commentary
			Impact	Timescale	Reversibility	Certainty	
Summary/ Cumulative	<p>measures are expected to result in broadly positive outcomes however there are key adverse impacts to biodiversity (through potential impacts to designated sites) and the water environment (where interventions are proposed to be constructed in areas of known flood risk).</p> <p>Where adverse impacts are anticipated to occur, it is considered that impacts will be mitigated at the project level and throughout intervention design and construction.</p>						
Assumptions and uncertainty	<p>Uncertainty does exist regarding the level of uptake of measures such as increased walking and cycling and behavioural change measures. No quantitative assessment has been undertaken to support this assessment.</p>						

Table B6: Integrated Public Transport Networks Assessment

High Level Intervention	Integrated Public Transport Networks						Commentary
SEA Objective	Scheme	Local Authority	Assessment of effect				
			Impact	Timescale	Reversibility	Certainty	
SEA Objective 1: To minimise transport related air pollution	Strategic Bus Corridor Infrastructure Improvements	All Authorities	0	S	R	H	<p>It is currently unclear how significant the proposed interventions will be in contributing to lowering transport related air pollution across the region. However some of the interventions proposed do support delivering a modal shift towards public transport use and positive impacts have therefore been identified. Key impacts are seen as being:</p> <ul style="list-style-type: none"> The strategic bus corridor improvements will result in negligible impacts to air pollution with proposed improvements to facilities unlikely to result in any changes to emission levels. Improving rail service access across the region will encourage a modal shift towards public transport and will reduce vehicular emissions on the road network. The measures contained within the Bwcabus intervention are currently unknown, however there is the potential for improvements to air pollution where capital funding allows for bus replacements to be made. The Capital Enhancements intervention will allow for new buses and will increase the capacity of public transport provisions which will contribute to a modal shift away from public vehicles and will lead to an associated improvement in emissions. The improvements at Bow Street Railway Station are currently unknown and subject to a business case, although proposed to improve public transport integration, as yet it is not clear what the interventions and / or level of investment in the intervention will be. <p>Mitigation</p> <ul style="list-style-type: none"> <i>The Bwcabus and Capital Enhancements interventions should consider buses with lower emissions where new / replacement buses are required.</i>
	Actual Time 'Passenger Transport Information via Smart Mobile App	All Authorities	0	S	R	H	
	Access Improvements to the Rail Network	Ceredigion	+	M	R	M	
	Bwcabus Capital Investment Programme	Ceredigion	?	M	R	M	
	Capital Enhancements for Public, Fleet and Community Transport	All Authorities	+	M	R	M	
	Ceredigion Passenger Transport Infrastructure	Ceredigion	0	S	R	H	
	Bow Street Railway Station	Ceredigion	?	M	R	M	
	Public Transport Information	All Authorities	0	S	R	H	
	Real Time Bus Information - Smart Mobile App	Powys	0	S	R	H	
Rail Hub Improvements	All Authorities	+	M	R	H		
SEA Objective 2: To reduce	Strategic Bus Corridor Infrastructure Improvements	All Authorities	0	S	R	H	It is currently unclear how significant the proposed interventions will be in contributing to lowering greenhouse gas emissions and improving resilience to

Table B6: Integrated Public Transport Networks Assessment

High Level Intervention	Integrated Public Transport Networks						Commentary
SEA Objective	Scheme	Local Authority	Assessment of effect				
			Impact	Timescale	Reversibility	Certainty	
transport related greenhouse gas emissions and ensure that adequate adaptation measures to climate change are in place.	Actual Time 'Passenger Transport Information via Smart Mobile App	All Authorities	0	S	R	H	climate change. However some of the interventions proposed do support delivering a modal shift towards public transport use and some positive impacts have therefore been identified. Key impacts are seen as being: <ul style="list-style-type: none"> The strategic bus corridor improvements will result in negligible impacts to air pollution with proposed improvements to facilities unlikely to result in any changes to greenhouse gas emissions or climate change. Improving rail service access across the region will encourage a modal shift towards public transport and will reduce greenhouse gas emissions. The measures contained within the Bwcabus intervention are currently unknown, however there is the potential for improvements to greenhouse gas emissions where capital funding allows for bus replacements to be made. The Capital Enhancements intervention will allow for new buses and will increase the capacity of public transport provisions which will contribute to a modal shift away from public vehicles and will lead to an associated improvement in emissions. The improvements at Bow Street Railway Station are currently unknown and subject to a business case, although proposed to improve public transport integration, as yet it is not clear what the interventions and / or level of investment in the intervention will be. Rail hub improvements could encourage a modal shift and associated reduction in greenhouse gas use, however, at present it is unclear where the proposed developments will be located and whether impacts to flood risk areas will occur. Mitigation <ul style="list-style-type: none"> The Bwcabus and Capital Enhancements interventions should consider buses with lower emissions where new / replacement buses are required. Appropriate mitigation such as Sustainable Urban Drainage Systems (SuDS) will require to be implemented within scheme designs to ensure that the construction and operation of the schemes does not adversely affect flooding either upstream or downstream of the proposals;
	Access Improvements to the Rail Network	Ceredigion	+	M	R	M	
	Bwcabus Capital Investment Programme	Ceredigion	?	M	R	M	
	Capital Enhancements for Public, Fleet and Community Transport	All Authorities	+	M	R	M	
	Ceredigion Passenger Transport Infrastructure	Ceredigion	0	S	R	H	
	Bow Street Railway Station	Ceredigion	?	M	R	M	
	Public Transport Information	All Authorities	0	S	R	H	
	Real Time Bus Information - Smart Mobile App	Powys	0	S	R	H	
	Rail Hub Improvements	All Authorities	+/-	M	R	H	

Table B6: Integrated Public Transport Networks Assessment

High Level Intervention	Integrated Public Transport Networks						Commentary
SEA Objective	Scheme	Local Authority	Assessment of effect				
			Impact	Timescale	Reversibility	Certainty	
							<ul style="list-style-type: none"> • Priority should be given to those interventions which seek to reduce greenhouse gas emissions; • Consider the implications of climate change on the design, construction and maintenance of interventions, taking into account increased rainfall and warmer summer temperatures; and • Use porous surfaces on areas of hard surfaces to reduce the risk of flooding and encourage infiltration.
SEA Objective 3: To minimise transport related noise and vibration.	Strategic Bus Corridor Infrastructure Improvements	All Authorities	0	S	R	H	<p>It is currently unclear how significant the proposed interventions will be in contributing to lowering transport related noise and vibration. However some of the interventions proposed do support delivering a modal shift towards public transport use and positive impacts have therefore been identified. Key impacts are seen as being:</p> <ul style="list-style-type: none"> • The strategic bus corridor improvements will result in negligible impacts to noise and vibration with proposed improvements to facilities unlikely to result in any changes to noise and vibration levels. • Improving rail service access across the region will encourage a modal shift towards public transport and will reduce noise and vibration levels across the local road network within Mid Wales. • The Capital Enhancements intervention will allow for new buses and will increase the capacity of public transport provisions which will contribute to a modal shift away from public vehicles and will lead to an associated improvement in noise and vibration levels. • The improvements at Bow Street Railway Station are currently unknown and subject to a business case, although proposed to improve public transport integration, as yet it is not clear what the interventions and / or level of investment in the intervention will be. <p>Mitigation</p> <ul style="list-style-type: none"> • <i>None required.</i>
	Actual Time 'Passenger Transport Information via Smart Mobile App	All Authorities	0	S	R	H	
	Access Improvements to the Rail Network	Ceredigion	+	M	R	M	
	Bwcabus Capital Investment Programme	Ceredigion	0	S	R	H	
	Capital Enhancements for Public, Fleet and Community Transport	All Authorities	+	M	R	M	
	Ceredigion Passenger Transport Infrastructure	Ceredigion	0	S	R	H	
	Bow Street Railway Station	Ceredigion	?	M	R	M	
	Public Transport Information	All Authorities	0	S	R	H	
	Real Time Bus Information - Smart Mobile App	Powys	0	S	R	H	
Rail Hub Improvements	All Authorities	+	M	R	H		

Table B6: Integrated Public Transport Networks Assessment

High Level Intervention	Integrated Public Transport Networks						Commentary
SEA Objective	Scheme	Local Authority	Assessment of effect				
			Impact	Timescale	Reversibility	Certainty	
SEA Objective 4: To ensure that biodiversity is valued, protected and enhanced	Strategic Bus Corridor Infrastructure Improvements	All Authorities	0	S	R	H	<p>There is little relationship between the proposed interventions and SEA Objective 4, however, the location of some interventions is not currently known and impacts may therefore occur upon the identification of potential locations for development. As such, mitigation has been recommended. Key impacts are identified as:</p> <ul style="list-style-type: none"> The improvements at Bow Street Railway Station are currently unknown and subject to a business case, although proposed to improve public transport integration, as yet it is not clear what the interventions and / or level of investment in the intervention will be and therefore whether there will be any associated impact upon biodiversity. The rail hub improvements required may require direct impacts to land of biodiversity value, tree / scrub removal may have associated impacts to protected species. <p>Mitigation</p> <ul style="list-style-type: none"> <i>Appropriate habitat / species surveys to be undertaken to inform intervention designs associated with the rail hub improvements.</i> <i>Provision of species-specific mitigation measures, such as mammal fencing and crossings to be implemented where required in order to ensure continued connectivity for commuting and foraging protected species;</i>
	Actual Time 'Passenger Transport Information via Smart Mobile App	All Authorities	0	S	R	H	
	Access Improvements to the Rail Network	Ceredigion	0	M	R	M	
	Bwcabus Capital Investment Programme	Ceredigion	0	M	R	M	
	Capital Enhancements for Public, Fleet and Community Transport	All Authorities	0	M	R	M	
	Ceredigion Passenger Transport Infrastructure	Ceredigion	0	S	R	H	
	Bow Street Railway Station	Ceredigion	?	M	R	M	
	Public Transport Information	All Authorities	0	S	R	H	
	Real Time Bus Information - Smart Mobile App	Powys	0	S	R	H	
Rail Hub Improvements	All Authorities	?	M	R	L		
SEA Objective 5: To provide inclusive access to all services and facilities and reduce severance.	Strategic Bus Corridor Infrastructure Improvements	All Authorities	0	S	R	H	<p>The proposed interventions do provide some support to achieving SEA Objective 5, key impacts are identified as:</p> <ul style="list-style-type: none"> Improving access to rail services will enable greater access for the population of Mid Wales to services located along the rail network and within the key towns of the area including population centres such as Newtown. The Capital Enhancements intervention will provide improved public transport access across the region which will lead to associated benefits to
	Actual Time 'Passenger Transport Information via Smart Mobile App	All Authorities	0	S	R	H	
	Access Improvements to the Rail Network	Ceredigion	+	M	R	M	
	Bwcabus Capital Investment	Ceredigion	0	M	R	M	

Table B6: Integrated Public Transport Networks Assessment

High Level Intervention	Integrated Public Transport Networks						Commentary
SEA Objective	Scheme	Local Authority	Assessment of effect				
			Impact	Timescale	Reversibility	Certainty	
	Programme						access to services and facilities. • Rail hub improvements will improve access to stations across the region which will, by association improve access to services / facilities located along the rail network. Mitigation • <i>Capital enhancement should consider improvements which lead to benefits in terms of access to facilities and services to and from areas of high deprivation in the region.</i>
	Capital Enhancements for Public, Fleet and Community Transport	All Authorities	+	M	R	M	
	Ceredigion Passenger Transport Infrastructure	Ceredigion	0	S	R	H	
	Bow Street Railway Station	Ceredigion	?	M	R	M	
	Public Transport Information	All Authorities	0	S	R	H	
	Real Time Bus Information - Smart Mobile App	Powys	0	S	R	H	
	Rail Hub Improvements	All Authorities	+	M	R	M	
SEA Objective 6: To protect and promote everyone's physical and mental wellbeing.	Strategic Bus Corridor Infrastructure Improvements	All Authorities	0	S	R	H	The integrated public transport network improvements interventions will support achieving SEA Objective 6 through providing increased access to services and facilities by improving public transport facilities and services across the region. Key impacts are identified as: • Actual time passenger information through smart phone apps has the potential to reduce stress for travellers through improved information relating to service availability and journey times. • Improved safety through investment in public transport services and facilities (such as lit bus stops and raised kerbs) will increase the safety of public transport infrastructure, as well as making improvements in line with the Disability Discrimination Act (DDA). Mitigation • <i>Infrastructure at rail hubs should include facilities for cycle storage to encourage the use of active travel modes to access the stations.</i>
	Actual Time 'Passenger Transport Information via Smart Mobile App	All Authorities	+	S	R	H	
	Access Improvements to the Rail Network	Ceredigion	0	S	R	H	
	Bwcabus Capital Investment Programme	Ceredigion	0	M	R	M	
	Capital Enhancements for Public, Fleet and Community Transport	All Authorities	+	S	R	H	
	Ceredigion Passenger Transport Infrastructure	Ceredigion	+	S	R	H	
	Bow Street Railway Station	Ceredigion	?	M	R	M	
	Public Transport Information	All Authorities	+	S	R	H	
Real Time Bus Information - Smart	Powys	+	S	R	H		

Table B6: Integrated Public Transport Networks Assessment

High Level Intervention	Integrated Public Transport Networks						Commentary
SEA Objective	Scheme	Local Authority	Assessment of effect				
			Impact	Timescale	Reversibility	Certainty	
	Mobile App						
	Rail Hub Improvements	All Authorities	0	S	R	H	
SEA Objective 7: To reduce transport related contamination and safeguard soil quality and quantity.	Strategic Bus Corridor Infrastructure Improvements	All Authorities	0	S	R	H	<p>There is generally no clear relationship between the interventions and the likely impacts upon soils and contaminated land. However the rail hub improvements could result in some positive and negative impacts depending upon the final locations on the interventions. The assessment has identified the following key impacts:</p> <ul style="list-style-type: none"> The improvements at Bow Street Railway Station are currently unknown and subject to a business case, although proposed to improve public transport integration, as yet it is not clear what the interventions and / or level of investment in the intervention will be and therefore whether there will be any associated impact upon soils and / or contaminated land. Improvements at rail hubs in Mid Wales may result in direct impacts to contaminated land associated with the railway industry. However, these developments present the opportunity to redevelop areas of brownfield across the region <p>Mitigation</p> <ul style="list-style-type: none"> <i>Appropriate contaminated land investigations to be undertaken to inform the design and location of rail hub improvements.</i> <i>In order to ensure the appropriate control and management of non-native invasive weed species, site-specific eradication and control strategies will be required to be developed where invasive weeds are identified. Plans would be required which set out the management of excavated soil contaminated with invasive weed species (such as Japanese Knotweed, Himalayan Balsam and Giant Hogweed) and vehicle movements to control the potential transfer of contaminated soil, plant material and/or seeds off-site.</i>
	Actual Time 'Passenger Transport Information via Smart Mobile App	All Authorities	0	S	R	H	
	Access Improvements to the Rail Network	Ceredigion	0	M	R	M	
	Bwcabus Capital Investment Programme	Ceredigion	0	M	R	M	
	Capital Enhancements for Public, Fleet and Community Transport	All Authorities	0	M	R	M	
	Ceredigion Passenger Transport Infrastructure	Ceredigion	0	S	R	H	
	Bow Street Railway Station	Ceredigion	?	M	R	M	
	Public Transport Information	All Authorities	0	S	R	H	
	Real Time Bus Information - Smart Mobile App	Powys	0	S	R	H	
	Rail Hub Improvements	All Authorities	+/-	M	R	M	
SEA Objective 8:	Strategic Bus Corridor Infrastructure	All Authorities	0	S	R	H	<i>There is no clear relationship between the proposed interventions and the SEA</i>

Table B6: Integrated Public Transport Networks Assessment

High Level Intervention	Integrated Public Transport Networks						Commentary
SEA Objective	Scheme	Local Authority	Assessment of effect				
			Impact	Timescale	Reversibility	Certainty	
To minimise transport related impacts on water resources, flood plains and areas of flood risk.	Improvements						<p><i>Objective. Uncertainty does exist for two of the interventions proposed and as such the following impacts have been identified:</i></p> <ul style="list-style-type: none"> The improvements at Bow Street Railway Station are currently unknown and subject to a business case, although proposed to improve public transport integration, as yet it is not clear what the interventions and / or level of investment in the intervention will be and therefore whether there will be any associated impact upon the water environment. The location of the rail hubs improvements are not yet known so it is currently unclear what effect there will be upon the water environment and / or flood risk in the region. <p><i>Mitigation</i></p> <ul style="list-style-type: none"> New intervention development should identify climate change risks such as flooding and ensure that appropriate assessments are undertaken so that the intervention and the surrounding area are protected from climate change events. Appropriate mitigation such as Sustainable Urban Drainage Systems (SuDS) will require to be implemented within scheme designs to ensure that the construction and operation of the schemes does not adversely affect flooding either upstream or downstream of the proposals; Consider the implications of climate change on the design, construction and maintenance of interventions, taking into account increased rainfall and warmer summer temperatures; and Use porous surfaces on areas of hard surfaces to reduce the risk of flooding and encourage infiltration.
	Actual Time 'Passenger Transport Information via Smart Mobile App	All Authorities	0	S	R	H	
	Access Improvements to the Rail Network	Ceredigion	0	M	R	M	
	Bwcabus Capital Investment Programme	Ceredigion	0	M	R	M	
	Capital Enhancements for Public, Fleet and Community Transport	All Authorities	0	M	R	M	
	Ceredigion Passenger Transport Infrastructure	Ceredigion	0	S	R	H	
	Bow Street Railway Station	Ceredigion	?	M	R	M	
	Public Transport Information	All Authorities	0	S	R	H	
	Real Time Bus Information - Smart Mobile App	Powys	0	S	R	H	
Rail Hub Improvements	All Authorities	?	M	R	M		
SEA Objective 9: To ensure that natural resources and energy are	Strategic Bus Corridor Infrastructure Improvements	All Authorities	0	S	R	H	<p>Some positive impacts have been identified for the interventions through a reduction in fossil fuel use associated with a modal shift towards public transport. The following key impacts have been identified:</p> <ul style="list-style-type: none"> A modal shift towards rail journeys rather than private cars brought about by improved access to rail services will help to reduce fossil fuel
	Actual Time 'Passenger Transport Information via Smart Mobile App	All Authorities	0	S	R	H	

Table B6: Integrated Public Transport Networks Assessment

High Level Intervention		Integrated Public Transport Networks					Commentary
SEA Objective	Scheme	Local Authority	Assessment of effect				
			Impact	Timescale	Reversibility	Certainty	
used efficiently.	Access Improvements to the Rail Network	Ceredigion	+	M	R	M	consumption and increase resource efficiency. <ul style="list-style-type: none"> The measures contained within the Bwcabus intervention are currently unknown, however there is the potential for improvements to resource use where older buses are replaced with newer models. This will be further supported in Ceredigion through the Capital Enhancements intervention which will seek to replace older vehicles. The rail hub improvements will require the use of materials within their construction will lead to an increase in resource use. However, the promotion of modal shift through the improvements will lead to lower fossil fuel emissions associated with a reduction in private vehicle journeys. Mitigation <ul style="list-style-type: none"> <i>The Bwcabus scheme should consider buses with lower emissions to improve resource efficiency where new / replacement buses are required.</i>
	Bwcabus Capital Investment Programme	Ceredigion	?	M	R	M	
	Capital Enhancements for Public, Fleet and Community Transport	All Authorities	+	M	R	M	
	Ceredigion Passenger Transport Infrastructure	Ceredigion	0	S	R	H	
	Bow Street Railway Station	Ceredigion	?	M	R	M	
	Public Transport Information	All Authorities	0	S	R	H	
	Real Time Bus Information - Smart Mobile App	Powys	0	S	R	H	
	Rail Hub Improvements	All Authorities	+/-	M	R	M	
SEA Objective 10: To ensure that diversity, local distinctiveness, cultural heritage and heritage assets are valued, protected and enhanced.	Strategic Bus Corridor Infrastructure Improvements	All Authorities	0	S	R	H	There is generally no clear relationship between the interventions and the likely impacts upon cultural heritage resources across the region. However the rail hub improvements could result in some positive and negative impacts depending upon the final locations on the interventions. The assessment has identified the following key impacts: <ul style="list-style-type: none"> Rail hub improvements have the potential to adversely affect cultural heritage resources such as listed building associated with, or in the vicinity of the station. There is also the potential for buried archaeological resources to be impacted upon as a result of ground-breaking works. However, there is also the potential for improvements to be made such as at Llandrindod Wells Station which is located within a Conservation Area, works at this hub has the potential to lead to an overall improvement to the area. Mitigation Measures
	Actual Time 'Passenger Transport Information via Smart Mobile App	All Authorities	0	S	R	H	
	Access Improvements to the Rail Network	Ceredigion	0	M	R	M	
	Bwcabus Capital Investment Programme	Ceredigion	0	S	R	H	
	Capital Enhancements for Public, Fleet and Community Transport	All Authorities	0	S	R	H	
	Ceredigion Passenger Transport Infrastructure	Ceredigion	0	S	R	H	

Table B6: Integrated Public Transport Networks Assessment

High Level Intervention	Integrated Public Transport Networks						Commentary
SEA Objective	Scheme	Local Authority	Assessment of effect				
			Impact	Timescale	Reversibility	Certainty	
	Bow Street Railway Station	Ceredigion	?	M	R	M	<ul style="list-style-type: none"> An assessment of the potential for interventions to impact upon buried archaeological resources should be undertaken to inform the identification of final route alignments. Use sensitive design and construction techniques in areas of historical importance; Adopt design principles for works being carried out in areas of historical importance to maintain cultural distinctiveness. <p>Cognisance should also be given to the mitigation associated with SEA Objective 11.</p> <ul style="list-style-type: none">
	Public Transport Information	All Authorities	0	S	R	H	
	Real Time Bus Information - Smart Mobile App	Powys	0	S	R	H	
	Rail Hub Improvements	All Authorities	+/-	M	R	M	
SEA Objective 11: To ensure that landscape is valued, protected and enhanced.	Strategic Bus Corridor Infrastructure Improvements	All Authorities	0	S	R	H	<p>There is generally no clear relationship between the interventions and the likely impacts upon landscape. However the rail hub improvements could result in some positive and negative impacts depending upon the final locations on the interventions. The assessment has identified the following key impacts:</p> <ul style="list-style-type: none"> Rail hub improvements have the potential to adversely affect the landscape / townscape of the areas surrounding the station through the implementation of new infrastructure. However, there is also the potential for associated improvements to the landscape / townscape where areas of existing brownfield land are redeveloped. <p>Mitigation Measures</p> <ul style="list-style-type: none"> Measures to integrate schemes into the surrounding landscape and reduce visual impact on properties should be considered including scheme alignment, retention of existing trees, and new tree planting; Sensitive scheme design and construction will be required in order to integrate the interventions sympathetically into the landscape; Lighting Strategies should be developed in order to minimise light spill and seek to achieve 'dark sky compliance' where possible
	Actual Time 'Passenger Transport Information via Smart Mobile App	All Authorities	0	S	R	H	
	Access Improvements to the Rail Network	Ceredigion	0	M	R	M	
	Bwca bus Capital Investment Programme	Ceredigion	0	S	R	H	
	Capital Enhancements for Public, Fleet and Community Transport	All Authorities	0	S	R	H	
	Ceredigion Passenger Transport Infrastructure	Ceredigion	0	S	R	H	
	Bow Street Railway Station	Ceredigion	?	M	R	M	
	Public Transport Information	All Authorities	0	S	R	H	
	Real Time Bus Information - Smart Mobile App	Powys	0	S	R	H	

Table B6: Integrated Public Transport Networks Assessment

High Level Intervention	Integrated Public Transport Networks						Commentary
SEA Objective	Scheme	Local Authority	Assessment of effect				
			Impact	Timescale	Reversibility	Certainty	
	Rail Hub Improvements	All Authorities	+/-	M	R	M	
SEA Objective 12: To support the business environment	Strategic Bus Corridor Infrastructure Improvements	All Authorities	0	S	R	H	<p>The proposed interventions will support the SEA Objective through improvements in public transport increasing accessibility and improving traffic flows across the region. Some of the interventions identified are unlikely to result in any impacts when considered against the SEA Objective, however the following key impacts have been identified:</p> <ul style="list-style-type: none"> Improved access to rail services will benefit the business environment through improving access for the general public to areas of economic activity within the region such as Newtown. Furthermore, through encouraging a modal shift through improving access to the railway network it is considered that improved traffic flows on the network will occur which will result in associated benefits to freight movements. Investment in public transport through the Capital Enhancement intervention will also seek to improve the efficiency of the public transport network which will improve access for users across mid Wales.
	Actual Time 'Passenger Transport Information via Smart Mobile App	All Authorities	0	S	R	H	
	Access Improvements to the Rail Network	Ceredigion	+	M	R	M	
	Bwcabus Capital Investment Programme	Ceredigion	0	S	R	H	
	Capital Enhancements for Public, Fleet and Community Transport	All Authorities	+	M	R	M	
	Ceredigion Passenger Transport Infrastructure	Ceredigion	0	S	R	H	
	Bow Street Railway Station	Ceredigion	?	M	R	M	
	Public Transport Information	All Authorities	0	S	R	H	
	Real Time Bus Information - Smart Mobile App	Powys	0	S	R	H	
	Rail Hub Improvements	All Authorities	+	M	R	M	
Qualitative Summary/ Cumulative	<p>A range of key investment interventions and policy measures are promoted to encourage modal shift and reduce vehicle emissions through the promotion of integrating the public transport networks across North Wales with bus and rail services targeted for investment. Cumulatively the measures are expected to result in positive outcomes, with increased use of public transport leading to potential reductions in emissions and increased access to both services and the business environment. It is recommended that in order to maximise benefits interventions should be targeted at levels of high deprivation across the six Local Authority areas.</p> <p>Some adverse impacts may occur to areas of contaminated land where construction is required alongside the railway network, it is considered that these, and the other adverse impacts identified can be mitigated through site selection, design and construction mitigation.</p>						
Assumptions and	Uncertainty does exist regarding the level of uptake of measures to support the strategic public transport services. No quantitative assessment has been undertaken to						

Table B6: Integrated Public Transport Networks Assessment

High Level Intervention	Integrated Public Transport Networks						
SEA Objective	Scheme	Local Authority	Assessment of effect				Commentary
			Impact	Timescale	Reversibility	Certainty	
uncertainty	support this assessment.						

