Western Gateway Strategic Transport Body

Strategic Investment Plan

Appendix E – Assessment of Options

003
March 2025

Public

Western Gateway Strategic Transport Body

Strategic Investment Plan

Appendix E – Assessment of Options

Type of document (version) Public

Project no. UK302778

Our Ref. No. 003

Date: March 2025

WSP

Kings Orchard
1 Queen Street
Bristol
BS2 0HQ

Phone: +44 117 930 6200

WSP.com

Quality control

Issue/revision	First issue	Revision 1	Revision 2	Revision 3
Remarks	Draft	Final for Consultation	Post Consultation Updated	
Date	December 2024	December 2024	March 2025	
Prepared by	JH CT	CT	CT	
Signature				
Checked by	AP	AP	AP	
Signature				
Authorised by	MMD	MMD	MMD	
Signature				
Project number	UK302778	UK302778	UK302778	
Report number	001	002	003	
File reference				

Contents

Tables

Assessment of Preferred SIP Options

The SIP preferred options have been assessed below. These options have been listed by their Option ID code, with their project name and proposer also included. Options have been assessed individually using the methodology detailed in **Appendix D** and summarised in **Section 3 of the main SEA report**.

The list of Preferred SIP Options can be found in **Table E-1** below.

Table E-1 – List of Preferred SIP Options

Project Code	Project name	Type of proposal	Project Description
DC-2024-MIX-004	South East Dorset Rural Mobility Pilot	Mixed - MIX	The pilot responds to the joint Peninsular & Western Gateway South West Rural Mobility Strategy, seeking to address these issues with strategic level bundled interventions designed to deliver safe and secure transport, and equal opportunity to access services, employment and education. This will include increasing bus frequencies on core bus routes into the conurbation as identified through the BSIP, developing a network of multi-modal mobility hubs, and developing feeder Demand Responsive Services into the hub locations where a range of onward travel opportunities are available. The proposal would add value to the Dorset Metro proposals with Wareham acting as a key hub location for onward travel within the Purbeck area.
GCC-2024-FODCSV-000	Long distance coach connections (cross-boundary airport coach links): Lydney-Chepstow-Bristol / Cheltenham-Bristol	Public Transport (Services) - PTS	Chepstow Transport Strategy identifies a package of public transport scheme priorities which includes the Chepstow - Lydney corridor. This will overcome severance and connectivity issues that unlock regional benefits of resilience and access to international gateways - Bristol Airport. Strategic airport coach links will increase sustainable journeys and reduce congestion on the M5 SRN, releasing capacity for essential long-distance journeys N-S regional connectivity.
NR - 2024 - PTI-016	Improvement of gateline capacity and customer facilities at Bournemouth station	Public Transport (Infrastructure) - PTI	Series of improvements to downside and upside station facilities to improve capacity and safety and enhance customer experience including widening gateline on downside, creation of new mobility hub on downside, expanded and enhanced toilets on downside, relocation of existing footbridge and installation of lifts and new waiting room facilities on both sides.
NR-2024-PTI-011	Westbury Platform 0	Public Transport (Infrastructure) - PTI	Additional platform at Westbury, which will enable the running of an hourly Paddington - Westbury service and support an hourly TransWilts train service
DC-2024-MIX-003	Package of improvements to deliver strategic sustainable travel network connecting South East Dorset to the BCP conurbation.	Mixed - MIX	Delivery of a strategic cross boundary sustainable travel network including active travel routes and bus corridor improvements seeks to reduce road congestion and promote safe, and healthy alternatives to car use, especially for shorter journeys. The sustainable travel corridors to be delivered include: • Wareham to Poole town centre • Ferndown to Bournemouth town centre • Wimborne to Bournemouth Airport and aviation park • Wimborne to Poole town centre
NR-2024-PTI-004	Dorset Metro Shuttle (Wareham to Brockenhurst)	Public Transport (Infrastructure) - PTI	Additional 1tph shuttle service between Wareham and Brockenhurst, through the delivery of reduced signalling headways and junction margins, including potential closure of Poole LX.
GCC-2024-CSV-057011	Cheltenham Spa rail capacity and station enhancements and	Mixed - MIX	Cheltenham Spa Station recognition as a rail hub and access to other regional rail hubs, with a link to Gloucestershire Cycle Spine and rail enhancements as per Network Rail's Bristol to Birmingham Rail Strategy.

	(A40) cycle access link to Gloucestershire Cycle Spine		
NR-2024-PTI-002	Salisbury Enhancements	Public Transport (Infrastructure) - PTI	Enhancements to signalling within the Salisbury area to increase capacity and resilience for services in the area. Initial proposals include reduction in signalling headways and reinstatement of Platform 1
WC-2024-RD-005	A350/A303 Two Mile Down Junction Improvements	Road - RD	Improvement of the existing A303 / A350 grade separated single carriageway junction, to incorporate widening and extension of the existing ghost island priority junction, increase stacking capacity for westbound right-turn movements and improved conspicuity of signage and junction arrangement. The existing A303 overbridge has additional width which can be used to improve visibility for mainline users and those waiting on the side road wishing to gain access to the A303.
NR-2024-PTI-003	Heart of Wessex Line Service enhancement	Public Transport (Infrastructure) - PTI	Delivery of 1 Train Per hour train service (skip-stop Chetnole and Thornford) along the Heart of Wessex Line, through the delivery of a new passing loop between Castle Cary and Yeovil Pen Mill.
GCC-2024-CSV-018	Strategic Interchange Hubs (Gloucester, Cheltenham & Ashchurch for Tewkesbury Rail Stations)	Public Transport (Infrastructure) - PTI	Creation of Strategic Interchange Hubs for onward multi-modal connectivity to the region, as part of GCC's Interchange Hub programme and support Western Gateway Rail Strategy definition of rail hubs.
GCC-2024-CSV-056	Gloucester Rail Station (Horton Road Level Crossing)	Public Transport (Infrastructure) - PTI	Capacity upgrades at Gloucester Station is necessary for the region, as the existing network cannot accommodate proposed future growth in passenger services, including MetroWest and Midlands Rail Hub delivery
NR-2024-PTS-007	Bristol - Oxford direct train service	Public Transport (Services) - PTS	Introduction of an hourly direct train service between Bristol and Oxford, 7 days a week, which will improve journey times and encourage modal shift
BCP-2024-FRT-001	Port of Poole Expansion, reopening of Hamworthy Branch Line and supporting access improvements	Freight - FRT	To facilitate goods movements to/from the port of Poole by rail and to support expansion. The scheme will provide infrastructure to restart regular freight traffic along the Hamworthy Branch Line to Poole Port and provide a cargo/freight handling facility. In addition, the scheme will create space within the port footprint to enable an uplift in goods and passenger movements in/out of the Port (increased Rail Freight handling and a new passenger/cruise terminal). The scheme includes access improvements on the local road network to make travel to the port more sustainable and will support local plan housing and economic growth plans.
WEMCA-2024-PTI-007	Step-free access to rail stations	Public Transport (Infrastructure) - PTI	Step-free access to local rail stations, to improve passenger experience and allow for improved access to rail stations for those with mobility difficulties.
GCC-2024-TKS-01003	Ashchurch for Tewkesbury rail capacity and access enhancements & A46 active travel corridor	Mixed - MIX	Ashchurch for Tewkesbury Station rail capacity and access enhancements linked by the repurposed A46 active travel corridor based on the preferred option for the M5J9/A46 scheme comes forward. Improving rail access to/from Tewkesbury Borough, supporting delivery of the Midlands Railway Hub and an additional local stopping service through local rail enhancements, including: investigating provision of a third platform to allow more stopping services, work with Network Rail to extend the existing passing loop, identify opportunities for enhanced rail freight facilities and providing improved access to the station from the local highway.

NR-2024-PTI-001	Yeovil to Salisbury Service Improvement	Public Transport (Infrastructure) - PTI	Improvement of services between Yeovil Junction and Salisbury along the West of England Line. To be developed with focus on performance improvement opportunities for existing services, as well as opportunity to increase number of services from 1tph to 2tph. Infrastructure requirement is extension of Tisbury Loop; Eastward for additional service; Westward for performance benefits. This aligns with wider policy on improving performance and should impact/align with Peninsula Transport strategy in their region.
DC-2024-MIX-002	A354 multi-modal corridor improvements south of Dorchester to Weymouth and Portland.	Mixed - MIX	A package of measures will be delivered including: • A354 junction improvements (including Harbour junction, and Chaffeys Roundabout) to improve road safety, provide better facilities for active travel and enable bus priority • Bus priority measures along the corridor and within town centres to deliver improved reliability and shorter journey times. • Active travel/public realm/traffic management measures in Weymouth Town centre • Development of underutilised Weymouth P&R to provide a new mobility hub with dedicated park and ride services. Benefits will be delivered from shorter journey times, increased reliability, and reductions in traffic entering central areas of Weymouth.
WEMCA-2024-PTS-003	Rail service frequency enhancements to existing rail services	Public Transport (Services) - PTS	Additional service frequencies on existing rail lines to create a more attractive "turn up and go" frequency of service to local stations.
BCP-2024-PTI-001	All BCP rail stations to be made fully accessible	Public Transport (Infrastructure) - PTI	Progression to make all railway stations located within BCP fully accessible to published standards - both in terms of train to platform interface and station entrance to trains. There are 6 stations - from west to east, Hamworthy, Parkstone, Branksome, Pokesdown, Christchurch and Hinton Admiral, that have poor accessibility and for Poole and Bournemouth improvements are required. The schedule of improvements would be phased over a 10 year period.
NR-2024-PTI-008	Gloucester station layout improvements	Public Transport (Infrastructure) - PTI	The current layout at Gloucester station is inflexible and unsuited to current/future traffic requirements. This scheme would revise the track layout to give greater flexibility and unlock capacity for additional local and freight services.
BCP-2024-MIX-004	Christchurch Town Centre sustainable access package	Mixed - MIX	The scheme will provide sustainable access to Christchurch town centre (regional destination) by prioritising space for walking, cycling and public transport to create modal shift and reduce network pressure at strategic river crossings into the town centre. Supports Christchurch Town Centre movement strategy work, by providing mobility hubs, modal filters, bus gates, new active travel crossings, high-quality cycle facilities and re-configured roundabouts to encourage walking, cycling and public transport movements, supporting a range of journeys (work, education, leisure, tourism). Supports sustainable local, regional and national travel. Supports sustainable visitor travel and local plan housing and employment allocations.
NR-2024-PTI-012	Bristol Temple Meads Platform 0	Public Transport (Infrastructure) - PTI	Additional platform at Bristol Temple Meads which will support the introduction of new 2tph Cardiff - Bristol services, alongside an uplift in Bristol local services
BCP-2024-MIX-001	A338 to Wessex Fields, Airport and Aviation Business Park, sustainable access package scheme	Mixed - MIX	Multi modal access improvements to support the growth of Bournemouth Airport, Bournemouth Aviation Park and the Wessex Fields employment sites (including Bournemouth Hospital). Provision of enhanced sustainable transport access and connectivity to key out of town destinations by a range of sustainable modes. A package of improvements consisting of segregated cycling routes, enhanced bus routes and schedules, complemented by bus priority measures, will connect Bournemouth Station to the airport. Schemes will provide realistic and

			viable travel options for regional, national and international travel as well supporting the economic and housing growth aspirations outlined in the BCP Local Plan.
WEMCA-2024-PTI - 002	Bus corridor package in Bath	Public Transport (Infrastructure) - PTI	A series of strategic transport corridors focused on radial routes Bath and surrounding areas prioritising bus and walking and cycling measures over each corridor.
NR-2024-PTI - 010	Westerleigh Junction upgrade	Public Transport (Infrastructure) - PTI	Westerleigh Junction is a significant rail bottleneck for services through the area from all points of the compass. Upgrading the junction by providing grade separation would help free up capacity for additional local services between Gloucester and Bristol and for additional freight trains, as well as helping make train services more reliable.
	Bus corridor package in Bristol		A series of improvements along key bus routes radiating out from Bristol city centre across the wider urban area to improve opportunities for bus, walking and cycling
WEMCA-2024-PTI-004	Metrowest - Phase 1 (Portishead)	Public Transport (Infrastructure) - PTI	Commitment to delivering the Portishead Line - including new stations at Pill and Portishead - provision of one train per hour.
GCC-2024-CSV-014	Mass Rapid Transit & Strategic Interchange (Waterwells P&R / Cheltenham Racecourse P&R)	Mass Transit - MAS	The delivery of bus based Mass Rapid Transit will provide a high quality and fast public transport connection through the urban areas of Gloucester and Cheltenham connecting those major settlements to Strategic Interchange hubs (including P&R rail and bus stations) and providing interchange with Expressbus services. Deliver sustainable future growth for the CSV.
WEMCA-2024-AT-001-002-003-004	Walking and Cycling Network - West of England	Active Travel - AT	Consolidated package of walking and cycling projects across the West of England tackling specific gaps in the walking and cycling network to provide a coherent and consistent network over the urban area
BCP-2024-MIX-002	Bournemouth Travel Interchange (bus/rail station) and links to town centre/seafront + Bournemouth Town Centre sustainable access package	Mixed - MIX	A sustainable transport corridor running from Bournemouth Travel Interchange (regional gateway) to Bournemouth Centre and the seafront (regional destinations), building on delivered and funded projects (BSIP bus priority corridor and Lansdowne placemaking). Supports Bournemouth Town Centre movement strategy work, by providing mobility hubs, modal filters, bus gates, new active travel crossings, high-quality cycle facilities and re-configured roundabouts to encourage walking, cycling and public transport movements from the station to town centre/sea front, supporting a range of journeys (work, education, leisure, tourism). Supports sustainable local, regional and national travel. Supports sustainable visitor travel and local plan housing and employment allocations.
NR-2024-PTI-013	Additional loops between Yate and Gloucester	Public Transport (Infrastructure) - PTI	Passing loops on this section of line will support the introduction of a 4tph local service between Bristol and Gloucester and enable freight growth. Proposal is for a new Down loop at Wickwar (116m 0264y – 119m 1452y) of 5054m length and extension of the existing Harefield Up Goods loop (94m 1628y – 99m 0638y) by relocating S&C 470m south to enable 60mph turnout (currently on a curve), or 1510m south to Standish Junction
BCP-2024-AT-001	Regional Cycle Network routes/schemes	Active Travel - AT	Development of regional Active Travel routes to connect regional gateways, major centres of population and employment between BCP and neighbouring authorities of Dorset Council and Hampshire County Council.

WEMCA-2024-PTI-009	Rail electrification - Chippenham to Bristol Temple Meads via Bath Spa	Public Transport (Infrastructure) - PTI	Overhead line electrification between Chippenham to Bristol Temple Meads through Bath Spa, completing the Great Western Mainline electrification works
WEMCA-2024-PTI-005	Metrowest Phase 2 (Henbury Line)	Public Transport (Infrastructure) - PTI	Commitment to delivering the Henbury Line to North Filton (Brabazon) and Henbury - provision of one train per hour
WEMCA-2024-PTI-011	Four-tracking Bristol Temple Meads - Parson Street	Public Transport (Infrastructure) - PTI	Four-tracking of section between Bristol Temple Meads and Parson Street, enabling reliability and capacity improvements between Bristol Temple Meads towards the wider South West of England.
NR-2024-PTI-014	Provision of traction power infrastructure to support removal of diesel-only passenger rolling stock	Public Transport (Infrastructure) - PTI	Replacing diesel passenger trains in the Western Gateway area upon life expiry in the early 2030s will require provision of infrastructure to power new rolling stock. This is likely to involve sections of Overhead Line and potentially new DC electrification which may be used to power trains directly and/or to charge on-board batteries. The precise extent and location of required electrification cannot be confirmed but is likely to involve the most heavily-trafficked sections of the railway
WEMCA-2024-PTS - 001	Bus service frequency and rural bus service improvements through Bus Strategy	Public Transport (Services) - PTS	Implementation of bus strategy work undertaken as part of Joint Local Transport Plan, looking at enhancing bus service frequency across the urban and rural network

DC-2024-MIX-004

- **Option Name:** South East Dorset Rural Mobility Pilot
- **Proposer:** Dorset Council

Table E-2 – South East Dorset Rural Mobility Pilot

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	++	There are likely to be significant positive effects on population and equalities. This option seeks to address issues with rural connectivity by providing equal opportunities for accessing community services, employment and education. The increase in bus frequencies on core routes in South East Dorset are likely to benefit the population as a whole, in particular those who do not have access to a private car, such as the elderly, children and young people, and those with disabilities.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	++	This option will likely result in positive effects on human health as it aims to deliver a safe and secure transport system, improving access to services, education and employment through increased bus frequencies. Additionally, this option aims to improve and encourage active travel links which will likely have positive impacts on the population's mental and physical health and wellbeing. Indirect positive effects on human health are also likely to occur from improved air quality as public and active transport are improved and encouraged.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	++	This option is likely to result in significant positive effects upon community safety. The option aims to deliver a safe and secure transport system in rural areas. This is anticipated to directly result in significant improvements to public transport safety, and perceptions of safety, in South East Rural Dorset.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	++	This option is likely to result in significant positive effects upon the economy through its aim of delivering a safe and secure transport system, increasing connectivity across the region and providing access to better employment opportunities, especially to those travelling from rural areas. Improving and encouraging sustainable tourism is likely to support the economy and potentially attract investment opportunities.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	++	The option seeks to address issues with rural connectivity by providing secure and safe transport systems to improve access to services and employment within rural areas within South East Dorset. This is likely to help boost the rural economy and result in significant positive effects.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option is likely to improve rural connectivity and does not aim to improve access to housing. Therefore, negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	--	This option covers the whole of South East Devon and is therefore located within multiple designated sites including 73 SSSI's, four SPA's, seven SAC's, two RAMSAR's and eight NNR's. In addition, multiple designated sites have been identified within 500m of this option. There is potential for significant negative effects upon biodiversity as a result of this option due to damage and disturbance to designated sites during construction and potential loss of land. Information on the precise design and layout of the option, as well as the level of mitigation is not provided at this stage and thus the significance of residual effects can likely be reduced. However, taking a precautionary approach, the potential for significant negative effects is identified at this stage given the presence of sensitive receptors.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and	--	This option is located within the Dorset National Landscape and the Cranborne Chase and West Wiltshire Downs National Landscape, as well as the New Forest National Park as it covers the whole of South East Devon. There is potential for development to result in negative effects upon the setting of this national landscape, particularly in the

SEA Objective	Likely Significant Effects	Commentary
landscapes, including the rural environment, town and city centres, and seascapes.		short-term during construction. The option has potential to reduce disturbance as a result of encouraging a modal shift away from private car use. However, increasing bus frequencies may increase noise and detract from national landscapes and the national park. While there is likely to be mitigation available to reduce the significance of residual negative effects – a precautionary approach has been taken at this stage and a significant negative effect identified given the presence of sensitive receptors.
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within the Dorset and East Devon Coast World Heritage Site as it covers the whole of South East Devon, multiple scheduled monuments, registered parks and gardens, listed buildings, and conservation areas, as well as within 500m of multiple other heritage assets. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction, as a result of noise and vibration. Additionally, there may be long-term changes to the setting of heritage assets as a result of the development of this infrastructure. This may include improving the setting through reduced private vehicles. Additionally, long-term, these sustainable travel routes may result in improvements to air quality, which has potential to reduce the degradation of heritage assets. Information on the precise design and layout of the option, as well as the level of mitigation is not provided at this stage and thus the significance of residual effects can likely be reduced. However, taking a precautionary approach, the potential for significant negative effects is identified at this stage given the presence of sensitive receptors.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option includes improved access to heritage assets through sustainable modes, providing improved access. This is likely to be determined by individual bus service improvements that arise.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option is within 100m of multiple surface water and groundwater waterbodies that have poor chemical status. There is potential for negative effects upon the water environment due to runoff from construction activities. However, the option provides a sustainable travel network within BCP and Dorset and the scale of this is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	0	Negligible effects have been identified for this option in relation to air quality as it is not located within 500m of an AQMA. The option provides a sustainable travel network within BCP and Dorset. This has potential to result in improvements to air quality through encouraging a modal shift away from private car use. This may result in improvements to air quality, however this is not considered to be significant.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located either fully or partially within fluvial and tidal Flood Zone 2 and Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage as bus routes and multi-modal mobility hubs could be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	++	This option is likely to result in significant positive effects on greenhouse gases. This option seeks to improve rural connectivity through improved bus, walking and cycling links. This is likely to encourage the use of more sustainable transport modes and reducing reliance on single occupancy car use, and consequently helping to reduce greenhouse gas emissions.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	--	The option could result in the loss of best and most versatile agricultural land (Grade 1, 2 and 3) through developing a network of multi-modal mobility hubs

SEA Objective	Likely Significant Effects	Commentary
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	?	Uncertain effects are anticipated for this option as it does not include upgrading existing infrastructure. However, this option does provide improved infrastructure that supports future population growth within the Western Gateway STB region. It is assumed that the development of new infrastructure will be designed to include resilience measures for future climate change, however this is likely to be determined by individual scheme design.

GCC-2024-FODCSV-000

- **Option Name:** Long distance coach connections (cross-boundary airport coach links): Lydney-Chepstow-Bristol / Cheltenham-Bristol
- **Proposer:** Gloucestershire County Council

Table E-3 – Long distance coach connections (cross-boundary airport coach links): Lydney-Chepstow-Bristol / Cheltenham-Bristol

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	++	There are likely to be significant positive effects on population and equalities. This option aims to improve severance and connectivity to international gateways, by providing improved coach connections between Lydney and Chepstow to Bristol Airport, and Cheltenham to Bristol Airport. This is likely to benefit the population as a whole, in particular those who do not have access to a private car, such as the elderly, young people, and those with disabilities. Being able to use a coach to access Bristol Airport is also likely to benefit those on lower incomes.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	0	Whilst there are likely to be positive effects through the provision of long distant coach connections, there are unlikely to be any significant positive effects upon human health as this option does not include any elements that support or encourage active travel.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	0	Negligible effects are identified as a result of this option upon community safety. The option does not include any elements that are likely to contribute to improving user safety or the perception of safety on Western Gateway STB's transport network.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	++	This option is likely to result in significant positive effects on the economy with the provision of long distant coach connections to Bristol Airport, providing greater business and tourist connections to the region by opening national and international gateways.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	There are likely to positive effects on rural economies as a result of this option. The option aims to provide long distance coach connections to Bristol Airport from more rural area such as Lydney, which is likely to provide greater access to international gateways and employment. However, this is deemed to be not significant and therefore, negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option aims to provide long distance coach connections to Bristol Airport and does not contribute to improved housing growth. Therefore, negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	--	This option is located within 500m of multiple designated sites including one SSSI and two SAC's. There is potential for significant negative effects upon biodiversity as a result of this option due to damage and disturbance to designated sites during construction and potential loss of land. Taking a precautionary approach, the potential for significant negative effects is identified at this stage given the presence of sensitive receptors.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and	--	This option is located within 500m of the Cotswold's National Landscape and the Wye Valley National Landscape. Therefore there is potential for negative effects to arise upon these landscape assets, particularly through changes to setting from increased coach movements. While there is likely to be mitigation available to

SEA Objective	Likely Significant Effects	Commentary
landscapes, including the rural environment, town and city centres, and seascapes.		reduce the significance of residual negative effects – a precautionary approach has been taken at this stage and a significant negative effect identified given the presence of sensitive receptors.
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within one conservation area, and within 500m of multiple heritage assets, including listed buildings, conservation areas, and scheduled monuments. There is potential for development of this option to result in disturbance to the setting of these heritage assets through increased coach and bus movements, increasing noise. Information on the precise design and layout of the option, as well as the level of mitigation is not provided at this stage and thus the significance of residual effects can likely be reduced. However, taking a precautionary approach, the potential for significant negative effects is identified at this stage given the presence of sensitive receptors.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option includes improved access between Lydney-Chepstow-Bristol / Cheltenham-Bristol, and it is anticipated that there will be heritage assets located along these routes. However, it is currently unclear if services will provide improved access to these assets.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option intersects with the Bristol Airport - Carboniferous Limestone groundwater waterbody. There is potential for negative effects upon the water environment due to runoff from construction activities. However, the option aims to provide long distance coach connections to Bristol Airport and the scale of this is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	++	This option is located within Bristol AQMA, and within 500m of four AQMAs (Cheltenham Borough Council, Barton Street, Chepstow, and Lydney). This option is likely to result in improvements to air quality through providing public transport improvements, encouraging the use of coaches to access Bristol Airport, reducing private car emissions.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located either fully or partially within both fluvial and tidal Flood Zone 2, as well as fluvial Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage as new public transport schemes could be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	++	This option will support the model shift from the car to coach for longer distance journeys between Lydney and Bristol and Cheltenham and Bristol Airport, which is likely to reduce regional transport related carbon emissions. Therefore, resulting in significant positive effects on greenhouse gases.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	--	The option could result in the loss of best and most versatile agricultural land (Grade 1, 2 and 3) through delivering public transport schemes. Information on the precise design and layout of the option, as well as the level of mitigation is not provided at this stage and thus the significance of residual effects can likely be reduced and loss of best and most versatile land avoided. However, taking a precautionary approach, the potential for significant negative effects is identified at this stage.

SEA Objective	Likely Significant Effects	Commentary
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	**0**	Negligible effects are identified as a result of this option upon infrastructure. The option does not include any elements that upgrade the physical transport infrastructure within Western Gateway STB's transport network. However, it provides improved public transport services to serve wider communities.

NR - 2024 - PTI-016

- **Option Name:** Improvement of gateline capacity and customer facilities at Bournemouth station
- **Proposer:** Network Rail / South Western Railway

Table E-4 – Improvement of gateline capacity and customer facilities at Bournemouth station

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	0	This option is likely to result in positive effects for population and equalities. Improvements to Bournemouth Station will help to improve access and safety through the station for all, improving overall user experience. However, this not deemed to be significant and therefore, negligible effects have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	0	Whilst this option will likely have positive effects on human health and wellbeing by improving facilities at Bournemouth station, it is unlikely that there will be significant positive effects as this option does not include elements for active travel and therefore, negligible effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	++	Significant positive effects have been identified for this option with regard to community safety. This option improves the customer facilities at Bournemouth Station, including improving customer safety. This is likely to improve accessibility and promote a safe environment, improving user safety.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	?	This option has potential to result in effects upon the economy as a result of improving access to Bournemouth Station; therefore, uncertain effects have been identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	There are unlikely to be any significant effects upon rural economies as a result of this option. The option improves the accessibility and capacity of Bournemouth station and does not contribute either directly or indirectly to rural economies. Therefore, negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant effects upon housing growth as a result of this option. The option improves the accessibility and capacity of Bournemouth station and does not contribute either directly or indirectly to improved housing growth. Therefore, negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	?	Uncertain effects have been identified for this proposal at this stage. Although not located within 500m of any designated sites, there is no sufficient information on the proposed works to rule out potential adverse effects on local species and habitats, which could be significant should there be protected species or priority habitats present.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and landscapes, including the rural environment, town and city centres, and seascapes.	?	Uncertain effects have been identified for this option as it is more than 500m away from any national landscape or national park. This option has the potential to result in changes to the setting of the local townscape setting and value through station improvements. However, this is likely to be determined by the scheme design.

SEA Objective	Likely Significant Effects	Commentary
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within 500m of multiple listed buildings. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction, as a result of noise and vibration. Additionally, there may be long-term changes to the setting of heritage assets as a result of the development of this infrastructure, altering views. However, long-term, increased rail services routes may result in improvements to air quality, which has potential to reduce the degradation of heritage assets. Information on the precise design and layout of the option, as well as the level of mitigation is not provided at this stage and thus the significance of residual effects can likely be reduced. However, taking a precautionary approach, the potential for significant negative effects is identified at this stage given the presence of sensitive receptors.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. The option improves the accessibility and capacity of Bournemouth station, and it is anticipated that there will be heritage assets located along these routes. However, it is currently unclear if services will provide improved access to these assets.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	0	There are unlikely to be any significant, direct effects upon the water environment as a result of this option. The option improves the accessibility and capacity of Bournemouth station and is not located within 100m of a surface or groundwater body. Therefore, negligible effects have been identified.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	0	Negligible effects have been identified for this option in relation to air quality as it is not located within 500m of an AQMA. This option provides opportunities to improve air quality by encouraging a modal shift away from private car use, encouraging rail use. However, the scale of this is not anticipated to be significant.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	?	The option is located fully within Flood Zone 1. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for uncertain effects at this stage.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	0	The option is likely to reduce emissions from a more efficient building use and design, however this is not deemed to be significant. Therefore, negligible effects have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	0	The option would not result in the loss of Best and Most Versatile agricultural land.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	++	This option promotes improvements to existing station facilities at Bournemouth station, promoting the upgrading of existing infrastructure. Additionally, these improvements are likely to result in improvements to the maintenance of the existing station, supporting infrastructure for future population needs. Significant positive effects have therefore been identified.

NR-2024-PTI-011

- **Option Name:** Westbury Platform 0
- **Proposer:** Network Rail

Table E-5 – Westbury Platform 0

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	**0**	The additional platform will help to improve capacity at Westbury Station which is likely to improve accessibility at the station and provide greater connectivity to London Paddington with the provision of an hourly service. This is likely to result in positive effects on population and equalities by improving access to further community services and employment opportunities. However, this is unlikely to be significant and therefore, negligible effects have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	**0**	It is anticipated that the provision of an additional platform at Westbury station will have positive effects of human health and wellbeing by improving services. Negligible effects are identified as this option does not include any elements contributing to active travel.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	**0**	Negligible effects are identified as a result of this option upon community safety. The option does not include any elements that are likely to contribute to improving user safety or the perception of safety on Western Gateway STB's transport network.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	**++**	This option provides an additional platform at Westbury station which aims to support an hourly service into London Paddington and thus improve connectivity at Westbury as well. This is likely to result in significant positive effects upon the economy as this will allow an increase in capacity and therefore more passengers using the increased services for business and leisure.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	**0**	Negligible effects are identified as a result of this option upon rural economies. The option includes the development of an additional platform at Westbury station, providing an hourly TransWilts train service and does not contribute either directly or indirectly to rural economies. Therefore, negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	**0**	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option includes the development of an additional platform at Westbury station, providing an hourly TransWilts train service. There is potential for this to indirectly support housing growth if housing development is to arise in close proximity to the rail stations serviced by this option. However, these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	**?**	There are unlikely to be any significant, direct effects upon biodiversity as a result of this option. The option includes the development of an additional platform at Westbury station and is not located within 500m of any designated sites. However, it is currently uncertain whether construction will result in disturbance to local biodiversity or whether any protected species or priority habitats might be affected. Uncertain effects have therefore been identified.

SEA Objective	Likely Significant Effects	Commentary
SEA8 (Landscape and Townscape): To protect and enhance townscapes and landscapes, including the rural environment, town and city centres, and seascapes.	?	Uncertain effects have been identified for this option as it is more than 500m away from any national landscape or national park. This option has the potential to result in changes to the setting of the local townscape setting and value through station improvements. However, this is likely to be determined by the scheme design.
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	?	The option is located more than 500m and within 1km from multiple Listed Buildings and scheduled monuments. It is currently uncertain if the development of Platform 0 at Westbury will result in effects upon these assets as this is likely to be determined by individual scheme design.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets both within the Western Gateway STB region and London’s heritage assets. The scale of improved access cannot currently be determined and is likely to be determined by individual scheme design.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	0	The option includes the development of an additional platform at Westbury. There are unlikely to be any significant, direct effects upon the water environment as a result of this option, as it is not located within 100m of a surface or groundwater body. Therefore, negligible effects have been identified.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	0	Negligible effects have been identified for this option in relation to air quality as it is not located within 500m of an AQMA. This option provides opportunities to improve air quality by encouraging a modal shift away from private car use, encouraging rail use. However, the scale of this is not anticipated to be significant.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	?	The option is located fully within Flood Zone 1. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for uncertain effects at this stage.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	0	The implementation of an hourly service from Westbury station to London Paddington will help to encourage a modal shift to more sustainable transport, which is likely to reduce transport related emissions. However, this is not deemed to be significant and therefore, negligible effects have been identified for greenhouse gases.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	0	The option is located close to best and most versatile agricultural land (Grade 3). However it is not anticipated that the construction of the new platform will require any additional land take. Negligible effects have therefore been identified.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	?	Uncertain effects are identified as a result of this option upon infrastructure. The option includes the development of new infrastructure, within the existing Westbury railway station. However, this option does provide improved infrastructure that supports future population growth within the Western Gateway STB region. It is assumed that the

SEA Objective	Likely Significant Effects	Commentary
		development of new infrastructure will be designed to include resilience measures for future climate change, however this is likely to be determined by individual scheme design.

DC-2024-MIX-003

- **Option Name:** Package of improvements to deliver strategic sustainable travel network connecting South East Dorset to the BCP conurbation.
- **Proposer:** Dorset Council

Table E-6 – Package of improvements to deliver strategic sustainable travel network connecting South East Dorset to the BCP conurbation.

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	++	This option is likely to result in significant positive effects on Population and Equalities. The delivery of sustainable travel improvements (active travel and bus routes) to connect South East Dorset to BCP will help to increase access to community services, employment and education opportunities. This is likely to benefit the population as a whole, in particular those who do not have access to a private car, such as the elderly, children and young people, and those with disabilities.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	++	This option is likely to result in significant positive effects as it aims to deliver active travel routes and bus corridor improvements and seeks to reduce road congestion encourage a modal shift away from personal car usage. This has the potential direct and indirect positive impacts on human health and wellbeing by increasing public transport access and improving air quality across the region.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	?	Uncertain effects have been identified for this option with regard to community safety. This option is anticipated to improve the safety of a number of sustainable travel corridors, including active travel. However, the nature of this improvement is currently unknown and likely to be determined by individual scheme design.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	?	It is anticipated that positive effects on the economy will arise through the bus corridor improvements, particularly areas of south-east Devon. However, uncertain effects have been identified for this option as it seeks to promote safe and sustainable travel options and alleviate congestion in urban areas.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	There are likely to positive effects on rural economies as a result of this option. The option aims to provide sustainable transport routes that will likely benefit more rural communities such as Wareham by connecting them with Poole town centre. This is likely to improve access to employment opportunities, however, this is deemed to be not significant. Therefore, negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option delivers sustainable travel improvements (active travel and bus route). There is potential for this to indirectly support housing growth if housing development is to arise in close proximity to the routes within this option. However, these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	--	This option is located within multiple designated sites including four SSSI's, two SPA's, two RAMSAR's, one NNR and two SAC's. In addition, multiple designated sites have been identified within 500m of this option. There is potential for significant negative effects upon biodiversity as a result of this option due to damage and disturbance to designated sites during construction and potential loss of land. However, taking a precautionary approach, the potential for significant negative effects is identified at this stage given the presence of sensitive receptors.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and	--	This option is located within the Dorset National Landscape and the Cranborne Chase and West Wiltshire Downs National Landscape. There is potential for development to result in negative effects upon the setting of this national landscape, particularly in the short-term during construction through increased noise and vibration. The option also has

SEA Objective	Likely Significant Effects	Commentary
landscapes, including the rural environment, town and city centres, and seascapes.		potential to alter views during construction through plant equipment and construction compounds. There is also potential for the option to result in land take for the development of active travel routes, altering the national landscape. However, if sensitively designed, this significant effect may be mitigated. While there is likely to be mitigation available to reduce the significance of residual negative effects – a precautionary approach has been taken at this stage and a significant negative effect identified given the presence of sensitive receptors.
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within the one registered park and garden, three listed buildings, and 10 conservation areas, as well as within 500m of multiple other heritage assets including listed buildings, registered parks and gardens, conservation areas, and scheduled monuments. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction, as a result of noise and vibration. Additionally, there may be long-term changes to the setting of heritage assets as a result of the development of this infrastructure, altering views. However, long-term, these active travel routes may result in improvements to air quality, which has potential to reduce the degradation of heritage assets. Information on the precise design and layout of the option, as well as the level of mitigation is not provided at this stage and thus the significance of residual effects can likely be reduced. However, taking a precautionary approach, the potential for significant negative effects is identified at this stage given the presence of sensitive receptors.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within the Western Gateway STB region, including a number of assets within BCP and Dorset. However, the scale of improved access cannot currently be determined and is likely to be determined by individual scheme design.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option is within 100m of multiple surface water and groundwater waterbodies that have poor chemical status. There is potential for negative effects upon the water environment due to runoff from construction activities. However, the scale of the sustainable transport routes that the option aims to provide is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	0	Negligible effects have been identified for this option in relation to air quality as it is not located within 500m of an AQMA. However, the option provides a sustainable travel network within BCP and Dorset. This has potential to result in improvements to air quality through encouraging a modal shift away from private car use. This may result in improvements to air quality, however this is not considered to be significant.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located either fully or partially within both fluvial and tidal Flood Zone 2 and Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as sustainable travel corridors could be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	++	This option is likely to result in significant positive effects on greenhouse gases. This option seeks to improve connectivity through improved bus and active travel routes to Poole, Bournemouth and Bournemouth Airport. This is likely to encourage the use of more sustainable transport modes and reduce reliance on single occupancy car use, and consequently help to reduce transport related emissions.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	--	The option could result in the loss of best and most versatile agricultural land (Grade 2 and 3) through delivery of active travel routes and bus corridor improvements.

SEA Objective	Likely Significant Effects	Commentary
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	?	Uncertain effects are identified as a result of this option upon infrastructure. The option includes the development of new infrastructure. It is assumed that the development of new infrastructure will be designed to include resilience measures for future climate change, however this is likely to be determined by individual scheme design.

NR-2024-PTI-004

- **Option Name:** Dorset Metro Shuttle (Wareham to Brockenhurst)
- **Proposer:** Network Rail - Strategic Planning

Table E-7 – Dorset Metro Shuttle (Wareham to Brockenhurst)

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	0	The option includes one additional metro train per hour between Wareham and Brockenhurst. Whilst this option will support additional passenger numbers and improve access to community services, employment and education opportunities, it is not deemed significant. Therefore, negligible effects on population and equalities have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	0	There are unlikely to be any significant effects upon human health as this option includes one additional metro train per hour between Wareham and Brockenhurst and does not include any elements for active travel. Therefore, negligible effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	0	Negligible effects are identified as a result of this option upon community safety. The option does not include any elements that are likely to contribute to improving user safety or the perception of safety on Western Gateway STB's transport network.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	?	This option includes one additional metro train per hour between Wareham and Brockenhurst and whilst this has the potential for positive impacts on the economy through improved connectivity from rural Dorset to regional economic centres such as Bournemouth, it is uncertain if this would support economic success by opening international and regional gateways or attract invest opportunities.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	The option includes one additional metro train per hour between Wareham and Brockenhurst. Whilst this option will support additional passenger numbers and improve access from Wareham to Brockenhurst, it is not deemed significant. Therefore, negligible effects on rural economies have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option includes one additional metro train per hour between Wareham and Brockenhurst. Whilst this option will support additional passenger numbers, that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	--	This option is located within multiple designated sites including two SSSI's, three SPA's, two RAMSAR's and two SAC's. In addition, multiple designated sites have been identified within 500m of this option. There is potential for significant negative effects upon biodiversity as a result of this option due to damage and disturbance to designated sites during construction. However, the option includes one additional metro train per hour between Wareham and Brockenhurst and information such as the precise design and layout of the option, as well as the level of mitigation is not provided at this stage and thus the severity of significant effects can change.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and	?	Uncertain effects have been identified for this option as it is more than 500m away from any national landscape or national park. This option has the potential to result in changes to the setting of the local landscapes through increased

SEA Objective	Likely Significant Effects	Commentary
landscapes, including the rural environment, town and city centres, and seascapes.		noise from additional rail services. However, this is likely to be determined by the type and speed of trains along this route.
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within Burton conservation area and within 500m of multiple heritage assets, including conservation areas, listed buildings, and scheduled monuments. There is potential for development of this option to result in disturbance to the setting of these heritage assets as a result of the development of this infrastructure, increasing railway noise through increased services. However, long-term, these sustainable travel routes may result in improvements to air quality, which has potential to reduce the degradation of heritage assets. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within the Western Gateway STB region through providing additional capacity to passenger numbers. However, the scale of improved access cannot currently be determined and is likely to be determined by individual scheme design and the stops provided by this service.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option intersects with the Lower Dorset Stour and Lower Hampshire Avon groundwater waterbody. There is potential for negative effects upon the water environment due to runoff from construction activities. However, the option includes one additional metro train per hour between Wareham and Brockenhurst and the scale of this is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	0	Negligible effects have been identified for air quality in relation to this option as it is located more than 500m from an AQMA. This option has potential to encourage use of public transport as a result of railway improvements. However, this is not anticipated to be significant.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located either fully or partially within both fluvial and tidal Flood Zone 2 and Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as the additional shuttle service could be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	0	The implementation if an additional metro train per hour between Wareham and Brockenhurst will help to encourage a modal shift to more sustainable transport, which is likely to reduce transport related emissions. However, this is not deemed to be significant and therefore, negligible effects have been identified for greenhouse gases.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	0	The option would be located within best and most versatile agricultural land (Grade 2 and 3) however is unlikely to result in loss of this land as the option aims to deliver one additional shuttle train per hour and it is understood that will involve no new infrastructure / land take.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and	0	Negligible effects are identified as a result of this option upon infrastructure. The option does not include any elements that upgrade the physical transport infrastructure within Western Gateway STB’s transport network. However, it provides improved public transport services to serve wider communities.

SEA Objective	Likely Significant Effects	Commentary
resilient to future climate risks and support future population growth.		

GCC-2024-CSV-057011

- **Option Name:** Cheltenham Spa rail capacity and station enhancements and (A40) cycle access link to Gloucestershire Cycle Spine
- **Proposer:** Gloucestershire County Council

Table E-8 – Cheltenham Spa rail capacity and station enhancements and (A40) cycle access link to Gloucestershire Cycle Spine

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	**0**	This option is likely to result in positive effects on population and equalities. Cheltenham Spa station enhancements and provision of cycle access link to the Gloucestershire Cycle Spine will help to increase access to community services, employment, education, and physical activity opportunities. This is likely to benefit the population as a whole, in particular those who do not have access to a private car. However, this is not deemed to be significant and therefore, negligible effects have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	**0**	The focus of this option includes improved connections to Cheltenham's rail services with a link to the Gloucestershire Cycle Spine. This could result in positive effects upon human health and wellbeing with improved access to transport and active cycle. However, this is not deemed to be significant and therefore, negligible effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	**0**	Negligible effects are identified as a result of this option upon community safety. The option does not include any elements that are likely to contribute to improving user safety or the perception of safety on Western Gateway STB's transport network.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	**?**	The option includes improved connections to Cheltenham's rail service. This option has potential for better national rail connections, improving access to regional and national destinations and increasing freight traffic. However, uncertain effects have been identified as the scale of improved access cannot be determined.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	**0**	There are unlikely to be any significant effects on rural economies as a result of this option. The option includes improved connections to Cheltenham's rail services. Whilst this is likely to improve access to employment opportunities for more rural communities, these affects are considered to be minor. Therefore, neutral effects on rural economies have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	**0**	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option includes improved connections to Cheltenham's rail services. Whilst this option will support additional passenger numbers and improve accessibility within the STB region and neighbouring STB's, positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	**?**	The option includes improved connections to Cheltenham's rail services. There are unlikely to be any significant, direct effects upon biodiversity as a result of this option as it is not located within 500m of any designated sites. However it is currently uncertain whether construction will result in disturbance to local biodiversity or whether any protected species or priority habitats might be affected. Uncertain effects have therefore been identified.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and	**?**	Uncertain effects have been identified, as the option is located more than 500m away from a National Park or National Landscape. Therefore, any effects on landscape are likely to be determined by the individual scheme design that may arise, for example as a result of the scale and nature of railway enhancement.

SEA Objective	Likely Significant Effects	Commentary
landscapes, including the rural environment, town and city centres, and seascapes.		
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within one conservation area, and within 500m of an additional conservation area. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction, as a result of noise and vibration. However, it is assumed that any potential significant effect mitigated against through implementation of a CEMP. During operation, increased capacity of the rail line has potential to result in increased rail noise upon these assets. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within the Western Gateway STB region and neighbouring regions through providing additional accessibility. However, the scale of improved access cannot currently be determined, uncertain effects have therefore been identified.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	0	The option includes improved connections to Cheltenham’s rail services. There are unlikely to be any significant, direct effects upon the water environment as a result of this option, as it is not located within 100m of a surface or groundwater body. Therefore, negligible effects have been identified.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	0	Negligible effects have been identified for this option in relation to air quality as it is not located within 500m of an AQMA. This option provides opportunities to improve air quality by encouraging a modal shift away from private car use. However, the scale of this is not anticipated to be significant.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	?	. The option is located fully within Flood Zone 1. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for uncertain effects at this stage.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	0	This option will likely help to encourage a modal shift from single occupancy car use to more sustainable transport modes. This is also likely to help reduce congestion on the highway corridors, including the M5 and A417/A419, and consequently reducing transport related emissions. However, this is not deemed to be significant and therefore, negligible effects have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	0	The option would not result in the loss of Best and Most Versatile agricultural land.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	0	Negligible effects are identified as a result of this option upon infrastructure. The option does not include any elements that upgrade the physical transport infrastructure within Western Gateway STB’s transport network. However, it provides improved public transport services to serve wider communities.

NR-2024-PTI-002

- **Option Name:** Salisbury Enhancements
- **Proposer:** Network Rail - Strategic Planning

Table E-9 – Salisbury Enhancements

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	**0**	The option includes enhancements to signalling in the Salisbury area. Whilst this option will support an increase in passenger numbers and improve access to community services, employment and education opportunities, it is not deemed significant. Therefore, negligible effects on population and equalities have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	**0**	This option focuses on enhancing Sailsbury station and does not include any elements for improving or encouraging active travel. Whilst this option could result in positive effects on human health through improved access to public transport with increased capacity and resilience for services, these are anticipated to be minor, positive effects. Therefore, negligible effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	**0**	Negligible effects are identified as a result of this option upon community safety. The option does not include any elements that are likely to contribute to improving user safety or the perception of safety on Western Gateway STB's transport network.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	**?**	This option focuses on enhancing Sailsbury station and whilst it has the potential to increase the efficiency and reliability of freight movement, the exact scale across the Western Gateway STB region is currently uncertain.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	**0**	Enhancements to signalling within the Salisbury Area will help to increase capacity and improve access to employment opportunities and local tourist attractions, however the effect is not considered to be significant. Therefore, negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	**0**	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option enhances Sailsbury station. Whilst this option will support additional passenger numbers, positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	**--**	This option is located within multiple designated sites including one SSSI and one SAC. In addition, multiple designated sites have been identified within 500m of this option. There is potential for significant negative effects upon biodiversity as a result of this option due to damage and disturbance to designated sites during construction. However, information such as the precise design and layout of the option, as well as the level of mitigation is not provided at this stage and thus the severity of significant effects can change.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and	**--**	This option is located within the Cranborne Chase and West Wiltshire Downs National Landscape. There is potential for development to result in negative effects upon the setting of this national landscape, particularly in the short-term during construction of new signalling infrastructure and the reinstatement of Platform 1. The option has potential to reduce

SEA Objective	Likely Significant Effects	Commentary
landscapes, including the rural environment, town and city centres, and seascapes.		disturbance on the national landscape in the long term as a result of encouraging a modal shift away from private car use, encouraging use of public transport.
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within Sailsbury Conservation Area and within 500m of multiple heritage assets, including conservation areas, listed buildings, scheduled monuments and registered park and garden. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction, as a result of noise and vibration. Additionally, there may be long-term changes to the setting of heritage assets as a result of the development of this infrastructure, increasing railway noise. However, long-term, these sustainable travel routes may result in improvements to air quality, which has potential to reduce the degradation of heritage assets. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within the Western Gateway STB region, particularly to Sailsbury’s heritage assets. However, the exact scale of improved accessibility is currently uncertain and is likely to be determined by the individual scheme design.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option is within 100m of multiple surface water and groundwater waterbodies that have poor chemical status. There is potential for negative effects upon the water environment due to runoff from construction activities. However, the option enhances Sailsbury station and the scale of this is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	?	Uncertain effects have been identified for air quality in relation to this option as it is located within 500m of three AQMA’s. This option has potential to encourage use of public transport as a result of railway improvements. However, this is likely to be determined by the number of additional services provided as a result of this option.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located either fully or partially within fluvial Flood Zone 2 and Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as the enhancements to the rail network may be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	0	This option will likely help to encourage a modal shift from single occupancy car use to more sustainable transport modes and consequently reducing transport related emissions. However, this is not deemed to be significant and therefore, negligible effects have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	0	The option would be located within best and most versatile agricultural land (Grade 2 and 3) however is unlikely to result in its loss as the option aims to improve signalling, and it is understood that it will not involve additional infrastructure requiring additional land take.

SEA Objective	Likely Significant Effects	Commentary
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	**0**	Negligible effects are identified as a result of this option upon infrastructure. The option does not include any elements that upgrade the physical transport infrastructure within Western Gateway STB's transport network. However, it provides improved public transport services to serve wider communities.

WC-2024-RD-005

- **Option Name:** A350/A303 Two Mile Down Junction Improvements
- **Proposer:** Wiltshire Council

Table E-10 – A350/A303 Two Mile Down Junction Improvements

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	0	This option improves the capacity of the A303/A350 junction. Whilst this option will support increase user capacity and improve accessibility and safety at this junction, and positive effects to population and equalities are likely to be minor. Therefore, negligible effects have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	0	This option focuses on improving capacity of the A303/A350 junction of which indirect, minor positive effects may arise upon human health and wellbeing through decreased congestion and improved transport connectivity. However, there are no elements of active travel within this option. Therefore, negligible effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	++	Significant positive effects have been identified as this option includes the updating of infrastructure to improve visibility for road users on the A303, and those waiting at the side of the road. This is likely to improve both pedestrian and road user safety, reducing accidents on this section of Western Gateway's highways network.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	0	This option focuses on improving capacity of the A303/A350 junction of which indirect, minor positive effects may arise upon supporting the local economy through decreased congestion and improved transport connectivity, which could benefit future development. However, it is considered unlikely that this would have any significant positive impacts on supporting the region's economy. Therefore, negligible effects have been identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	There are unlikely to be any significant, direct effects upon rural economies as a result of this option. The option improves the capacity of the A303/A350 junction. Whilst this option will support additional road capacity, positive effects that may arise are considered to be minor. Therefore negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option improves the capacity of the A303/A350 junction. Whilst this option will support additional road capacity, positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	?	There are unlikely to be any significant, direct effects upon biodiversity as a result of this option. The option improves the capacity of the A303/A350 junction and is not located within 500m of any designated sites. However it is currently uncertain whether construction will result in disturbance to local or whether any protected species or priority habitats might be affected. Uncertain effects have therefore been identified.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and	--	This option is located within the Cranborne Chase and West Wiltshire Downs National Landscape. There is potential for development to result in negative effects upon the setting of this national landscape, particularly in the short-term during construction through increased noise and vibration. The option also has potential to alter views during construction

SEA Objective	Likely Significant Effects	Commentary
landscapes, including the rural environment, town and city centres, and seascapes.		through plant equipment and construction compounds. There is also potential for the option to result in land take for the widening of the carriageway, altering the national landscape.
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within 500m of four Scheduled Monuments. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction, as a result of noise and vibration and alteration of the visual landscape surrounding these assets. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to the scheduled monuments located within 500m of the option, through improving the connectivity of road transport. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual scheme design.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option intersects with the Upper Hampshire Avon groundwater waterbody. There is potential for negative effects upon the water environment due to runoff from construction activities. However, the option improves the capacity of the A303/A350 junction and the scale of this is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	0	Negligible effects have been identified for this option in relation to air quality as it is not located within 500m of an AQMA. However, the option contributes to improving the road network of the A350/A303 to reduce congestion and increase vehicle stacking. This has potential to result in improvements to air quality through reducing vehicle idling times, which contributes to increased emissions and reduced air quality. Conversely, there is also potential for this option to encourage private car use, which may result in increased number of vehicles on this route, reducing local air quality.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	?	The option is located fully within Flood Zone 1. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for uncertain effects at this stage.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	0	Negligible effects on greenhouse gases have been identified for this option. As this is a road scheme, it is unlikely to reduce carbon emissions, however the improved junction may help to reduce congestion along the A303/A350, and consequently transport related emissions. However this is not deemed to be significant.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	--	The option could result in the loss of best and most versatile agricultural land (Grade 3) through widening and extending of existing road infrastructure.

SEA Objective	Likely Significant Effects	Commentary
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	++	Significant positive effects have been identified as this option requires the updating of existing infrastructure along the A303/A350, and improves the current road network to increase capacity, supporting future population growth. Additionally, it is assumed that the upgrading of these junctions will include climate resilience measures.

NR-2024-PTI-003

- **Option Name:** Heart of Wessex Line Service enhancement
- **Proposer:** Network Rail - Strategic Planning

Table E-11 – Heart of Wessex Line Service enhancement

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	0	The option includes one additional train per hour along the Heart of Wessex Line (Bristol to Weymouth). Whilst this option will support additional passenger numbers and improve access to community services, employment and education opportunities, in particular for those who do not have access to a car such as older people, younger people and those with long-term health conditions, it is not deemed significant. Therefore, negligible effects on population and equalities have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	0	The option improves rail services within Castle Cary and Yeovil Pen Mill and whilst minor, positive effects may arise on human health and wellbeing as a result of improved transport connectivity, there are no elements supporting active transport. Therefore, negligible effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	0	Negligible effects are identified as a result of this option upon community safety. The option does not include any elements that are likely to contribute to improving user safety or the perception of safety on Western Gateway STB's transport network.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	++	This option aims to deliver improved transport connectivity across areas such as Weymouth and Dorchester which have high levels of transport related social exclusion (TRSE), this, in turn would improve access across key tourism areas as well as improved access to international gateway towns such as Bristol. Significant, positive effects are anticipated to arise as a result of increased business and leisure travel in key areas.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	The option includes one additional train per hour along the Heart of Wessex Line (Bristol to Weymouth). Whilst this option will support additional passenger numbers and improve access to community services and employment opportunities, it is not deemed significant. Therefore, negligible effects on population and equalities have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option improves rail services within Castle Cary and Yeovil Pen Mill. Whilst this option will support additional rail capacity, positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	--	This option is located within 500m of the Sparkford Wood SSI. There is potential for significant negative effects upon biodiversity as a result of this option due to damage and disturbance to designated sites during construction of the new passing loop. However, information such as the precise design and layout of the option, as well as the level of mitigation is not provided at this stage and thus the severity of significant effects can change.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and	?	Uncertain effects have been identified for this option as it is more than 500m away from any national landscape or national park. This option has the potential to result in changes to the setting of the local landscapes through increased

SEA Objective	Likely Significant Effects	Commentary
landscapes, including the rural environment, town and city centres, and seascapes.		noise from additional rail services and passing loop implementation. However, this is likely to be determined by the type and speed of trains along this route.
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within 500m of two listed buildings and one registered park and garden. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction of a new passing loop, as a result of noise and vibration. Additionally, there may be long-term changes to the setting of heritage assets as a result of the development of this infrastructure, increasing railway noise. However, long-term, these sustainable travel routes may result in improvements to air quality, which has potential to reduce the degradation of heritage assets. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within Somerset through improved rail services. However, the exact scale of improved accessibility is currently uncertain and is likely to be determined by the individual scheme design.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	0	The option improves rail services within Castle Cary and Yeovil Pen Mill. There are unlikely to be any significant, direct effects upon the water environment as a result of this option, as it is not located within 100m of a surface or groundwater body. Therefore, negligible effects have been identified.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	0	Negligible effects have been identified for air quality in relation to this option as it is located more than 500m from an AQMA. This option has potential to encourage use of public transport as a result of railway improvements. However, this is not anticipated to be significant.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	?	The option is located fully within Flood Zone 1. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for uncertain effects at this stage.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	0	This option will likely help to encourage a modal shift from single occupancy car use to more sustainable transport modes due to an increase in one train per hour on the Heart of Wessex line. This is also likely to help reduce congestion on the highway corridors, and consequently reducing transport related emissions. However, this is not deemed to be significant and therefore, negligible effects have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	0	The option is not anticipated to result in any loss of best and most versatile agricultural land through delivery of a new passing loop between Castle Cary and Yeovil Pen Mill as it is anticipated that development will occur within existing rail land.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	0	Negligible effects are identified as a result of this option upon infrastructure. The option does not include any elements that upgrade the physical transport infrastructure within Western Gateway STB’s transport network. However, it provides improved public transport services to serve wider communities.

GCC-2024-CSV-018

- **Option Name:** Strategic Interchange Hubs (Gloucester, Cheltenham & Ashchurch for Tewkesbury Rail Stations)
- **Proposer:** Gloucestershire County Council

Table E-12 – Strategic Interchange Hubs (Gloucester, Cheltenham & Ashchurch for Tewkesbury Rail Stations)

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	0	Positive effects on population and equalities are likely to result from this option due to the creation of Strategic Interchange Hubs for onwards multi-modal connectivity within the Western Gateway. This is likely to improve accessibility for the whole population, in particular those without access to a private car such as younger people, older people and those with long-term health conditions or disabilities. However, the effects are deemed to not be significant and therefore negligible effects have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	?	The option improves rail services and connectivity within the Western Gateway, supporting multi-modal connectivity support additional rail capacity. Positive effects may arise from improved air quality and facilities encouraging active travel. However, at this stage, the scale of active travel infrastructure is uncertain across the region.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	0	Negligible effects are identified as a result of this option upon community safety. The option does not include any elements that are likely to contribute to improving user safety or the perception of safety on Western Gateway STB's transport network.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	?	This project focuses on enhancing the facilities at Gloucester, Cheltenham & Ashchurch for Tewkesbury Rail Stations, optimising their functionality. Whilst this option could improve connectivity across the region and support tourism in key areas, at this stage, the scale of economic support is uncertain.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	There are unlikely to be any significant effects on rural economies as a result of this option. The option improves rail services and connectivity within the Western Gateway, supporting multi-modal connectivity support additional rail capacity, which is likely to improve access to employment opportunities and attracting visitors. However, this is deemed to be minor and indirect. Therefore, negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option improves rail services and connectivity within the Western Gateway, supporting multi-modal connectivity support additional rail capacity. Positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	?	The option improves rail services and connectivity within the Western Gateway. There are unlikely to be any significant, direct effects upon biodiversity as a result of this option as it is not located within 500m of any designated sites. However it is currently uncertain whether construction will result in disturbance to local biodiversity or whether any protected species or priority habitats might be affected. Uncertain effects have therefore been identified.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and	?	Uncertain effects have been identified, as the option is located more than 500m away from a National Park or National Landscape. Therefore, any effects on landscape are likely to be determined by the individual scheme design that may arise.

SEA Objective	Likely Significant Effects	Commentary
landscapes, including the rural environment, town and city centres, and seascapes.		
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within 500m of multiple heritage assets, including conservation areas, listed buildings, and scheduled monuments. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction of improved rail facilities, as a result of noise and vibration. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within Western Gateway through sustainable transport modes. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual scheme design and services provided within strategic interchange hubs.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	0	The option improves rail services and connectivity within the Western Gateway, supporting multi-modal connectivity support additional rail capacity. There are unlikely to be any significant, direct effects upon the water environment as a result of this option, as it is not located within 100m of a surface or groundwater body. Therefore, negligible effects have been identified.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	++	This option is located within 500m of the Barton Street AQMA. This option is likely to result in improvements to air quality through providing the strategic interchange hubs, encouraging the use of public transport and encouraging a modal shift away from private vehicles, reducing vehicle emissions. This has potential to improve air quality within the AQMA , therefore significant positive effects have therefore been identified.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	?	The option would not be located within Flood Zone 2 or Flood Zone 3, and therefore would not be vulnerable to flooding. It is not expected that the option would improve the transport network’s resilience to climate change. The option is located fully within Flood Zone 1. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for uncertain effects at this stage.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	0	This option will likely help to encourage a modal shift from single occupancy car use to more sustainable transport modes and consequently reducing transport related emissions. However, this is not deemed to be significant and therefore, negligible effects have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	--	The option could result in the loss of best and most versatile agricultural land (Grades 2 and 3) through creation of strategic interchange hubs.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	?	Uncertain effects are identified as a result of this option upon infrastructure. The scale of new infrastructure required to support the implementation of strategic interchange hubs at rail stations in Gloucestershire is currently unclear and is likely to be determined by individual scheme design.

GCC-2024-CSV-056

- **Option Name:** Gloucester Rail Station (Horton Road Level Crossing)
- **Proposer:** Gloucestershire County Council

Table E-13 – Gloucester Rail Station (Horton Road Level Crossing)

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	0	Negligible effects have been identified for population and equalities. The upgrades to Gloucester Rail Station will help to increase passenger capacity and therefore improve accessibility for all. However, these effects are expected to be minor.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	0	Negligible effects are identified as a result of this option upon human health. The option has potential for positive effects upon human health and wellbeing through reducing stress and anxiety during commuting times as a result of increased rail capacity and services. However, these effects are not considered to be significant. Therefore, negligible effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	0	Negligible effects are identified as a result of this option upon community safety. The option does not include any elements that are likely to contribute to improving user safety or the perception of safety on Western Gateway STB's transport network.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	0	There are unlikely to be any significant, direct effects upon the economy as a result of this option. The option improves rail capacity in Gloucester station. Positive effects that may arise from infrastructure improvements are considered to be minor, therefore negligible effects have been identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	There are unlikely to be any significant effects on rural economies as a result of this option. The improvements to the Gloucester Rail Station will help to increase passenger capacity and therefore improve accessibility for all. However, these effects are expected to be minor. Therefore, negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option improves rail capacity in Gloucester station. Positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	?	The improvements to the Gloucester Rail Station will help to increase passenger capacity and therefore improve accessibility for all. There are unlikely to be any significant, direct effects upon biodiversity as a result of this option as it is not located within 500m of any designated sites. However it is currently uncertain whether construction will result in disturbance to local biodiversity or whether any protected species or priority habitats might be affected. Uncertain effects have therefore been identified.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and landscapes, including the rural environment, town and city centres, and seascapes.	?	Uncertain effects have been identified for this option as it is more than 500m away from any national landscape or national park. This option has the potential to result in changes to the setting of the local landscape townscape as a result of increasing the capacity of Gloucester Station. However, it is currently unclear what upgrades may occur and therefore any effects on landscape are likely to be determined by the scheme design.

SEA Objective	Likely Significant Effects	Commentary
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within 500m of multiple heritage assets, including two conservation areas, and a listed building. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction, as a result of noise and vibration. Additionally, there may be long-term changes to the setting of heritage assets as a result of the increased rail activities. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within Western Gateway through sustainable transport modes. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual scheme design and services provided within strategic interchange hubs.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	0	This option aims to deliver improvements to Gloucester Rail Station and is further than 100m from a surface or groundwater body. Therefore, negligible effects have been identified.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	++	This option is located within 500m of Barton Street AQMA. There is potential for this option to result in improvements to air quality through increasing the capacity of Gloucester Station. It is anticipated that this may result in increased rail services, encouraging a modal shift away from private car use, contributing to improved air quality within the AQMA.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	?	The option would not be located within Flood Zone 2 or Flood Zone 3, and therefore would not be vulnerable to flooding. It is not expected that the option would improve the transport network’s resilience to climate change. The option is located fully within Flood Zone 1. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for uncertain effects at this stage.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	0	Improvements to Gloucester Rail Station will help to increase passenger capacity and therefore improve accessibility for all, which is likely to encourage a modal shift to more sustainable transport modes. However, these effects are expected to be minor. Therefore, negligible effects have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	0	The option would not result in the loss of Best and Most Versatile agricultural land.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	++	Significant positive effects are identified as a result of this option upon infrastructure. This option includes the upgrading of the infrastructure Gloucester station. Additionally, is potential for positive effects as this option increases the capacity of passenger services along this route.

NR-2024-PTS-007

- **Option Name:** Bristol - Oxford direct train service
- **Proposer:** Network Rail

Table E-14 – Bristol - Oxford direct train service

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	++	This option will introduce an hourly service between Bristol and Oxford, which is likely to result in significant positive effects on population and equalities. This will help to improve access between the two major cities and their associated community services, employment and education opportunities which is likely to benefit the population as a whole. Particular benefits will be felt by those who do not have access to a private car, such as younger people, older people, and those with long-term health conditions or disabilities.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	0	The option has potential for positive effects upon human health and wellbeing through reducing stress and anxiety during commuting times as a result of increased rail capacity and services. Encouraging a modal shift towards sustainable transport could have indirect positive effects upon human health through improved air quality. However, these effects are not considered to be significant. Therefore, negligible effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	0	Negligible effects are identified as a result of this option upon community safety. The option does not include any elements that are likely to contribute to improving user safety or the perception of safety on Western Gateway STB's transport network.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	++	This project focuses on introducing rail services between Bristol and Oxford, providing improved access between the Western Gateway STB region and neighbouring regions. Positive effects could result from this option by delivering improved connectivity across the two major cities and support tourism and business regionally and internationally due to improved access to Bristol Airport. Therefore significant positive effects have been identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	++	More rural communities between Bristol and Oxford are likely to benefit from the introduction of a more direct and frequent train service. This is likely to improve connectivity across the two major cities and support tourism and business regionally and internationally. Therefore significant positive effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option introduces rail services between Bristol and Oxford, providing improves access. Positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	0	This option is closely located within 500m of a number of designated sites. There is potential for small increases in noise disturbance on these sites. However, this option is not anticipated to result in significant effects upon these receptors. Negligible effects have therefore been identified.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and landscapes, including the rural environment, town and city centres, and seascapes.	0	This option intersects with the Cotswolds National Landscape. There is potential for increased rail services to result in negative effects upon the setting of this national landscape, particularly as a result of increased noise. However, this is not considered to be significant.

SEA Objective	Likely Significant Effects	Commentary
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	0	The option is located within 500m of multiple heritage assets, including listed buildings, registered parks and gardens, conservation areas, and scheduled monuments. There is potential for development of this option to result in disturbance to the setting of these heritage assets as a result of increased noise from rail services. However, this is not considered to be significant.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within Western Gateway STB region and neighbouring regions through sustainable transport modes. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual scheme design and services provided within strategic interchange hubs.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option is within 100m of multiple surface water and groundwater waterbodies that have poor chemical status. There is potential for negative effects upon the water environment due to runoff from construction activities. However, the option introduces rail services between Bristol and Oxford the scale of this is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	++	This option is located within Bristol AQMA and Oxford AQMA. This option is likely to result in improvements to air quality through providing public transport improvements, encouraging the use of rail services, reducing private car emissions.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is partially located within Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as sections of the existing track between Bristol and Oxford are within Flood Zone 3, therefore additional services would be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	0	The introduction of a more frequent and direct route between Bristol and Oxford will help to increase passenger capacity and therefore improve accessibility for all, which is likely to encourage a modal shift to more sustainable transport modes. However, these effects are expected to be minor. Therefore negligible effects have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	0	The option would not result in the loss of Best and Most Versatile agricultural land as it will include an additional train service, and no associated land take.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	0	Negligible effects are identified as a result of this option upon infrastructure. The option does not include any elements that upgrade the physical transport infrastructure within Western Gateway STB’s transport network. The option indirectly improves rail services for future population growth however this is not anticipated to result in significant positive effects.

BCP-2024-FRT-001

- **Option Name:** Port of Poole Expansion, reopening of Hamworthy Branch Line and supporting access improvements
- **Proposer:** BCP Council Transport Policy Team

Table E-15 – Port of Poole Expansion, reopening of Hamworthy Branch Line and supporting access improvements

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	**0**	Negligible effects on population and equalities have been identified for this option. The option will provide infrastructure to improve freight transport along the Hamworthy Branch Line to Poole Port which is likely to indirectly benefit the local population due to removing freight transport off the local road network. Further benefits will result from the introduction a new passenger/cruise terminal. However, it is deemed that these effects are not significant and therefore, negligible effects have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	**0**	Negligible effects are identified as a result of this option upon human health. The option improves freight capacity within Poole. Therefore, negligible effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	**0**	Negligible effects are identified as a result of this option upon community safety. The option will provide infrastructure to improve freight transport along the Hamworthy Branch Line to Poole Port which is likely to indirectly benefit community safety due to removing freight transport off the local road network. However this is deemed not to be significant.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	**++**	This option is likely to result in significant positive effects upon the economy as the reopening of the rail freight terminal will enable the expansion of the Port of Poole, generating employment, tourist and business opportunities on a local, regional and international scale, boosting economic growth.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	**0**	The option improves freight capacity within Poole which is unlikely to directly affect rural economies. Therefore negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	**0**	The option improves freight capacity within the Western Gateway and is therefore unlikely to result in any effects upon housing growth. Negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	**--**	This option is located within multiple designated sites including one SSSI and one SPA. In addition, multiple designated sites have been identified within 500m of this option. There is potential for significant negative effects upon biodiversity as a result of this option due to damage and disturbance to designated sites during construction. The option improves freight capacity within the Western Gateway and has potential for noise disturbance during operation. However, taking a precautionary approach, the potential for significant negative effects is identified at this stage given the presence of sensitive receptors.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and landscapes, including the rural environment, town and city centres, and seascapes.	**--**	This option is located within 500m of the Dorset National Landscape. There is potential for development to result in negative effects upon the setting of this national landscape, particularly in the short-term during construction of the port expansion and cargo/freight handling facility. There is also potential for negative effects to arise in the long term through increased noise and altering of the visual amenity of this landscape through port activities. While there is likely to be

SEA Objective	Likely Significant Effects	Commentary
		mitigation available to reduce the significance of residual negative effects – a precautionary approach has been taken at this stage and a significant negative effect identified given the presence of sensitive receptors.
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within one conservation area, as well as within 500m of multiple heritage assets, including conservation areas, listed buildings, and registered park and gardens. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction, as a result of noise and vibration. Additionally, there may be long-term changes to the setting of heritage assets as a result of the increased rail freight and port activities. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a "sense of place".	0	There are unlikely to be any significant effects upon access to heritage assets as a result of this option. The option focuses on freight capacity and does not contribute either directly or indirectly to improving access to heritage assets. Therefore, negligible effects have been identified.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option intersects with the Lower Frome and Piddle groundwater waterbody. There is potential for negative effects upon the water environment due to runoff from construction activities. However, the option focuses on improving freight capacity and the scale of this is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	0	Negligible effects have been identified for this option in relation to air quality as it is not located within 500m of an AQMA. However, the option contributes to increasing the capacity of the Port of Poole and rail freight. This has potential to result in reductions to air quality through increased freight activity. However, there is also potential for improvements as a result of encouraging rail freight, rather than road freight. Therefore, this potential improvement to air quality is not considered to be significant.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located either fully or partially within tidal Flood Zone 2 and Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as new infrastructure could be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region's contribution to climate change from transport related greenhouse gas emissions	++	Significant positive effects on greenhouse gases have been identified for this option. Introduction to new infrastructure to improve freight transport along the Hamworthy Branch Line to Poole Port will help to facilitate the movement of freight by low carbon rail rather than road offering significant potential savings in emissions. The role of the terminal could be expanded in the future to cater for non-port freight providing an alternative to the road trunk.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	0	The option would not result in the loss of Best and Most Versatile agricultural land.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	++	Significant positive effects are identified as a result of this option upon infrastructure. This option includes the upgrading of existing infrastructure within the existing Port of Poole site. There are also potential for positive effects to arise as this option will an increase in both goods and passenger movements, supporting future population growth directly through passenger capacity and indirectly through supply of required goods.

WEMCA-2024-PTI-007

- **Option Name:** Step-free access to rail stations
- **Proposer:** West of England Combined Authority

Table E-16 – Step-free access to rail stations

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	++	The option introduces step-free access for all stations within the West of England Mayoral Combined Authority. This will help to improve access for all to rail services and wider services, especially those with mobility issues (older people and those with long-term health conditions and disabilities) or those who are pregnant or on maternity leave. Significant positive effects have therefore been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	0	This option could have positive effects upon human mental health and wellbeing for those with mobility difficulties. However, these effects are not considered to be significant. Therefore, negligible effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	++	This option provides step-free access to rail stations. Providing this access will help to improve safety for users, particularly those struggling with mobility, helping to reduce trips and falls. Therefore, significant positive effects have been identified.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	0	The option provides step free access to rail stations. This is therefore unlikely to result in any significant effects upon economic growth. Negligible effects have been identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	The option provides step free access to rail stations. This is therefore unlikely to result in any significant effects upon rural economies. Negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	The option provides step free access to rail stations. This is therefore unlikely to result in any effects upon housing growth. Negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	?	This option is located within 500m of multiple designated sites including six SSSI's, one SPA and three SAC's. There is potential for negative effects upon biodiversity as a result of this option due to damage and disturbance to designated sites during construction.. Uncertain effects have therefore been identified.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and landscapes, including the rural environment, town and city centres, and seascapes.	0	This option is located within the Costwolds National Landscape. There is potential for noise and visual negative effects upon this national landscape during construction of station upgrades to provide step free access, However as these will take place art existing stations it is not considered likely that there will be any negative effect, it is assumed that any significant negative effect will be mitigated against through the implementation of a CEMP.

SEA Objective	Likely Significant Effects	Commentary
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	0	The option intersects multiple conservation areas and the City of Bath World Heritage Site, and is located within 500m of multiple other heritage assets, including listed buildings, registered parks and gardens, conservation areas, and scheduled monuments. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction, as a result of noise and vibration. However, as works will be carried out on existing infrastructure, it is not considered likely that there would be any negative effects.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	This option has potential to contribute to improving access to heritage assets within Western Gateway through making rail travel more accessible, therefore improving accessibility to a variety of designated heritage assets. There is also possibility for access to be negatively impacted during construction, though the extent of this is currently unknown, therefore uncertain effects have been assessed.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option intersects with the Avonmouth Mercia Mudstone and Inferior Oolite and Bridport Sands groundwater waterbodies. There is potential for negative effects upon the water environment due to runoff from construction activities. However, the option provides step free access to rail stations the scale of this is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	?	This option is located within the Bristol AQMA and Bath AQMA. It is currently uncertain if the development of step free access is likely to result in increased passenger numbers on rail services, encouraging a modal shift away from private car usage. Therefore, effects on air quality are currently uncertain.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located either fully or partially within both tidal and fluvial Flood Zone 2 and Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as new development to provide step free access could be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	0	The option provides step free access to rail stations. This is therefore unlikely to result in any significant effects upon greenhouse gases. Negligible effects have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	0	The option could be located within best and most versatile agricultural land (Grades 1, 2 and 3), though is unlikely to result in loss of land as the option aims to upgrade existing infrastructure.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	++	Significant positive effects are identified as a result of this option upon infrastructure. This option includes the upgrading of existing infrastructure across all stations within the Western Gateway area to enable access to all.

GCC-2024-TKS-01003

- **Option Name:** Ashchurch for Tewkesbury rail capacity and access enhancements & A46 active travel corridor
- **Proposer:** Gloucestershire County Council

Table E-17 – Ashchurch for Tewkesbury rail capacity and access enhancements & A46 active travel corridor

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	++	The option includes improving rail access to and from Ashchurch for Tewkesbury Station and access links to the A46 active travel corridor. This is likely to improve access to community services, employment and education facilities for all, in particular those who do not have access to a private car, such as younger people, older people, and those with long-term health conditions or disabilities.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	?	The option has potential for positive effects upon human health and wellbeing through reducing stress and anxiety during commuting times as a result of increased rail capacity and services. Encouraging a modal shift towards sustainable transport could have indirect positive effects upon human health through improved air quality. In addition, access enhancements linked by the repurposed A46 active travel corridor, could have positive effects upon human health by encouraging healthy lifestyles. However, improved accessibility is currently uncertain and is likely to be determined by the individual scheme design
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	0	Negligible effects are identified as a result of this option upon community safety. The option does not include any elements that are likely to contribute to improving user safety or the perception of safety on Western Gateway STB's transport network.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	++	The option includes improving rail access to and from Ashchurch for Tewkesbury Station and access links to the A46 active travel corridor. This could result in positive effects to the economy through improved access to employment, tourism destinations and national and regional movements for freight movements between Bristol and Birmingham. This option also has potential to improve access to international gateways through Birmingham Airport. Therefore, significant positive effects have been identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	++	The option includes improving rail access to and from Ashchurch for Tewkesbury Station and access links to the A46 active travel corridor. The station is in close proximity to The Cotswolds and is likely to provide a gateway for further employment and visitor opportunities. Therefore, significant positive effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option improves rail capacity and also provides improvements to the A46 active travel corridor. There is potential for this option to provide improved infrastructure for increased passenger numbers. Positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	?	The option includes improving rail access to and from Ashchurch for Tewkesbury Station and access links to the A46 active travel corridor. There are unlikely to be any significant, direct effects upon biodiversity as a result of this option as it is not located within 500m of any designated sites. However, it is currently uncertain whether construction will result in disturbance to local biodiversity or whether any protected species or priority habitats might be affected. Uncertain effects have therefore been identified.

SEA Objective	Likely Significant Effects	Commentary
SEA8 (Landscape and Townscape): To protect and enhance townscapes and landscapes, including the rural environment, town and city centres, and seascapes.	?	Uncertain effects have been identified, as the option is located more than 500m away from a National Park or National Landscape. Therefore, any effects on landscape are likely to be determined by the individual scheme design that may arise, for example as a result of the scale of railway capacity.
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within 500m of one Grade 2 listed building. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction, as a result of noise and vibration. However, it is assumed that any potential significant effect mitigated against through implementation of a CEMP. During operation, increased capacity of the rail line has potential to result in increased rail noise upon this asset. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within Western Gateway through sustainable transport modes. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual scheme design and services provided within strategic interchange hubs.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	0	The option includes improving rail access to and from Ashchurch for Tewkesbury Station and access links to the A46 active travel corridor. There are unlikely to be any significant, direct effects upon the water environment as a result of this option, as it is not located within 100m of a surface or groundwater body. Therefore, negligible effects have been identified.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	0	Negligible effects have been identified for this option in relation to air quality as it is not located within 500m of an AQMA. This option provides opportunities to improve air quality by encouraging a modal shift away from private car use. However, the scale of this is not anticipated to be significant.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	?	The option is located fully within Flood Zone 1. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for uncertain effects at this stage.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	++	Significant positive effects have been identified by this option. The improved access to Tewkesbury Borough by rail will reduce pressure on the heavily constrained M5 and A46 corridors, reducing congestion and traffic volumes as well as provide opportunities for greater rail service enhancement. This option will also help to support active travel reducing reliance on private car use. Therefore, significant effects have been identified for greenhouse gases.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	0	The option would not result in the loss of Best and Most Versatile agricultural land.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and	?	Uncertain effects are identified as a result of this option upon infrastructure. There is potential for this option to result in the upgrade of existing infrastructure, however new infrastructure is also required. The scale of new infrastructure required is currently unclear and is likely to be determined by individual scheme design.

SEA Objective	Likely Significant Effects	Commentary
resilient to future climate risks and support future population growth.		

NR-2024-PTI-001

- **Option Name:** Yeovil to Salisbury Service Improvement
- **Proposer:** Network Rail - Strategic Planning

Table E-18 – Yeovil to Salisbury Service Improvement

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	++	The introduction of more frequent rail services between Yeovil and Salisbury are likely to improve access and connectivity for all. In particular those who do not have access to a private car, such as younger people, older people, and those with long-term health conditions or disabilities. Therefore, significant positive effects have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	0	The option has potential for positive effects upon human health and wellbeing through reducing stress and anxiety during commuting times as a result of increased rail capacity and services. Encouraging a modal shift towards sustainable transport could have indirect positive effects upon human health through improved air quality. However, these effects are not considered to be significant. Therefore, negligible effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	0	Negligible effects are identified as a result of this option upon community safety. The option does not include any elements that are likely to contribute to improving user safety or the perception of safety on Western Gateway STB's transport network.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	0	There are unlikely to be any significant positive effects upon the economy as a result of this option. The option improves rail capacity and services, so there is potential for this option to provide improved access to tourist destinations and important regional and national destinations. Positive effects that may arise are considered to be minor, therefore negligible effects have been identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	There are unlikely to be any significant positive effects upon rural economies as a result of this option. The option improves rail capacity and services between Yeovil and Salisbury, so there is potential for this option to provide improved access to tourist destinations and employment. However, these are considered to be minor. Therefore negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option improves rail capacity and services. There is potential for this option to provide improved infrastructure for increased passenger numbers. Positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	0	This option is located within multiple designated sites including one SSSI and one SAC. In addition, multiple designated sites have been identified within 500m of this option. However, based on the information available at this stage it has been assumed that this option requires minor construction works limited within the rail track boundaries. Therefore negligible effects have been identified at this stage.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and	0	This option is located within the Cranborne Chase and West Wiltshire Downs National Landscape. The option has potential to reduce disturbance as a result of encouraging a modal shift away from private car use, encouraging use of

SEA Objective	Likely Significant Effects	Commentary
landscapes, including the rural environment, town and city centres, and seascapes.		public transport between Yeovil to Sailsbury. However, these effects are not considered to be significant. Negligible effects have therefore been identified.
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	**0**	The option is located within 500m of multiple heritage assets, including three conservation areas, multiple listed buildings, one scheduled monument and one registered park and garden. Long-term, these sustainable travel routes may result in improvements to air quality, which has potential to reduce the degradation of heritage assets. However, this is not considered to be significant and negligible effects have been identified.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	**?**	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within Western Gateway through sustainable transport modes. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual scheme design and the stations served by additional services.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	**?**	This option intersects with the Nadder Trib (Swallowcliffe) surface water waterbody that have poor chemical status. There is potential for negative effects upon the water environment due to runoff from construction activities. However, the scale of this is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	**0**	Negligible effects have been identified for this option in relation to air quality as it is not located within 500m of an AQMA. However, the option contributes to providing improvements to the rail network. This has potential to result in improvements to air quality through encouraging a modal shift away from private car use. This may result in improvements to air quality, however this is not considered to be significant.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	**--**	The option is located either fully or partially within fluvial Flood Zone 2 and Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as new infrastructure and services could be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	**0**	The introduction of more frequent rail services between Yeovil and Salisbury is likely to encourage the modal shift to more sustainable transport modes, reducing transport related emissions. However, these benefits are considered to be minor. Therefore, negligible effects have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	**0**	The option is located in close proximity to best and most versatile agricultural land (Grade 3). However, it is not anticipated that the option will result in additional land take associated with the additional infrastructure requirements, as it is assumed that development will occur within the existing rail track land .
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	**0**	Negligible effects are identified as a result of this option upon infrastructure. The option does not include any elements that upgrade the physical transport infrastructure within Western Gateway STB’s transport network. The increase in services proposed within this option will support a localised population increase, however this is not anticipated to be significant.

DC-2024-MIX-002

- **Option Name:** A354 multi-modal corridor improvements south of Dorchester to Weymouth and Portland.
- **Proposer:** Dorset Council

Table E-19 – A354 multi-modal corridor improvements south of Dorchester to Weymouth and Portland.

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	++	This option is likely to result in significant positive effects on population and equalities. The option includes both active and public travel improvements along the A354 corridor, active travel and public realm improvements to Weymouth Town centre, and improvements to the Weymouth park and ride. This will help to improve access for all, in particular those who do not have access to a private car, such as younger people, older people, and those with long-term health conditions or disabilities.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	++	This option is likely to result in significant positive effects upon human health and wellbeing as it seeks to improve road safety, provide improved facilities for active travel and improve public transport services, including bus priority measures.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	++	This option is likely to result in significant positive effects upon community safety. The option improves road safety at the A345 as well as improving the public realm of Weymouth. Improving the public realm is likely to result in improved perceptions of safety. Improving the public realm is likely to also result in improved lighting and reduced likelihood of crime. It is also assumed that active travel measures will include lighting to improve safety on these routes. Additionally, road safety improvements is likely to reduce collisions on the A345. This is anticipated to directly result in significant positive effects.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	0	The option improves road infrastructure, active travel, and bus infrastructure. There is potential for positive impacts upon the economy through improved connectivity to the Major Roads Network, encouraging better access for businesses and tourists. However, these effects are considered to be minor. Therefore, negligible effects have been identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	There are unlikely to be any significant positive effects upon rural economies as a result of this option. The option improves active and public travel services between Weymouth, Portland and Dorchester, so there is potential for this option to provide improved access to tourist destinations and employment. However, these are considered to be minor. Therefore negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option improves road infrastructure, active travel, and bus infrastructure. There is potential for this option to provide improved infrastructure for increased residents within the Western Gateway STB region. Positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	--	This option is located within multiple designated sites including five SSSI's, one SPA, one RAMSAR and one SAC. In addition, multiple designated sites have been identified within 500m of this option. There is potential for significant negative effects upon biodiversity as a result of this option due to damage and disturbance to designated sites during construction and potential loss of land. However, taking a precautionary approach, the potential for significant negative effects is identified at this stage given the presence of sensitive receptors.

SEA Objective	Likely Significant Effects	Commentary
SEA8 (Landscape and Townscape): To protect and enhance townscapes and landscapes, including the rural environment, town and city centres, and seascapes.	--	This option is located within the Dorset National Landscape. There is potential for development to result in negative effects upon the setting of this national landscape, particularly in the short-term during construction through increased noise and vibration. The option also has potential to alter views during construction through plant equipment and construction compounds. There is also potential for the option to result in land take for the development of the park and ride, as well as junction improvements, altering the national landscape. While there is likely to be mitigation available to reduce the significance of residual negative effects – a precautionary approach has been taken at this stage and a significant negative effect identified given the presence of sensitive receptors.
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within the Dorset and East Devon Coast World Heritage Site, six conservation areas, and 11 listed buildings, as well as within 500m of multiple other heritage assets including listed buildings, registered parks and gardens, conservation areas, and scheduled monuments. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction, as a result of noise and vibration. Additionally, there may be long-term changes to the setting of heritage assets as a result of the development of this infrastructure, altering views. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within Western Gateway, such as the Dorset and East Devon Coast World Heritage Site, through sustainable transport modes. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual scheme design and the bus services provided within the option.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option intersects with the West Dorset Stream Groundwater Body and Upper Frome and Piddle groundwater waterbodies. There is potential for negative effects upon the water environment due to runoff from construction activities. However, the option improves road infrastructure, active travel, and bus infrastructure and the scale of this is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	0	Negligible effects have been identified for this option in relation to air quality as it is not located within 500m of an AQMA. However, the option contributes to providing improvements to the road and sustainable transport networks, including active travel. This has potential to result in improvements to air quality through encouraging a modal shift away from private car use. This may result in improvements to air quality, however this is not considered to be significant. Additionally, improving the A354 junction may reduce congestion and improve air quality. However, this may also encourage private car use in this area, reducing air quality.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located either fully or partially within both fluvial and tidal Flood Zone 2 and Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as new infrastructure and services could be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	++	Significant positive effects have been identified for greenhouse gases for this option. The improved active and public travel services between Weymouth, Portland and Dorchester will help reduce congestion on the local road network and traffic volumes as well as provide opportunities for reducing reliance on private car use, consequently reducing transport related greenhouse gas emissions.

SEA Objective	Likely Significant Effects	Commentary
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	--	The option could result in the loss of best and most versatile agricultural land (Grade 3) through land take associated with additional infrastructure and a new mobility hub.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	++	Significant positive effects are identified for infrastructure as a result of this option. This option includes the upgrading of existing road and pedestrian infrastructure. Public realm improvements and active travel measures will also improve the maintenance of the existing network. It is assumed that improvements will also include climate resilience measures such as Sustainable Drainage Systems (SuDS). The measures proposed within this option also improve both the road and pedestrian capacity of the transport network within Dorchester, Weymouth and Portland.

WEMCA-2024-PTS-003

- **Option Name:** Rail service frequency enhancements to existing rail services
- **Proposer:** West of England Combined Authority

Table E-20 – Rail service frequency enhancements to existing rail services

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	**0**	Increase in rail frequency to existing rail services within the Western Gateway will help to improve passenger capacity and access to community services, employment and educational facilities, which will benefit the whole local population. In particular those who do not have access to a private car, such as younger people, older people, and those with long-term health conditions or disabilities. However, it is anticipated that these effects will be minor. Therefore, negligible effects on population and equalities have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	**0**	An increase in rail frequency to existing rail services within the Western Gateway will improve access to all areas to employment opportunities and tourist attractions, which would likely have positive impacts on human mental health and wellbeing. However, negligible effects are identified as a result of this option as the effects are considered to be minor and the option does not include any elements that are likely to contribute to active travel and encourage healthy lifestyles.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	**0**	Negligible effects are identified as a result of this option upon community safety. The option does not include any elements that are likely to contribute to improving user safety or the perception of safety on Western Gateway STB's transport network.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	**0**	An increase in rail frequency to existing rail services within the Western Gateway will improve access to areas to employment opportunities and tourist attractions, resulting in positive impacts upon the economy in local areas. However, it is anticipated that these effects will be minor. Therefore, negligible effects on the economy have been identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	**0**	An increase in rail frequency to existing rail services within the Western Gateway will improve access to all areas to employment opportunities and tourist attractions. However, it is anticipated that these effects will be minor. Therefore, negligible effects on rural economies have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	**0**	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option improves rail service frequency within the Western Gateway local stations. There is potential for this option to provide improved connectivity and capacity for increased residents within the Western Gateway STB region. Positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	**0**	This option is located within multiple designated sites including seven SSSI's, one SPA's, two RAMSAR's, three SAC's and one NNR. In addition, multiple designated sites have been identified within 500m of this option. However, there would likely be no negative impacts, as the option will only provide additional services on existing rail lines and therefore would require no additional land take.

SEA Objective	Likely Significant Effects	Commentary
SEA8 (Landscape and Townscape): To protect and enhance townscapes and landscapes, including the rural environment, town and city centres, and seascapes.	0	This option is located within the Costwolds National Landscape. There is potential for increased noise from additional rail services, though there would likely be no negative impacts, as the option will only provide additional services on existing lines.
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option intersects multiple conservation areas and the City of Bath World Heritage Site, as well as a number of registered parks and gardens, conservation areas, scheduled monuments, and listed buildings, and is located within 500m of multiple other heritage assets. There is potential for development of this option to result in disturbance to the setting of these heritage assets as a result of noise and vibration from increased rail services, however, there would likely be no negative impacts, as the option will only provide additional services on existing rail lines that are already subject to disturbance and no additional land take would be required.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within Western Gateway through sustainable transport modes. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual scheme design and the stations served by increased rail services.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option is within 100m of multiple surface water and groundwater waterbodies that have poor chemical status. There is potential for negative effects upon the water environment due to runoff from construction activities. However, the option improves rail service frequency within the Western Gateway local stations and the scale of this is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	++	This option is located within Bristol AQMA and Bath AQMA, and within 500m of three AQMAs (Bradford-on-Avon, Barton Street, and Painswick Road). This option is likely to result in improvements to air quality through providing public transport improvements, encouraging the use of rail services and a modal shift away from private cars, reducing private car emissions.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located either fully or partially within both fluvial and tidal Flood Zone 2 and Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as additional services could be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	0	The introduction of more frequent rail services between existing rail services is likely to encourage the modal shift to more sustainable transport modes, reducing transport related emissions. However, these benefits are considered to be minor. Therefore, negligible effects on greenhouse gases have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	0	The option would be situated within Best and Most versatile agricultural land (grades 1, 2 and 3) though there would likely be no negative impacts, as the option will only provide additional services on existing rail lines and therefore would require no additional land take.

SEA Objective	Likely Significant Effects	Commentary
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	**0**	Negligible effects are identified as a result of this option upon infrastructure. The option does not include any elements that upgrade the physical transport infrastructure within Western Gateway STB's transport network, nor does it directly support population growth.

BCP-2024-PTI-001

- **Option Name:** All BCP rail stations to be made fully accessible
- **Proposer:** BCP Council Transport Policy Team

Table E-21 – All BCP rail stations to be made fully accessible

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	++	The option aims to make all BCP station fully accessible. This will help to improve access for all, especially those with mobility issues (older people and those with long-term health conditions and disabilities) or those who are pregnant or on maternity leave, providing improved access to rail services and the wider region, as well as access to services. Therefore, significant positive effects have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	0	Making six stations within BCP fully accessible will improve access to all areas to employment opportunities and tourist attractions, which would likely have positive impacts on the mental health and wellbeing of those with accessibility difficulties. However, negligible effects are identified as a result of this option as the effects are considered to be minor and the option does not include any elements that are likely to contribute to active travel and encourage healthy lifestyles.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	0	This option improves accessibility for all stations within BCP. Providing this access will help to improve safety for users, particularly those struggling with mobility, helping to reduce trips and falls. This is anticipated to result in an indirect positive effect. However, due to the locality of these improvements, this effect is not considered to be significant.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	0	The option improves accessibility for all stations within BCP. Whilst this may result in positive effects in local areas, the effects are considered minor. This is therefore unlikely to result in any significant effects upon the greater economy. Negligible effects have been identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	The option improves accessibility for all stations within BCP. This is therefore unlikely to result in any significant effects upon rural economies. Negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	The option improves accessibility within all BCP rail stations. This is therefore unlikely to result in any effects upon housing growth. Negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	?	This option is located within 500m of multiple designated sites including four SSSI's, three SAC's, three SPA's, one RAMSAR and one SAC. There is potential for negative effects upon biodiversity as a result of this option due to damage and disturbance to designated sites during construction. However, the option improves accessibility for all stations within BCP and is therefore unlikely to result in any significant negative effects upon biodiversity. However, there is potential for disturbance during construction and potential for protected species to be affected. Uncertain effects have therefore been identified.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and landscapes, including the rural environment, town and city centres, and seascapes.	0	This option is located within 500m of the New Forest National Park. There is potential for development to result in negative effects upon the setting of this national landscape, particularly in the short-term during construction works. However, this option does not include upgrades outside of the stations' footprints, and is therefore not anticipated to

SEA Objective	Likely Significant Effects	Commentary
		result in significant negative effects upon this landscape. However, there is potential for disturbance during construction. These effects are considered to be short term and therefore negligible effects have been identified.
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within one conservation area, as well as within 500m of multiple heritage assets, including conservation areas, scheduled monument, and listed buildings. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction, as a result of noise and vibration. Information on the precise design and layout of the option, as well as the level of mitigation is not provided at this stage and thus the significance of residual effects can likely be reduced. However, taking a precautionary approach, the potential for significant negative effects is identified at this stage given the presence of sensitive receptors..
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	0	There are unlikely to be any significant effects upon access to heritage assets as a result of this option. The option provides improved accessibility within BCP’s rail stations and does not contribute either directly or indirectly to improving access to heritage assets. Therefore, negligible effects have been identified.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option intersects with the Lower Frome and Piddle and Lower Dorset Stour and Lower Hampshire Avon groundwater waterbodies. There is potential for negative effects upon the water environment due to runoff from construction activities. However, the option provides improved accessibility within BCP’s rail stations and the scale of this is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	0	Negligible effects have been identified for this option in relation to air quality as it is not located within 500m of an AQMA. Additionally, this option makes all stations within BCP fully accessible and does not directly or indirectly contribute to improving air quality.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	?	The option would not be located within Flood Zone 2 or Flood Zone 3, and therefore would not be vulnerable to flooding. It is not expected that the option would improve the transport network’s resilience to climate change. The option is located fully within Flood Zone 1. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for uncertain effects at this stage.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	0	The option improves accessibility within all BCP rail stations. This is therefore unlikely to result in any significant effects upon greenhouse gases. Negligible effects have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	0	The option best and most versatile agricultural land (Grades 2 and 3) through accessibility improvements to all railway stations, though it is unlikely to result in loss of land as works will largely be carried out on existing developments.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	0	Negligible effects are identified as a result of this option upon infrastructure. The option does not include any elements that upgrade the physical transport infrastructure within Western Gateway STB’s transport network, nor does it support population growth.

NR-2024-PTI-008

- **Option Name:** Gloucester station layout improvements
- **Proposer:** Network Rail

Table E-22 – Gloucester station layout improvements

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	**0**	The option includes improvements to Gloucester Station layout improvements to give greater flexibility and capacity for additional services. This is likely to help improve access for all to local community facilities, employment and educational facilities. However, this is not deemed to be significant. Therefore, negligible effects have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	**0**	The option includes improvements to Gloucester Station layout improvements to give greater flexibility and capacity for additional services. This is likely to help improve access to public transport, resulting in positive effects upon human mental health and wellbeing. There are potential indirect positive effects through improved air quality as a result of a modal shift to public transport. However, these effects are considered minor. Therefore, negligible effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	**0**	Negligible effects are identified as a result of this option upon community safety. The option will provide infrastructure to improve freight transport within Gloucester station which is likely to indirectly benefit community safety due to removing freight transport off the local road network. However, this is deemed to not be significant.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	**0**	The option includes improvements to Gloucester Station layout improvements to give greater flexibility and capacity for additional services. This is likely to help improve access for all to employment opportunities and tourist attractions, as well as potentially unlocking freight services. However, this is not deemed to be significant. Therefore, negligible effects have been identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	**0**	Negligible effects have been identified for rural economies. The option includes improvements to Gloucester Station layout improvements to give greater flexibility and capacity for additional services. This is likely to help improve access for all to employment opportunities and tourist attractions. However, this is not deemed to be significant. Therefore, negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	**0**	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option improves rail capacity in Gloucester. There is potential for this option to provide improved capacity for increased residents within the Western Gateway STB region. Positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	**?**	There are unlikely to be any significant, direct effects upon biodiversity as a result of this option. The option includes improvements to Gloucester Station layout improvements and is not located within 500m of any designated sites. However, it is currently uncertain whether construction will result in disturbance to local biodiversity or whether any protected species or priority habitats might be affected. Uncertain effects have therefore been identified.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and	**?**	Uncertain effects have been identified for this option as it is more than 500m away from any national landscape or national park. This option has the potential to result in changes to the setting of the local townscape through changes to

SEA Objective	Likely Significant Effects	Commentary
landscapes, including the rural environment, town and city centres, and seascapes.		the station layout, as well as landscapes through increased noise from additional rail services. However, this is likely to be determined by individual scheme design.
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within 500m of multiple heritage assets, including conservation areas, multiple listed buildings, and scheduled monuments. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction, as a result of noise and vibration. Additionally, there may be long-term changes to the setting of heritage assets as a result of the development of this infrastructure, increasing railway noise. Additionally, long-term, these sustainable travel routes may result in improvements to air quality, which has potential to reduce the degradation of heritage assets. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within Western Gateway through sustainable transport modes. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual scheme design and the stations served by increased rail services.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	0	The option includes improvements to Gloucester Station layout improvements. There are unlikely to be any significant, direct effects upon the water environment as a result of this option, as it is not located within 100m of a surface or groundwater body. Therefore, negligible effects have been identified.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	?	The option is located within 500m of Barton Street and Priory Road AQMAs. There is potential for this option to result in additional rail capacity, encouraging a modal shift away from private car use. However, there is also potential for the alteration of the station to result in increased emissions and temporary decreases in air quality during construction. These effects are likely to be determined by individual scheme design.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	?	The option is located fully within Flood Zone 1. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for uncertain effects at this stage.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	0	The option includes improvements to Gloucester Station layout improvements to give greater flexibility and capacity for additional services. This is likely to encourage the modal shift to more sustainable transport modes, reducing transport related emissions. However, these benefits are considered to be minor. Therefore, negligible effects on greenhouse gases have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	0	The option would not result in the loss of Best and Most Versatile agricultural land
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	++	This option requires the upgrading of existing infrastructure within Gloucester station. This upgrade also provides increased capacity for local passenger and freight services, supporting future population growth. Significant positive effects are therefore identified.

BCP-2024-MIX-004

- **Option Name:** Christchurch Town Centre sustainable access package
- **Proposer:** BCP Council Transport Policy Team

Table E-23 – Christchurch Town Centre sustainable access package

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	++	This option is likely to result in significant positive effects on population and equalities. The option includes both active and public travel improvements to Christchurch Town Centre. This will help to improve access for all, in particular those who do not have access to a private car, such as younger people, older people, and those with long-term health conditions or disabilities.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	++	This option is likely to result in significant positive effects on human health as it includes both active and public travel facilities and improvements to Christchurch Town Centre. This will support and encourage the use of active travel options such as walking and cycling, which would support healthy lifestyles and have positive effects on mental health and wellbeing. This could also have indirect positive effects on air quality within the area. Improved public travel facilities would have positive effects on human health through better access to work, education, leisure and tourism.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	0	Negligible effects are identified as a result of this option upon community safety. The option does not include any elements that are likely to contribute to improving user safety or the perception of safety on Western Gateway STB's transport network.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	0	There are unlikely to be any significant positive effects upon the greater economy as a result of this option. The option improves active and public travel services to Christchurch Town Centre, so there is potential for this option to provide improved access to tourist destinations and employment, benefitting the local and surrounding economies. However, these are considered to be minor and there no elements that would support access to national and international gateways. Therefore, negligible effects have been identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	There are unlikely to be any significant positive effects upon rural economies as a result of this option. The option improves active and public travel services to Christchurch Town Centre., so there is potential for this option to provide improved access to tourist destinations and employment. However, these are considered to be minor. Therefore negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option improves active travel, and bus infrastructure. There is potential for this option to provide improved infrastructure for increased residents within the Western Gateway STB region. Positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	--	This option is located within multiple designated sites including two SSSI's, two SPA's, one RAMSAR and one SAC. In addition, multiple designated sites have been identified within 500m of this option. There is potential for significant negative effects upon biodiversity as a result of this option due to damage and disturbance to designated sites during construction and potential loss of land. However, taking a precautionary approach, the potential for significant negative effects is identified at this stage given the presence of sensitive receptors.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and	--	This option is located approximately 80m from the New Forest National Park. There is potential for development to result in negative effects upon the setting of this National Park, particularly in the short-term during construction of new infrastructure increasing noise and changing the visual amenity of this asset. The option has potential to reduce

SEA Objective	Likely Significant Effects	Commentary
landscapes, including the rural environment, town and city centres, and seascapes.		disturbance on the national landscape in the long term as a result of encouraging a modal shift away from private car use, encouraging use of public transport. While there is likely to be mitigation available to reduce the significance of residual negative effects – a precautionary approach has been taken at this stage and a significant negative effect identified given the presence of sensitive receptors.
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within multiple conservation areas and intersects two listed buildings, as well as within 500m of multiple heritage assets, including conservation areas, listed buildings, scheduled monuments, and registered park and gardens. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction, as a result of noise and vibration. However, long-term, these promotion of sustainable transport routes may result in improvements to air quality, which has potential to reduce the degradation of heritage assets. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within Western Gateway through sustainable transport modes. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual scheme design and the bus services provided within the option.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option intersects with the Lower Dorset Stour and Lower Hampshire Avon groundwater waterbody. There is potential for negative effects upon the water environment due to runoff from construction activities. However, the option improves active travel and bus infrastructure and the scale of this is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	0	Negligible effects have been identified for this option in relation to air quality as it is not located within 500m of an AQMA. However, the option contributes to providing improvements to the sustainable and active travel networks. This has potential to result in improvements to air quality through encouraging a modal shift away from private car use. However, this is not considered to be significant.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located either fully or partially within both fluvial and tidal Flood Zone 2 and Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as new infrastructure could be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	++	Significant positive effects have been identified for greenhouse gases for this option. The improved active and public travel services to Christchurch Town Centre will help reduce congestion on the local road network and traffic volumes as well as provide opportunities for reducing reliance on private car use, consequently reducing transport related greenhouse gas emissions.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	--	The option could result in the loss of best and most versatile agricultural land (Grades 2 and 3) through land take associated with provision of mobility hubs and active travel infrastructure.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and	?	Uncertain effects are identified as a result of this option upon infrastructure. This option requires the development of new infrastructure. However, the scale of new infrastructure required is currently unclear and is likely to be determined

SEA Objective	Likely Significant Effects	Commentary
resilient to future climate risks and support future population growth.		by individual scheme design. It is assumed that the development of this option will also include climate resilience measures, however these are also determined by scheme design. This development will support increases in future population and user numbers, however the scale of this currently cannot be determined.

NR-2024-PTI-012

- **Option Name:** Bristol Temple Meads Platform 0
- **Proposer:** Network Rail

Table E-24 – Bristol Temple Meads Platform 0

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	**0**	The option will help to improve capacity and access to/from Bristol Temple Meads Station due to the introduction of a new platform and more frequent services between Bristol and Cardiff. This will help to improve access for all, in particular those who do not have access to a private car, such as younger people, older people, and those with long-term health conditions or disabilities. However, this is deemed to not be significant and therefore, negligible effects have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	**0**	The introduction of a new platform and more frequent services between Bristol and Cardiff will improve passenger capacity and access to and from Bristol Temple Meads station. This is will likely result in positive effects upon human mental health and wellbeing as access to work, education, leisure and tourism is improved. However, these are not likely to be significant, therefore, negligible effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	**0**	Negligible effects are identified as a result of this option upon community safety. The option does not include any elements that are likely to contribute to improving user safety or the perception of safety on Western Gateway STB's transport network.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	**0**	There are unlikely to be any significant positive effects upon the greater economy as a result of this option. This option increases rail services to/from Bristol Temple Meads to Cardiff as well as local services, so there is potential for the provision of improved access to tourist destinations, education and employment. However, these are considered to be minor. Therefore, negligible effects have been identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	**0**	There are unlikely to be any significant positive effects upon rural economies as a result of this option. The option increase rail services to/from Bristol Temple Meads to Cardiff as well as local services, so there is potential for this option to provide improved access to tourist destinations and employment. However, these are considered to be minor. Therefore negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	**0**	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option improves the frequency of services between Bristol Temple Meads and Cardiff Central. There is potential for this option to provide improved infrastructure for increased residents within the Western Gateway STB region if housing development occurs in close proximity to stations serviced by these routes. Positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	**?**	There are unlikely to be any significant, direct effects upon biodiversity as a result of this option. The option includes the development of an additional platform at Bristol Temple Meads and is not located within 500m of any designated sites. However, it is currently uncertain whether construction will result in disturbance to local biodiversity or whether any protected species or priority habitats might be affected. Uncertain effects have therefore been identified.

SEA Objective	Likely Significant Effects	Commentary
SEA8 (Landscape and Townscape): To protect and enhance townscapes and landscapes, including the rural environment, town and city centres, and seascapes.	?	Uncertain effects have been identified for this option as it is more than 500m away from any national landscape or national park. This option has the potential to result in changes to the setting of the local townscape during the construction stage of railway enhancements. However, this is likely to be determined by the design of development.
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option intersects multiple conservation areas and listed buildings, and is located within 500m of multiple other heritage assets, including listed buildings, registered parks and gardens, conservation areas, and scheduled monuments. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction, as a result of noise and vibration. However, it is assumed that any potential significant effect mitigated against through implementation of a CEMP. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving accessibility to the Bristol Temple Meads listed building, and connectivity to heritage assets such as Bath’s UNESCO world heritage site through sustainable transport modes. However, this service does not provide direct access to this site.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	0	The option includes the development of an additional platform at Bristol Temple Meads station. There are unlikely to be any significant, direct effects upon the water environment as a result of this option, as it is not located within 100m of a surface or groundwater body. Therefore, negligible effects have been identified.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	?	The option is located within the Bristol AQMA. However it is currently uncertain if this option would result in improvements to air quality as the option focuses on providing a new platform at Bristol Temple Meads. Effects on air quality are likely to be determined by any changes to services as a result of this upgrade.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located partially within Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as new infrastructure and additional services could be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	0	The option includes improvements to Bristol Temple Meads to improve capacity for additional services. This is likely to encourage the modal shift to more sustainable transport modes, reducing transport related emissions. However, these benefits are considered to be minor. Therefore, negligible effects on greenhouse gases have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	0	The option would not result in the loss of Best and Most Versatile agricultural land.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained	?	Uncertain effects are identified as a result of this option upon infrastructure. This option requires the development of a new platform within Bristol Temple Meads, however it is currently unclear if any additional new infrastructure will be

SEA Objective	Likely Significant Effects	Commentary
and resilient to future climate risks and support future population growth.		required to support additional services. This development will support increases in future population and user numbers, however the scale of this currently cannot be determined.

BCP-2024-MIX-001

- **Option Name:** A338 to Wessex Fields, Airport and Aviation Business Park, sustainable access package scheme
- **Proposer:** BCP Council Transport Policy Team

Table E-25 – A338 to Wessex Fields, Airport and Aviation Business Park, sustainable access package scheme

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	++	This option is likely to result in significant positive effects on population and equalities. The option includes both active and public travel improvements around the Bournemouth Airport, Aviation Park and the Wessex Field area. This will help to improve access for all, in particular those who do not have access to a private car, such as younger people, older people, and those with long-term health conditions or disabilities. Being able to use public transport to access Bournemouth Airport is also likely to benefit those on lower incomes.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	++	This option is likely to result in significant positive effects on human health as it includes both active and public travel improvements around the Bournemouth Airport, Aviation Park and the Wessex Field area. The segregated cycling routes and enhanced bus services will help encourage healthy lifestyles and contribute to a modal shift away from car usage. This option also has the potential to result in indirect positive effects upon human health through improved air quality and reduced noise.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	0	Negligible effects are identified as a result of this option upon community safety. The option does not include any elements that are likely to contribute to improving user safety or the perception of safety on Western Gateway STB's transport network.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	++	This option is likely to result in significant positive effects on the economy. The option provides supporting infrastructure for Bournemouth Airport, Aviation Business Park, and employment sites. Greater access between Bournemouth Airport and Bournemouth Station also provides greater connectivity to regional and international gateways and identified TRSE areas. Therefore significant positive effects have been identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	There are likely to positive effects on rural economies as a result of this option. The option provides supporting infrastructure for Bournemouth Airport, Aviation Business Park, and employment sites. Greater access between Bournemouth Airport and Bournemouth Station also provides greater connectivity to international gateways and employment. However, this is deemed to be not significant and therefore, negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option provides supporting infrastructure for Bournemouth Airport, Aviation Business Park, and employment sites. There is potential for this option to provide improved infrastructure for increased residents within the Western Gateway STB region. Positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	--	This option is located within multiple designated sites including three SSSI's, one SPA, one RAMSAR and one SAC. In addition, multiple designated sites have been identified within 500m of this option. There is potential for significant negative effects upon biodiversity as a result of this option due to damage and disturbance to designated sites during construction and potential loss of land. However, taking a precautionary approach, the potential for significant negative effects is identified at this stage given the presence of sensitive receptors.

SEA Objective	Likely Significant Effects	Commentary
SEA8 (Landscape and Townscape): To protect and enhance townscapes and landscapes, including the rural environment, town and city centres, and seascapes.	?	Uncertain effects have been identified, as the option is located more than 500m away from a National Park or National Landscape. Therefore, any effects on landscape are likely to be determined by the individual scheme design that may arise, for example within the new cycle routes proposed within this option.
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within seven conservation areas, as well as within 500m of multiple heritage assets, including conservation areas, listed buildings, scheduled monuments, and registered park and gardens. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction, as a result of noise and vibration. However, long-term, these promotion of sustainable transport routes may result in improvements to air quality, which has potential to reduce the degradation of heritage assets. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within Western Gateway through improving the connectivity of sustainable transport modes. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual scheme design.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option is within 100m of multiple surface water and ground water waterbodies that have poor chemical status. There is potential for negative effects upon the water environment due to runoff from construction activities. However, this option requires the development of new infrastructure and the scale of this is currently unknown and is likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	0	Negligible effects have been identified for this option in relation to air quality as it is not located within 500m of an AQMA. However, the option contributes to providing improvements to the sustainable and active travel networks. This has potential to result in improvements to air quality through encouraging a modal shift away from private car use. However, this is not considered to be significant.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located either fully or partially within fluvial Flood Zone 2 and Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as access improvements could be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	++	Significant positive effects have been identified for greenhouse gases for this option. The improved active and public travel services around the Bournemouth Airport, Aviation Park and the Wessex Field area will help reduce congestion on the local road network and traffic volumes as well as provide opportunities for reducing reliance on private car use, consequently reducing transport related greenhouse gas emissions.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	--	The option could result in the loss of best and most versatile agricultural land (Grades 2 and 3) through land take associated with multi modal access improvements, and provision of enhanced sustainable transport access and connectivity.

SEA Objective	Likely Significant Effects	Commentary
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	?	Uncertain effects are identified as a result of this option upon infrastructure. This option requires the development of new infrastructure, however the scale of this is currently unknown. It is assumed that any new development will include climate resilience measures however this is likely to be determined by individual scheme design.

WEMCA-2024-PTI – 002

- **Option Name:** Bus corridor package in Bath
- **Proposer:** West of England Combined Authority

Table E-26 – Bus corridor package in Bath

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	0	The option will help to improve active and public transport along the Bath corridor. This will help to improve access for all, in particular those who do not have access to a private car, such as younger people, older people, and those with long-term health conditions or disabilities. However, this is deemed to not be significant and therefore, negligible effects on population and equalities have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	++	This option focuses on public transport corridors around Bath and the surrounding areas which will prioritise bus, walking and cycling measures in each corridor. This will help to improve access for all and encourage healthier lifestyles, resulting in significant positive effects upon human health and wellbeing. Encouraging alternatives to car travel would have indirect positive effects on human health through improved air quality.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	?	Uncertain effects are identified as a result of this option upon community safety. There is potential that improvements to the bus network may result in indirect improvements to feelings of safety on buses and active travel modes in Bath. However, this is likely to be determined by individual scheme design that may arise from this option.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	0	There are unlikely to be any significant positive effects upon the economy as a result of this option. The option improves active and public transport along the Bath corridor, so there is potential for this option to provide improved access to tourist destinations and employment, which could benefit local economies. However, these are considered to be minor. Therefore negligible effects have been identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	There are unlikely to be any significant positive effects upon rural economies as a result of this option. The option improves active and public transport along the Bath corridor, so there is potential for this option to provide improved access to tourist destinations and employment. However, these are considered to be minor. Therefore negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option provides improvements to the active travel and bus networks. Positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	--	This option is located within 500m of multiple designated sites including six SSSI's and one SAC. There is potential for significant negative effects upon biodiversity as a result of this option due to damage and disturbance to designated sites during construction and potential loss of land. However, taking a precautionary approach, the potential for significant negative effects is identified at this stage given the presence of sensitive receptors.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and landscapes, including the rural environment, town and city centres, and seascapes.	--	This option is located within the Costwolds National Landscape. There is the potential that construction of these active travel routes may result in short-term negative effects upon the setting these national landscapes through increased noise and changes to visual amenity as a result of construction equipment. While there is likely to be mitigation

SEA Objective	Likely Significant Effects	Commentary
		available to reduce the significance of residual negative effects – a precautionary approach has been taken at this stage and a significant negative effect identified given the presence of sensitive receptors.
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option intersects a number of heritage assets, including conservation areas, listed buildings, registered parks and gardens, City of Bath World Heritage Site, and scheduled monuments, as well as being located within 500m of multiple additional heritage assets. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction of improved active travel routes, as a result of noise and vibration. Information on the precise design and layout of the option, as well as the level of mitigation is not provided at this stage and thus the significance of residual effects can likely be reduced. However, taking a precautionary approach, the potential for significant negative effects is identified at this stage given the presence of sensitive receptors.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within Western Gateway, particularly Bath’s UNESCO World Heritage Site, through improving the connectivity of sustainable transport modes. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual scheme design and location of improved network.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option intersects with the Bath Oolite and Inferior Oolite and Bridport Sands groundwater waterbodies. There is potential for negative effects upon the water environment due to runoff from construction activities. However, the option improves active and public transport along the Bath corridor and the scale of this is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	++	This option is located within four AQMAs (Bath, Bristol, Farrington Gurney, and Temple Cloud). This option is likely to result in improvements to air quality through providing the improvements to the walking and cycling network, encouraging the use of public and active travel and encouraging a modal shift away from private vehicles, reducing vehicle emissions. This has potential to improve air quality within the AQMAs, therefore significant positive effects have therefore been identified.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located either fully or partially within both fluvial and tidal Flood Zone 2 and Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as new transport corridors could be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	0	The option includes improve active and public transport along the Bath corridor. This is likely to encourage the modal shift to more sustainable transport modes, reducing transport related emissions. However, these benefits are considered to be minor. Therefore, negligible effects on greenhouse gases have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	--	The option could result in the loss of best and most versatile agricultural land (Grades1, 2 and 3) through land take associated with delivery of strategic transport corridors.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and	?	Uncertain effects are identified as a result of this option upon infrastructure. It is currently unclear if any new infrastructure will be required to support the strategic transport corridors proposed within this option. This development

SEA Objective	Likely Significant Effects	Commentary
resilient to future climate risks and support future population growth.		will support increases in future population and bus user numbers, however the scale of this currently cannot be determined.

NR-2024-PTI – 010

- **Option Name:** Westerleigh Junction upgrade
- **Proposer:** Network Rail

Table E-27 – Westerleigh Junction upgrade

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	0	The option aims to improve capacity of Westerleigh Junction to provide more frequent rail services between Gloucester and Bristol. This will help to improve access for all, in particular those who do not have access to a private car, such as younger people, older people, and those with long-term health conditions or disabilities. However, this is deemed to not be significant and therefore, negligible effects on population and equalities have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	0	The option aims to improve capacity of Westerleigh Junction to provide more frequent rail services between Gloucester and Bristol. This could result in positive effects upon human mental health and wellbeing as public transport access is improved. However, these effects are not likely to be significant, therefore, negligible effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	0	Negligible effects are identified as a result of this option upon community safety. The option will provide infrastructure to improve freight transport within Westerleigh which is likely to indirectly benefit community safety due to removing freight transport off the local road network. However this is deemed not be significant.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	0	There are unlikely to be any significant positive effects upon rural economies as a result of this option. The option aims to improve capacity of Westerleigh Junction to provide more frequent rail services between Gloucester and Bristol, so there is potential for this option to provide improved access to tourist destinations and employment and also free up capacity for additional freight trains. However, these are considered to be minor. Therefore, negligible effects have been identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	There are unlikely to be any significant positive effects upon rural economies as a result of this option. The option aims to improve capacity of Westerleigh Junction to provide more frequent rail services between Gloucester and Bristol, so there is potential for this option to provide improved access to tourist destinations and employment. However, these are considered to be minor. Therefore negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option improves rail capacity, resulting in potential for this option to provide improved capacity for increased residents within the Western Gateway STB region. Positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	--	This option is located within the Winterbourne Railway Cutting SSSI. There is potential for significant negative effects upon biodiversity as a result of this option due to damage and disturbance to designated sites during construction. However, taking a precautionary approach, the potential for significant negative effects is identified at this stage given the presence of sensitive receptors.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and	?	Uncertain effects have been identified for this option as it is more than 500m away from any national landscape or national park. This option has the potential to result in changes to the setting of the local landscape during the

SEA Objective	Likely Significant Effects	Commentary
landscapes, including the rural environment, town and city centres, and seascapes.		construction stage of railway enhancements. However, this is likely to be determined by the scale and design of development.
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within 500m of multiple heritage assets, namely listed buildings. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction, as a result of noise and vibration. Information on the precise design and layout of the option, as well as the level of mitigation is not provided at this stage and thus the significance of residual effects can likely be reduced. However, taking a precautionary approach, the potential for significant negative effects is identified at this stage given the presence of sensitive receptors.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within Western Gateway through sustainable transport modes. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual scheme design and the stations served by increased rail services.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option is within 100m of multiple surface water and groundwater waterbodies that have poor chemical status. There is potential for negative effects upon the water environment due to runoff from construction activities. However, the option aims to improve capacity of Westerleigh Junction and the scale of this is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	0	Negligible effects have been identified for this option in relation to air quality as it is not located within 500m of an AQMA. However, the option provides improvements to the rail network capacity. This has potential to indirectly result in improvements to air quality through encouraging a modal shift away from private car use. This may result in improvements to air quality, however this is not considered to be significant.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located adjacent to Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, depending on the location of works, as upgrades to the rail network could be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	0	The option aims to improve capacity of Westerleigh Junction to provide more frequent rail services between Gloucester and Bristol. This is likely to encourage the modal shift to more sustainable transport modes, reducing transport related emissions. However, these benefits are considered to be minor. Therefore, negligible effects on greenhouse gases have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	0	The option would not result in the loss of Best and Most Versatile agricultural land.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	++	This option requires the upgrading of existing infrastructure within the Western Gateway to allow an increase in capacity for rail services, supporting increased passenger numbers, as well as freight service capacity. Significant positive effects have been identified as a result of this improved capacity and upgrade of existing constrained infrastructure.

WEMCA-2024-PTI-001

- **Option Name:** Bus Corridor Package in Bristol
- **Proposer:** West of England Combined Authority

Table E-28 – Bus Corridor Package in Bristol

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	0	The option will help to improve active and public transport along the Bristol corridor. This will help to improve access for all, in particular those who do not have access to a private car, such as younger people, older people, and those with long-term health conditions or disabilities. However, this is deemed to not be significant and therefore, negligible effects on population and equalities have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	++	The option will help to improve active travel and public transport along the Bristol corridor. This will encourage healthier lifestyles and improve human mental health and wellbeing. Improved access to public transport could create a modal shift away from personal car usage which could result in indirect positive impacts on human health through improved air quality and reduced noise.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	?	Uncertain effects are identified as a result of this option upon community safety. There is potential that improvements to the bus network may result in indirect improvements to feelings of safety on buses in Bristol. However, this is likely to be determined by individual scheme design that may arise from this option.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	0	There are unlikely to be any significant positive effects on the economy as a result of this option. The option improves active and public transport along the Bristol corridor, so there is potential for this option to provide improved access to tourist destinations and employment. However, these are considered to be minor. Therefore, negligible effects have been identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	There are unlikely to be any significant positive effects upon rural economies as a result of this option. The option would improve active and public transport along the Bristol corridor, so there is potential for this option to provide improved access to tourist destinations and employment. However, these are considered to be minor. Therefore negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option provides improvements to bus routes around Bristol city centre, as well as active travel routes. Positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	--	This option is located within multiple designated sites including one SSSI and one SAC. In addition, multiple designated sites have been identified within 500m of this option. There is potential for significant negative effects upon biodiversity as a result of this option due to damage and disturbance to designated sites during construction and potential loss of land. However, taking a precautionary approach, the potential for significant negative effects is identified at this stage given the presence of sensitive receptors.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and	?	Uncertain effects have been identified for this option as it is more than 500m away from any national landscape or national park. This option has the potential to result in changes to the setting of the local landscapes during the

SEA Objective	Likely Significant Effects	Commentary
landscapes, including the rural environment, town and city centres, and seascapes.		construction stage of new walking and cycling routes. However, this is likely to be determined by the scale of development.
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option intersects a number of heritage assets, including conservation areas, listed buildings, registered parks and gardens, and scheduled monuments, as well as being located within 500m of multiple additional heritage assets. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction of improved active travel routes, as a result of noise and vibration. Information on the precise design and layout of the option, as well as the level of mitigation is not provided at this stage and thus the significance of residual effects can likely be reduced. However, taking a precautionary approach, the potential for significant negative effects is identified at this stage given the presence of sensitive receptors.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within Western Gateway, through improving the connectivity of sustainable transport modes. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual scheme design and location of improved network.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option intersects with the Portishead Mercia Mudstone and Avonmouth Mercia Mudstone groundwater waterbodies. There is potential for negative effects upon the water environment due to runoff from construction activities. However, the option provides improvements to bus routes around Bristol city centre, as well as active travel routes and the scale of this is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	++	This option is located within two AQMAs (Staple Hill and Bristol). This option is likely to result in improvements to air quality through providing the improvements to the bus, walking and cycling network, encouraging the use of sustainable and active travel and encouraging a modal shift away from private vehicles, reducing vehicle emissions. This has potential to improve air quality within the AQMAs, therefore significant positive effects have therefore been identified.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located either fully or partially within both fluvial and tidal Flood Zone 2 and Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as new transport corridors could be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	0	The option includes improve active and public transport along the Bristol corridor. This is likely to encourage the modal shift to more sustainable transport modes, reducing transport related emissions. However, these benefits are considered to be minor. Therefore, negligible effects on greenhouse gases have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	0	The option is located in close proximity to best and most versatile agricultural land (Grades 2 and 3). However, it is not anticipated that the delivery of strategic transport corridors for bus services will result in land take. Negligible effects have therefore been identified.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and	?	Uncertain effects are identified as a result of this option upon infrastructure. It is currently unclear if any new infrastructure will be required to support the strategic transport corridors proposed within this option. This development

SEA Objective	Likely Significant Effects	Commentary
resilient to future climate risks and support future population growth.		will support increases in future population and bus user numbers, however the scale of this currently cannot be determined.

WEMCA-2024-PTI-004

- **Option Name:** Metrowest - Phase 1 (Portishead)
- **Proposer:** West of England Combined Authority

Table E-29 – Metrowest - Phase 1 (Portishead)

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	++	The option aims to deliver the Portishead rail line, with new stations at Pill and Portishead and an hourly route to Bristol Temple Meads. This will help to improve access for all, in particular those who do not have access to a private car, such as younger people, older people, and those with long-term health conditions or disabilities. Therefore, this is likely to provide significant positive effects have been identified for population and equalities.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	0	The option aims to deliver the Portishead rail line, with new stations at Pill and Portishead. This could result in positive effects upon human mental health and wellbeing as public transport access is improved, especially in TRSE areas. However, these effects are not likely to be significant, therefore, negligible effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	0	Negligible effects are identified as a result of this option upon community safety. The option does not include any elements that are likely to contribute to improving user safety or the perception of safety on Western Gateway STB's transport network.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	0	There are unlikely to be any significant positive effects on the economy as a result of this option. The option aims to deliver the Portishead rail line, with new stations at Pill and Portishead, so there is potential for this option to provide improved access to tourist destinations, education and employment. However, these effects are considered to be minor. Therefore, negligible effects have been identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	There are unlikely to be any significant positive effects upon rural economies as a result of this option. The option aims to deliver the Portishead rail line, with new stations at Pill and Portishead and an hourly route to Bristol Temple Meads, so there is potential for this option to provide improved access to tourist destinations and employment. However, these are considered to be minor. Therefore negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option improves rail capacity and connectivity, resulting in potential for this option to provide improved capacity for increased residents within the Western Gateway STB region. Positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	--	This option is located within multiple designated sites including two SSSI's and one SAC. In addition, multiple designated sites have been identified within 500m of this option. There is potential for significant negative effects upon biodiversity as a result of this option due to damage and disturbance to designated sites during construction and potential loss of land. However, taking a precautionary approach, the potential for significant negative effects is identified at this stage given the presence of sensitive receptors.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and	?	Uncertain effects have been identified for this option as it is more than 500m away from any national landscape or national park. This option has the potential to result in changes to the setting of the local landscapes during the

SEA Objective	Likely Significant Effects	Commentary
landscapes, including the rural environment, town and city centres, and seascapes.		construction stage of railway enhancements. During operation, there may also be changes to the landscape visual setting as a result of new stations. However, this is likely to be determined by the location and design of development.
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option intersects with one park and garden, one grade 1 listed building, and one conservation area, and is located within 500m of multiple heritage assets, including conservation areas, listed buildings, scheduled monuments and registered park and gardens. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction, as a result of noise and vibration. There is also potential for long-term effects to heritage assets through the development of new railway lines and stations, resulting in the potential for loss of assets that may be intersected, as well as altering the setting of assets in close proximity. Information on the precise design and layout of the option, as well as the level of mitigation is not provided at this stage and thus the significance of residual effects can likely be reduced. However, taking a precautionary approach, the potential for significant negative effects is identified at this stage given the presence of sensitive receptors.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within Western Gateway through sustainable transport modes. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual scheme design and the stations served by increased rail services.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option intersects with the Portishead Mercia Mudstone groundwater waterbody. There is potential for negative effects upon the water environment due to runoff from construction activities. However, the option aims to deliver the Portishead rail line, with new stations at Pill and Portishead and an hourly route to Bristol Temple Meads and the scale of this is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	++	The option is located within the Bristol AQMA and it is anticipated that this will result in improvements to air quality within the AQMA. This option is anticipated to encourage a modal shift away from private vehicles, improving air quality within the AQMA. Therefore, significant positive effects have been identified.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located either fully or partially within both fluvial and tidal Flood Zone 2 and Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as new rail infrastructure and services could be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	?	Uncertain effects have been identified as a result of this option on greenhouse gases. It is anticipated that this option will require the development of new infrastructure to support the Portishead Line and new stations, though the scale of this is currently uncertain, which may result in higher levels of embodied carbon. The option will also help to promote a modal shift to more sustainable transport modes, therefore reducing transport related emissions.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	--	The option could result in the loss of best and most versatile agricultural land (Grades 1, 2 and 3) through land take associated with delivery of the new and associated rail stations.

SEA Objective	Likely Significant Effects	Commentary
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	?	Uncertain effects are identified as a result of this option upon infrastructure. It is anticipated that this option will require the development of new infrastructure to support the Portishead Line and new stations. It is assumed that new development will include climate resilience measures, however the scale and nature of this is likely to be determined by individual scheme design. This development will support increases in future population, however the scale of this currently cannot be determined.

GCC-2024-CSV-014

- **Option Name:** Mass Rapid Transit & Strategic Interchange (Waterwells P&R / Cheltenham Racecourse P&R)
- **Proposer:** Gloucestershire County Council

Table E-30 – Mass Rapid Transit & Strategic Interchange (Waterwells P&R / Cheltenham Racecourse P&R)

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	0	The option will help to deliver a bus-based Mass Rapid Transit which will provide public transport connection through the urban areas of Gloucester and Cheltenham. This will help to improve access for all, in particular those who do not have access to a private car, such as younger people, older people, and those with long-term health conditions or disabilities. However, this is deemed to not be significant and therefore, negligible effects on population and equalities have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	0	The option aims to deliver a Mass Rapid Transit & Strategic Interchange connection through areas of Gloucester and Cheltenham. This could result in positive effects upon human mental health and wellbeing as public transport access is improved, especially in TRSE areas. However, these effects are not likely to be significant, therefore, negligible effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	0	Negligible effects are identified as a result of this option upon community safety. The option does not include any elements that are likely to contribute to improving user safety or the perception of safety on Western Gateway STB's transport network.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	0	There are unlikely to be any significant positive effects on the economy as a result of this option. The option aims to deliver a Mass Rapid Transit & Strategic Interchange connection through areas of Gloucester and Cheltenham., so there is potential for this option to provide improved access to tourist, leisure and employment destinations. However, these effects are considered to be minor. Therefore, negligible effects have been identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	There are unlikely to be any significant positive effects upon rural economies as a result of this option. The option aims to deliver a bus-based Mass Rapid Transit which will provide public transport connection through the urban areas of Gloucester and Cheltenham, so there is potential for this option to provide improved access to tourist destinations and employment. However, these are considered to be minor. Therefore negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option improves mass transit bus services within Gloucester and Cheltenham but is unlikely to result in any direct, significant benefits upon housing growth. Therefore, negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	--	This option is located within multiple designated sites including nine SSSI's. In addition, multiple designated sites have been identified within 500m of this option. There is potential for significant negative effects upon biodiversity as a result of this option due to damage and disturbance to designated sites during construction and potential loss of land. However, taking a precautionary approach, the potential for significant negative effects is identified at this stage given the presence of sensitive receptors.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and landscapes, including the rural environment, town and city centres, and seascapes.	--	This option is located within the Costwolds National Landscape. There is also potential for increased noise as a result of mass rapid transit connections, resulting in degradation of the setting of this asset. However, this may also contribute to reducing road noise from private vehicles in the long-term.. While there is likely to be mitigation available to reduce

SEA Objective	Likely Significant Effects	Commentary
		the significance of residual negative effects – a precautionary approach has been taken at this stage and a significant negative effect identified given the presence of sensitive receptors.
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within a number of scheduled monuments, listed buildings, conservation areas, and registered parks and gardens. There is potential for this option to result in disturbance to the setting of these heritage assets as a result of the increased bus services within close proximity to these assets, increasing noise. Information on the precise design and layout of the option, as well as the level of mitigation is not provided at this stage and thus the significance of residual effects can likely be reduced. However, taking a precautionary approach, the potential for significant negative effects is identified at this stage given the presence of sensitive receptors.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to local heritage assets within Cheltenham and Gloucester through sustainable transport modes. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual scheme design and location of bus service connections.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option is within 100m of multiple surface water and groundwater waterbodies that have poor chemical status. There is potential for negative effects upon the water environment due to runoff from construction activities. However, the option improves mass transit bus services within Gloucester and Cheltenham and the scale of this is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	++	The option is located within four AQMAs (Cheltenham Borough Council, Priory Road, Barton Street, and Painswick Road), as well as within 500m from Birdlip AQMA. The option could help to address existing poor air quality by improving accessibility to sustainable transport modes, particularly buses, encouraging a modal shift away from private car use and reducing reliance on private vehicles. Significant positive effects have therefore been identified.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located either fully or partially within both fluvial and tidal Flood Zone 2 and Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as new bus infrastructure could be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	0	The option aims to deliver a bus-based Mass Rapid Transit which will provide public transport connection through the urban areas of Gloucester and Cheltenham This is likely to encourage the modal shift to more sustainable transport modes, reducing transport related emissions. However, these benefits are considered to be minor. Therefore, negligible effects on greenhouse gases have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	--	The option could result in the loss of best and most versatile agricultural land (Grades 1, 2 and 3) through land take associated with infrastructure required for the bus based Mass Rapid Transit.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	0	Negligible effects are identified as a result of this option upon infrastructure. This option does not require the implementation of additional physical infrastructure, nor does it upgrade existing infrastructure. However, this option will support the increase in population of Western Gateway, providing additional services to support increasing passenger numbers. This increase is however not anticipated to result in significant effects.

WEMCA-2024-AT-001-002-003-004

- **Option Name:** Walking and Cycling Network - West of England
- **Proposer:** West of England Combined Authority

Table E-31 – Walking and Cycling Network - West of England

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	++	The option aims to deliver a consolidated package of walking and cycling projects across the West of England tackling specific gaps in the walking and cycling network. This will help to improve access and connectivity for all, in particular those who do not have access to a private car, such as younger people, older people, and those with long-term health conditions or disabilities. Therefore, significant positive effects have been identified for population and equalities.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	++	The option focuses on improving specific gaps in the walking and cycling network across the West of England. This will encourage healthier lifestyles and improve human mental health and wellbeing. Improved access to an active travel network could create a modal shift away from personal car usage which could result in indirect positive impacts on human health through improved air quality and reduced noise.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	?	This option includes the development of walking and cycling projects across the West of England to tackle gaps in the walking and cycling network, providing a consistent network. It is anticipated that this will also include measures to improve physical safety, design our crime and reduce fear of crime along active travel routes through measures such as lighting. However, these measures are currently unclear and likely to be determined by individual scheme design.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	0	There are unlikely to be any significant positive effects on the economy as a result of this option. The option focuses on improving specific gaps in the walking and cycling network across the West of England., so there is potential for this option to provide improved access to tourist destinations. However, these effects are considered to be minor. Therefore, negligible effects have been identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	The option aims to deliver a consolidated package of walking and cycling projects across the West of England tackling specific gaps in the walking and cycling network. This is likely to result in positive effects on rural economies due to improving access and connectivity to employment opportunities and tourist destinations. However, as details of this option are currently unknown, negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option provides improvements to the active travel network. Positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	--	This option is located within multiple designated sites including eight SSSI's, one SPA, one RAMSAR, one NNR and two SAC's. In addition, multiple designated sites have been identified within 500m of this option. There is potential for significant negative effects upon biodiversity as a result of this option due to damage and disturbance to designated sites during construction and potential loss of land. There is also the potential for disturbance through increased levels of recreation in the long term. However, information such as the precise design and layout of the option, as well as the level of mitigation is not provided at this stage and thus the severity of significant effects can change. However, taking a precautionary approach, the potential for significant negative effects is identified at this stage given the presence of sensitive receptors.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and	--	This option is located within the Costwolds National Landscape and Mendip Hills National Landscape. There is the potential that construction of these active travel routes may result in short-term negative effects upon the setting these

SEA Objective	Likely Significant Effects	Commentary
landscapes, including the rural environment, town and city centres, and seascapes.		national landscapes through increased noise and changes to visual amenity as a result of construction equipment. While there is likely to be mitigation available to reduce the significance of residual negative effects – a precautionary approach has been taken at this stage and a significant negative effect identified given the presence of sensitive receptors.
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option intersects a number of heritage assets, including conservation areas, listed buildings, registered parks and gardens, City of Bath World Heritage Site, and scheduled monuments, as well as being located within 500m of multiple additional heritage assets. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction of improved active travel routes, as a result of noise and vibration.. Information on the precise design and layout of the option, as well as the level of mitigation is not provided at this stage and thus the significance of residual effects can likely be reduced. However, taking a precautionary approach, the potential for significant negative effects is identified at this stage given the presence of sensitive receptors.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within Western Gateway particularly the world heritage site of the City of Bath, through improving the connectivity of sustainable transport modes. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual scheme design and location of improved network connectivity.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option is within 100m of multiple surface water and groundwater waterbodies that have poor chemical status. There is potential for negative effects upon the water environment due to runoff from construction activities. However, the option provides improvements to the active travel network the scale of this is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	++	This option is located within four AQMAs (Bath, Kingswood – Warmley, Staple Hill, and Bristol). This option is likely to result in improvements to air quality through providing the improvements to the walking and cycling network, encouraging the use of active travel and encouraging a modal shift away from private vehicles, reducing vehicle emissions. This has potential to improve air quality within the AQMAs, therefore significant positive effects have therefore been identified.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located either fully or partially within both fluvial and tidal Flood Zone 2 and Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as new walking and cycling infrastructure could be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	++	This option aims to deliver a consolidated package of walking and cycling projects across the West of England tackling specific gaps in the walking and cycling network. This will help to significantly promote the modal shift to more sustainable transport modes across the West of England region, and consequently reduce transport related emissions. Therefore, significant positive effects have been identified for greenhouse gases.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	--	The option could result in the loss of best and most versatile agricultural land (Grades 1, 2 and 3) through land take associated with construction of new walking and cycling infrastructure.

SEA Objective	Likely Significant Effects	Commentary
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	?	Uncertain effects are identified as a result of this option upon infrastructure. It is anticipated that this option will require the development of new infrastructure to develop the active travel network. However, the scale of new development is currently unclear and is likely to be determined by individual schemes that arise from this option. It is also unclear whether this option will include the upgrading of existing active travel routes that no longer meet design standards. It is assumed that new development will include climate resilience measures, however the scale and nature of this is likely to be determined by individual scheme design.

BCP-2024-MIX-002

- **Option Name:** Bournemouth Travel Interchange (bus/rail station) and links to town centre/seafront + Bournemouth Town Centre sustainable access package
- **Proposer:** BCP Council Transport Policy Team

Table E-32 – Bournemouth Travel Interchange (bus/rail station) and links to town centre/seafront + Bournemouth Town Centre sustainable access package

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	0	This option aims to deliver the Bournemouth Travel Interchange that will provide sustainable transport links to the town centre and the seafront. This will help to improve access for all, in particular those who do not have access to a private car, such as younger people, older people, and those with long-term health conditions or disabilities. However, this is deemed to be minor and therefore, negligible effects on population and equalities have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	++	The option improves active travel and public transport within Bournemouth. This will encourage healthier lifestyles and improve human mental health and wellbeing. Improved access to public transport could create a modal shift away from personal car usage which could result in indirect positive impacts on human health through improved air quality and reduced noise.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	0	Negligible effects are identified as a result of this option upon community safety. The option does not include any elements that are likely to contribute to improving user safety or the perception of safety on Western Gateway STB's transport network.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	0	The option improves active travel and public transport within Bournemouth, so there is potential for this option to provide improved access to tourist, education and employment destinations through local, regional and national travel. There is also potential for positive effects to arise through land use benefits as part of the corridor. However, these effects are considered to be minor. Therefore, negligible effects have been identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	There are unlikely to be any significant positive effects upon rural economies as a result of this option. The option aims to deliver the Bournemouth Travel Interchange that will provide sustainable transport links to the town centre and the seafront. Therefore negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option improves sustainable transport within Bournemouth, but is unlikely to result in any direct, significant benefits upon housing growth. Therefore, negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	--	This option is located within 500m of multiple designated sites including two SSSI's, two SPA's, one RAMSAR and one SAC. There is potential for significant negative effects upon biodiversity as a result of this option due to damage and disturbance to designated sites during construction. However, taking a precautionary approach, the potential for significant negative effects is identified at this stage given the presence of sensitive receptors.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and landscapes, including the rural environment, town and city centres, and seascapes.	?	Uncertain effects have been identified, as the option is located more than 500m away from a National Park or National Landscape. Therefore, any effects on landscape are likely to be determined by the individual scheme design that may arise, for example within the new active travel facilities.

SEA Objective	Likely Significant Effects	Commentary
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within multiple conservation areas and one registered park and garden, as well as within 500m of multiple other heritage assets, including conservation areas, listed buildings, scheduled monuments and registered park and gardens. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction, as a result of noise and vibration. Additionally, there may be long-term changes to the setting of heritage assets as a result of the development of this infrastructure, in particular changes to lighting. However, long-term, these active travel routes may result in improvements to air quality, which has potential to reduce the degradation of heritage assets. Information on the precise design and layout of the option, as well as the level of mitigation is not provided at this stage and thus the significance of residual effects can likely be reduced. However, taking a precautionary approach, the potential for significant negative effects is identified at this stage given the presence of sensitive receptors.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to local heritage assets within Cheltenham and Gloucester through sustainable transport modes. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual scheme design and the connectivity of services provided.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option intersects with the Lower Frome and Piddle and Lower Dorset Stour and Lower Hampshire Avon groundwater waterbodies. There is potential for negative effects upon the water environment due to runoff from construction activities. However, The option aims to deliver the Bournemouth Travel Interchange and the scale of this is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	0	Negligible effects have been identified for this option in relation to air quality as it is not located within 500m of an AQMA. However, the option contributes to providing improvements to the sustainable and active travel networks. This has potential to result in improvements to air quality through encouraging a modal shift away from private car use. However, this is not considered to be significant.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located either fully or partially within fluvial Flood Zone 2 and Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as new sustainable transport infrastructure could be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	0	The option aims to deliver the Bournemouth Travel Interchange that will provide sustainable transport links to the town centre and the seafront. This is likely to encourage the modal shift to more sustainable transport modes, reducing transport related emissions. However, these benefits are considered to be minor. Therefore, negligible effects on greenhouse gases have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	0	The option would not result in the loss of Best and Most Versatile agricultural land.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and	?	Uncertain effects are identified as a result of this option upon infrastructure. It is anticipated that this option will require both the upgrading of existing infrastructure and the development of new infrastructure. However, the scale of new development is currently unclear and is likely to be determined by individual schemes that arise from this option. It is

SEA Objective	Likely Significant Effects	Commentary
resilient to future climate risks and support future population growth.		assumed that new development will include climate resilience measures. This option is also likely to result in increased capacity of passenger and user numbers. However the scale and nature of improvements to both climate resilience and future population support is likely to be determined by individual scheme design.

NR-2024-PTI-013

- **Option Name:** Additional loops between Yate and Gloucester
- **Proposer:** Network Rail

Table E-33 – Additional loops between Yate and Gloucester

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	0	The option aims to improve rail capacity between Yate and Gloucester through the development of additional loops. This is likely to improve access for all, in particular those who do not have access to a private car, such as younger people, older people, and those with long-term health conditions or disabilities. However, this is deemed to be minor and therefore, negligible effects on population and equalities have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	0	The option improves rail capacity between Yate and Gloucester. This could result in positive effects upon human mental health and wellbeing as public transport access is improved. However, these effects are not likely to be significant, therefore, negligible effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	0	Negligible effects are identified as a result of this option upon community safety. The option will provide infrastructure to improve freight transport between Yate and Gloucester which is likely to indirectly benefit community safety due to removing freight transport off the local road network. However this is deemed not be significant.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	?	The option improves rail capacity between Yate and Gloucester. Positive effects on the economy could arise from freight growth through additional services between the South West and the Midlands. However, at this time, it is uncertain if this would improve access to international gateways.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	The option aims to improve rail capacity between Yate and Gloucester through the development of additional loops. This is likely to result in positive effects on rural economies due to improving access and connectivity to employment opportunities and tourist destinations. However, as details of this option are currently unknown, negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option improves rail capacity, resulting in potential for this option to provide improved capacity for increased residents within the Western Gateway STB region. Positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	--	This option is located within 500m of multiple designated sites. There is potential for significant negative effects upon biodiversity as a result of this option due to damage and disturbance to designated sites during construction and potential loss of land. However, the option aims to improve rail capacity between Yate and Gloucester through the development of additional loops and information such as the precise design and layout of the option, as well as the level of mitigation is not provided at this stage and thus the severity of significant effects can change.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and	?	Uncertain effects have been identified for this option as it is more than 500m away from any national landscape or national park. This option has the potential to result in changes to the setting of the local landscape during the construction stage of railway enhancements. However, this is likely to be determined by the scale of development.

SEA Objective	Likely Significant Effects	Commentary
landscapes, including the rural environment, town and city centres, and seascapes.		
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within 500m of multiple heritage assets, namely listed buildings. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction, as a result of noise and vibration. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a "sense of place".	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within Western Gateway through sustainable transport modes. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual scheme design and the stations served by increased rail services.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option is within 100m of multiple surface water and groundwater waterbodies that have poor chemical status. There is potential for negative effects upon the water environment due to runoff from construction activities. However, the option aims to improve rail capacity between Yate and Gloucester through the development of additional loops and the scale of this is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	0	Negligible effects have been identified for this option in relation to air quality as it is not located within 500m of an AQMA. However, the option provides improvements to the rail network capacity. This has potential to indirectly result in improvements to air quality through encouraging a modal shift away from private car use. This may result in improvements to air quality, however this is not considered to be significant.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	Depending on the location of works, the option could be located partially within Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as new transport infrastructure could be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region's contribution to climate change from transport related greenhouse gas emissions	0	The option aims to improve rail capacity between Yate and Gloucester through the development of additional loops. This is likely to encourage the modal shift to more sustainable transport modes, reducing transport related emissions. However, these benefits are considered to be minor. Therefore, negligible effects on greenhouse gases have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	--	Depending on the location of works, the option could result in the loss of best and most versatile agricultural land (Grades 2 and 3) through land take associated with construction of new passing loops and extension of existing loops.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	++	This option requires the upgrading of existing infrastructure within the Western Gateway to allow an increase in capacity for rail services, supporting increased passenger numbers, as well as freight service capacity. Significant positive effects have been identified as a result of this improved capacity and upgrade of existing constrained infrastructure.

BCP-2024-AT-001

- **Option Name:** Regional Cycle Network routes/schemes
- **Proposer:** BCP Council

Table E-34 – Regional Cycle Network routes/schemes

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	++	The option aims to deliver regional active travel routes across BCP, Dorset and Hampshire. This will help to improve access and connectivity for all, in particular those who do not have access to a private car, such as younger people, older people, and those with long-term health conditions or disabilities. Therefore, significant positive effects have been identified for population and equalities.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	++	The option focuses on the development of regional active travel routes. This will encourage healthier lifestyles and improve human mental health and wellbeing. Improved access to active travel options could create a modal shift away from personal car usage which could result in indirect positive impacts on human health through improved air quality and reduced noise.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	0	Negligible effects are identified as a result of this option upon community safety. The option does not include any elements that are likely to contribute to improving user safety or the perception of safety on Western Gateway STB's transport network.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	0	The option focuses on the development of regional active travel routes, so there is potential for this option to provide improved access to tourist and employment destinations. However, these effects are considered to be minor. Therefore, negligible effects have been identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	The option aims to aims to deliver regional active travel routes across BCP, Dorset and Hampshire. This is likely to result in positive effects on rural economies due to improving access and connectivity to employment opportunities and tourist destinations. However, as details of this option are currently unknown, negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option provides improvements to the active travel network. Positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	--	This option is located within multiple designated sites including 10 SSSI's, four SPA's, three RAMSAR's and one NNR. In addition, multiple designated sites have been identified within 500m of this option. There is potential for significant negative effects upon biodiversity as a result of this option due to damage and disturbance to designated sites during construction and potential loss of land. However, information such as the precise design and layout of the option, as well as the level of mitigation is not provided at this stage and thus the severity of significant effects can change.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and landscapes, including the rural environment, town and city centres, and seascapes.	--	This option is located within the Dorset National Landscape, as well as approximately 95m from the Cranborne Chase and West Wiltshire Downs National Landscape, and 760m from the New Forest National Park. There is potential for development to result in negative effects upon the setting of this national landscape, particularly in the short-term during construction of new active travel routes. There is also potential for negative effects to arise as a result of lighting on

SEA Objective	Likely Significant Effects	Commentary
		routes, altering the visual amenity of these landscapes. However, it is assumed that lighting will be designed within appropriate lighting standards and any significant effect mitigated against in design. The option has potential to reduce disturbance on the national landscapes in the long term as a result of encouraging a modal shift away from private car use, encouraging use of active travel, reducing noise and degradation of these landscapes.
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within multiple conservation areas and in close proximity to listed buildings, as well as within 500m of multiple heritage assets, including conservation areas, listed buildings, scheduled monuments and registered park and gardens. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction, as a result of noise and vibration. Additionally, there may be long-term changes to the setting of heritage assets as a result of the development of this infrastructure, in particular changes to lighting. However, long-term, these active travel routes may result in improvements to air quality, which has potential to reduce the degradation of heritage assets. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within Western Gateway, through improving the connectivity of sustainable transport modes. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual scheme design and connectivity of the new routes to heritage assets.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option is within 100m of multiple surface water and groundwater waterbodies that have poor chemical status. There is potential for negative effects upon the water environment due to runoff from construction activities. However, the option aims to deliver regional active travel routes across BCP, Dorset and Hampshire and the scale of this is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	0	Negligible effects have been identified for this option in relation to air quality as it is not located within 500m of an AQMA. However, the option contributes to providing improvements to the active travel network. This has potential to result in improvements to air quality through encouraging a modal shift away from private car use. However, this is not considered to be significant.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located either fully or partially within both fluvial and tidal Flood Zone 2 and Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as new active travel routes could be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	++	This option aims to deliver regional active travel routes across BCP, Dorset and Hampshire. This will help to significantly promote the modal shift to more sustainable transport modes across the region, and consequently reduce transport related emissions. Therefore, significant positive effects have been identified for greenhouse gases.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	0	The option would not result in the loss of Best and Most Versatile agricultural land.

SEA Objective	Likely Significant Effects	Commentary
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	?	Uncertain effects are identified as a result of this option upon infrastructure. This option will require the development of new infrastructure to develop the active travel network. However, the scale of new development is currently unclear and is likely to be determined by individual schemes that arise from this option. It is assumed that new development will include climate resilience measures. This option is also likely to result in increased capacity of users on active travel routes. However the scale and nature of improvements to both climate resilience and future population support is likely to be determined by individual scheme design.

WEMCA-2024-PTI-009

- **Option Name:** Rail electrification - Chippenham to Bristol Temple Meads via Bath Spa
- **Proposer:** West of England Combined Authority

Table E-35 – Rail electrification - Chippenham to Bristol Temple Meads via Bath Spa

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	0	Rail electrification between Chippenham and Bristol Temple Meads is unlikely to result in significant effects on population and equalities. However, it will likely improve overall passenger experience due to providing a more sustainable service.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	0	The option provides the electrification of the rail line between Chippenham and Bristol Temple meads. This could result in positive effects upon human mental health and wellbeing as public transport access is improved. However, these effects are not likely to be significant, therefore, negligible effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	0	Negligible effects are identified as a result of this option upon community safety. The option does not include any elements that are likely to contribute to improving user safety or the perception of safety on Western Gateway STB's transport network.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	0	The option provides the electrification of the rail line between Chippenham and Bristol Temple meads. There is potential for indirect, positive effects on the wider area. However, these effects are not considered to be significant. Therefore, negligible effects have been identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	There are unlikely to be any effects upon rural economies as a result of this option. The option provides the electrification of the rail line between Chippenham and Bristol Temple meads, therefore negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any effects upon housing growth as a result of this option. The option provides the electrification of the rail line between Chippenham and Bristol Temple meads, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	--	This option is located within multiple designated sites including two SSSI's and one SAC. In addition, multiple designated sites have been identified within 500m of this option. There is potential for significant negative effects upon biodiversity as a result of this option due to damage and disturbance to designated sites during construction and potential loss of land. However, the option provides the electrification of the rail line between Chippenham and Bristol Temple meads and information such as the precise design and layout of the option, as well as the level of mitigation is not provided at this stage, thus the severity of significant effects can change.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and landscapes, including the rural environment, town and city centres, and seascapes.	--	This option is located within the Costwolds National Landscape. This option has the potential to result in changes to the setting of the national landscape during the construction stage of electrification enhancements. However, this is likely to be determined by the scale and duration of development.

SEA Objective	Likely Significant Effects	Commentary
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option intersects with a number of heritage assets, including the City and Bath World Heritage Site, registered parks and gardens, listed buildings, and conservation areas, as well as being located within 500m of multiple heritage assets, including conservation areas, scheduled monuments listed buildings, and registered park and gardens. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction, as a result of noise and vibration. However, it is assumed that any potential significant effect mitigated against through implementation of a CEMP. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	0	This option addresses the electrification of the rail line between Chippenham and Bristol Temple Meads and therefore is not anticipated to have any direct or indirect effects on access to heritage assets. Negligible effects have therefore been identified.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option intersects with the Bath Oolite and Inferior Oolite and Bridport Sands groundwater waterbodies. There is potential for negative effects upon the water environment due to runoff from construction activities. However, this option addresses the electrification of the rail line between Chippenham and Bristol Temple Meads and the scale of this is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	++	The option is located within the Bristol AQMA and Bath AQMA and it is anticipated that this will result in improvements to air quality within the AQMA. This option is anticipated to facilitate the transition away from diesel train stock, improving air quality. Additionally, it is also anticipated to encourage a modal shift away from private vehicles, further improving air quality. Therefore, significant positive effects have been identified.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located either fully or partially within both fluvial and tidal Flood Zone 2 and Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as new rail infrastructure could be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	++	Rail electrification between Chippenham and Bristol Temple Meads is likely to result in positive effect on greenhouse gases due to reducing carbon emissions associated with the existing train stock. This is also likely to encourage a modal shift to more sustainable transport modes due to improving passenger experience. Therefore significant effects on greenhouse gases have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	0	The option would be located within Best and Most versatile agricultural land (Grades 1, 2 and 3), however it is not likely to lead to it’s loss as works will be undertaken overhead, on existing infrastructure.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	++	Significant positive effects are identified for this option as the development of overhead line electrification will contribute to supporting the transition to renewable energy sources on the railways within the Western Gateway STB region.

WEMCA-2024-PTI-005

- **Option Name:** Metrowest Phase 2 (Henbury Line)
- **Proposer:** West of England Combined Authority

Table E-36 – Metrowest Phase 2 (Henbury Line)

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	0	The options aim to deliver the Henbury Line to North Filton. This will help to improve access for all, in particular those who do not have access to a private car, such as younger people, older people, and those with long-term health conditions or disabilities. However, this is deemed to be minor and therefore, negligible effects on population and equalities have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	0	The option improves rail capacity and connectivity. This could result in positive effects upon human mental health and wellbeing as public transport access is improved. However, these effects are not likely to be significant, therefore, negligible effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	0	Negligible effects are identified as a result of this option upon community safety. The option does not include any elements that are likely to contribute to improving user safety or the perception of safety on Western Gateway STB's transport network.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	0	The option improves rail capacity and connectivity, resulting in potential for this option to provide better access to employment, leisure and tourism in the surrounding areas. This could have positive effects on local economies, however, significant effects are unlikely. Therefore, negligible effects are identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	The option aims to deliver the Henbury Line to North Filton. This is likely to result in positive effects on rural economies due to improving access and connectivity to employment opportunities and tourist destinations. However, these effects are deemed to be minor. Therefore, negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option improves rail capacity and connectivity, resulting in potential for this option to provide improved capacity for increased residents within the Western Gateway STB region. Positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	--	This option is located within 500m of the Pen Park Hole SSSI. There is potential for significant negative effects upon biodiversity as a result of this option due to damage and disturbance to designated sites during construction and potential loss of land. However, information such as the precise design and layout of the option, as well as the level of mitigation is not provided at this stage and thus the severity of significant effects can change.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and	?	Uncertain effects have been identified for this option as it is more than 500m away from any national landscape or national park. This option has the potential to result in changes to the setting of the local landscapes during the construction stage of railway enhancements. During operation, there may also be changes to the landscape visual

SEA Objective	Likely Significant Effects	Commentary
landscapes, including the rural environment, town and city centres, and seascapes.		setting as a result of new rail infrastructure. However, this is likely to be determined by the location and design of development.
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within 500m of one conservation area. There is potential for development of this option to result in disturbance to the setting of this heritage asset during construction, as a result of noise and vibration. However, it is assumed that any potential significant effect mitigated against through implementation of a CEMP. There is also potential for long-term effects to heritage assets through the development of new railway lines and stations, resulting in the potential for permanent altering the setting of the conservation area in close proximity. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within Western Gateway through sustainable transport modes. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual scheme design and the stations served by increased rail services.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	0	The option aims to deliver the Henbury Line to North Filton. There are unlikely to be any significant, direct effects upon the water environment as a result of this option, as it is not located within 100m of a surface or groundwater body. Therefore, negligible effects have been identified.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	0	Negligible effects have been identified for this option in relation to air quality as it is not located within 500m of an AQMA. However, the option provides improvements to the sustainable travel network within Bristol. This has potential to result in improvements to air quality through encouraging a modal shift away from private car use. This may result in improvements to air quality, however this is not considered to be significant.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located either fully or partially within both fluvial Flood Zone 2 and Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as additional rail services could be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	0	The option aims to deliver the Henbury Line to North Filton. This is likely to encourage the modal shift to more sustainable transport modes, reducing transport related emissions. However, these benefits are considered to be minor. Therefore, negligible effects on greenhouse gases have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	--	The option could result in the loss of best and most versatile agricultural land (Grade 3) through land take associated with delivery of the Henbury rail line.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	?	It is currently uncertain if the development of this option will require the upgrading of existing infrastructure to deliver Metrowest Phase 2, or whether new infrastructure will be required. This is likely to be determined by individual scheme design. However, there is potential for this option to result in improved rail capacity as a result of this option, supporting population growth.

WEMCA-2024-PTI-011

- **Option Name:** Four-tracking Bristol Temple Meads - Parson Street
- **Proposer:** West of England Combined Authority

Table E-37 – Four-tracking Bristol Temple Meads - Parson Street

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	**0**	The option aims to improve rail capacity at Bristol Temple Meads through the provision of four tracking. This will help to improve access for all, in particular those who do not have access to a private car, such as younger people, older people, and those with long-term health conditions or disabilities. However, this is deemed to be minor and therefore, negligible effects on population and equalities have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	**0**	The option improves rail capacity and connectivity. This could result in positive effects upon human mental health and wellbeing as public transport access is improved. However, these effects are not likely to be significant, therefore, negligible effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	**0**	Negligible effects are identified as a result of this option upon community safety. The option does not include any elements that are likely to contribute to improving user safety or the perception of safety on Western Gateway STB's transport network.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	**0**	The option improves rail capacity and connectivity, resulting in potential for this option to provide better access to employment, leisure and tourism in the surrounding areas. This could have positive effects on local economies; however, significant effects are unlikely. Therefore, negligible effects are identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	**0**	There are unlikely to be any significant positive effects upon rural economies as a result of this option. The option aims to improve rail capacity at Bristol Temple Meads through the provision of four tracking. Therefore negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	**0**	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option improves rail capacity and connectivity, resulting in potential for this option to provide improved capacity for increased residents within the Western Gateway STB region. Positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	**?**	There are unlikely to be any significant, direct effects upon biodiversity as a result of this option. The option improves rail capacity and connectivity and is not located within 500m of any designated sites. However it is currently uncertain whether construction will result in disturbance to local biodiversity, including species and habitats affected by construction noise. Uncertain effects have therefore been identified.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and	**?**	Uncertain effects have been identified for this option as it is more than 500m away from any national landscape or national park. This option has the potential to result in changes to the setting of the local landscapes during the

SEA Objective	Likely Significant Effects	Commentary
landscapes, including the rural environment, town and city centres, and seascapes.		construction stage of railway enhancements. However, this is likely to be determined by the scale and duration of development.
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within 500m of multiple heritage assets, including conservation areas, listed buildings, and a registered park and garden. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction, as a result of noise and vibration. However, it is assumed that any potential significant effect mitigated against through implementation of a CEMP. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within Western Gateway through sustainable transport modes. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual scheme design and the stations served by increased rail services.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	0	The option aims to improve rail capacity at Bristol Temple Meads through the provision of four tracking. There are unlikely to be any significant, direct effects upon the water environment as a result of this option, as it is not located within 100m of a surface or groundwater body. Therefore, negligible effects have been identified.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	++	The option is located within the Bristol AQMA and it is anticipated that this will result in improvements to air quality within the AQMA. This option is anticipated to encourage a modal shift away from private vehicles, improving air quality within the AQMA. Therefore, significant positive effects have been identified.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located either fully or partially within both fluvial and tidal Flood Zone 2 and Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as rail infrastructure improvements could be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	0	The option aims to improve rail capacity at Bristol Temple Meads through the provision of four tracking. This is likely to encourage the modal shift to more sustainable transport modes, reducing transport related emissions. However, these benefits are considered to be minor. Therefore, negligible effects on greenhouse gases have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	--	The option could result in the loss of best and most versatile agricultural land (Grade 3) through land take associated with four-tracking of the existing rail line.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	++	This option requires the upgrading of existing infrastructure Bristol Temple Meads and Parson Street to allow an increase in capacity for rail services, supporting increased passenger numbers. Significant positive effects have been identified as a result of this improved capacity and upgrade of existing constrained infrastructure.

NR-2024-PTI-014

- **Option Name:** Provision of traction power infrastructure to support removal of diesel-only passenger rolling stock
- **Proposer:** Network Rail

Table E-38 – Provision of traction power infrastructure to support removal of diesel-only passenger rolling stock

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	**0**	The option supports the replacement of diesel trains in the Western Gateway. This is unlikely to result in significant effects on population and equalities. However, it will likely improve overall passenger experience due to providing a more sustainable service.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	**0**	The option supports the replacement of diesel trains in the Western Gateway. This could result in positive effects upon human mental health and wellbeing as rail services are improved and indirect positive effects could arise through improved air quality. However, these effects are not likely to be significant, therefore, negligible effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	**0**	Negligible effects are identified as a result of this option upon community safety. The option does not include any elements that are likely to contribute to improving user safety or the perception of safety on Western Gateway STB's transport network.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	**0**	There are unlikely to be any significant effects upon the economy as a result of this option. The option supports the replacement of diesel trains in the Western Gateway, therefore, negligible effects are identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	**0**	There are unlikely to be any effects upon rural economies as a result of this option. The option supports the replacement of diesel trains in the Western Gateway, therefore negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	**0**	There are unlikely to be any effects upon housing growth as a result of this option. The option supports the replacement of diesel trains in the Western Gateway, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	**?**	There are unlikely to be any significant, direct effects upon biodiversity as a result of this option. The option supports the replacement of diesel trains in the Western Gateway, which has potential for minor positive effects upon biodiversity through improved air quality and reduced noise. However, there is also potential for construction to arise as a result of electrification of the line, although this is currently unclear. Therefore, uncertain effects have been identified.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and landscapes, including the rural environment, town and city centres, and seascapes.	**?**	Uncertain effects have been identified for this option as it is more than 500m away from any national landscape or national park. This option has the potential to result in enhancement to local landscapes during as a result of reducing diesel powered trains, reducing noise from rail services.

SEA Objective	Likely Significant Effects	Commentary
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	?	Uncertain effects have been identified for this option as it is located within 1km of heritage assets. However, there is potential for effects on these assets as a result of improving air quality and noise by removing diesel powered trains. These effects are likely to be determined by the scale of improvements to air quality and noise.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	0	This option addresses the transition from diesel powered trains and infrastructure improvements required and therefore is not anticipated to have any direct or indirect effects on access to heritage assets. Negligible effects have therefore been identified.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	0	The option supports the replacement of diesel trains in the Western Gateway. There are unlikely to be any significant, direct effects upon the water environment as a result of this option, as it is not located within 100m of a surface or groundwater body. Therefore, negligible effects have been identified.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	++	The option is located within multiple AQMAs and is anticipated that this will result in improvements to air quality within the AQMAs. This option is anticipated to improve air quality as a result of removing diesel train stock. This is also likely to encourage a modal shift to more sustainable transport modes due to improving passenger experience. Therefore, significant positive effects have been identified.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The precise location of works is currently unknown, though will take place across the Western Gateway area. Therefore there is a possibility that works may take place within Flood Zone 3, it is considered appropriate to flag the potential for significant effects at this stage.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	++	The option supports the replacement of diesel trains in the Western Gateway. This is likely to result in positive effect on greenhouse gases due to reducing carbon emissions associated with the existing train stock. This is also likely to encourage a modal shift to more sustainable transport modes due to improving passenger experience. Therefore significant effects on greenhouse gases have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	0	The precise location of works is unknown, however works will take place on existing infrastructure and therefore no loss of Best and Most versatile agricultural land is expected.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	++	Significant positive effects are identified for this option as the development of infrastructure to support the replacement of diesel passenger trains will contribute to supporting the transition to renewable energy sources on the railways within the Western Gateway STB region. Additionally, this development will result in the upgrading of existing infrastructure.

WEMCA-2024-PTS – 001

- **Option Name:** Bus service frequency and rural bus service improvements through Bus Strategy
- **Proposer:** West of England Combined Authority

Table E-39 – Bus service frequency and rural bus service improvements through Bus Strategy

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	++	The implementation of the bus strategy will help to improve bus service frequency across the urban and rural network. This will help to improve access for all, in particular those who do not have access to a private car, such as younger people, older people, and those with long-term health conditions or disabilities. Therefore, significant positive effects have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	0	The option improves bus service frequency which could result in positive effects upon human mental health and wellbeing as bus services are improved, especially in rural networks. However, these effects are not likely to be significant, therefore, negligible effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	0	Negligible effects are identified as a result of this option upon community safety. The option does not include any elements that are likely to contribute to improving user safety or the perception of safety on Western Gateway STB's transport network.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	0	The option improves bus service frequency which could result in minor, positive effects through improved access to employment and tourism destinations. However, there are unlikely to be any significant effects upon the economy as a result of this option. Therefore, negligible effects are identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	++	The implementation of the bus strategy will help to improve bus service frequency across the rural network. This is likely to result in positive effects on rural economies due to improving access and connectivity to employment opportunities and tourist destinations. Therefore, significant positive effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option improves bus service frequency, resulting in potential for this option to provide improved capacity for increased residents within the Western Gateway STB region. Positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	--	This option is located within multiple designated sites including nine SSSI's, four SAC's, one SPA and two RAMSAR's. In addition, multiple designated sites have been identified within 500m of this option. There is potential for significant negative effects upon biodiversity as a result of this option due to damage and disturbance to designated sites during construction and potential loss of land. However, this option seeks to improve bus service frequency and rural bus services improvements and information such as the precise design and layout of the option, as well as the level of mitigation is not provided at this stage, thus the severity of significant effects can change.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and	--	This option is located within the Costwolds National Landscape and Mendips National Landscape, and is within 500m of the Wye Valley and North Wessex Downs National Landscapes. This option has the potential to result in changes to the

SEA Objective	Likely Significant Effects	Commentary
landscapes, including the rural environment, town and city centres, and seascapes.		setting of the national landscapes as a result of increased bus services, increasing noise and altering the setting of these landscapes.
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option intersects with a number of heritage assets, including registered parks and gardens, listed buildings, and conservation areas and scheduled monuments, as well as being located within 500m of multiple heritage assets. There is potential for development of this option to result in disturbance to the setting of these heritage assets as a result of noise from increased bus services. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a "sense of place".	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within Western Gateway through sustainable transport modes. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual bus route improvements.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option is within 100m of multiple surface water and groundwater waterbodies that have poor chemical status. There is potential for negative effects upon the water environment due to runoff from construction activities. However, the option improves bus service frequency across the rural network and the scale of this is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	++	The option is located within 10 AQMAs (Kingswood-Warmley, Westbury, Chepstow, Staple Hill, Bath, Bristol, Bradford-on-Avon, Farrington Gurney, Temple Cloud, and Devizes Shanes Castle) and it is anticipated that this will result in improvements to air quality within the AQMAs. This option is anticipated to encourage a modal shift away from private vehicles, improving air quality. Therefore, significant positive effects have been identified.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located either fully or partially within both fluvial and tidal Flood Zone 2 and Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as additional bus services could be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region's contribution to climate change from transport related greenhouse gas emissions	++	The implementation of the bus strategy will help to improve bus service frequency across the urban and rural network. This is likely to encourage the modal shift to more sustainable transport modes, reducing transport related emissions. Therefore significant positive effects on greenhouse gases have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	0	The option would be located within Best and Most versatile agricultural land (Grades 1, 2 and 3), however it is not likely to lead to it's loss as the option aims to increase the frequency of existing bus routes, that will not require any land take.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	0	Negligible effects are identified as a result of this option upon infrastructure. The option does not include any elements that upgrade the physical transport infrastructure within Western Gateway STB's transport network. This option provides improved public transport services to serve wider communities, supporting a growing population. This has potential to result in positive effects, however this is not considered to be significant.

Assessment of Alternative SIP Options

The SIP alternative options have been assessed below, following the same criteria and methodology used to assess the preferred options. These options have been listed by their Option ID code, with their project name and proposer also included.

The list of Alternative SIP Options can be found in **Table E-40** below.

Table E-40 – List of Alternative SIP Options

Project Code	Project name	Type of proposal	Project Description
BCP-2024-MIX-003	Poole Town Centre sustainable access package + Poole Travel interchange	Mixed - MIX	An ambitious sustainable access package to transform Poole Town centre (regional destination) with the creation of new liveable neighbourhoods, re-development/relocation of the bus station, re-configuration of several roundabouts, improved wayfinding, removal of subways, bus gates and modal filters. The full scope of the project involves removal of the Poole high street rail level crossing to support the Dorset Metro proposal. Includes a plan to relocate Poole railway Station (regional gateway) to support town centre redevelopment, to unlock land use changes required. Supports sustainable local, regional and national travel. Supports sustainable visitor travel and local plan housing and employment allocations.
BCP-2024-MIX-005	A31 Capacity and safety improvements package	Mixed - MIX	Capacity and safety improvements for vehicular traffic and walking and cycling and public transport at strategic junctions and sections along A31, including continuous flyovers at junctions, bypass, signalised/widening access at junctions, roundabout modifications, upgrading of the sections to typically dual 2 lane all-purpose road, grade separation, upgraded pedestrian/cycle crossings and bridges, reallocation and improvements of cycle tracks and greenway links, modal filters, speed restrictions, mobility hubs, bus gates, to support the sustainable housing and employment site developments, such as Oakley development sites, and local and regional economic growth and connectivity in BCP via A31.
GCC-2024-CSV-001	M5 J10 (incl. new link road & A4019 widening)	Other - OTH	M5 J10 including new Link Road and widening of the A4019 will enable Cheltenham Garden Community and Technology Innovation Zone housing (7,000) and employment growth in national cyber security.
GCC-2024-TKS-001	M5 Junction 9 and A46 (Ashchurch) Transport Scheme - Trans-Midland Trade Corridor	Other - OTH	M5J9 A46 (Ashchurch) Transport Scheme addresses capacity constraints for strategic traffic and the consequential significant constraint on the Trans-Midland Trade Corridor, significant strategic housing and employment growth at junction 9 and along the corridor of the A46 from Teddington Hands. The Strategic Outline Business Case is currently with DfT for assessment. Delivering significant housing & employment (11,083 jobs) growth planned for Tewkesbury district, which supports the Tewkesbury Garden Communities (10,000 dwellings), placing further pressure on the M5J9/A46 corridor.
GCC-2024-CSV-013020	M5 J12 capacity and safety improvements and cycle link (B4008/Haresfield) to Gloucestershire Cycle Spine	Mixed - MIX	M5 J12 capacity and safety improvements and the link to the Gloucestershire Cycle Spine will enable housing development in line the 5yr housing supply and economic growth to be delivered by the Stroud Local Plan and future development in South Gloucestershire as noted by the Inspector at SLP EiP for M5 J12 & J14.

NR-2024-PTI-009	Gloucester area re-signalling - enhanced renewal	Public Transport (Infrastructure) - PTI	Signalling in the Gloucester area is due to be replaced in the next 10 years. There is an opportunity to use this to efficiently provide signalling enhancements, such as headway improvements, which will unlock improved capacity and additional train services.
	A417 Missing Link	Road - RD	A landscape-led highways scheme that will deliver a safe and resilient free-flowing road while conserving and enhancing the special character of the Cotswolds Area of Outstanding Natural Beauty. Our scheme will improve the connection between two dual carriageway sections of the A417 at Brockworth and Cowley.
	Potential small scheme: A36 Beckington Roundabouts	Road - RD	Proposed package of small-scale improvements (likely less than £30M)
	Potential small scheme: A36 Salisbury (Southampton Road Roundabouts)	Road - RD	Proposed package of small-scale improvements (likely less than £30M)
	Potential small scheme: A35 Dorchester Roundabouts	Road - RD	Proposed package of small-scale improvements (likely less than £30M)
	Strategic Renewal - M32 Eastville viaduct	Road - RD	Refurbishment of the 15 structures comprising the M32 Eastville viaduct at J2
	Strategic Renewal - M5 J20-19 Bridge Cluster - Whynol Viaduct	Road - RD	Refurbishment of 8 bridges, a culvert and maintenance of other assets in the locality between M5 J20 (Clevedon) and Portishead.
NSC-2024-RD-001	A38 Major Road Network (MRN) scheme package	Road - RD	Capacity improvements, bus prioritisation and active travel provision at key locations along route. Improved access to Bristol Airport and route journey time reliability.
WEMCA-2024-TI-001	Bristol Temple Meads Capacity hub improvements as part of Bristol Temple Quarter	Transport hub or interchange - TI	Improvements to Bristol Temple Meads station, as well as improved interchange opportunities, and improvements to passenger experience and overcrowding.
WEMCA-2024-PTI-008	Rail electrification - Filton Bank (between Bristol Parkway / Patchway to	Public Transport (Infrastructure) - PTI	Overhead line electrification between Bristol Parkway and Patchway to Bristol Temple Meads, allowing continuous rail electrification between London, Bristol and Cardiff.

	Bristol Temple Meads)		
WEMCA-2024-PTS-004	South Wales Metro services between Cardiff and Bristol	Public Transport (Services) - PTS	Transport for Wales services between Cardiff Central and Bristol Temple Meads as part of the South Wales Metro - services will call at new stations along the South Wales Mainline providing a two-way commuter service between Bristol and Cardiff.
WC-2024-RD-001	A350 Malmesbury Road Roundabout	Road - RD	Capacity enhancement of existing junction presenting a traffic throttle and congestion hotspot on key regional corridor. Provision of approximate 400m length of Signal controlled roundabout Improvement or 5 arm signal-controlled junction including minor widening and road marking at A350 / B4158 / Kilverts Way and Services. • 350m two lane gyratory • Geometric improvements to approach / egress on all 5no. arms • Signal control on A350 S/B; Kilverts Way; Malmesbury Road or • 5 arm signal-controlled junction • Avoiding Ransome strip on Services / Highway boundary • Drainage mitigation • Pedestrian crossing facilities
WC-2024-RD-002	A350 Lackham to Melksham Bypass Improvements	Road - RD	Provision of approximate 3.2km length of dual carriageway (widening from current single carriageway) between Lackham roundabout and the junction with the proposed Melksham Eastern Bypass, to the north of Melksham • Extension of 250m embankment structure crossing Mill Brook • Three structures – potentially road over culverts – which would need to account for extension or strengthening • Melksham Road junction – leading to Lacock Village and Abbey – possible need for signalisation; • Gastard junction – left in - left out junction • Corsham Rd/Mons Lane signalised crossroads junction (Whitehall) – need for upgrade • Notton/Mons Lane junction – left in - left out junction • Notton village junction - left in - left out junction
WC-2024-RD-003	A350 Hagg Hill to Stoney Gutter	Road - RD	Provision of approximate 1.9km length of realigned carriageway and junction improvement at Stoney Gutter (widening from current single carriageway with right turn lanes) between Hag Hill tie in at the termination of the Semington to Melksham diversion and approximately Stourton Farm, to the South of Stoney Gutter signal controlled crossroads. • 600m of cutting to eliminate the non-standard crest at Hag Hill • 600m of embankment • Common Hill Junction improvement and Hag Hill Farm access • Stopping up of Gt Hinton junction • Two structures – potentially road over culverts • Stoney Gutter crossroads – dual two-lane signalised crossroad junction with staggered approach to side roads

WC-2024-RD-004	A350 Westbury Bypass + Glenmore Link	Road - RD	Provision of approximate 4.4km length of offline single carriageway highway between Trowbridge Road crossing B3098 Bratton Road to Madbrook Farm; 1.4km link road from Trowbridge Road to West Wiltshire Ind. Estate. • In total the proposed scheme would comprise approximately 5.8 kilometres of new single carriageway around the eastern and northern sides of Westbury that would provide • A new route for the A350 principal road past the town; and • Strategic road access to the West Wilts Trading Estate • Roundabouts would connect the bypass to the existing A350 both north and south of the town between which there would be no junctions.
WC-2024-RD-006	A36 Southampton Road/ Churchill Way	Road - RD	A338 Churchill Way / A36 College Roundabout and A36 Southampton Road to Bourne Way Roundabout carriageway upgrade to urban dual standard including signal control at College Road Roundabout
WC-2024-RD-010	Melksham Bypass	Road - RD	The A350 Melksham Bypass scheme comprises: • A full eastern bypass, approximately nine kilometres in length and with four junctions; • Modifications and enhancements to Public Rights of Way along the bypass route; • Supplementary highway improvement works to the adjacent network; and • Complementary walking and cycling measures within Melksham Town and around the existing A350 route.
WC-2024-RD-011	M4 Junction 17 Improvements	Road - RD	Upgrades to Junction 17 involving: Completion of the full signalisation of all approach arms to the junction; • Carriageway widening and additional traffic capacity on all approaches to the junction (M4 off slips, A350, A429 and B4122); • Increase in the number of traffic lanes across the motorway bridges from two to three; and • Widening of the circulatory carriageway and introduction of additional traffic lanes and capacity around the junction. • The scheme also provides for an improved signage strategy for a cycle route providing north-south connections across the M4, away from the junction itself.
WC-2024-RD-012	A350 Phase 4&5	Road - RD	• Phase 4 dualling: widening the A350 to a dual two-lane between Chequers roundabout and Lackham Roundabout • Phase 5 dualling: widening the A350 to a dual two-lane along the full stretch between Cepen Park South Roundabout and Bumpers Farm Roundabout • Bumpers roundabout: capacity enhancements to the Bumpers Farm Roundabout including increasing the circulatory from 2 lanes to 3; signalising the A420 and A350 arms; increasing approach arms from A350 (S), A420 (W), and A420 (E) to 3 lanes; and dualling the exits onto the A420 (E) and A420 (W). • Lackham roundabout: minor changes at the Lackham roundabout to improve traffic flows there.

BCP-2024-MIX-003

- **Option Name:** Poole Town Centre sustainable access package + Poole Travel interchange
- **Proposer:** BCP Council Transport Policy Team

Table E-41 – Poole Town Centre sustainable access package + Poole Travel interchange

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	++	The implementation of the Poole Town Centre sustainable access package and Poole Travel interchange will help to improve access for all, in particular those who do not have access to a private car, such as younger people, older people, and those with long-term health conditions or disabilities. The option also includes the creation of new liveable neighbourhoods and improved wayfinding which is likely to benefit the entire population, including more vulnerable groups. Therefore significant positive effects have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	?	The option redevelops the town centre of Poole, including the creation of liveable neighbourhoods. This has potential for positive effects upon human health as it includes elements that could result in improved opportunities for active travel and public transport. This option has the potential to result in improvements to local air quality and noise which could result in positive impacts upon human health and wellbeing. The option also has potential to reduce stress through public realm improvements, resulting in positive impacts on human mental health and wellbeing. However, at this stage uncertain effects have been identified as it is likely to be determined by individual scheme design.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	++	The development of improved wayfinding, subways and roundabouts have potential to result in improvements to user safety. The use of subways can lead to increases in crime and fear of crime amongst users, therefore removing these areas is likely to result in improvements to safety and reducing a fear of crime. Additionally, it assumed that improving wayfinding and town centre redevelopment will contribute to reducing a fear of crime and improving permeability of the public realm, improving safety. Re-configuration of roundabouts may also help to contribute to reducing collisions in these areas. Significant positive effects have therefore been identified.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	++	The option seeks to redevelop the town centre of Poole, including improved transport infrastructure. This could result in positive effects to the local economy through improved access to employment, tourism destinations and freight movements. This option would also improve access to international gateways through Pool Harbour.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	There are unlikely to be any effects upon rural economies as a result of this option. The option supports the implementation of the Poole Town Centre sustainable access package and Poole Travel interchange, therefore negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option redevelops the town centre of Poole, resulting in potential for this option to provide improved capacity for increased residents within the Western Gateway STB region. This supports the implementation of housing allocations. This has potential to result in positive effects, however this effect is not considered to be significant.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	--	This option is located within 500m of multiple designated sites including one SSSI, one RAMSAR and one SPA. There is potential for significant negative effects upon biodiversity as a result of this option due to damage and disturbance to designated sites during construction. However, information such as the precise design and layout of the option, as well as the level of mitigation is not provided at this stage and thus the severity of significant effects can change.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and	?	Uncertain effects have been identified, as the option is located more than 500m away from a National Park or National Landscape. Therefore, any effects on landscape are likely to be determined by the individual scheme design that may

SEA Objective	Likely Significant Effects	Commentary
landscapes, including the rural environment, town and city centres, and seascapes.		arise, for example within the new liveable neighbourhoods, bus and railway station reconfiguration as this may alter landscape and townscape visual settings.
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within multiple conservation areas and Poole Park registered park and garden, as well as within 500m of multiple heritage assets, including conservation areas, listed buildings, and registered park and gardens. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction, as a result of noise and vibration. Additionally, there may be long-term changes to the setting of heritage assets as a result of the development of new and relocated infrastructure. However, long-term, these promotion of sustainable transport routes may result in improvements to air quality, which has potential to reduce the degradation of heritage assets. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within Western Gateway through improved accessibility. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual improvements that may arise.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option intersects with the Lower Frome and Piddle groundwater waterbody. There is potential for negative effects upon the water environment due to runoff from construction activities. However, the option redevelops the town centre of Poole and the scale of this is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	0	Negligible effects have been identified for this option in relation to air quality as it is not located within 500m of an AQMA. However, the option contributes to providing improvements to the sustainable and active travel networks. This has potential to result in improvements to air quality through encouraging a modal shift away from private car use. However, this is not considered to be significant.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	?	The option would not be located within Flood Zone 2 or Flood Zone 3, and therefore would not be vulnerable to flooding. It is not expected that the option would improve the transport network’s resilience to climate change. The option is located fully within Flood Zone 1. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for uncertain effects at this stage.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	0	The option supports the implementation of the Poole Town Centre sustainable access package and Poole Travel interchange. This is likely to encourage the modal shift to more sustainable transport modes, reducing transport related emissions. However, these benefits are considered to be minor. Therefore, negligible effects on greenhouse gases have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	0	The option would not result in the loss of Best and Most Versatile agricultural land.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and	?	Uncertain effects have been identified for this option as this option will require both the upgrading of existing infrastructure and the development of new infrastructure. However, the scale of new development is currently unclear and is likely to be determined by individual schemes that arise from this option. It is assumed that new development will

SEA Objective	Likely Significant Effects	Commentary
resilient to future climate risks and support future population growth.		include climate resilience measures. This option is also likely to support increased capacity of users on active travel routes. However the scale and nature of improvements to both climate resilience and future population support is likely to be determined by individual scheme design.

BCP-2024-MIX-005

- **Option Name:** A31 Capacity and safety improvements package
- **Proposer:** BCP Council

Table E-42 – A31 Capacity and safety improvements package

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	++	This option includes improvements along the A31 for vehicular traffic and pedestrians and cyclists, with upgraded pedestrian/cycle crossings and bridges, reallocation and improvements of cycle tracks and greenway links. This is likely to result in positive effects on population and equalities due to improving access for all, in particular those who do not have access to a private car, such as younger people, older people, and those with long-term health conditions or disabilities. This option will also help to support future population growth by providing improved access to sustainable housing and employment site developments in BCP, such as Oakley development sites. Therefore, significant positive effects have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	++	This option includes improvements pedestrians and cyclists along the A31, with upgraded pedestrian/cycle crossings and bridges, reallocation and improvements of cycle tracks and greenway links. This has potential for positive effects upon human health and wellbeing as it includes elements that supports better access to active travel and public transport. This option has the potential to result in improvements to local air quality and noise which could result in positive impacts upon human health and wellbeing. The option also has potential to reduce stress through improved safety for traffic, pedestrians and cyclists along the A31, resulting in positive impacts on human mental health and wellbeing. Therefore, significant positive effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	++	This option includes improvements to safety for traffic, pedestrians and cyclists along the A31. The option focuses on improving physical infrastructure, including junctions, roundabouts and active travel infrastructure, as well as speed restrictions. This is likely to result in a reduction of collisions for both road and active travel users, particularly with lower traffic speeds. Significant positive effects have therefore been identified.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	++	The option seeks to improve capacity and safety improvements at proposed junctions and sections of A31. This would result in positive effects to the economy through improved connectivity of BCP to wider areas and improves access to access to regionally and nationally significant destinations and international gateways like Bournemouth airport, Town Centre and seafront and facilitates the efficient movement of goods and people along the Midlands - South Coast strategic corridor. This is likely to attract inward investment, increase visitor numbers and promote sustainable travel. Therefore, significant effects have been identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	This option includes improvements along the A31 for vehicular traffic and pedestrians and cyclists, with upgraded pedestrian/cycle crossings and bridges, reallocation and improvements of cycle tracks and greenway links. This is likely to result in positive effects on rural economies due to improving access and connectivity to employment opportunities and tourist destinations. However, this is likely to be minor. Therefore, negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	++	The option improves road and pedestrian capacity, resulting in potential for this option to provide improved capacity for housing developments and increased local populations, particularly arising from the Oakley development sites located in close proximity to the option. Significant positive effects have therefore been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	--	This option is located within multiple designated sites including two SSSI's. In addition, multiple designated sites have been identified within 500m of this option. There is potential for significant negative effects upon biodiversity as a result of this option due to damage and disturbance to designated sites during construction. However, information such as the precise design and layout of the option, as well as the level of mitigation is not provided at this stage and thus the severity of significant effects can change.

SEA Objective	Likely Significant Effects	Commentary
SEA8 (Landscape and Townscape): To protect and enhance townscapes and landscapes, including the rural environment, town and city centres, and seascapes.	?	Uncertain effects have been identified for this option as it is more than 500m away from any national landscape or national park. This option has the potential to result in changes to the setting of the local landscape townscape as a result of increasing the capacity of the A31 and upgrading pedestrian infrastructure. However, this is likely to be determined by the scheme design.
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within multiple conservation areas and a scheduled monument, as well as within 500m of multiple heritage assets, including conservation areas, listed buildings, and registered park and gardens. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction, as a result of noise and vibration. Additionally, there may be long-term changes to the setting of heritage assets as a result of the capacity improvements to the A31, that may result in land take, changing the setting of conservation areas that it is within. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within Western Gateway through improved accessibility. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual improvements that may arise.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option is within 100m of multiple surface water and groundwater waterbodies that have poor chemical status. There is potential for negative effects upon the water environment due to runoff from construction activities. However, this option includes improvements along the A31 for vehicular traffic and pedestrians and cyclists, and the scale of this is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	0	Negligible effects have been identified for this option in relation to air quality as it is not located within 500m of an AQMA. However, the option contributes to providing capacity improvements to the A31 for vehicles and active travel users. This has potential to result in improvements to air quality through encouraging a modal shift away from private car use, as well as reducing congestion and vehicle idling times. However, there is also potential for capacity improvements to encourage private car use. Therefore, this potential improvement to air quality is not considered to be significant.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located either fully or partially within fluvial Flood Zone 2 and Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as new infrastructure could be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	++	This option includes improvements along the A31 for vehicular traffic and pedestrians and cyclists, with upgraded pedestrian/cycle crossings and bridges, reallocation and improvements of cycle tracks and greenway links. This is likely to encourage a modal shift to more sustainable transport modes due to improving passenger experience. Therefore significant effects on greenhouse gases have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	--	The option could result in the loss of best and most versatile agricultural land (Grades 2 and 3) through land take associated with improvements to road, walking, and cycling infrastructure.

SEA Objective	Likely Significant Effects	Commentary
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	++	The infrastructure proposed within this option requires the upgrading of existing infrastructure along the A31. This includes upgrading the existing road and pedestrian infrastructure. It is assumed that any upgrading of existing infrastructure will also include climate resilience measures; however, this is likely to be determined by individual scheme design. This option also increase the capacity of both the road and active travel network in this area, supporting future population growth in BCP.

GCC-2024-CSV-001

- **Option Name:** M5 J10 (incl. new link road & A4019 widening)
- **Proposer:** Gloucestershire County Council

Table E-43 – M5 J10 (incl. new link road & A4019 widening)

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	0	The implementation of the M5 Junction 10 new link road and widening of the A4019 will help to improve capacity of the road network and therefore improve access to community services, and education and employment facilities. This will also help to support an increase in future populations associate with housing and employment growth within the Cheltenham Garden Community and Technology Innovation Zone. However, this is not deemed significant due to only supporting improvements to the road network.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	0	This option focuses on improving road capacity through the M5 J10 new link road and widening of the A4019. The option does not include any elements that are likely to contribute to improving human health. Therefore, negligible effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	0	Negligible effects are identified as a result of this option upon community safety. The option does not include any elements that are likely to contribute to improving user safety or the perception of safety on Western Gateway STB's transport network.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	++	This option focuses on improving road capacity through the M5 J10 new link road and widening of the A4019. This is likely to result in positive effects upon the economy as providing increased capacity will support the planned development and economic growth around Cheltenham, Gloucester and Tewkesbury which includes the provision of increased employment opportunities and tourist destinations. This option has the potential to provide improved access to national and regional significant destinations as well as improved access to international gateways such as Bristol and Birmingham airport. Therefore, significant positive effects have been identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	The option improves road capacity through the M5 J10 new link road and widening of the A4019 to support developments in Tewkesbury. This is likely to result in positive effects on rural economies due to improving access and connectivity to employment opportunities and tourist destinations. However, this is likely to be minor. Therefore, negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	++	The option improves road capacity through the M5 J10 new link road and widening of the A4019 to support developments in Tewkesbury This option provides improved capacity for homes proposed within the Cheltenham Garden Community and Technology Innovation Zone. Significant positive effects have therefore been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	?	. The option improves road capacity through the M5 J10 new link road and widening of the A4019 and is not located within 500m of any designated sites. However, there is potential for short term effects upon local species and habitats as a result of construction disturbance. There is also potential for land take for the new link road to result in loss of local biodiversity, however this is likely to be determined by individual scheme design. Uncertain effects have therefore been identified.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and	?	Uncertain effects have been identified for this option as it is more than 500m away from any national landscape or national park. This option has the potential to result in changes to the setting of the local landscape townscape as a

SEA Objective	Likely Significant Effects	Commentary
landscapes, including the rural environment, town and city centres, and seascapes.		result of developing a new link road and widening the A4019. However, this is likely to be determined by the scheme design.
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within 500m of one listed building and one scheduled monument. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction, as a result of noise and vibration. Additionally, there may be long-term changes to the setting of heritage assets as a result of the developing the new link road and widening the A4019, that may result in land take, changing the setting of these assets through noise and visual changes. Additionally, any degradation in air quality as a result of increased vehicle numbers may result in degradation of heritage assets. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within Western Gateway through improved accessibility. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual improvements that may arise.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option intersects with the Chelt - M5 to conf R Severn surface water waterbody that has poor chemical status. There is potential for negative effects upon the water environment due to runoff from construction activities. However, the option improves road capacity through the M5 J10 new link road and widening of the A4019 and the scale of this is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	0	Negligible effects have been identified for this option in relation to air quality as it is not located within 500m of an AQMA. However, the option contributes to developing the road network through providing a new link road. This has potential to result in encouraging private car use, which may negatively affect air quality. However, improving the capacity of the network may reduce vehicle idling times, improving air quality. Therefore, this potential effect on air quality is not considered to be significant.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located either fully or partially within fluvial Flood Zone 2 and Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as new infrastructure could be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	?	This option focuses on improving road capacity due to implementing the M5 J10 new link road and widening of the A4019. This will help to improve traffic flow and reduce traffic congestion and idling which causes more traffic related emissions to be released. However, this option also encourages the use of private vehicles which is likely to increase greenhouse gas emissions. Therefore, uncertain effects have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	--	The option could result in the loss of best and most versatile agricultural land (Grades 1, 2 and 3) through land take associated with the new link road and widening of the existing road infrastructure.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and	++	This option is anticipated to require both the upgrading of existing infrastructure through the widening of the A4019, and the development of new infrastructure in the M5 J10 new link road. It is assumed that both the upgrading and new

SEA Objective	Likely Significant Effects	Commentary
resilient to future climate risks and support future population growth.		developments will include additional climate resilience measures. However, this is likely to be determined by individual scheme design. Additionally, this option supports increased capacity on the road network and is linked to additional housing developments, improving infrastructure for future population growth.

GCC-2024-TKS-001

- **Option Name:** M5 Junction 9 and A46 (Ashchurch) Transport Scheme - Trans-Midland Trade Corridor
- **Proposer:** Gloucestershire County Council

Table E-44 – M5 Junction 9 and A46 (Ashchurch) Transport Scheme - Trans-Midland Trade Corridor

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	++	The option aims to address capacity constraints on the Trans-Midland Trade Corridor (M5 Junction 9 and A46). These improvements are likely to provide improved access to housing and employment opportunities to support the planned growth within the Tewkesbury district as part of the Strategic Outline Business Case to deliver significant housing and employment (11,083 jobs). Therefore, significant positive effects on population and equalities have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	0	This option improves road capacity at the M5 J9 A46 (Ashchurch) and along the Trans-Midland Trade Corridor. The option does not include any elements that are likely to contribute to improving human health. Therefore, negligible effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	0	Negligible effects are identified as a result of this option upon community safety. The option does not include any elements that are likely to contribute to improving user safety or the perception of safety on Western Gateway STB's transport network.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	?	The option improves road capacity at the M5 J9 A46 (Ashchurch) and along the Trans-Midland Trade Corridor. This is likely to result in positive effects upon the economy due to the strategic housing and employment growth at junction 9 and along the corridor of the A46 from Teddington Hands. This option has the potential to provide improved access to national and regional significant destinations. However, at this time, uncertain effects have been identified as it is unclear if this option will provide access to international gateways.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	++	The option aims to address capacity constraints on the Trans-Midland Trade Corridor (M5 Junction 9 and A46). These improvements are likely to provide improved access to employment opportunities to support the planned growth within the Tewkesbury district as part of the Strategic Outline Business Case to deliver significant housing and employment (11,083 jobs). Therefore, significant positive effects on rural economies have been identified
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	++	The option improves road capacity at the M5 J9 A46 (Ashchurch) and along the Trans-Midland Trade Corridor. This option provides improved capacity for homes proposed within Tewkesbury that will place significant strain along this stretch of the road network. Improving the capacity of this network is therefore anticipated to result in significant positive effects have therefore been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	?	The option improves road capacity at the M5 J9 A46 (Ashchurch) and along the Trans-Midland Trade Corridor and is located between 500m and 1km away from the Upham Meadow and Summer Leasow SSSI. There is potential for this option to result in minor, negative effects upon biodiversity, through the vibration and noise of construction activities. However, at this time, uncertain effects have been identified as it is unclear if this option will affect species and habitats in the area.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and	--	This option is located within the Costwolds National Landscape. There is potential for development to result in negative effects upon the setting of this national landscape, particularly in the short-term during construction of the widened route. There is also potential for negative effects to arise as a result of altering the visual amenity of these landscapes in

SEA Objective	Likely Significant Effects	Commentary
landscapes, including the rural environment, town and city centres, and seascapes.		the long-term. However, it is assumed that any potential significant effect mitigated against in design. The option also has potential to increase vehicle noise within the national landscape through encouraging car use.
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within 500m of one conservation area, multiple listed buildings and two scheduled monuments. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction, as a result of noise and vibration. Additionally, there may be long-term changes to the setting of heritage assets as a result of the increased capacity of the road network, that may result in land take, changing the setting of these assets through increased noise. Additionally, any degradation in air quality as a result of increased vehicle numbers may result in degradation of heritage assets. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within Western Gateway, particularly Tewkesbury Abbey, through improved accessibility. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual improvements that may arise.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option intersects with the Tirle Brook - source to the conf River Swilgate surface water waterbody that has poor chemical status. There is potential for negative effects upon the water environment due to runoff from construction activities. However, this option improves road capacity at the M5 J9 A46 (Ashchurch) and along the Trans-Midland Trade Corridor and the scale of this is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	0	Negligible effects have been identified for this option in relation to air quality as it is not located within 500m of an AQMA. However, the option contributes to improving the capacity of the road network. This has potential to result in encouraging private car use, which may negatively affect air quality. However, improving the capacity of the network may reduce vehicle idling times, improving air quality. Therefore, this potential effect on air quality is not considered to be significant.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located either fully or partially within fluvial Flood Zone 2 and Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as new infrastructure could be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	?	The option aims to address capacity constraints on the Trans-Midland Trade Corridor (M5 Junction 9 and A46). This will help to improve traffic flow and reduce traffic congestion and idling which causes more traffic related emissions to be released. However, this option also encourages the use of private vehicles which is likely to increase greenhouse gas emissions. Therefore, uncertain effects have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	--	The option could result in the loss of best and most versatile agricultural land (Grades 2 and 3) through land take associated with interventions to address capacity constraints.

SEA Objective	Likely Significant Effects	Commentary
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	++	This option is anticipated to require the upgrading of existing infrastructure along the M5 J9 A46 and the Trans-Midland Trade Corridor, improving the maintenance of existing routes. It is assumed that this option will include additional climate resilience measures. However, this is likely to be determined by individual scheme design. Additionally, this option supports increased capacity on the road network and is linked to additional housing developments, improving infrastructure for future population growth.

GCC-2024-CSV-013020

- **Option Name:** M5 J12 capacity and safety improvements and cycle link (B4008/Haresfield) to Gloucestershire Cycle Spine
- **Proposer:** Gloucestershire County Council

Table E-45 – M5 J12 capacity and safety improvements and cycle link (B4008/Haresfield) to Gloucestershire Cycle Spine

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	0	The options will help to improve road capacity at the M5 J12 and provide links to the Gloucester Cycle Spine. This is likely to provide improved access for all, in particular those who do not have access to a private car such as older people and younger people. However, these effects are considered to be minor. Therefore, negligible effects have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	?	The option improves road capacity at the M5 J12 and links to the Gloucestershire Cycle Spine. This option has potential to improve human mental health and wellbeing through improved access to employment opportunities and links to active travel opportunities. This option also has the potential to have indirect negative effects upon human health and wellbeing through increased noise and reduced air quality as a result from increased traffic flow. However, the exact measures to improve and support active travel and public transport are currently unclear and likely to be determined by scheme design.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	++	Significant positive effects are anticipated as a result of this option upon community safety. The option has potential to improve the safety of the M5 J12 and the link to the Gloucestershire Cycle Spine, reducing the number of accidents and KSI.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	?	The option improves road capacity at the M5 J12 and links to the Gloucestershire Cycle Spine. This is likely to result in positive effects upon the economy due to increased housing and employment opportunities. This option has the potential to provide improved access to national and regional significant destinations. However, at this time, uncertain effects have been identified as it is unclear if this option will provide access to international gateways.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	++	The options will help to improve road capacity at the M5 J12 and provide a link to the Gloucester Cycle Spine from Haresfield to support the housing and economic growth as set out in the Stroud Local Plan. Therefore, significant positive effects have been identified for rural economies.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	++	The option improves road capacity at the M5 J12 and links to the Gloucestershire Cycle Spine. This option provides improved capacity for homes proposed within Stroud through developing supporting infrastructure for housing developments. Therefore, significant positive effects have therefore been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	?	The option improves road capacity at the M5 J12 and links to the Gloucestershire Cycle Spine. There are unlikely to be any significant, direct effects upon biodiversity as a result of this option as it is not located within 500m of any designated sites. However, there is potential for short term effects upon local species and habitats as a result of construction disturbance. Uncertain effects have therefore been identified.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and landscapes, including the rural environment, town and city centres, and seascapes.	?	Uncertain effects have been identified for this option as it is more than 500m away from any national landscape or national park. This option has the potential to result in changes to the setting of the local landscape townscape as a result of increasing the capacity of the M5 J12. However, this is likely to be determined by the scheme design.

SEA Objective	Likely Significant Effects	Commentary
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within 500m of one conservation area, multiple listed buildings and two scheduled monuments. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction, as a result of noise and vibration. Additionally, there may be long-term changes to the setting of heritage assets as a result of the increased capacity of the road network, that may result in land take, changing the setting of these assets through increased noise. Additionally, any degradation in air quality as a result of increased vehicle numbers may result in degradation of heritage assets. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within Western Gateway through improved accessibility. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual improvements that may arise.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	0	The option improves road capacity at the M5 J12 and links to the Gloucestershire Cycle Spine. There are unlikely to be any significant, direct effects upon the water environment as a result of this option, as it is not located within 100m of a surface or groundwater body. Therefore, negligible effects have been identified.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	0	Negligible effects have been identified for this option in relation to air quality as it is not located within 500m of an AQMA. However, the option contributes to improving the capacity of the road network. This has potential to result in encouraging private car use, which may negatively affect air quality. However, improving the capacity of the network may reduce vehicle idling times, improving air quality. Therefore, this potential effect on air quality is not considered to be significant.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located either fully or partially within fluvial Flood Zone 2 and Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as new infrastructure could be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	?	The option aims to address capacity constraints on the M5 Junction 12 and links to the Gloucestershire Cycle Spine. This will help to improve traffic flow and reduce traffic congestion and idling which causes more traffic related emissions to be released, as well as encouraging a modal shift in more sustainable transport modes. However, this option may also encourage the use of private vehicles which is likely to increase greenhouse gas emissions. Therefore, uncertain effects have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	--	The option could result in the loss of best and most versatile agricultural land (Grades 2 and 3) through land take associated with capacity and safety improvements to the road network.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	++	This option upgrades the existing infrastructure along the M5 J12 and its links to the Gloucestershire Cycle Spine, maintaining the existing transport network. It is assumed that the upgrading the existing infrastructure will include additional climate resilience measures. However, the nature of these measures are likely to be determined by individual scheme design. Additionally, this option supports increased capacity on the road network and is linked to additional housing developments, improving infrastructure for future population growth.

NR-2024-PTI-009

- **Option Name:** Gloucester area re-signalling - enhanced renewal
- **Proposer:** Network Rail

Table E-46 – Gloucester area re-signalling - enhanced renewal

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	0	The improved signalling in the Gloucester area will help to increase capacity of the train services which will likely result in beneficial impacts on access for the population as a whole. However, this is considered to be minor and therefore, negligible effects have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	0	The option improves signalling efficiency in the Gloucester area. There is potential for positive effects upon human mental health and wellbeing through increased train services. However, these effects are considered to be minor. Therefore, negligible effects are identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	0	Negligible effects are identified as a result of this option upon community safety. The option does not include any elements that are likely to contribute to improving user safety or the perception of safety on Western Gateway STB's transport network.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	++	The option improves signalling efficiency in the Gloucester area. This is likely to result in positive effects upon the economy due to increased passenger and freight train services to Bristol and the south coast. This option has the potential to provide improved access to national and regional significant destinations as well as international gateways such as Bristol airport.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	The improved signalling in the Gloucester area will help to increase capacity of the train services which will likely result in beneficial impacts on access to employment opportunities for the population as a whole. However, this is considered to be minor and therefore, negligible effects have been identified
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option improves signalling efficiency in the Gloucester area, resulting in potential for this option to provide improved capacity for increased residents within the Western Gateway STB region. Positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	--	This option is located within 500m of multiple designated sites. There is potential for significant negative effects upon biodiversity as a result of this option due to damage and disturbance to designated sites during construction. However, the option improves signalling efficiency in the Gloucester area and information such as the precise design and layout of the option, as well as the level of mitigation is not provided at this stage and thus the severity of significant effects can change.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and	?	Uncertain effects have been identified for this option as it is more than 500m away from any national landscape or national park. This option has the potential to result in changes to the setting of the local landscape during the construction stage of railway enhancements. However, this is likely to be determined by the scale of development.

SEA Objective	Likely Significant Effects	Commentary
landscapes, including the rural environment, town and city centres, and seascapes.		
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within 500m of multiple heritage assets, namely listed buildings. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction, as a result of noise and vibration. However, it is assumed that any potential significant effect mitigated against through implementation of a CEMP. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within Western Gateway through improved accessibility. However, the option improves signalling efficiency in the Gloucester area and the scale of improved accessibility is currently uncertain and is likely to be determined by the individual improvements that may arise.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option is within 100m of multiple surface water and groundwater waterbodies that have poor chemical status. There is potential for negative effects upon the water environment due to runoff from construction activities. However, the scale of this is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	0	Negligible effects have been identified for this option in relation to air quality as it is not located within 500m of an AQMA. However, the option provides improvements to the rail network capacity. This has potential to indirectly result in improvements to air quality through encouraging a modal shift away from private car use. This may result in improvements to air quality, however this is not considered to be significant.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	Works will take place across the Gloucester area, a large area of which is within Flood zone 3. There is a possibility that works may take place within Flood Zone 3, therefore it is considered appropriate to flag the potential for significant effects at this stage.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	0	The improved signalling in the Gloucester area will help to increase capacity of the train services which will help to encourage a modal shift in more sustainable transport modes. However, this is considered to be minor and therefore, negligible effects have been identified
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	0	Works will take place across the Gloucester area, and may be within Best and Most versatile agricultural land, though as it is predominantly enhancement work to take place on existing infrastructure, no land take is expected and therefore no significant effects.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	++	This option includes the upgrading of existing infrastructure through the upgrading of Gloucester signalling. This is also likely to improve the maintenance of the signalling and rail network within this area of the line. The improvements proposed within the option are also likely to result in improved capacity on the rail line, facilitating additional train services. Significant positive effects have therefore been identified.

A417 Missing Link

- **Option Name:** A417 Missing Link
- **Proposer:** National Highways

Table E-47 – A417 Missing Link

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	0	The improved A417 connection between Brockworth and Cowley is likely to improve access to community services, and employment and education facilities within the local area and in Gloucester. Further benefits could come from the implementation of active travel connections. Therefore, it is deemed that these effects are not significant and negligible effects have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	0	This option improves the A417 connection between Brockworth and Cowley. Indirect positive effects could arise through improved access to active travel connections and health destinations in Gloucester, Cirencester and Swindon. However, these effects are considered minor. Therefore, negligible effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	?	This option improves the A417 connection between Brockworth and Cowley. The development of this new highways scheme has potential to result in positive effects upon road user safety, however this is likely to be determined by individual scheme design that is currently unknown. Uncertain effects have therefore been identified.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	++	This option improves the A417 connection between Brockworth and Cowley. This is likely to result in significant positive effects upon the economy as the scheme is on a key freight route from West Midlands to South Coast / South East and improve connectivity to employment opportunities in Swindon and Gloucester. In addition, the option could improve connectivity to leisure facilities in the Cotswolds area, which could attract increased tourism and investment opportunities to the area. Therefore, significant positive effects have been identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	++	The improved A417 connection between Brockworth and Cowley is likely to improve access to employment opportunities in the local area and further afield in Gloucester and Swindon, as well as tourist attractions located in the Cotswolds. Therefore, significant positive effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option improves road connectivity around the A417, resulting in potential for this option to provide improved capacity for increased residents within the Western Gateway STB region. Positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	?	This option is located within 500m of multiple designated sites. There is potential for negative effects upon biodiversity as a result of this option due to damage and disturbance to designated sites during construction and potential loss of land. However, the option improves road connectivity around the A417 and information such as the precise design and layout of the option, as well as the level of mitigation is not provided at this stage and thus the severity of significant effects can change.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and	--	The option intersects the Cotswolds National Landscape and has potential to negatively affect the landscape. Construction has potential to increase noise in this area and negatively affect visual amenity. There is also potential for

SEA Objective	Likely Significant Effects	Commentary
landscapes, including the rural environment, town and city centres, and seascapes.		changes to the national landscape during operation due to visual changes during operation. There is potential for landscape-led design to result in positive effects during operation. However, this design is currently unknown.
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within 500m of multiple heritage assets, including listed buildings and registered parks and gardens. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction, as a result of noise and vibration. However, it is assumed that any potential significant effect mitigated against through implementation of a CEMP. There is potential for landscape-led design to result in positive effects on the setting of assets during operation. However, this design is currently unknown. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within Western Gateway, particularly within the Cotswolds National Landscape through improved accessibility. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual improvements that may arise. Additionally, there is potential for construction of the new highways scheme to result in negative effects during the construction stage from noise and vibration, particularly upon the setting of heritage assets. There is also the potential for negative effects on the setting of heritage assets if the development is not sensitively designed. This is likely to be determined by individual scheme design.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option is within 100m of multiple surface water and groundwater waterbodies that have poor chemical status. There is potential for negative effects upon the water environment due to runoff from construction activities. However, the scale of the road improvements is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	0	Negligible effects have been identified for this option in relation to air quality as it is not located within 500m of an AQMA. However, the option provides improvements to the road capacity, improving traffic flow. This has potential to indirectly result in improvements to air quality through reducing vehicle idling. However, there is potential for this option to encourage the use of private cars as a result of improving the highway network, negatively effecting air quality.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	?	The option is located either fully or partially within Flood Zone 1 or 2. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for uncertain effects at this stage.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	?	The option aims to improved A417 connection between Brockworth and Cowley. This will help to improve traffic flow and reduce traffic congestion and idling which causes more traffic related emissions to be released. However, this option may also encourage the use of private vehicles which is likely to increase greenhouse gas emissions. Therefore, uncertain effects have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	--	This option improves the connection between dual carriageway sections of the A417 at Brockworth and Cowley. It is anticipated that this option will require the development of new infrastructure. The area is predominantly Grade 3 agricultural land, and the option could therefore result in loss of Best and Most versatile agricultural land.

SEA Objective	Likely Significant Effects	Commentary
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	?	This option improves the connection between dual carriageway sections of the A417 at Brockworth and Cowley. It is anticipated that this option will require the development of new infrastructure. However the scale of new infrastructure required is currently unknown. It is assumed that the new development will also include climate resilience measures, however the nature and scale of this is likely to be determined by individual scheme design.

Potential small scheme: A36 Beckington Roundabouts

- **Option Name:** Potential small scheme: A36 Beckington Roundabouts
- **Proposer:** National Highways

Table E-48 – Potential small scheme: A36 Beckington Roundabouts

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	0	The option includes minor improvements to the A36 Beckington Roundabout, which has the potential to reduce congestion and therefore improve access for all. However, these effects are considered to be minor. Therefore, negligible effects have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	0	The option includes minor improvements to the A36 Beckington Roundabout. The option has potential to help reduce congestion resulting in indirect positive effects on human health through improved air quality. However, these effects are not considered to be significant. Therefore, negligible effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	?	It is currently unclear whether this option will improve user safety for road users at the A36 Beckington Roundabouts. Any improvements to user safety is likely to be determined by individual scheme design that is currently unknown. Uncertain effects have therefore been identified.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	0	The option includes minor improvements to the A36 Beckington Roundabout. The option has potential for positive effects to arise as it supports the Midlands to Dorset Coast freight route. However, these effects are considered to be minor. Therefore, negligible effects are identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	The option includes minor to the A36 Beckington Roundabout, which has the potential to reduce congestion and therefore improve access for all. However, these effects are considered to be minor. Therefore, negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option includes minor improvements to the A36 Beckington Roundabout and has potential to provide improved capacity for increased residents within the Western Gateway STB region. Positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	?	There are unlikely to be any significant, direct effects upon biodiversity as a result of this option. The option includes minor improvements to the A36 Beckington Roundabout and is not located within 500m of any designated sites. However, there is potential for short term effects upon local species and habitats as a result of construction disturbance. Uncertain effects have therefore been identified.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and	?	Uncertain effects have been identified for this option as it is more than 500m away from any national landscape or national park. This option has the potential to result in changes to the setting of the local landscape during the construction stage. However, this is likely to be determined by the individual scheme development.

SEA Objective	Likely Significant Effects	Commentary
landscapes, including the rural environment, town and city centres, and seascapes.		
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within 500m of multiple listed buildings. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction, as a result of noise and vibration. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within Western Gateway through improved accessibility. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual improvements that may arise.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option is within 100m of multiple surface water and groundwater waterbodies that have poor chemical status. There is potential for negative effects upon the water environment due to runoff from construction activities. However, the option includes minor improvements to the A36 Beckington Roundabout and the scale of this is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	0	Negligible effects have been identified for this option in relation to air quality as it is not located within 500m of an AQMA. However, the option provides improvements to the road capacity, improving traffic flow. This has potential to indirectly result in improvements to air quality through reducing vehicle idling. However, there is potential for this option to encourage the use of private cars as a result of improving the highway network, negatively effecting air quality.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	?	The option is located fully within Flood Zone 1. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to still flag the potential for uncertain effects at this stage.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	0	The option includes minor improvements to the A36 Beckington Roundabout. This is likely to help improve traffic flow and reduce idling which causes more traffic related emissions to be released. Consequently, this option may also encourage the use of private vehicles which is likely to increase greenhouse gas emissions. However, due to the small scale, negligible effects have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	--	The A36 Beckington Roundabout is located adjacent to Best and Most Versatile agricultural land (Grades 1 and 3), if any improvements to the roundabout require additional infrastructure or land take, there is potential for loss of Best and Most versatile agricultural land, depending on the precise location of works, and therefore significant effects have been identified,
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	0	This option improves the existing A36 Beckington Roundabouts, improving the maintenance of existing infrastructure. There is potential for positive effects arising from the improvement of the A36 roundabouts, however, due to the small scale nature of this scheme, these effects are not considered to be significant and negligible effects have been identified.

Potential small scheme: A36 Salisbury (Southampton Road Roundabouts)

- **Option Name:** Potential small scheme: A36 Salisbury (Southampton Road Roundabouts)
- **Proposer:** National Highways

Table E-49 – Potential small scheme: A36 Salisbury (Southampton Road Roundabouts)

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	0	The option includes minor improvements to the A36 Sailsbury (Southampton Road Roundabouts), which has the potential to reduce congestion and therefore improve access for all. However, these effects are considered to be minor. Therefore, negligible effects have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	0	The option has potential to help reduce congestion resulting in indirect positive effects on human health through improved air quality. However, these effects are not considered to be significant. Therefore, negligible effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	?	It is currently unclear whether this option will improve user safety for road users at the A36 Sailsbury (Southampton Road Roundabouts). Any improvements to user safety is likely to be determined by individual scheme design that is currently unknown. Uncertain effects have therefore been identified.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	?	The option includes minor improvements to the A36 Sailsbury (Southampton Road Roundabouts). The option has potential for positive effects to arise as it provides improved access to international gateways in Southampton Airport and Southampton & Portsmouth ports. In addition, the option supports Midlands to Dorset Coast freight route. There is potential for this option to improve access to regionally and nationally significant destinations. However, this is currently unclear. Therefore, uncertain effects have been identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	The option includes minor improvements to the A36 Sailsbury (Southampton Road Roundabouts), which has the potential to reduce congestion and therefore improve access for all. However, these effects are considered to be minor. Therefore, negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option includes minor improvements to the A36 Sailsbury (Southampton Road Roundabouts) and has potential to provide improved capacity for increased residents within the Western Gateway STB region. Positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	--	This option is located within 500m of multiple designated sites. There is potential for significant negative effects upon biodiversity as a result of this option due to damage and disturbance to designated sites during construction. However, the option includes minor improvements to the A36 Sailsbury (Southampton Road Roundabouts) and information such as the precise design and layout of the option, as well as the level of mitigation is not provided at this stage and thus the severity of significant effects can change.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and	?	Uncertain effects have been identified for this option as it is more than 500m away from any national landscape or national park. This option has the potential to result in changes to the setting of the local landscape during the construction stage. However, this is likely to be determined by the individual scheme development.

SEA Objective	Likely Significant Effects	Commentary
landscapes, including the rural environment, town and city centres, and seascapes.		
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within 500m of multiple listed buildings. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction, as a result of noise and vibration. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within Western Gateway through improved accessibility. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual improvements that may arise.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option is within 100m of multiple surface water and groundwater waterbodies that have poor chemical status. There is potential for negative effects upon the water environment due to runoff from construction activities. However, the option includes minor improvements to the A36 Sailsbury (Southampton Road Roundabouts) and the scale of this is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	0	Negligible effects have been identified for this option in relation to air quality as it is not located within 500m of an AQMA. However, the option provides improvements to the road capacity, improving traffic flow. This has potential to indirectly result in improvements to air quality through reducing vehicle idling. However, there is potential for this option to encourage the use of private cars as a result of improving the highway network, negatively effecting air quality.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The Southampton Road roundabouts are located partially within Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	0	The option improves the existing A36 Sailsbury (Southampton Road Roundabouts). This is likely to help improve traffic flow and reduce idling which causes more traffic related emissions to be released. Consequently, this option may also encourage the use of private vehicles which is likely to increase greenhouse gas emissions. However, due to the small scale, negligible effects have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	0	The option would not result in the loss of Best and Most Versatile agricultural land.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	0	This option improves the existing A36 Sailsbury (Southampton Road Roundabouts), improving the maintenance of existing infrastructure. There is potential for positive effects arising from the improvement of the A36 roundabouts, however, due to the small scale nature of this scheme, these effects are not considered to be significant and negligible effects have been identified.

Potential small scheme: A35 Dorchester Roundabouts

- **Option Name:** Potential small scheme: A35 Dorchester Roundabouts
- **Proposer:** National Highways

Table E-50 – Potential small scheme: A35 Dorchester Roundabouts

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	0	The option includes minor improvements to the A35 Dorchester Roundabouts, which has the potential to reduce congestion and therefore improve access for all. However, these effects are considered to be minor. Therefore, negligible effects have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	0	The option has potential to help reduce congestion resulting in indirect positive effects on human health through improved air quality. However, these effects are not considered to be significant. Therefore, negligible effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	?	It is currently unclear whether this option will improve user safety for road users at the A35 Dorchester Roundabouts. Any improvements to user safety is likely to be determined by individual scheme design that is currently unknown. Uncertain effects have therefore been identified.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	0	The option includes minor improvements to the A35 Dorchester Roundabouts. The option has potential for positive effects to arise as it supports the Midlands to Dorset Coast freight route. However, these effects are considered to be minor. Therefore, negligible effects are identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	The option improves the existing A35 Dorchester Roundabouts, which has the potential to reduce congestion and therefore improve access for all. However, these effects are considered to be minor. Therefore, negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option includes minor improvements to the A35 Dorchester Roundabouts and has potential to provide improved capacity for increased residents within the Western Gateway STB region. Positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	--	This option is located within 500m of the River Frome SSSI. There is potential for significant negative effects upon biodiversity as a result of this option due to damage and disturbance to designated sites during construction. However, the option includes minor improvements to the A35 Dorchester Roundabouts and information such as the precise design and layout of the option, as well as the level of mitigation is not provided at this stage and thus the severity of significant effects can change.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and	--	The option is within 500m of the Dorset National Landscape and has potential to negatively affect the landscape of the national landscape. Construction has potential to increase noise in this area and negatively affect visual amenity. There is also potential for changes to the national landscape during operation due to visual changes.

SEA Objective	Likely Significant Effects	Commentary
landscapes, including the rural environment, town and city centres, and seascapes.		
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within 500m of multiple listed buildings. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction, as a result of noise and vibration. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a "sense of place".	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within Western Gateway through improved accessibility. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual improvements that may arise.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option is within 100m of multiple surface water and groundwater waterbodies that have poor chemical status. There is potential for negative effects upon the water environment due to runoff from construction activities. However, the option includes minor improvements to the A35 Dorchester Roundabouts and the scale of this is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	0	Negligible effects have been identified for this option in relation to air quality as it is not located within 500m of an AQMA. However, the option provides improvements to the road capacity, improving traffic flow. This has potential to indirectly result in improvements to air quality through reducing vehicle idling. However, there is potential for this option to encourage the use of private cars as a result of improving the highway network, negatively effecting air quality.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	?	The option is located fully within Flood Zone 1. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for uncertain effects at this stage.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region's contribution to climate change from transport related greenhouse gas emissions	0	The option improves the existing A35 Dorchester Roundabouts. This is likely to help improve traffic flow and reduce idling which causes more traffic related emissions to be released. Consequently, this option may also encourage the use of private vehicles which is likely to increase greenhouse gas emissions. However, due to the small scale, negligible effects have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	--	The A35 roundabouts are adjacent to areas of Best and Most versatile agricultural land (Grades 1 and 3). If any improvements to the roundabouts require additional infrastructure or land take, there is potential for loss of Best and Most versatile agricultural land, depending on the precise location of works, and therefore significant effects have been identified,
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	0	This option improves the existing A35 Dorchester Roundabouts, improving the maintenance of existing infrastructure. There is potential for positive effects arising from the improvement of the A35 Dorchester roundabouts, however, due to the small scale nature of this scheme, these effects are not considered to be significant and negligible effects have been identified.

Strategic Renewal - M32 Eastville viaduct

- **Option Name:** Strategic Renewal - M32 Eastville viaduct
- **Proposer:** National Highways

Table E-51 – Strategic Renewal - M32 Eastville viaduct

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	0	The option will help to maintain access to the core of Bristol city centre, as well as Thornbury, Yate and East Bristol through the refurbishment of structures on the M32 viaduct at J2. However it is considered that any effects on population and equalities are likely to be minor. Therefore, negligible effects have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	0	The option would maintain reliable accessibility to the City of Bristol which would result in positive effects on human mental health and wellbeing through. However, these effects are not considered to be significant. Therefore, negligible effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	0	Negligible effects are identified as a result of this option upon community safety. The option does not include any elements that are likely to contribute to improving user safety or the perception of safety on Western Gateway STB's transport network.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	?	The option would maintain reliable accessibility to the City of Bristol and further afield such as Gloucester and Forest of Dean. In addition, this option would support access to Bristol airport, an international gateway. However, it is unclear if this option will increases efficiency, reliability and/or sustainability of essential goods movement on strategic routes. Therefore, uncertain effects have been identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	The Option will help to maintain access to tourist destinations including the Cotswolds and Forest of Dean. However, these effects are considered to be minor. Therefore, negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option improves the M32 viaduct infrastructure at J2 and does not directly impact housing growth. Positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	?	There are unlikely to be any significant, direct effects upon biodiversity as a result of this option. The option improves the M32 viaduct infrastructure at J2 and is not located within 500m of any designated sites. However, there is potential for short term effects upon local species and habitats as a result of construction disturbance. Uncertain effects have therefore been identified.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and	?	Uncertain effects have been identified for this option as it is more than 500m away from any national landscape or national park. This option has the potential to result in changes to the setting of the local landscape during the construction stage. However, this is likely to be determined by the individual scheme development.

SEA Objective	Likely Significant Effects	Commentary
landscapes, including the rural environment, town and city centres, and seascapes.		
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within 500m of multiple listed buildings. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction, as a result of noise and vibration. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	0	At this stage, the option is not anticipated to result in any improvements to accessibility to heritage assets as the option refurbishes the existing infrastructure and does not increase the capacity, accessibility or efficiency or the highways network.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option intersects with the River Frome that has poor chemical status. There is potential for negative effects upon the water environment due to runoff from construction activities. However, the option improves the M32 viaduct infrastructure at J2 and the scale of this is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	?	The option is located within the Bristol AQMA. However it is currently uncertain if this option would result in improvements to air quality as the option focuses on improvements to the Eastville Viaduct. Effects on air quality are likely to be determined by any changes to the road network as a result of this upgrade.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located partially within Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as works could be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	0	The option will help to maintain access to the core of Bristol city centre, as well as Thornbury, Yate and East Bristol through the refurbishment of structures on the M32 viaduct at J2. This option does not support a reduction in greenhouse gas emissions. However, due to the small scale, negligible effects have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	0	The option would not result in the loss of Best and Most Versatile agricultural land
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	0	This option refurbishes the existing M32 viaduct infrastructure, improving the maintenance of existing infrastructure and ensuring it is well maintained. There is potential for positive effects arising from this refurbishment, however, due to the small scale nature of this scheme, these effects are not considered to be significant and negligible effects have been identified.

Strategic Renewal - M5 J20-19 Bridge Cluster - Whynol Viaduct

- **Option Name:** Strategic Renewal - M5 J20-19 Bridge Cluster - Whynol Viaduct
- **Proposer:** National Highways

Table E-52 – Strategic Renewal - M5 J20-19 Bridge Cluster - Whynol Viaduct

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	0	This option will help to maintain accessibility along the M5 J20 between Clevedon and Portishead. This is likely to benefit the local population, however it is considered that any effects on population and equalities are likely to be minor. Therefore, negligible effects have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	0	The option would maintain reliable accessibility to the City of Bristol which would result in positive effects on human mental health and wellbeing through access to employment, education and tourism destinations. However, these effects are not considered to be significant. Therefore, negligible effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	0	Negligible effects are identified as a result of this option upon community safety. The option does not include any elements that are likely to contribute to improving user safety or the perception of safety on Western Gateway STB's transport network.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	?	The option would maintain reliable accessibility to the City of Bristol, the Midlands/ north and South West regions to access employment opportunities and tourist destinations. In addition, this option would support access to Bristol airport and Avonmouth port, both of which are international gateways. However, it is unclear if this option will increase efficiency, reliability and/or sustainability of essential goods movement on strategic routes. Therefore, uncertain effects have been identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	The option will help to maintain reliable access to Bristol, the Midlands/North and South West region. However, these effects are considered to be minor. Therefore, negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option improves the M5 J20-19 bridge cluster and Whynol Viaduct and does not directly impact housing growth. Positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	?	There are unlikely to be any significant, direct effects upon biodiversity as a result of this option. The option improves the M5 J20-19 bridge cluster and Whynol Viaduct and is not located within 500m of any designated sites. However, there is potential for short term effects upon local species and habitats as a result of construction disturbance. Uncertain effects have therefore been identified.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and	?	Uncertain effects have been identified for this option as it is more than 500m away from any national landscape or national park. This option has the potential to result in changes to the setting of the local landscape during the construction stage. However, this is likely to be determined by the individual scheme development.

SEA Objective	Likely Significant Effects	Commentary
landscapes, including the rural environment, town and city centres, and seascapes.		
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within 500m of multiple listed buildings and a registered park and garden. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction, as a result of noise and vibration. However, it is assumed that any potential significant effect mitigated against through implementation of a CEMP. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	0	At this stage, the option is not anticipated to result in any improvements to accessibility to heritage assets as the option refurbishes the existing infrastructure and does not increase the capacity, accessibility or efficiency or the highways network.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option is within 100m of multiple surface water and groundwater waterbodies that have poor chemical status. There is potential for negative effects upon the water environment due to runoff from construction activities. However, the option improves the M5 J20-19 bridge cluster and Whynol Viaduct and the scale of this is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	0	Negligible effects have been identified for this option in relation to air quality as it is not located within 500m of an AQMA. This option does not support improvements to air quality as it focuses on renewing the bridges between the M5 J20 and J19.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located partially within Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as works could be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	0	The option will help to maintain reliable access to Bristol, the Midlands/North and South West region. This option does not support a reduction in greenhouse gas emissions. However, due to the small scale, negligible effects have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	0	The option would be located within best and most versatile agricultural land (Grades 1, 2 and 3a), though is unlikely to result in its loss as the option would include refurbishment of existing infrastructure.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	0	This option refurbishes the existing M5 J20-19 bridge cluster and Whynol Viaduct infrastructure, improving the maintenance of existing infrastructure and ensuring it is well maintained. There is potential for positive effects arising from this refurbishment, however, due to the small scale nature of this scheme, these effects are not considered to be significant and negligible effects have been identified.

NSC-2024-RD-001

- **Option Name:** A38 Major Road Network (MRN) scheme package
- **Proposer:** North Somerset Council

Table E-53 – A38 Major Road Network (MRN) scheme package

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	++	The capacity improvements on the A38 to include bus prioritisation and active travel provision will help to improve access for the whole population, in particular those who do not have access to a private vehicle such as younger people, older people, and those with a long-term health condition or disability. Therefore, significant positive effects have been identified for population and equalities.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	?	The option improves the capacity of the road and active travel network of the A38. There is potential for positive effects to arise upon human mental health and wellbeing as a result to improved public transport and active travel provision. However, active travel and public transport improvements are likely to be determined by individual scheme design which is currently unknown. Therefore, uncertain effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	?	It is currently unclear whether this option will improve user safety for road users as well as active travel users. Any improvements to user safety, such as road safety improvements, lighting improvements along active travel routes, or designing out crime principles, is likely to be determined by individual scheme design that is currently unknown. Uncertain effects have therefore been identified.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	++	This option will have positive effects on the economy through improved connectivity of the A38 route between Bristol, Bristol Airport and Somerset which will enhance regional and international gateways for freight, airport passengers and tourists. There would be potential to attract inward investment and improve access to tourist destinations as well as employment opportunities, supporting local economic growth. Therefore, significant positive effects have been identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	++	The capacity improvements on the A38 to include bus prioritisation and active travel provision will help to improve access to employment opportunities and tourist attractions for all. This is also likely to provide greater connectivity to Bristol Airport where internal gateways can be accessed. Therefore, significant effects on rural economies have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option improves the capacity of the road and active travel network, supporting increased residents within the Western Gateway STB region. Positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	--	This option is located within 500m of multiple designated sites. There is potential for significant negative effects upon biodiversity as a result of this option due to damage and disturbance to designated sites during construction and potential loss of land. However, the option improves the capacity of the road and active travel network and information such as the precise design and layout of the option, as well as the level of mitigation is not provided at this stage and thus the severity of significant effects can change.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and	--	The option intersects the Mendip Hills National Landscape and has potential to negatively affect the landscape through expansion of the A38. Construction has potential to increase noise in this area and negatively affect visual amenity. There is also potential for changes to the national landscape during operation due to visual changes.

SEA Objective	Likely Significant Effects	Commentary
landscapes, including the rural environment, town and city centres, and seascapes.		
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within 500m of multiple heritage assets, mainly listed buildings. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction, as a result of noise and vibration. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within Western Gateway through improved accessibility. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual improvements that may arise.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option is within 100m of multiple surface water and groundwater waterbodies that have poor chemical status. There is potential for negative effects upon the water environment due to runoff from construction activities. However, the option improves the capacity of the road and active travel network and the scale of this is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	0	Negligible effects have been identified for this option in relation to air quality as it is not located within 500m of an AQMA. However, the option contributes to providing improvements to the sustainable travel network, encouraging bus usage. This has potential to result in improvements to air quality through encouraging a modal shift away from private car use. However, improving the capacity of the A38 may encourage the use of private vehicles, negatively effecting air quality.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located partially within Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as works could be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	?	The option supports capacity improvements on the A38 to include bus prioritisation and active travel provision. This is likely to help with a modal shift to more sustainable transport modes, and likely to help improve traffic flow and reduce idling which causes more traffic related emissions to be released. Consequently, this option may also encourage the use of private vehicles which is likely to increase greenhouse gas emissions. Therefore, uncertain effects have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	--	The option could result in the loss of best and most versatile agricultural land (Grades 2 and 3 if works to improve capacity of the A38 result in land take, depending on the location of works.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained	++	This option includes the upgrading of existing road and active travel infrastructure through the upgrading of the A38. The improvements proposed within the option are also likely to result in improved capacity on the road and pedestrian networks, supporting increasing population needs. Significant positive effects have therefore been identified.

SEA Objective	Likely Significant Effects	Commentary
and resilient to future climate risks and support future population growth.		

WEMCA-2024-TI-001

- **Option Name:** Bristol Temple Meads Capacity hub improvements as part of Bristol Temple Quarter
- **Proposer:** West of England Combined Authority

Table E-54 – Bristol Temple Meads Capacity hub improvements as part of Bristol Temple Quarter

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	0	The option provides improvements to Bristol Temple Meads to help with overcrowding. This is likely to help improve access for all users of the train station. However, these beneficial effects are considered to be minor. Therefore, negligible effects have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	0	The option provides improvements to Bristol Temple Meads station infrastructure. Positive effects upon human health and wellbeing, are likely to arise from improved public realm facilities and reduced overcrowding. However, these affects are considered to be minor. Therefore, negligible effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	?	There is potential for improvements to Bristol Temple Meads to result in improvements to user safety and reduced fear of crime within this train station. However, this is likely to be determined by individual scheme design.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	0	The option provides improvements to Bristol Temple Meads station infrastructure. There is potential that this option could encourage increased passenger which could help support the local economy. However, these effects are considered to be minor. Therefore, negligible effects have been identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	The option provides improvements to Bristol Temple Meads station infrastructure and is unlikely to impact rural economies. Therefore, negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option provides improvements to Bristol Temple Meads station infrastructure. Positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	0	There are unlikely to be any significant, direct effects upon biodiversity as a result of this option. The option provides improvements to Bristol Temple Meads station infrastructure and is not located within 500m of any designated sites. Therefore, negligible effects have been identified.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and landscapes, including the rural environment, town and city centres, and seascapes.	?	Uncertain effects have been identified for this option as it is more than 500m away from any national landscape or national park. This option has the potential to result in changes to the setting of the local landscapes during the construction stage of railway enhancements. During operation, there may also be changes to the townscape visual

SEA Objective	Likely Significant Effects	Commentary
		setting as a result of station upgrades. However, this is likely to be determined by the location and design of development.
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option intersects multiple conservation areas and listed buildings, and is located within 500m of multiple other heritage assets, including listed buildings, registered parks and gardens, conservation areas, and scheduled monuments. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction, as a result of noise and vibration. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within Western Gateway, through improving the connectivity of sustainable transport modes. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual scheme design of interchange opportunities and location of improved network.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	0	The option provides improvements to Bristol Temple Meads station infrastructure. There are unlikely to be any significant, direct effects upon the water environment as a result of this option, as it is not located within 100m of a surface or groundwater body. Therefore, negligible effects have been identified.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	?	The option is located within the Bristol AQMA. However it is currently uncertain if this option would result in improvements to air quality as the option focuses on improvements to Bristol Temple Meads Station. Effects on air quality are likely to be determined by any changes to services as a result of this upgrade.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located either fully or partially within both fluvial and tidal Flood Zone 2 and Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as improvements to Bristol Temple Meads station may be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	0	The option provides improvements to Bristol Temple Meads to help with overcrowding. This is likely to help improve access for all users of the train station and overall passenger experience, which is likely to encourage a modal shift to more sustainable transport modes. However, these effects are deemed to be minor. Therefore, negligible effects have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	0	The option would not result in the loss of Best and Most Versatile agricultural land.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	?	Uncertain effects are identified as a result of this option upon infrastructure. It is currently unclear if any new infrastructure will be required to support the strategic transport corridors proposed within this option. This development will support increases in future population and bus user numbers, however the scale of this currently cannot be determined.

WEMCA-2024-PTI-008

- **Option Name:** Rail electrification - Filton Bank (between Bristol Parkway / Patchway to Bristol Temple Meads)
- **Proposer:** West of England Combined Authority

Table E-55 – Rail electrification - Filton Bank (between Bristol Parkway / Patchway to Bristol Temple Meads)

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	**0**	Rail electrification between Bristol Parkway / Patchway to Bristol Temple Meads is unlikely to result in significant effects on population and equalities. However, it will likely improve overall passenger experience due to providing a more sustainable service.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	**0**	The option provides the electrification of the rail line between Bristol Partway, Patchway and Bristol Temple meads. Positive effects upon human health and wellbeing, are likely to arise from improved rail services and journey times. However, these affects are considered to be minor. Therefore, negligible effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	**0**	Negligible effects are identified as a result of this option upon community safety. The option does not include any elements that are likely to contribute to improving user safety or the perception of safety on Western Gateway STB's transport network.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	**0**	The option provides improvements to Bristol Temple Meads station infrastructure. There is potential that this option could encourage increased passengers which could help support the local economy. In addition, this option could improve cross-boundary connectivity from the Western Gateway STB region and Wales, encouraging increased commuters for employment and tourism, which could result in positive effects upon the economy. However, these effects are considered to be minor. Therefore, negligible effects have been identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	**0**	There are unlikely to be any effects upon rural economies as a result of this option. The option provides the electrification of the rail line between Bristol Parkway / Patchway to Bristol Temple Meads, therefore negligible effects have been identified
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	**0**	There are unlikely to be any effects upon housing growth as a result of this option. The option provides the electrification of the rail line between Bristol Partway, Patchway and Bristol Temple meads, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	**0**	There are unlikely to be any significant, direct effects upon biodiversity as a result of this option. The option provides the electrification of the rail line between Bristol Partway, Patchway and Bristol Temple meads and is not located within 500m of any designated sites. Therefore, negligible effects have been identified.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and landscapes, including the rural environment, town and city centres, and seascapes.	**?**	Uncertain effects have been identified for this option as it is more than 500m away from any national landscape or national park. This option has the potential to result in changes to the setting of the local landscapes during the construction stage of electrification enhancements. However, this is likely to be determined by the scale and duration of development.

SEA Objective	Likely Significant Effects	Commentary
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within 500m of multiple heritage assets, including conservation areas, listed buildings, and a registered park and garden. There is potential for development of this option to result in disturbance to the setting of these heritage assets during construction, as a result of noise and vibration. However, it is assumed that any potential significant effect mitigated against through implementation of a CEMP. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a "sense of place".	0	This option addresses the electrification of the rail line between Bristol Parkway, Patchway and Bristol Temple Meads and therefore is not anticipated to have any direct or indirect effects on access to heritage assets. Negligible effects have therefore been identified.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	0	This option addresses the electrification of the rail line between Bristol Parkway, Patchway and Bristol Temple Meads. There are unlikely to be any significant, direct effects upon the water environment as a result of this option, as it is not located within 100m of a surface or groundwater body. Therefore, negligible effects have been identified.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	++	The option is located within Bristol AQMA and it is anticipated that this will result in improvements to air quality within the AQMA. This option is anticipated to facilitate the transition away from diesel train stock, improving air quality. Additionally, it is also anticipated to encourage a modal shift away from private vehicles, further improving air quality. Therefore, significant positive effects have been identified.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located either fully or partially within both fluvial and tidal Flood Zone 2 and Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as rail improvements may be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region's contribution to climate change from transport related greenhouse gas emissions	++	Rail electrification between Bristol Parkway, Patchway and Bristol Temple Meads is likely to result in positive effect on greenhouse gases due to reducing carbon emissions associated with the existing train stock. This is also likely to encourage a modal shift to more sustainable transport modes due to improving passenger experience. Therefore significant effects on greenhouse gases have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	0	The option would not result in the loss of Best and Most Versatile agricultural land.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	++	Significant positive effects are identified for this option as the development of overhead line electrification will contribute to supporting the transition to renewable energy sources on the railways within the Western Gateway STB region.

WEMCA-2024-PTS-004

- **Option Name:** South Wales Metro services between Cardiff and Bristol
- **Proposer:** West of England Combined Authority

Table E-56 – South Wales Metro services between Cardiff and Bristol

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	++	The option provides improvements to rail services between Cardiff Central and Bristol Temple meads, connecting the Western Gateway STB region to Wales. This is likely to improve access to community services, and employment and education opportunities for the whole local population, in particular those who do not have access to a private vehicle such as younger people, older people, and those with a long-term health condition or disability. Therefore, significant positive effects have been identified for population and equalities.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	0	The option provides improvements to rail services between Cardiff Central and Bristol Temple meads, connecting the Western Gateway STB region to Wales. Positive effects upon human health and wellbeing are likely to arise from improved inter-regional rail services and journey times, which could also reduce stress for commuters. However, these affects are considered to be minor. Therefore, negligible effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	0	Negligible effects are identified as a result of this option upon community safety. The option does not include any elements that are likely to contribute to improving user safety or the perception of safety on Western Gateway STB's transport network.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	++	The option provides improvements to rail services between Cardiff Central and Bristol Temple meads, connecting the Western Gateway STB region to Wales. This option could encourage increased passengers for business opportunities and tourist destinations, which could help support the local economy. Significant positive effects have therefore been identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	The option provides improvements to rail services between Cardiff Central and Bristol Temple meads, connecting the Western Gateway STB region to Wales. This option could encourage increased passengers for business opportunities and tourist destinations, which could help support the rural economies. However, these effects are considered to be minor. Therefore, negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option provides improvements to rail services between Cardiff Central and Bristol Temple meads, connecting the Western Gateway STB region to Wales. Positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	--	This option is located within multiple designated sites including one SSSI, one SPA, two RAMSAR's and one SAC. In addition, one designated sites has been identified within 500m of this option. There is potential for significant negative effects upon biodiversity as a result of this option due to damage and disturbance to designated sites during construction and potential loss of land. However, The option provides improvements to rail services between Cardiff Central and Bristol Temple meads and information such as the precise design and layout of the option, as well as the level of mitigation is not provided at this stage and thus the severity of significant effects can change.

SEA Objective	Likely Significant Effects	Commentary
SEA8 (Landscape and Townscape): To protect and enhance townscapes and landscapes, including the rural environment, town and city centres, and seascapes.	?	Uncertain effects have been identified for this option as it is more than 500m away from any national landscape or national park. This option has the potential to result in changes to the setting of the local landscapes as a result of additional rail services. However, this is likely to be determined by the frequency of services.
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within 500m of multiple heritage assets, including conservation areas, listed buildings, and registered park and gardens. There is potential for development of this option to result in disturbance to the setting of these heritage assets as a result of increased noise and vibration from rail services. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within Western Gateway, through improving the connectivity of sustainable transport modes. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual scheme design and location of new stations served by this option.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option intersects the Avonmouth Mercia Mudstone groundwater waterbody. There is potential for negative effects upon the water environment due to runoff from construction activities. However, the option provides improvements to rail services between Cardiff Central and Bristol Temple meads and the scale of this is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	++	The option is located within Bristol AQMA and it is anticipated that this will result in improvements to air quality within the AQMA. This option is anticipated to encourage a modal shift away from private vehicles, improving air quality. Therefore, significant positive effects have been identified.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located either fully or partially within both fluvial and tidal Flood Zone 2 and Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as new rail infrastructure may be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	++	The option provides improvements to rail services between Cardiff Central and Bristol Temple meads, connecting the Western Gateway STB region to Wales. This is likely to help with the modal shift to more sustainable transport modes, reducing transport related emissions across the Western Gateway STB region. Therefore, significant positive effects on greenhouse gases have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	--	The option could result in the loss of best and most versatile agricultural land (Grade 1, 2 and 3) through land take associated with delivery of new rail stations.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and	?	Uncertain effects are identified as a result of this option upon infrastructure. It is currently unclear if any upgrading or new infrastructure will be required to support the additional rail services proposed within this option. This development

SEA Objective	Likely Significant Effects	Commentary
resilient to future climate risks and support future population growth.		will support increases in future population rail user numbers, however the scale of this currently cannot be determined and is likely to be determined by individual stations serviced by the option.

WC-2024-RD-001

- **Option Name:** A350 Malmesbury Road Roundabout
- **Proposer:** Wiltshire Council

Table E-57 – A350 Malmesbury Road Roundabout

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	0	The option includes improvements to the A350 Malmesbury Road Roundabout, which has the potential to reduce congestion and improve safety, and therefore improving access for all. However, these effects are considered to be minor. Therefore, negligible effects have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	0	The option provides improvements to road infrastructure and capacity. There is potential for indirect positive effects to occur upon human health through improved air quality from reduced congestion. However, these effects are considered minor. Therefore, negligible effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	++	The option is likely to result in improvements to pedestrian safety through improved pedestrian crossing facilities. Additionally, the development of widening and improved signal control at the A350 junction is likely to result in a reduction in the number of collisions along this area of road where collisions are frequent.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	++	This option would help connect the south coast with the M4 and onwards towards Bristol and the Midlands and allow for efficient, and reliable movement of essential goods to rail or coastal shipping, supporting regional and international gateways. In addition, the option will improve access to employment opportunities and tourist destinations, with the potential of attracting inward investment. Therefore, significant effects have been identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	The option includes improvements to the A350 Malmesbury Road Roundabout, which has the potential to reduce congestion and therefore improve access for all. However, these effects are considered to be minor. Therefore, negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option provides improvements to road infrastructure and capacity. Positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	?	There are unlikely to be any significant, direct effects upon biodiversity as a result of this option. The option provides improvements to road infrastructure and capacity and is not located within 500m of any designated sites. However, there is potential for short term effects upon local species and habitats as a result of construction disturbance. Uncertain effects have therefore been identified.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and	?	Uncertain effects have been identified, as the option is located more than 500m away from a National Park or National Landscape. Therefore, any effects on landscape are likely to be determined by the individual scheme design that may arise.

SEA Objective	Likely Significant Effects	Commentary
landscapes, including the rural environment, town and city centres, and seascapes.		
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	?	Uncertain effects have been identified for this option in relation to the historic environment. The option is located within 1km of three listed buildings, one scheduled monument, and one conservation area. There is potential for this option to result in improvements to the setting of these heritage assets, through sensitive scheme design and through a reduction in traffic congestion locally. However, this is likely to be determined by individual scheme design.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a "sense of place".	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute indirectly to improving access to heritage assets within Western Gateway, through improving road connectivity. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual scheme design.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	0	The option includes improvements to the A350 Malmesbury Road Roundabout. There are unlikely to be any significant, direct effects upon the water environment as a result of this option, as it is not located within 100m of a surface or groundwater body. Therefore, negligible effects have been identified.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	0	Negligible effects have been identified for this option in relation to air quality as it is not located within 500m of an AQMA. However, the option contributes to improving the capacity of the existing A350, reducing traffic. This has potential to result in improvements to air quality through reducing vehicle idling times, which contributes to increased emissions and reduced air quality. Conversely, there is also potential for this option to encourage private car use, which may result in increased number of vehicles on this route, reducing local air quality.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	?	The option is located fully within Flood Zone 1. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for uncertain effects at this stage.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region's contribution to climate change from transport related greenhouse gas emissions	0	The option includes improvements to the A350 Malmesbury Road Roundabout. This is likely to help improve traffic flow and reduce idling which causes more traffic related emissions to be released. Consequently, this option may also encourage the use of private vehicles which is likely to increase greenhouse gas emissions. However, due to the small scale, negligible effects have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	--	The option could result in the loss of best and most versatile agricultural land (Grade 3) through land take associated with enhancement of the existing junction.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	++	This option includes the upgrading of existing infrastructure to meet population demands for the road network in this area and reduce congestion. This option also includes the development of drainage mitigation, contributing to climate resilience within this area of highway. Significant positive effects have therefore been identified.

WC-2024-RD-002

- **Option Name:** A350 Lackham to Melksham Bypass Improvements
- **Proposer:** Wiltshire Council

Table E-58 – A350 Lackham to Melksham Bypass Improvements

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	0	The A350 Lackham to Melksham Bypass Improvements will help to increase road capacity and therefore, improve access and connectivity. However, these effects are considered minor. Therefore, negligible effects have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	0	The option provides improvements to road infrastructure and capacity. There is potential for indirect positive effects to occur upon human health through improved air quality from reduced congestion. However, these effects are considered minor. Therefore, negligible effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	++	The option has potential to result in significant positive effects upon community safety through improved junctions along the A350 Lackham to Melksham Bypass. This is likely to reduce the number of collisions along this area of road where collisions are currently frequent.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	++	This option would help connect the south coast with the M4 and onwards towards Bristol and the Midlands and allow for efficient, and reliable movement of essential goods to rail or coastal shipping, supporting regional and international gateways. In addition, the option will improve access to employment opportunities and tourist destinations, with the potential of attracting inward investment. Therefore, significant effects have been identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	The A350 Lackham to Melksham Bypass Improvements has the potential to reduce congestion and therefore improve access for all. However, these effects are considered to be minor. Therefore, negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option provides improvements to road infrastructure and capacity. Positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	0	There are unlikely to be any significant, direct effects upon biodiversity as a result of this option. The option provides improvements to road infrastructure and capacity and is not located within 500m of any designated sites. Therefore, negligible effects have been identified.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and landscapes, including the rural environment, town and city centres, and seascapes.	?	Uncertain effects have been identified, as the option is located more than 500m away from a National Park or National Landscape. Therefore, any effects on landscape are likely to be determined by the individual scheme design that may arise.

SEA Objective	Likely Significant Effects	Commentary
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option intersects Lacock Conservation Area, and is located within 500m of 10 listed buildings, Lacock Abbey Registered Park and Garden. There is potential for development of this option to result in disturbance to the setting of these heritage assets both during construction, as a result of noise and vibration, as well as during operation of the option as a result of increased traffic numbers. There is also potential for alteration of the Lacock Conservation area as a result of the development of this option. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within Western Gateway, particularly Lacock Abbey and Lacock, through improving the connectivity of road transport. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual scheme design.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	0	The option provides improvements to road infrastructure and capacity. There are unlikely to be any significant, direct effects upon the water environment as a result of this option, as it is not located within 100m of a surface or groundwater body. Therefore, negligible effects have been identified.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	0	Negligible effects have been identified for this option in relation to air quality as it is not located within 500m of an AQMA. However, the option contributes to improving the capacity of the existing A350, reducing traffic. This has potential to result in improvements to air quality through reducing vehicle idling times, which contributes to increased emissions and reduced air quality. Conversely, there is also potential for this option to encourage private car use, which may result in increased number of vehicles on this route, reducing local air quality.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located either fully or partially within fluvial Flood Zone 2 and Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as new road infrastructure may be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	?	The dualling of the A350 between Melksham and Lackham does no support the reduction in greenhouse gases. This option is likely to encourage private car use and therefore, increase transport related emissions. However, improving the capacity of the road network will help to reduce congestion and idling vehicles which causes more traffic related emissions to be released. Therefore, uncertain effects have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	==	The option could result in the loss of best and most versatile agricultural land (Grade 1, 2 and 3) through land take associated with widening of the dual carriageway.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	++	This option includes the upgrading of existing infrastructure to meet population demands for the road network in this area and reduce congestion. This option also includes the development of road over culverts, contributing to climate resilience within this area of highway. Significant positive effects have therefore been identified.

WC-2024-RD-003

- **Option Name:** A350 Hagg Hill to Stoney Gutter
- **Proposer:** Wiltshire Council

Table E-59 – A350 Hagg Hill to Stoney Gutter

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	0	Improvements to the A350 Hagg Hill to Stoney Gutter will help to increase road capacity and therefore, improve access and connectivity, and therefore improve access for all. However, these effects are considered to be minor. Therefore, negligible effects have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	0	The option provides improvements to road infrastructure and capacity. There is potential for indirect positive effects to occur upon human health through improved air quality from reduced congestion. However, these effects are considered minor. Therefore, negligible effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	++	The option has potential to result in significant positive effects upon community safety through junction improvements and the elimination of the non-standard crest at Hag Hill. This is likely to reduce the number of collisions along this area of road, reducing the number of killed or seriously injured (KSI) along the A350.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	++	This option would help connect the south coast with the M4 and onwards towards Bristol and the Midlands and allow for efficient, and reliable movement of essential goods to rail or coastal shipping, supporting regional and international gateways. In addition, the option will improve access to employment opportunities and tourist destinations, with the potential of attracting inward investment. Therefore, significant effects have been identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	Improvements to the A350 Hagg Hill to Stoney Gutter has the potential to reduce congestion and therefore improve access for all. However, these effects are considered to be minor. Therefore, negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option provides improvements to road infrastructure and capacity. Positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	?	There are unlikely to be any significant, direct effects upon biodiversity as a result of this option. The option provides improvements to road infrastructure and capacity and is not located within 500m of any designated sites. However, there is potential for short term effects upon local species and habitats as a result of construction disturbance. Uncertain effects have therefore been identified.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and landscapes, including the rural environment, town and city centres, and seascapes.	?	Uncertain effects have been identified, as the option is located more than 500m away from a National Park or National Landscape. Therefore, any effects on landscape are likely to be determined by the individual scheme design that may arise.

SEA Objective	Likely Significant Effects	Commentary
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within 500m of the Shrunken Settlement of Paxcroft to east of Lower Paxcroft Farm Scheduled Monument. There is potential for development of this option to result in disturbance to the setting of this heritage assets during construction, as a result of noise and vibration. Whilst it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within Western Gateway, through improving the connectivity of road transport. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual scheme design.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	0	The option provides improvements to road infrastructure and capacity. There are unlikely to be any significant, direct effects upon the water environment as a result of this option, as it is not located within 100m of a surface or groundwater body. Therefore, negligible effects have been identified.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	0	Negligible effects have been identified for this option in relation to air quality as it is not located within 500m of an AQMA. However, the option contributes to improving the road network and junctions of the existing A350 around Hag Hill, reducing traffic. This has potential to result in improvements to air quality through reducing vehicle idling times, which contributes to increased emissions and reduced air quality. Conversely, there is also potential for this option to encourage private car use, which may result in increased number of vehicles on this route, reducing local air quality.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located either fully or partially within fluvial Flood Zone 2 and Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as new road infrastructure may be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	?	Improvements to the A350 Hagg Hill to Stoney Gutter does not support the reduction in greenhouse gases. This option is likely to encourage private car use and therefore, increase transport related emissions. However, improving the capacity of the road network will help to reduce congestion and idling vehicles which causes more traffic related emissions to be released. Therefore, uncertain effects have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	--	The option could result in the loss of best and most versatile agricultural land (Grades 2 and 3) through land take associated with enhancement of the existing carriageway and junction.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	++	This option includes the upgrading of existing infrastructure to improve capacity for future population needs, as well as ensuring maintenance of the existing route by removing the non-standard crest at Hag Hill. This option also includes the development of road over culverts, contributing to climate resilience within this area of highway. Significant positive effects have therefore been identified.

WC-2024-RD-004

- **Option Name:** A350 Westbury Bypass + Glenmore Link
- **Proposer:** Wiltshire Council

Table E-60 – A350 Westbury Bypass + Glenmore Link

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	0	The provision of an offline single carriageway between Trowbridge Road crossing B3098 Bratton Road to Madbrook Farm and a link road between Trowbridge Road and West Wiltshire Industrial Estate will help to improve access to community services, and education and employment opportunities. However, these effects are considered to be minor. Therefore, negligible effects have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	0	The option provides improvements to road infrastructure and capacity. There is potential for indirect positive effects to occur upon human health through improved air quality from reduced congestion. However, these effects are considered minor. Therefore, negligible effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	?	Uncertain effects have been identified for this option as it is currently unclear what safety measures will be implemented with the development of the proposed new single carriageway highway. This is likely to be determined by individual scheme design.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	++	This option would help connect the south coast with the M4 and onwards towards Bristol and the Midlands and allow for efficient, and reliable movement of essential goods to rail or coastal shipping, supporting regional and international gateways. In addition, the option will improve access to employment opportunities and tourist destinations, with the potential of attracting inward investment. Therefore, significant effects have been identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	The provision of an offline single carriageway between Trowbridge Road crossing B3098 Bratton Road to Madbrook Farm and a link road between Trowbridge Road and West Wiltshire Industrial Estate has the potential to reduce congestion and therefore improve access employment opportunities. However, these effects are considered to be minor for rural economies. Therefore, negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option provides improvements to road infrastructure and capacity. Positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	--	This option is located within 500m of two SSI's. There is potential for significant negative effects upon biodiversity as a result of this option due to damage and disturbance to designated sites during construction and potential loss of land. However, the option provides improvements to road infrastructure and capacity and information such as the precise design and layout of the option, as well as the level of mitigation is not provided at this stage and thus the severity of significant effects can change.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and landscapes, including the rural environment, town and city centres, and seascapes.	?	Uncertain effects have been identified, as the option is located more than 500m away from a National Park or National Landscape. There is potential for this scheme to result in land take and alteration of landscape settings. However, this is currently unknown. Therefore, any effects on landscape are likely to be determined by the individual scheme design that may arise.

SEA Objective	Likely Significant Effects	Commentary
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within 500m of the Two Cross Ridge Dykes east of Wellhead Farm Scheduled Monument, as well as one listed building. There is potential for development of this option to result in disturbance to the setting of this heritage asset during construction, as a result of noise and vibration and land take for the new highway development. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within Western Gateway, through improving the connectivity road transport. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual scheme design.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option intersects with the Upper Hampshire Avon groundwater waterbody. There is potential for negative effects upon the water environment due to runoff from construction activities. However, the option provides improvements to road infrastructure and capacity and the scale of this is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	0	Negligible effects have been identified for this option in relation to air quality as it is not located within 500m of an AQMA. However, the option contributes to improving the road network of the A350 and providing a new bypass. This has potential to result in improvements to air quality through reducing vehicle idling times, which contributes to increased emissions and reduced air quality. Conversely, there is also potential for this option to encourage private car use, which may result in increased number of vehicles on this route, reducing local air quality.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located either fully or partially within fluvial Flood Zone 2 and Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as new road infrastructure may be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	?	The provision of an offline single carriageway between Trowbridge Road crossing B3098 Bratton Road to Madbrook Farm and a link road between Trowbridge Road and West Wiltshire Industrial Estate does not support the reduction in greenhouse gases. This option is likely to encourage private car use and therefore, increase transport related emissions. However, improving the capacity of the road network will help to reduce congestion and idling vehicles which causes more traffic related emissions to be released. Therefore, uncertain effects have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	--	The option could result in the loss of best and most versatile agricultural land (Grades 2 and 3) through land take associated with provision of new single carriageway.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	?	Uncertain effects have been identified for this option. This option includes the development of a new highway and it is currently unclear if this will include climate resilience measures as this is likely to be determined by individual scheme design. It is also anticipated that the proposed scheme will improve the capacity of the road network for future generations, resulting in the potential for positive effects.

WC-2024-RD-006

- **Option Name:** A36 Southampton Road/ Churchill Way
- **Proposer:** Wiltshire Council

Table E-61 – A36 Southampton Road/ Churchill Way

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	0	Improvements to the A36 Southampton Road/ Churchill Way will help to increase road capacity and therefore, improve access and connectivity, and therefore improve access for all. However, these effects are considered to be minor. Therefore, negligible effects have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	0	The option provides improvements to road infrastructure and capacity. There is potential for indirect positive effects to occur upon human health through improved air quality from reduced congestion. However, these effects are considered minor. Therefore, negligible effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	++	The option has potential to result in significant positive effects upon community safety through junction improvements. This is likely to reduce the number of collisions along this area of road, reducing the number of killed or seriously injured (KSI) along the A338/A36 College Roundabout and A36 Southampton Road to Bourne Way Roundabout.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	?	The option provides improvements to road infrastructure and capacity and has potential for positive effects to arise upon the economy through improved connectivity from the south coast with the M4 onwards towards Bristol and the Midlands. However, at this time, uncertain effects have been identified as the scale of improved accessibility and connectivity is likely to be determined by the individual scheme design.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	Improvements to the A36 Southampton Road/ Churchill Way has the potential to reduce congestion and therefore improve access for all. However, these effects are considered to be minor on rural economies. Therefore, negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option provides improvements to road infrastructure and capacity. Positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	--	This option is located within multiple designated sites including one SSSI and one SAC. In addition, one SSSI has been identified within 500m of this option. There is potential for significant negative effects upon biodiversity as a result of this option due to damage and disturbance to designated sites during construction and potential loss of land. However, the option provides improvements to road infrastructure and capacity and information such as the precise design and layout of the option, as well as the level of mitigation is not provided at this stage and thus the severity of significant effects can change.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and landscapes, including the rural	?	Uncertain effects have been identified, as the option is located more than 500m away from a National Park or National Landscape. Therefore, any effects on landscape are likely to be determined by the individual scheme design that may arise.

SEA Objective	Likely Significant Effects	Commentary
environment, town and city centres, and seascapes.		
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located within 500m of two listed buildings, and within 1km of multiple assets, including listed buildings, registered parks and gardens, and a scheduled monument. There is potential for development of this option to result in disturbance to the setting of this heritage asset during construction, as a result of noise and vibration. Whilst it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a "sense of place".	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets, through improving the connectivity of road transport. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual scheme design.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option intersects with the Upper Hampshire Avon groundwater waterbody. There is potential for negative effects upon the water environment due to runoff from construction activities. However, the option provides improvements to road infrastructure and capacity and the scale of this is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	?	Uncertain effects have been identified for this option as it is located within Sailsbury City Centre AQMA. There is potential for this option to result in improvements to air quality through reducing congestion and idling vehicles, therefore improving air quality. However, there is also potential that this option may encourage private car use and increase the number of vehicles within the AQMA, reducing air quality.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located either fully or partially within fluvial Flood Zone 2 and Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as road infrastructure improvements may be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region's contribution to climate change from transport related greenhouse gas emissions	?	Improvements to the A36 Southampton Road/ Churchill Way does not support the reduction in greenhouse gases. This option is likely to encourage private car use and therefore, increase transport related emissions. However, improving the capacity of the road network will help to reduce congestion and idling vehicles which causes more traffic related emissions to be released. Therefore, uncertain effects have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	0	The option would not result in the loss of Best and Most Versatile agricultural land.

SEA Objective	Likely Significant Effects	Commentary
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	?	This option includes the upgrading of existing infrastructure to improve capacity for future population needs. It is currently unclear whether this will include additional climate resilience measures as this is likely to be determined by individual scheme design. Uncertain effects have therefore been identified.

WC-2024-RD-010

- **Option Name:** Melksham Bypass
- **Proposer:** Wiltshire Council

Table E-62 – Melksham Bypass

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	++	The implementation of a full eastern bypass (A350 Melksham Bypass) will help to improve road capacity and improve access for all. Further benefits will be felt for the improvements to public rights of way along the bypass route and introduction of walking and cycling measures within Melksham Town and around the existing A350 route. Beneficial effects will be particularly felt by those who do not have access to a private car, including younger people, older people, and those with long-term health conditions or disabilities. Therefore, significant positive effects on population and equalities have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	?	The option provides improvements to road infrastructure and capacity. There is potential for indirect positive effects to occur upon human health through improved air quality from reduced congestion. The provision of walking and cycling measures within Melksham Town and the existing A350 is likely to result in positive effects upon human health by encouraging healthier lifestyles. However, the exact scale of this is likely to be determined by individual scheme design. Uncertain effects have therefore been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	?	The option has potential to result in positive effects upon community safety through the development of a A350 Melksham Bypass, which has potential to result in improvements to road safety within alternative routes such as Melksham town centre, as well as the modification of PRoWs and active travel measures. Exact details of enhancements to PRoWs is currently unknown, however, there is potential for this to include enhancements to the safety of these routes, including improving feelings of safety. Additionally, providing walking and cycling measures within Melksham Town and the existing A350 is likely to result in reduced user conflicts between active travel and road users, improving safety and reducing collisions. The exact scale of this is likely to be determined by individual scheme design. Uncertain effects have therefore been identified.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	?	The option provides improvements to road infrastructure and capacity and has potential for positive effects to arise upon the economy through improved connectivity from the south coast with the M4 onwards towards Bristol and the Midlands. However, at this time, uncertain effects have been identified as the scale of improved accessibility and connectivity is likely to be determined by the individual scheme design.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	The implementation of a full eastern bypass (A350 Melksham Bypass) will help to reduce congestion and therefore improve access for all. However, these effects are considered to be minor. Therefore, negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option provides improvements to road infrastructure and capacity. Positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	?	There are unlikely to be any significant, direct effects upon biodiversity as a result of this option. The option provides improvements to road infrastructure and capacity and is not located within 500m of any designated sites. However, there is potential for short term effects upon local species and habitats as a result of construction disturbance. Uncertain effects have therefore been identified.

SEA Objective	Likely Significant Effects	Commentary
SEA8 (Landscape and Townscape): To protect and enhance townscapes and landscapes, including the rural environment, town and city centres, and seascapes.	?	Uncertain effects have been identified, as the option is located more than 500m away from a National Park or National Landscape. Therefore, any effects on landscape are likely to be determined by the individual scheme design that may arise. The option also has potential to alter views during construction through plant equipment and construction compounds. There is also potential for the option to result in land take for the development of the new bypass, altering the landscape views and setting.
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located approximately 170m from Lacock Conservation Area, as well as within 500m of four listed buildings and Lacock Abbey Registered Park and Garden, and within 1km of multiple other listed buildings. There is potential for development of this option to result in disturbance to the setting of this heritage asset during construction, as a result of noise and vibration. It is also uncertain if the development will result in additional alteration of the setting of heritage assets as a result of the design of the Melksham Bypass. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within Western Gateway, particularly those in and around Lacock, through improving the connectivity of road transport. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual scheme design.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	?	This option intersects with the Forest Brook surface waterbody that has poor ecological status and failed chemical status. There is potential for negative effects upon the water environment due to runoff from construction activities. However, the option provides improvements to road infrastructure and capacity, of which the scale is currently unknown and likely to be determined by individual scheme design. Therefore, uncertain effects have been identified. It is assumed that this option will include waterbody mitigation measures.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	0	Negligible effects have been identified for this option in relation to air quality as it is not located within 500m of an AQMA. However, the option contributes to providing a new bypass. This has potential to result in improvements to air quality through reducing vehicle idling times, which contributes to increased emissions and reduced air quality. Conversely, there is also potential for this option to encourage private car use, which may result in increased number of vehicles on this route, reducing local air quality.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located either fully or partially within fluvial Flood Zone 2 and Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as new road infrastructure may be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	?	The implementation of a full eastern bypass (A350 Melksham Bypass) does not support the reduction in greenhouse gases. This option is likely to encourage private car use and therefore, increase transport related emissions. However, improving the capacity of the road network and provision of walking and cycling routes will help to reduce congestion and idling vehicles which causes more traffic related emissions to be released. Therefore, uncertain effects have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	--	The option could result in the loss of best and most versatile agricultural land (Grades 2 and 3) through land take associated with construction of the new bypass, improvements to existing infrastructure, and walking and cycling measures.

SEA Objective	Likely Significant Effects	Commentary
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	?	Uncertain effects have been identified for this option. This option includes the development of a new bypass and it is currently unknown what scale of existing infrastructure will be utilised. Additionally, it is currently unclear if this will include climate resilience measures as this is likely to be determined by individual scheme design. It is anticipated that the proposed scheme will improve the capacity of the road network for future generations, resulting in the potential for positive effects.

WC-2024-RD-011

- **Option Name:** M4 Junction 17 Improvements
- **Proposer:** Wiltshire Council

Table E-63 – M4 Junction 17 Improvements

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	0	The option has potential to result in positive effects on population and equalities due to the upgrades to Junction 17 which will help to increase road network capacity and improve access to the road network. Further benefits, will be felt from the implementation for an improved signage strategy for a cycle route providing north-south connections across the M4, away from the junction itself. However, these effects are considered to be minor. Therefore, negligible effects have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	0	The option provides improvements to road infrastructure and capacity. There is potential for indirect positive effects to occur upon human health through improved air quality from reduced congestion. However, these effects are considered minor. Therefore, negligible effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	++	The option has potential to result in significant positive effects upon community safety through junction improvements and improving road user safety at Junction 17. This is likely to reduce the number of collisions along this area of road, reducing the number of killed or seriously injured (KSI). Additionally, improved signage for the cycle route across the M4 away from the M4 is likely to improve wayfinding and improve feelings of safety along this route.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	++	This option would help improve connectivity of the south coast with the M4 and onwards towards Bristol and the Midlands and allow for efficient, and reliable movement of essential goods to rail or coastal shipping, supporting regional and international gateways. In addition, the option will improve access to employment opportunities and tourist destinations, with the potential of attracting inward investment. Therefore, significant effects have been identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	Upgrades to Junction 17 have the potential to reduce congestion and therefore improve access for all. However, these effects are considered to be minor. Therefore, negligible effects have been identified
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option provides improvements to road infrastructure and capacity. Positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	--	This option is located within the Stanton St. Quintin Quarry and Motorway Cutting SSSI. There is potential for significant negative effects upon biodiversity as a result of this option due to damage and disturbance to designated sites during construction and potential loss of land. However, the option provides improvements to road infrastructure and capacity and information such as the precise design and layout of the option, as well as the level of mitigation is not provided at this stage and thus the severity of significant effects can change.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and	?	Uncertain effects have been identified, as the option is located more than 500m away from a National Park or National Landscape. Therefore, any effects on landscape are likely to be determined by the individual scheme design that may

SEA Objective	Likely Significant Effects	Commentary
landscapes, including the rural environment, town and city centres, and seascapes.		arise. The option also has potential to alter views during construction through plant equipment and construction compounds.
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	--	The option is located approximately 450m from Stanton St Quintin Conservation Area, and within 1km of multiple other assets, including a listed building, scheduled monument and conservation area. There is potential for development of this option to result in disturbance to the setting of this heritage asset during construction, particularly as a result of noise and vibration. While it is recognised that there is potentially mitigation available to ensure that any residual effects are not significant, this is uncertain at this stage and a precautionary approach has been taken.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a “sense of place”.	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within Western Gateway, through improving the connectivity of road transport. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual scheme design.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	0	The option provides improvements to road infrastructure and capacity. There are unlikely to be any significant, direct effects upon the water environment as a result of this option, as it is not located within 100m of a surface or groundwater body. Therefore, negligible effects have been identified.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	0	Negligible effects have been identified for this option in relation to air quality as it is not located within 500m of an AQMA. However, the option contributes to providing junction improvements. This has potential to result in improvements to air quality through reducing vehicle idling times, which contributes to increased emissions and reduced air quality. Conversely, there is also potential for this option to encourage private car use, which may result in increased number of vehicles on this route, reducing local air quality.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located either fully or partially within fluvial Flood Zone 2 and Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as new road infrastructure may be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region’s contribution to climate change from transport related greenhouse gas emissions	?	Upgrades to Junction 17 does not support the reduction in greenhouse gases. This option is likely to encourage private car use and therefore, increase transport related emissions. However, improving the capacity of the road network and implementation for an improved signage strategy for a cycle route will help to reduce congestion and encourage a shift to more sustainable transport modes. Therefore, uncertain effects have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	--	The option could result in the loss of best and most versatile agricultural land (Grade 3) through land take associated with widening of the carriageway and construction of additional traffic lanes.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	?	Uncertain effects have been identified for this option. This option includes the upgrading of existing infrastructure and capacity for future population needs, which has potential to result in positive effects. However, it is currently unclear if this will include climate resilience measures as this is likely to be determined by individual scheme design.

WC-2024-RD-012

- **Option Name:** A350 Phase 4&5
- **Proposer:** Wiltshire Council

Table E-64 – A350 Phase 4&5

SEA Objective	Likely Significant Effects	Commentary
SEA1 (Population and Equalities): To increase the inclusivity, capacity and connectivity of the transportation network, especially in rural communities.	0	The option has potential to result in significant positive effects on population and equalities due to the dualling of the A350 between Chequers roundabout and Lackham Roundabout, and Cepen Park South Roundabout and Bumpers Farm Roundabout which will help to increase road network capacity, reduce congestion and improve local access. However, these effects are considered to be minor. Therefore, negligible effects have been identified.
SEA2 (Human Health): To protect and enhance physical and mental health and wellbeing through better access to public transport, supporting active travel and encouraging healthy lifestyles.	0	The option provides improvements to road infrastructure and capacity. There is potential for indirect positive effects to occur upon human health through improved air quality from reduced congestion. However, these effects are considered minor. Therefore, negligible effects have been identified.
SEA3 (Community Safety): To promote safe transport through reducing collisions, improving safety and reducing crime across the transport network.	?	The option has potential to result in positive effects upon community safety through capacity and junction improvements, however the scale of this is likely to be determined by individual scheme design.
SEA4 (Economy): To provide greater connectivity across the region to support key sectors, attract inward investment and support economic success.	++	This option would help improve connectivity of the south coast with the M4 and onwards towards Bristol and the Midlands and allow for efficient, and reliable movement of essential goods to rail or coastal shipping, supporting regional and international gateways. In addition, the option will improve access to employment opportunities and tourist destinations, with the potential of attracting inward investment. Therefore, significant effects have been identified.
SEA5 (Rural Economies): To support rural economies, attracting visitors and providing opportunities for prosperity.	0	Dualling of the A350 between Chequers roundabout and Lackham Roundabout, and Cepen Park South Roundabout and Bumpers Farm Roundabout is likely to reduce congestion and therefore improve access for all. However, these effects are considered to be minor. Therefore, negligible effects have been identified.
SEA6 (Housing Growth): To provide infrastructure that supports future sustainable housing growth	0	There are unlikely to be any significant, direct effects upon housing growth as a result of this option. The option provides improvements to road infrastructure and capacity. Positive effects that may arise from housing growth these effects are considered to be minor and indirect, therefore negligible effects have been identified.
SEA7 (Biodiversity): To protect, enhance and restore habitats, species and valuable ecological networks that contribute to ecosystem functionality and contribute to environmental and biodiversity net gain.	?	There are unlikely to be any significant, direct effects upon biodiversity as a result of this option. The option provides improvements to road infrastructure and capacity and is not located within 500m of any designated sites. However, there is potential for short term effects upon local species and habitats as a result of construction disturbance. Uncertain effects have therefore been identified.
SEA8 (Landscape and Townscape): To protect and enhance townscapes and landscapes, including the rural environment, town and city centres, and seascapes.	?	Uncertain effects have been identified, as the option is located more than 500m away from a National Park or National Landscape. Therefore, any effects on landscape are likely to be determined by the individual scheme design that may arise. The option also has potential to alter views during construction through plant equipment and construction compounds.

SEA Objective	Likely Significant Effects	Commentary
SEA9 (Historic Environment): To preserve and enhance heritage resource including historic environment and archaeological assets (including designated and non-designated) and their unique settings in the region, improving access to heritage assets.	?	Uncertain effects have been identified for this option in relation to the historic environment. The option is located more than 500m, but within 1km of one listed building, three conservation areas, and two registered parks and gardens. There is potential for this option to result in improvements to the setting of these heritage assets, through sensitive scheme design and through a reduction in traffic congestion locally. However, this is likely to be determined by individual scheme design.
SEA10 (Access to Heritage Assets): To improve access to heritage assets by a clean well connected transport system that fosters healthy lifestyles, community cohesion, and provide a "sense of place".	?	At this stage, the scale of improved accessibility to heritage assets is uncertain. This option has potential to contribute to improving access to heritage assets within Western Gateway, through improving the connectivity of road transport. However, the scale of improved accessibility is currently uncertain and is likely to be determined by the individual scheme design.
SEA11 (Water Environment): To conserve, protect and enhance the water environment, water quality and water resources.	0	The option provides improvements to road infrastructure and capacity. There are unlikely to be any significant, direct effects upon the water environment as a result of this option, as it is not located within 100m of a surface or groundwater body. Therefore, negligible effects have been identified.
SEA12 (Air Quality): To protect and enhance air quality by reducing emissions from the transport network.	0	Negligible effects have been identified for this option in relation to air quality as it is not located within 500m of an AQMA. However, the option contributes to providing capacity improvements along the A350. This has potential to result in improvements to air quality through reducing vehicle idling times, which contributes to increased emissions and reduced air quality. Conversely, there is also potential for this option to encourage private car use, which may result in increased number of vehicles on this route, reducing local air quality.
SEA13 (Climate Change): Support the resilience of the transport infrastructure in the Western Gateway STB region to the effects of climate change, including flooding from fluvial, coastal and surface water sources.	--	The option is located either fully or partially within fluvial Flood Zone 2 and Flood Zone 3. While it could be assumed that there will be suitable mitigation delivered at the project level to reduce the significance of residual effects, for example through the incorporation of sustainable drainage systems, it is considered appropriate to flag the potential for significant effects at this stage, as road infrastructure improvements may be vulnerable to flooding.
SEA14 (Greenhouse Gases): Reduce the Western Gateway STB region's contribution to climate change from transport related greenhouse gas emissions	?	Dualling of the A350 between Chequers roundabout and Lackham Roundabout, and Cepen Park South Roundabout and Bumpers Farm Roundabout does not support the reduction in greenhouse gases. This option is likely to encourage private car use and therefore, increase transport related emissions. However, improving the capacity of the road network will help to reduce congestion and idling vehicles which causes more traffic related emissions to be released. Therefore, uncertain effects have been identified.
SEA15 (Material Assets): To reduce the amount of waste produced and promote sustainable use of resources (including land).	0	The option would not result in the loss of Best and Most Versatile agricultural land.
SEA16 (Infrastructure): To ensure that infrastructure is upgraded, well-maintained and resilient to future climate risks and support future population growth.	?	Uncertain effects have been identified for this option. This option includes the upgrading of existing infrastructure and capacity for future population needs, which has potential to result in positive effects. However, it is currently unclear if this will include climate resilience measures as this is likely to be determined by individual scheme design.

Kings Orchard
1 Queen Street
Bristol
BS2 0HQ

wsp.com