APPENDIX 3 - APPRAISAL MATRIX: PACKAGE 1 – Gunnels Wood and Town Centre

SEA Analysis Table	**PACKAGE 1 – Gunnels Wood and Town Centre**		
SEA Objective	**Assessment of Effect** ✓ Positive impact P+ Potentially positive impact O No relationship/ link U Uncertain/ Depends on implementation P- Potentially negative impact X Negative impact	**Justification:** • **Likelihood of effect occurring** • **Permanence of effect** • **Geographic scale of effect** • **Cumulative effects** • **Current env. Social & economic trends of affected area** • **Likelihood of affecting particularly sensitive locations**	**Recommendations (including mitigating negative effects and improving positive effects)**
SEA Topic – Biodiversity, fauna and flora			
To protect and enhance biodiversity	P-	None of these schemes are in Key Biodiversity Areas or SSSI. Small scale improvements are likely to affect the biodiversity of the areas where improvements are being built in. The implementation will reveal the overall damage caused. The new bus north to south bus corridor may cause habitat disruption if new infrastructure is created	Encourage tree planting in any new scheme. Encourage walking and cycling and promote the associated improvements. Ensure that when construction is happening the least amount of disruption to the local natural environment occurs.

SEA Analysis Table	PACKAGE 1 – Gunnels Wood and Town Centre		
		linking the new developments.	
SEA Topic - Population and human health			
To maximise the opportunities for leisure and a healthy lifestyle for all, and to improve the physical and mental health of the population, and reduce health inequalities	✓	The schemes seek to improve walking and cycling routes and associate infrastructure within Stevenage. This will encourage modal shift and enable residents to obtain the health benefits of active travel	Promote walking and cycling as a form of exercise for everyone.
To reduce crime and create safe environments	U	More people walking and cycling in public places leads to safer environments and a feeling of personal security. However it depends on what implementation will be introduced around the new walking and cycling infrastructure e.g. CCTV and well-lit areas. Buses can also slightly increase the negative impact with regard to personal security with more	Ensure cycle parking is secure and areas are well lit to deter criminals. All schemes will need to adhere to LTP4 policies, in particular policy 18 which deals with personal security and Hate Crime.

SEA Analysis Table	PACKAGE 1 – Gunnels Wood and Town Centre		
		people in the public realm.	
SEA Topic - Water and soil			
To improve the sustainable use of resources	U	At this stage it is not known what resources will be used in the construction of new cycling and walking infrastructure or bus infrastructure. There may be a reduced need for road resurfacing in the future as a result of the schemes, e.g. changes of function to Lytton way.	Where possible any materials used in construction should be recycled and renewable products.
To move away from waste disposal to minimisation, reuse, recycling and recovery	P-	Overall for the majority of the schemes (e.g. New bus and rail interchange) there will be a lot of waste and if this is not disposed properly or renewable resources are not being used then this could be a potentially negative impact.	Where possible any materials used in the construction should be recycled and renewable product. Waste should also be managed and disposed of appropriately in line with HCC guidance.

SEA Analysis Table	PACKAGE 1 – Gunnels Wood and Town Centre		
To ensure the efficient use of water, and safeguard water resources	P-	The construction of a new platform and new bus and rail interchange may damage the local environment and cause runoff into local water systems from the materials used in said construction. This could affect the ecology of the whole area.	Promote SUDS and ensure runoff from construction material is kept to a minimum.
To reduce contamination, and safeguard soil quality and quantity	P-	The construction of a new bus and rail interchange may cause contamination of local soils. However due to the construction in all the schemes being on already urban land this reduces the impact on local soils.	Prevent soil Removal where possible in the construction of new cycle ways and train stations.
SEA Topic - Air			
To protect and enhance air quality and minimise noise pollution	P+	The majority of the proposed schemes seek to facilitate modal shift to walking, cycling and public transport. These all help to reduce the number of cars on the road and as such the	Encourage walking and cycling and promote the associated improves for example the cycle hub. Encourage the use of newly provided public transport links.

SEA Analysis Table	PACKAGE 1 – Gunnels Wood and Town Centre		
		amount of noise and air pollution they produce. However bus's still produce pollution and a new train platform would mean more trains and as such more noise pollution.	
To improve the choice of sustainable transport modes, encourage their use, and reduce the need to travel by car	✓	The schemes all promote the use of sustainable transport and actively encourage it through measures such as new cycle infrastructure and changing Lytton Way to improve multimodal access.	To promote the use of new bus routes and encourage people to use alternatives to the private motor car.
SEA Topic - Climatic factors			
To adapt to the impacts of climate change such as flooding	P+	Walking and cycling have no negative impacts on the causes of climate change. A new platform at the station and improved bus infrastructure may reduce the number of trips taken by car but it is dependent on how the bus infrastructure is built	Encourage the use of alternative transport that does not contribute to climate change e.g. the car.

SEA Analysis Table	PACKAGE 1 – Gunnels Wood and Town Centre		
		and what anti flooding measures are put in place. The scheme is not near a potential flood area.	
To reduce greenhouse gases including carbon dioxide, emitted by vehicular transport	P+	Walking and cycling do not produce any greenhouse gases. The schemes may encourage modal shift towards cycling and the train which will reduce greenhouse gases emitted by carbon based transport. However a bus interchange may cause more greenhouse gasses as there could be buses waiting with their engine on while they pick up passengers.	Encourage the use of walking and cycle as a mode of transport and ensure that measures are in place to limit the amount of greenhouse gases produced by buses when waiting at the interchange.
To ensure the sustainable supply and use of energy	P+	Walking and cycling do not require any unsustainable energy. Buses on the route may include ways of operating under sustainable energy	Encourage walking and cycling and encourage the use of alternative energy to power forms of public transport.

SEA Analysis Table	PACKAGE 1 – Gunnels Wood and Town Centre		
SEA Topic - Historic Environment and Landscape			
To protect and enhance the character of landscape, townscape and green spaces	U	The schemes seek to encourage walking and cycling in the public domain which will enhance the townscape of Stevenage. Local air quality and tranquillity will also be improved. There are no listed buildings within the immediate area of any construction.	Consideration should be given to how new infrastructure such as a new interchange can affect the landscape.
To conserve and enhance the historic environment, heritage assets and their settings	U	Cultural Heritage and historic assets might be at risk if implementation on Lytton way is expanded. However it is unclear until detailed plans are made to what the effect will be on Historic assets if any.	Consideration should be given to how the use of bikes can improve the environment around historic assets.
SEA Topic - Social inclusiveness			
To tackle the causes of poverty and social exclusion by improving access to services and community facilities for all	P+	The schemes aim to improve walking and cycling accessibility as well as improved public transport links and capacity. All the	There should be consideration of opening places for bicycles to be recycled so that those that cannot afford a bicycle still have access to them.

SEA Analysis Table	PACKAGE 1 – Gunnels Wood and Town Centre		
		schemes make services and community facilities accessible to those who cannot afford a car through the use of active travel and public transport.	
To empower all sections of the community to participate in decision making and local action	O	Improved cycling and public transport facilities may enable those who do not have access to a car to have access to key locations for local action.	
SEA Topic - Economic development			
To maintain employment, improve economic competitiveness (consistent with environmental constraints) and create a vibrant economy	P+	All the schemes will help improve access to employment opportunities. These include new sustainable transport links such as the north south bus corridor and the bus and rail interchange. These give employees increased transport options when travelling to employment areas.	To work with employers to encourage employees to walk/cycle or use public transport to place of employment.

SEA Analysis Table	PACKAGE 1 – Gunnels Wood and Town Centre		
To spread economic growth more evenly to benefit deprived areas	P+	All of the schemes will help to improve access to employment opportunities in Stevenage and from the train station further afield.	
To maintain the vitality and viability of existing centres	P+	The increase sustainable transport infrastructure will enable more people to access employment and services. The push towards cycling and walking within the town centre will increase the feel of the town and create a more pleasant environment.	Encourage small scale retail developments in any new housing developments.

Significant Positive Effects:
The schemes in package 1 should encourage mode shift and therefore there could be significant health benefits as a result of active travel modes (walking and cycling). This package should also significantly improve the choice of sustainable modes of travel in these areas of Stevenage.

Significant Negative Effects:
There are no significant negative impacts identified from the assessment of Package 1.

Timescale (i.e. short, medium, long term):

- Timescales are not currently known.

Likelihood of effects or impacts identified occurring:

- Medium likelihood.

Permanent or Temporary impacts:

Permanent

- Improved journey time reliability on buses
- Improvement in air quality
- Increased frequency of trains to Stevenage Train Station

Temporary

Unknown

- The impacts on crime
- At this stage it is not known what resources will be used in the construction of the railway station
- The effects of energy usage are unclear.

Recommendation for mitigation for adverse effects and/or enhancement or positive effects:

- Work with employers to encourage the use trains and buses to work.
- Promote walking and cycling infrastructure alongside bus priority lanes.
- Consider clear signage to reduce conflicts between road users between the train station and the town centre.
- Ensure cycle hire and cycling parking schemes are secure at the train station.
- Where possible any materials used in construction should be recycled and renewable products.
- Use LED lighting where possible to minimise light pollution.
- Install facilities for vehicles that use less or no fossil fuels.
- Any energy used (e.g. digital display boards) should be renewable.
- Encourage bus companies to invest in electric/low emission buses
- Invest in electric charging points for buses.

Data Issues:

- Monitoring usage of the train station and bus service

APPENDIX 3 - APPRAISAL MATRIX: Package 2 – North and West Stevenage

SEA Analysis Table	**Package 2 – North and West Stevenage**		
SEA Objective	**Assessment of Effect** ✓ Positive impact P+ Potentially positive impact O No relationship/ link U Uncertain/ Depends on implementation P- Potentially negative impact X Negative impact	**Justification:** • **Likelihood of effect occurring** • **Permanence of effect** • **Geographic scale of effect** • **Cumulative effects** • **Current env. Social & economic trends of affected area** • **Likelihood of affecting particularly sensitive locations**	**Recommendations (including mitigating negative effects and improving positive effects)**
SEA Topic – Biodiversity, fauna and flora			
To protect and enhance biodiversity	P-	These two schemes have a potential to harm the local biodiversity North and West of Stevenage as infrastructure will have to be put in place in order to facilitate the bus and cycle connections to the North and West developments of Stevenage. None of the sites would be in an SSSI.	Encourage tree planting in any new scheme. Ensure that if any construction is taking place the least amount of disruption to the natural environment occurs. A light touch Environmental Impact Assessment may need to be developed and implemented on this scheme to ensure the least amount of damage happens to the natural environment.

SEA Topic - Population and human health			
To maximise the opportunities for leisure and a healthy lifestyle for all, and to improve the physical and mental health of the population, and reduce health inequalities	P+	The cycle route connecting Stevenage to new developments encourage the use of bikes as a mode of transport into Stevenage. Along with a bus route the cycle route also allows easy access to leisure and health facilities without the need for a private motor vehicle. These may encourage a modal shift away from the car when completing trips into Stevenage.	Promote the use of sustainable travel and cycling/ walking as a form of exercise and travel.
To reduce crime and create safe environments	U	It would depend on the implementation of the schemes and what measures are put in place to ensure there is safe travel along the bus and cycle routes to the new developments.	Consider clear signage to reduce conflicts between road users. Ensure there are measures in place to help reduce crime. E.g. CCTV, Secure cycle parking, good lighting. Any new bus services should consider the Hertfordshire Hate Crime Strategy and be consistent with the LTP4 Policy 18 Transport Safety & Security. Bikeability training.

SEA Topic - Water and soil			
To improve the sustainable use of resources	U	At this stage it is not known what resources will be used in the construction of the cycle and bus links to the new developments around Stevenage.	Where possible any materials used in the construction should be recycled and renewable products.
To move away from waste disposal to minimisation, reuse, recycling and recovery	P-	The cycle route if off carriageway may produce a lot of waste from construction if surfaced. The bus route may use existing road infrastructure.	Where possible any material used in construction should be recycled and renewable products. The Waste hierarchy should be applied.
To ensure the efficient use of water, and safeguard water resources	P-	The potential construction of cycle connections to new developments around Stevenage may cause local water source contamination from construction materials. This could affect the local ecology.	Promote SuDS and ensure local water sources are not contaminated with foreign bodies from construction materials.
To reduce contamination, and safeguard soil quality and quantity	P-	The construction of a potentially linking off carriageway cycle way would cause soil to be moved and the top layer to be damaged. The site would also be on a greenfield site as it is	Prevent soil removal where possible in the construction of the new cycle and bus links to new developments.

		linking a completely new development to Steven-age.	
SEA Topic - Air			
To protect and enhance air quality and minimise noise pollution	P+	The proposed schemes seek to facilitate modal shift to cycling and public transport instead of the private car. The bus route would create more noise pollution but if measures are in place to ensure the use of sus-tainable energy then it could help enhance air quality.	On the cycle route use LED lighting where possible to help reduce light pollution. Ensure that measures are in place to ensure buses use sustainable energy to power them.
To improve the choice of sustainable transport modes, encourage their use, and reduce the need to travel by car	✓	Both schemes encour-age the use of sustaina-ble transport where that be cycling or public transport.	Ensure that the buses on the bus route use sustaina-ble energy as a way to power them. Promote cy-cling as a mode of transport into Stevenage from the outside developments.
SEA Topic - Climatic factors			
To adapt to the impacts of climate change such as flooding	U	Cycling has no impacts on climate change. It is not yet know the route or implementation the link-ing cycle and bus routes and as such it is not known what affect they	Ensure that measures are in place to reduce the risk of flooding and to help de-crease the effect of climate change not increase it.

		will have on flooding such as runoff.	
To reduce greenhouse gases including carbon dioxide, emitted by vehicular transport	P+	Cycling does not produce greenhouse gases and by including a cycling route it actively encourage the move away from fossil fuel transport.	Recommend that buses use sustainable energy as a way of power to ensure it does not increase C02 emissions.
To ensure the sustainable supply and use of energy	P+	Cycling does not use any unsustainable energy and the scheme may help modal shift away from the private car and thus unsustainable energy. Buses would have to use sustainable also.	Encourage cycling as a means of alternative sustainable travel. Encourage the use of renewable energy buses on the new routes into Stevenage.
SEA Topic - Historic Environment and Landscape			
To protect and enhance the character of landscape, townscape and green spaces	U	It would be dependent on what implementation occurs to how much this would affect the local area and the feel within it.	Consideration should be given to how new cycle and bus routes can affect the local landscape.
To conserve and enhance the historic environment, heritage assets and their settings	U	The routes for the new cycle and bus routes have not yet been planned and as such it is	Ensure that any work completed is only to enhance the historic environment and

		not yet known how they can affect the local historic environment.	not damage the surrounding area.
SEA Topic - Social inclusiveness			
To tackle the causes of poverty and social exclusion by improving access to services and community facilities for all	P+	Both the cycle and Bus routes to the new developments allow affordable access to Stevenage without the need for a private car. They also provide access to essential service in Stevenage such as the Hospital.	There should be a consideration of opening place for bicycles to be recycled so that those who cannot afford bicycles can have access to one.
To empower all sections of the community to participate in decision making and local action	O	Improving Cycling and bus routes may enable those to have better access to location for local actions.	
SEA Topic - Economic development			
To maintain employment, improve economic competitiveness (consistent with environmental constraints) and create a vibrant economy	P+	Creating sustainable transport links either cycling or Bus links enable people to access place of work or services without the need for a car.	Encourage the use of public transport and cycling/walking when commuting to places of work.

To spread economic growth more evenly to benefit deprived areas	P+	The schemes will help to improve access to employment opportunities in Stevenage.	Encourage businesses to provide cycle parking and sustainable modes to get into work.
To maintain the vitality and viability of existing centres	P+	The new cycle and bus routes create a sustainable route for new development residents to reach Stevenage town centre.	Encourage small scale retail developments In any new housing development sites.

Significant Positive Effects:

Encouragement to use sustainable modes of transport.

Significant Negative Effects:

There are no significant negative impacts identified through the assessments.

Timescale (i.e. short, medium, long term):

- Timescales are not currently known.

Likelihood of effects or impacts identified occurring:

- Medium likelihood.

Permanent or Temporary impacts:

<u>Permanent</u>

- Improved journey time reliability on buses
- Improvement in air quality

Temporary

Unknown

- The impacts on crime
- At this stage it is not known what resources will be used in the construction of the cycle and bus route
- The effects of energy usage are unclear.

Recommendation for mitigation for adverse effects and/or enhancement or positive effects:

- Work with employers to encourage the use of Cycling and buses to work.
- Promote walking and cycling infrastructure alongside bus priority lanes.
- Consider clear signage to reduce conflicts between road users between the train station and the town centre.
- Ensure cycle hire and cycling parking schemes are secure at the train station.
- Where possible any materials used in construction should be recycled and renewable products.
- Use LED lighting where possible to minimise light pollution.
- Install facilities for vehicles that use less or no fossil fuels.
- Any energy used (e.g. digital display boards) should be renewable.
- Encourage bus companies to invest in electric/low emission buses
- Invest in electric charging points for buses.

Data Issues:

- Monitoring usage of the bus service

APPENDIX 3 - APPRAISAL MATRIX: Package 3 – East and SouthEast Stevenage

SEA Analysis Table	**Package 3 – East and SouthEast Stevenage**		
SEA Objective	**Assessment of Effect** ✓ Positive impact P+ Potentially positive impact O No relationship/ link U Uncertain/ Depends on implementation P- Potentially negative impact X Negative impact	**Justification:** • **Likelihood of effect occurring** • **Permanence of effect** • **Geographic scale of effect** • **Cumulative effects** • **Current env. Social & economic trends of affected area** • **Likelihood of affecting particularly sensitive locations**	**Recommendations (including mitigating negative effects and improving positive effects)**
SEA Topic – Biodiversity, fauna and flora			
To protect and enhance biodiversity	P-	These two schemes have a potential to harm the local biodiversity East and Southeast of Stevenage as infrastructure will have to be put in place in order to facilitate the bus and cycle connections to the South and Southeast developments of Stevenage. None of the sites would be in an SSSI However the developments are near a Key biodiversity	Encourage tree planting in any new scheme. Ensure that if any construction is taking place the least amount of disruption to the natural environment occurs. A light touch Environmental Impact Assessment may need to be developed and implemented on this scheme to ensure the least amount of damage happens to the natural environment.

SEA Analysis Table	Package 3 – East and SouthEast Stevenage		
		area east of Stevenage (woodlands and meadows) and are near the Ridlins Mire Nature reserve.	
SEA Topic - Population and human health			
To maximise the opportunities for leisure and a healthy lifestyle for all, and to improve the physical and mental health of the population, and reduce health inequalities	P+	The cycle route connecting Stevenage to new developments encourage the use of bikes as a mode of transport into Stevenage. Along with a bus route the cycle route also allows easy access to leisure and health facilities without the need for a private motor vehicle. These may encourage a modal shift away from the car when completing trips into Stevenage.	Promote the use of sustainable travel and cycling/ walking as a form of exercise and travel.

To reduce crime and create safe environments	U	It would depend on the implementation of the schemes and what measures are put in place to ensure there is safe travel along the bus and cycle routes to the new developments.	Consider clear signage to reduce conflicts between road users. Ensure there are measures in place to help reduce crime. E.g. CCTV, Secure cycle parking, good lighting. Any new bus services should consider the Hertfordshire Hate Crime Strategy and be consistent with the LTP4 Policy 18 Transport Safety & Security. Bikeability training.
SEA Topic - Water and soil			
To improve the sustainable use of resources	U	At this stage it is not known what resources will be used in the construction of the cycle and bus links to the new developments around Stevenage.	Where possible any materials used in the construction should be recycled and renewable products.
To move away from waste disposal to minimisation, reuse, recycling and recovery	P-	The cycle route if off carriageway may produce a lot of waste from construction if surfaced. The bus route may use existing road infrastructure.	Where possible any material used in construction should be recycled and renewable products. The Waste hierarchy should be applied.

To ensure the efficient use of water, and safeguard water resources	P-	The potential construction of cycle connections to new developments on the outskirts of eastern and south-east Stevenage may cause local water source contamination from additional surface runoff. However without exact development plans the exact impact on the local River Beane and Aston End Brook is unknown.	Promote SuDS and ensure local water sources are not contaminated with foreign bodies from construction materials.
To reduce contamination, and safeguard soil quality and quantity	P-	The construction of a potentially linking off carriageway cycle way would cause soil to be moved and the top layer to be damaged. The site would also be on a greenfield site as it is linking a completely new development to Stevenage.	Prevent soil removal where possible in the construction of the new cycle and bus links to new developments.

SEA Topic - Air			
To protect and enhance air quality and minimise noise pollution	P+	The proposed schemes seek to facilitate modal shift to cycling and public transport instead of the private car. The bus route would create more noise pollution but if measures are in place to ensure the use of sustainable energy then it could help enhance air quality.	On the cycle route use LED lighting where possible to help reduce light pollution. Ensure that measures are in place to ensure buses use sustainable energy to power them.
To improve the choice of sustainable transport modes, encourage their use, and reduce the need to travel by car	✓	Both schemes encourage the use of sustainable transport where that be cycling or public transport.	Ensure that the buses on the bus route use sustainable energy as a way to power them. Promote cycling as a mode of transport into Stevenage from the outside developments.
SEA Topic - Climatic factors			
To adapt to the impacts of climate change such as flooding	U	Cycling has no impacts on climate change. It is not yet know the route or implementation the linking cycle and bus routes and as such it is not known what affect they will have on flooding such as runoff.	Ensure that measures are in place to reduce the risk of flooding and to help decrease the effect of climate change not increase it.

To reduce greenhouse gases including carbon dioxide, emitted by vehicular transport	P+	Cycling does not produce greenhouse gases and by including a cycling route it actively encourage the move away from fossil fuel transport.	Recommend that buses use sustainable energy as a way of power to ensure it does not increase C02 emissions.
To ensure the sustainable supply and use of energy	P+	Cycling does not use any unsustainable energy and the scheme may help modal shift away from the private car and thus unsustainable energy. Buses would have to use sustainable energy sources also.	Encourage cycling as a means of alternative sustainable travel. Encourage the use of renewable energy buses on the new routes into Stevenage.
SEA Topic - Historic Environment and Landscape			
To protect and enhance the character of landscape, townscape and green spaces	U	It would dependant on what implementation occurs to how much this would affect the local area and the feel within it.	Consideration should be given to how new cycle and bus routes can affect the local landscape.
To conserve and enhance the historic environment, heritage assets and their settings	U	The routes for the new cycle and bus routes have not yet been planned and as such it is not yet know how they can affect the local historic environment.	Ensure that any work completed is only to enhance the historic environment and not damage the surrounding area.

SEA Topic - Social inclusiveness			
To tackle the causes of poverty and social exclusion by improving access to services and community facilities for all	P+	Both the cycle and Bus routes to the new developments allow affordable access to Stevenage without the need for a private car. They also provide access to essential service in Stevenage such as the Hospital.	There should be a consideration of opening place for bicycles to be recycled so that those who cannot afford bicycles can have access to one.
To empower all sections of the community to participate in decision making and local action	O	Improving Cycling and bus routes may enable those to have better access to location for local actions.	
SEA Topic - Economic development			
To maintain employment, improve economic competitiveness (consistent with environmental constraints) and create a vibrant economy	P+	Creating sustainable transport links either cycling or Bus links enable people to access place of work or services without the need for a car.	Encourage the use of public transport and cycling/walking when commuting to places of work.
To spread economic growth more evenly to benefit deprived areas	P+	The schemes will help to improve access to employment opportunities in Stevenage.	Encourage businesses to provide cycle parking and sustainable modes to get into work.
To maintain the vitality and viability of existing centres	P+	The new cycle and bus routes create a sustainable route for new development residents to reach Stevenage town centre.	Encourage small scale retail developments In any new housing development sites.

Significant Positive Effects:

- Encouragement to use sustainable modes of transport.

Significant Negative Effects:

There are no significant negative impacts identified as a result of the assesments.

Timescale (i.e. short, medium, long term):

- Timescales are not currently known.

Likelihood of effects or impacts identified occurring:

- Medium likelihood.

Permanent or Temporary impacts:

Permanent

- Improved journey time reliability on buses
- Improvement in air quality

Temporary

Unknown

- The impacts on crime
- At this stage it is not known what resources will be used in the construction of the cycle and bus route
- The effects of energy usage are unclear.

Recommendation for mitigation for adverse effects and/or enhancement or positive effects:

- Work with employers to encourage the use of Cycling and buses to work.
- Promote walking and cycling infrastructure alongside bus priority lanes.
- Consider clear signage to reduce conflicts between road users between the train station and the town centre.
- Ensure cycle hire and cycling parking schemes are secure at the train station.
- Where possible any materials used in construction should be recycled and renewable products.

- Use LED lighting where possible to minimise light pollution.
- Install facilities for vehicles that use less or no fossil fuels.
- Any energy used (e.g. digital display boards) should be renewable.
- Encourage bus companies to invest in electric/low emission buses
- Invest in electric charging points for buses.

Data Issues:

- Monitoring usage of the bus service

APPENDIX 3 - APPRAISAL MATRIX: Package 4 - Stevenage – Welwyn Garden City

SEA Analysis Table	**Package 4 - Stevenage – Welwyn Garden City**		
SEA Objective	**Assessment of Effect** ✓ Positive impact P+ Potentially positive impact O No relationship/ link U Uncertain/ Depends on implementation P- Potentially negative impact X Negative impact	**Justification:** • **Likelihood of effect occurring** • **Permanence of effect** • **Geographic scale of effect** • **Cumulative effects** • **Current env. Social & economic trends of affected area** • **Likelihood of affecting particularly sensitive locations**	**Recommendations (including mitigating negative effects and improving positive effects)**
SEA Topic – Biodiversity, fauna and flora			
To protect and enhance biodiversity	P-	The schemes seek to encourage modal shift to sustainable forms of transport. This modal shift would have positive impacts on flora and fauna. These schemes are not in any key biodiversity areas or SSSI's. Care needs to be taken when building the Knebworth development that it does not disadvantage the Lower Mimram key biodiversity area.	Encourage tree planting and green spaces into the new development in Knebworth. Encourage cycling and public transport and then promote the associated improvements.

SEA Analysis Table	Package 4 - Stevenage – Welwyn Garden City		
SEA Topic - Population and human health			
To maximise the opportunities for leisure and a healthy lifestyle for all, and to improve the physical and mental health of the population, and reduce health inequalities	P+	The cycling schemes seek to create a cycling route between Stevenage and Welwyn. This will encourage modal shift and enable residents to obtain the health benefits of active travel. Upgrading the bus service and improving journey time reliability will give more people access to leisure facilities.	Promote cycling as a form of exercise for everyone. Support development of sports facilities in the new development in Knebworth. Promote improvements to the bus service.
To reduce crime and create safe environments	U	More people walking and cycling in public places leads to safer environments and a feeling of personal security. Would depend on what measures are in place to reduce crime on the cycle routes (Good lighting)	Promote cycle training to help cyclists ride safely. Make sure all cycle routes are well lit. Make sure buses run late.

SEA Analysis Table	Package 4 - Stevenage – Welwyn Garden City		
SEA Topic - Water and soil			
To improve the sustainable use of resources	U	At this stage it is not known what resources will be used in the construction of the new cycle ways. There may be a reduced need for road resurfacing in the future as a result of the schemes. However this is dependent on the levels of modal shift. The new development should incorporate sustainable construction material.	Any materials used in construction should be recycled and renewable products. Mineral supplies need to be protected.
To move away from waste disposal to minimisation, reuse, recycling and recovery	U		Sustainable construction practices should be implemented into the new development. Recycling facilities should also be implemented into the new development.
To ensure the efficient use of water, and safeguard water resources	U	Increased cycling offers the potential to reduce roadway runoff including chemicals from tyres and road salt entering water courses if there is a high level of modal shift.	Encourage cycling and the associated benefits. The new development should be designed so that water is efficiently used and to promote the use of sustainable urban drainage systems.

SEA Analysis Table	Package 4 - Stevenage – Welwyn Garden City		
To reduce contamination, and safeguard soil quality and quantity	P-	Increased cycling offers the potential to reduce roadway runoff including chemicals from tyres and road salt entering soil in the long term. However in the short term the construction of these cycle routes may result in the removal and damage of soil. The new development will result in the removal of soil.	Prevent soil removal where possible in the construction of new Cycle ways. The new development should try to be a less destructive to soils as possible.
SEA Topic - Air			
To protect and enhance air quality and minimise noise pollution	P+	The proposed schemes seek to facilitate modal shift to cycling which would have air quality benefits. Any new development will have an impact on air quality negatively.	Use LED lighting where possible to minimise light pollution. A good public transport system needs to be planned into the new development to deter people from using the car. Encourage cycling and the use of the public transport systems. All buses should be low emission/electric.

SEA Analysis Table	Package 4 - Stevenage – Welwyn Garden City		
To improve the choice of sustainable transport modes, encourage their use, and reduce the need to travel by car	√	The schemes seek to increase the choice of sustainable transport modes available which will help encourage modal shift.	To promote cycle way enhancements and associated benefits of cycling. Ask developers to produce green travel plans for the new development. Seek develop contributions to public transport provision.
SEA Topic - Climatic factors			
To adapt to the impacts of climate change such as flooding	P+	Cycling has no negative impacts on the causes of climate change. The new development does not feature on the historic flood MAP.	Apply flood risk management to the new developments. Encourage cycling. Use SUDS in the new development. Install facilities for vehicles that use less or no fossil fuels. Encourage busses to be low emission/electric.
To reduce greenhouse gases including carbon dioxide, emitted by vehicular transport	P+	Cycling does not produce any greenhouse gases. The schemes may encourage modal shift to walking, cycling or public transport reducing greenhouse gases emitted by vehicular transport.	Encourage public transport. Encourage cycling and promote the associated improvements. Encourage busses to be low emission/electric.

SEA Analysis Table	Package 4 - Stevenage – Welwyn Garden City		
To ensure the sustainable supply and use of energy	P+	Cycling does not use any unsustainable energy and the schemes may help facilitate modal shift reducing greenhouse gas emissions.	Encourage cycling and promote the associated improvements. The new development should apply the energy hierarchy in it building design. Facilities should be developed to support vehicles that use less or no fossil fuels.
SEA Topic - Historic Environment and Landscape			
To protect and enhance the character of landscape, townscape and green spaces	P+	The listed buildings would be kept intact as the cycle routes are not directly running past or through any listed buildings.	Consult the map of listed buildings. Incorporate green spaces into new development.
To conserve and enhance the historic environment, heritage assets and their settings	P+	More cycling routes will enable people to get involved in leisure activities locally. Improved journey reliability on the bus network will encourage more people to visit local heritage sites.	Consult the map of listed buildings and monuments.

SEA Analysis Table	Package 4 - Stevenage – Welwyn Garden City		
SEA Topic - Social inclusiveness			
To tackle the causes of poverty and social exclusion by improving access to services and community facilities for all	P+	The schemes aim to improve cycling infrastructure. Improving this infrastructure will improve access to services. A good public transport system in the new development will improve access to services.	There should be consideration of opening places for bicycles to be recycled so that those that cannot afford bicycles can still have access. Promote cycle training to help cyclists ride safely.
To empower all sections of the community to participate in decision making and local action	P+	Improved cycling infrastructure may enable those who are more able to ride bicycles than run cars to better access key locations for local action. A good public transport system in the new development will also mean people have better access to enable them to be involved in local action. It will empower people to make a healthy choice on the way they travel.	There should be consideration of opening places for bicycles to be recycled so that those that cannot afford bicycles can still have access. Promote cycle training to help cyclists ride safely.

SEA Analysis Table	Package 4 - Stevenage – Welwyn Garden City		
SEA Topic - Economic development			
To maintain employment, improve economic competitiveness (consistent with environmental constraints) and create a vibrant economy	P+	These schemes help to improve access to employment opportunities by improving the cycle infrastructure that may encourage people to cycle to work instead of driving. Also, a good public transport system in the new development will also help maintain access to employment areas.	To work with employers to encourage employees to cycle or use public transport to places of employment.
To spread economic growth more evenly to benefit deprived areas	P+	These schemes seek to improve access to employment opportunities through a more reliable public transport system and more cycle routes. A cycle route may make the area more appealing which could entice small businesses to move into the area.	Encourage development to recycle income and wealth within the local community.

SEA Analysis Table	Package 4 - Stevenage – Welwyn Garden City		
To maintain the vitality and viability of existing centres	P+	With any potential increases in employment there will be more spending power in existing centres leading to improved vitality and viability.	Encourage the new development to be mixed use. A small scale retail development should be looked into so that needs of the local population are met.

Significant Positive Effects:
There are no significant positive impacts identified as a result of the assessments.

Significant Negative Effects:
There are no significant negative impacts identified as a result of the assessments.

Timescale (i.e. short, medium, long term):
- Timescales are not currently known.

Likelihood of effects or impacts identified occurring:
- Medium likelihood.

Permanent or Temporary impacts:
Permanent
- Improvement in air quality
- Greater access to services and places of employment with a good public transport system in the new development.
- Greater access to the Broadwater train station from Knebworth.

Temporary
-

Unknown
The nature of the following impacts is uncertain because they are dependent on modal shift. The success of the schemes to encourage modal shift is currently unknown:

- Reduced impact on biodiversity.
- Improved air quality and reductions in noise pollution.
- Reduced greenhouse gas emissions from vehicular transport.
- Enhanced townscape and tranquillity.
- Modal shift and associated benefits for the surrounding environment.
- Enhanced local economy.
- Perpetuation of car use and associated environmental and economic impacts.
- Impacts on listed buildings.
- Whether the public transport system will be well used in the new development.

Recommendation for mitigation for adverse effects and/or enhancement or positive effects:

- Encourage Cycling and promote the associated improvements.
- Where possible new roads should utilise recycled materials and minimise the destruction of green spaces.
- Promote walking and cycling as a form of exercise for everyone.
- Consider clear signage to reduce conflicts between road users.
- Promote cycle training to help cyclists ride safely.
- Where possible any materials used in construction should be recycled and renewable products.
- Prevent soil removal where possible in the construction of new cycle ways.
- Use LED lighting where possible to minimise light pollution.
- There should be consideration of opening places for bicycles to be recycled so that those that cannot afford bicycles can still have access.
- To work with employers to encourage employees to cycle to places of employment.
- Encourage tree planting in any new scheme.
- Encourage the use of the public transport system in the new development.
- Developer contributions towards bus vouchers for new residents of the new development to encourage usage of public transport.
- Sustainable construction practices should be implemented into the new development
- Facilities should be developed to support vehicles that use less or no fossil fuels.
- Recycling facilities should be implemented into the new development
- A small scale retail development should be looked into so that needs of the local population are met
- Promote the upgrades to the bus service and the potential journey savings.

Data Issues:

- Monitoring modal shift in the area.
- Usage of the new train station.

APPENDIX 3 - APPRAISAL MATRIX: Package 5 - Stevenage – Hitchin, Luton and Luton Airport

SEA Analysis Table	**Package 5 - Stevenage – Hitchin, Luton and Luton Airport**		
SEA Objective	**Assessment of Effect** ✓ Positive impact P+ Potentially positive impact O No relationship/ link U Uncertain/ Depends on implementation P- Potentially negative impact X Negative impact	**Justification:** • **Likelihood of effect occurring** • **Permanence of effect** • **Geographic scale of effect** • **Cumulative effects** • **Current env. Social & economic trends of affected area** • **Likelihood of affecting particularly sensitive locations**	**Recommendations (including mitigating negative effects and improving positive effects)**
SEA Topic – Biodiversity, fauna and flora			
To protect and enhance biodiversity	P-	The cycle route and bus priority schemes seek to encourage modal shift to sustainable forms of transport. These schemes are not in any key biodiversity areas or SSSI's. The A1(M) J8 Capacity scheme may encourage more people to drive their own vehicles instead of public transport.	Encourage tree planting along the cycling route. Encourage cycling and public transport and then promote the associated improvements.

SEA Analysis Table	Package 5 - Stevenage – Hitchin, Luton and Luton Airport		
SEA Topic - Population and human health			
To maximise the opportunities for leisure and a healthy lifestyle for all, and to improve the physical and mental health of the population, and reduce health inequalities	P+	The cycling scheme seeks to create a cycling route between Stevenage and Hitchin. This will encourage modal shift and enable residents to obtain the health benefits of active travel. Supporting existing services, providing bus priority and capacity measures will reduce journey times and will improve access to leisure facilities, open space and the arts. Expanding road networks may cause more cars on the road and thus more air pollutants affecting health.	Promote cycling as a form of exercise for everyone. Promote bus priority measures and the associated benefits.
To reduce crime and create safe environments	P-/U	More people walking and cycling in public places can lead to safer environments and a feeling of personal security. Bus priority measures will help ensure a reliable service which may create a greater sense of	Promote cycle training to help cyclists ride safely. Make sure all cycle routes are well lit. Make sure buses run late. For any bus service improvements consideration of the Hertfordshire Hate Crime Strategy, and LTP4

SEA Analysis Table	Package 5 - Stevenage – Hitchin, Luton and Luton Airport		
		security as users know buses will arrive on time, but security on the buses must also be considered i.e. Hate Crime. Capacity improvements for general traffic may increase accidents but this will depend on Implementation.	Policy 18 Transport Safety & Security.
SEA Topic - Water and soil			
To improve the sustainable use of resources	U	At this stage it is not known what resources will be used in the construction of the new cycle way and the A1(M) capacity improvements . There may be a reduced need for road resurfacing in the future as a result of the cycling scheme. However this is dependent on the levels of modal shift.	Any materials used in construction should be recycled and renewable products. Mineral supplies need to be protected.
To move away from waste disposal to minimisation, reuse, recycling and recovery	U	At this stage it is not known what construction waste will be used in the construction of the new cycle way and the A1(M) capacity improvements.	Sustainable construction practices should be implemented into the new cycleway and road widening schemes.

SEA Analysis Table	Package 5 - Stevenage – Hitchin, Luton and Luton Airport		
To ensure the efficient use of water, and safeguard water resources	U	Increased cycling offers the potential to reduce roadway runoff including chemicals from tyres and road salt entering water courses if there is a high level of modal shift. However, the road widening for general traffic could encourage more to travel by car which could increase roadway runoff including chemicals from tyres.	Encourage cycling and the associated benefits. Promote the use of sustainable urban drainage systems.
To reduce contamination, and safeguard soil quality and quantity	U	Increased cycling offers the potential to reduce roadway runoff including chemicals from tyres and road salt entering soil in the long term. However in the short term the construction of these cycle routes may result in the removal and damage of soil. If road widening is required for the A1(M) capacity improvements this will result in the removal of soil.	Prevent soil removal where possible in the construction of new Cycle ways and road widening.

SEA Analysis Table	Package 5 - Stevenage – Hitchin, Luton and Luton Airport		
SEA Topic – Air			
To protect and enhance air quality and minimise noise pollution	P-/U	Some of the proposed schemes seek to facilitate modal shift to cycling and public transport which would have air quality benefits. However, road capacity improvements on the A1(M) J8 could result in a worsening of air quality in the long term. A new signalised junction will increase the number of idling cars at the junction which could result negatively on air quality. For the bus service improvements, there could be air quality benefits as long as buses on these routes are electric/low emission.	Use LED lighting where possible to minimise light pollution. Encourage cycling and the use of the public transport systems. All buses should be low emission/electric.
To improve the choice of sustainable transport modes, encourage their use, and reduce the need to travel by car	P-	The schemes seek to increase the choice of sustainable transport modes available which will help encourage modal shift i.e. cycle routes, bus pri-	To promote cycle way enhancements and associated benefits of cycling.

SEA Analysis Table	Package 5 - Stevenage – Hitchin, Luton and Luton Airport		
		ority, and bus service improvements to Luton. However, the capacity improvements for general traffic will not discourage car drivers. By improving journey times for buses this may help encourage more to travel by bus.	
SEA Topic - Climatic factors			
To adapt to the impacts of climate change such as flooding	U	This will be dependent on the scheme designs for the new cycling infrastructure and the A1(M) J8 capacity improvements, and how the design will take into account extreme weather conditions such as flooding. There are flood areas around the proposed schemes so these need to be accounted for when designing any drainage.	Encourage cycling. Install facilities for vehicles that use less or no fossil fuels. Encourage buses to be low emission/electric.

SEA Analysis Table	Package 5 - Stevenage – Hitchin, Luton and Luton Airport		
To reduce greenhouse gases including carbon dioxide, emitted by vehicular transport	X	Any reduction in greenhouse gas emissions will only occur if the level of modal shift is high and buses are electric/low emission. The A1(M) J8 capacity improvements for general traffic will result negatively for greenhouse gas emissions produced.	Encourage public transport. Encourage cycling and promote the associated improvements. Encourage busses to be low emission/electric.
To ensure the sustainable supply and use of energy	P-	Cycling does not use any unsustainable energy sources. However, the A1(M) J8 capacity improvements for general traffic may encourage more vehicle traffic and so more use of fossil fuels.	Encourage cycling and promote the associated improvements. Facilities should be developed to support vehicles that use less or no fossil fuels.
SEA Topic - Historic Environment and Landscape			
To protect and enhance the character of landscape, townscape and green spaces	U	This is dependent on scheme design to determine the impact it will have on the townscape and local landscape.	Consult the map of listed buildings.

SEA Analysis Table	Package 5 - Stevenage – Hitchin, Luton and Luton Airport		
To conserve and enhance the historic environment, heritage assets and their settings	U	This will depend on scheme design and the exact location of any improvements, it is unlikely that there are historic assets in the immediate vicinity of the A1(M) J8.	Ensure there are good opportunities for people to visit historic sites.
SEA Topic - Social inclusiveness			
To tackle the causes of poverty and social exclusion by improving access to services and community facilities for all	P+	The schemes aim to improve cycling and bus infrastructure which would benefit those on lower incomes and improve access for all to services and facilities in Stevenage, Hitchin and Luton. A good public transport system in the new development will improve access to services. The schemes aim to improve bus services along with reliability improvements in the form of bus priority. This will help improve access to services for the young and elderly.	There should be consideration of opening places for bicycles to be recycled so that those that cannot afford bicycles can still have access. Promote cycle training to help cyclists ride safely. Promote the bus improvement measures.
To empower all sections of the community to participate in decision making and local action	O		

SEA Analysis Table	Package 5 - Stevenage – Hitchin, Luton and Luton Airport		
SEA Topic - Economic development			
To maintain employment, improve economic competitiveness (consistent with environmental constraints) and create a vibrant economy	P+	These schemes help to improve access to employment opportunities by improving the cycle infrastructure that may encourage people to cycle to work instead of driving, especially for journeys between Stevenage and Hitchin. Bus priority measures will improve journey time reliability which will encourage users to use public transport. Journey time improvements as a result of the A1(M) J8 capacity improvements will also benefit local businesses. Linking a reliable bus service from Stevenage to Luton Airport allows more access to international business opportunities.	To work with employers to encourage employees to cycle or use public transport to places of employment.

SEA Analysis Table	Package 5 - Stevenage – Hitchin, Luton and Luton Airport		
To spread economic growth more evenly to benefit deprived areas	P+	These schemes seek to improve access to employment opportunities through a more reliable public transport system and more cycle routes.	Encourage development to recycle income and wealth within the local community.
To maintain the vitality and viability of existing centres	P+	With any potential increases in employment there will be more spending power in existing centres leading to improved vitality and viability.	

Significant Positive Effects:

- There are no significant positive effects identified.

Significant Negative Effects:

- The A1(M) junction 8 capacity improvement scheme could result in significant negative impacts on greenhouse gas emissions if the scheme ends up facilitating car use.

Timescale (i.e. short, medium, long term):

- Timescales are not currently known.

Likelihood of effects or impacts identified occurring:

- Medium likelihood.

Permanent or Temporary impacts:

Permanent

- Improvement in air quality
- Improvements in bus journey time reliability due to bus priority measures.
- A safe cycling route created between Hitchin and Stevenage.

Temporary

- Building work at A1 (M) J8 will cause disruption to traffic.

Unknown

The nature of the following impacts is uncertain because they are dependent on modal shift. The success of the schemes to encourage modal shift is currently unknown:

- Reduced impact on biodiversity.
- Improved air quality and reductions in noise pollution.
- Reduced greenhouse gas emissions from vehicular transport.
- Enhanced townscape and tranquillity.
- Modal shift and associated benefits for the surrounding environment.
- Enhanced local economy.
- Perpetuation of car use and associated environmental and economic impacts.
- Impacts on listed buildings.
- Whether the public transport system will be well used.

Recommendation for mitigation for adverse effects and/or enhancement or positive effects:

- Encourage Cycling and promote the associated improvements.
- Where possible new roads should utilise recycled materials and minimise the destruction of green spaces.
- Promote walking and cycling as a form of exercise for everyone.
- Consider clear signage to reduce conflicts between road users.
- Promote cycle training to help cyclists ride safely.
- Where possible any materials used in construction should be recycled and renewable products.
- Prevent soil removal where possible in the construction of new cycle ways.
- Use LED lighting where possible to minimise light pollution.

- There should be consideration of opening places for bicycles to be recycled so that those that cannot afford bicycles can still have access.
- To work with employers to encourage employees to cycle to places of employment.
- Encourage tree planting in any new scheme.
- Encourage the use of the public transport system.
- Sustainable construction practices should be implemented into the schemes.
- Facilities should be developed to support vehicles that use less or no fossil fuels.
- Promote the bus priority measures and the associated benefits (journey time savings).

Data Issues:

- Monitoring modal shift in the area.

APPENDIX 3 - APPRAISAL MATRIX: Package 6 – Letchworth – Stevenage

SEA Analysis Table	**Package 6 – Letchworth – Stevenage**		
SEA Objective	**Assessment of Effect** ✓ Positive impact P+ Potentially positive impact O No relationship/ link U Uncertain/ Depends on implementation P- Potentially negative impact X Negative impact	**Justification:** • **Likelihood of effect occurring** • **Permanence of effect** • **Geographic scale of effect** • **Cumulative effects** • **Current env. Social & economic trends of affected area** • **Likelihood of affecting particularly sensitive locations**	**Recommendations (including mitigating negative effects and improving positive effects)**
SEA Topic – Biodiversity, fauna and flora			
To protect and enhance biodiversity	P-	SM82 is proposing improved surfacing along the cycle route, which could impact on local flora and fauna and habitats depending on whether or not there is hard surfacing already existing. Without detailed designs for SM85 the exact impact of a junction reconfiguration is unknown on the green space surrounding this junction	Encourage tree planting in any new scheme. Make sure when building next to a Key biodiversity site that the construction stays within the defined area and does not stray in other areas. A further full environmental impact assessment should be completed.

SEA Analysis Table	Package 6 – Letchworth – Stevenage		
		The schemes are not in an SSSI but are next to a key biodiversity site (Clothall/ Wallington/Weston – chalky boulder clay woods and meadows).	
SEA Topic - Population and human health			
To maximise the opportunities for leisure and a healthy lifestyle for all, and to improve the physical and mental health of the population, and reduce health inequalities	P+	One of the schemes seeks to improve cycle networks. This encourages modal shift and enables residents to obtain the health benefits of active travel.	Promote cycling as a form of exercise for everyone.
To reduce crime and create safe environments	P+	The cycle routes will be lit which discourages any crime and ensure cyclist feel safe while riding.	Promote cycle training to help cyclists ride safety. Make sure all cycle routes and parking areas are well lit.
SEA Topic - Water and soil			
To improve the sustainable use of resources	U	At this stage it is not known what resources will be used in the construction and in some schemes what construction will even occur. However, if recycled and sustainable construction material is used then this	Where possible any materials used in construction should be recycled and renewable products.

SEA Analysis Table	Package 6 – Letchworth – Stevenage		
		could potentially be a good impact. It also promotes modal shift away from the private car.	
To move away from waste disposal to minimisation, reuse, recycling and recovery	U	Without scheme designs it is difficult to evaluate the amount and type of construction waste that would be produced.	Promote sustainable construction methods.
To ensure the efficient use of water, and safeguard water resources	P-	Construction in some of the schemes could cause local water sources to be contaminated.	Encourage cycling and the associated benefits. Ensure local water sources are not contaminated by construction materials.
To reduce contamination, and safeguard soil quality and quantity	P-	The cycle lane surfacing improvements and the junction reconfiguration are surrounded by greenfield land and could cause removal and capping of the soil environment.	Ensure soil destruction and contamination in the area is kept to a minimum.
SEA Topic - Air			
To protect and enhance air quality and minimise noise pollution	P+	The proposed schemes include new lit cycle routes with improved surfacing and wayfinding. These would hopefully reduce car traffic and thus noise and also	Use LED lighting where possible to minimise light pollution.

SEA Analysis Table	Package 6 – Letchworth – Stevenage		
		reduce pollution cause by fossil fuel vehicles.	
To improve the choice of sustainable transport modes, encourage their use, and reduce the need to travel by car	√	The schemes seek to provide added cycle routes and associated infrastructure which will encourage modal shift.	Promote cycling as a sustainable mode of transport. Encourage a move away from the private motor car.
SEA Topic - Climatic factors			
To adapt to the impacts of climate change such as flooding	U	Without detailed scheme designs it is unclear at this stage how the schemes will include adaptation to climate change, i.e drainage design to deal with flooding. The schemes are not in major flooding areas.	Encourage a more away from modes of transport that are directly linked to climate change. Utilise SUDS
To reduce greenhouse gases including carbon dioxide, emitted by vehicular transport	P+	Cycling does not produce greenhouse gases. The new junction may increase greenhouse gases if it facilitates car use instead of modal shift to buses.	Encourage the use of cycling as a mode of transport.

SEA Analysis Table	Package 6 – Letchworth – Stevenage		
To ensure the sustainable supply and use of energy	P+	Cycling does not use any unsustainable energy and the schemes may help facilitate modal shift reducing greenhouse gas emissions.	Encourage the use of hybrid or electric buses instead of diesel ones.
SEA Topic - Historic Environment and Landscape			
To protect and enhance the character of landscape, townscape and green spaces	U	Unclear what the impacts would be without detailed scheme designs.	Consult the map of listed buildings.
To conserve and enhance the historic environment, heritage assets and their settings	U	Unclear what the impacts would be without detailed scheme designs.	Ensure that when the new junction is constructed that it preserves the environment around it and does not affect the appeal of the place.
SEA Topic - Social inclusiveness			
To tackle the causes of poverty and social exclusion by improving access to services and community facilities for all	P+	The schemes aim to improve pedestrian, cycling infrastructure. This improvement should improve access to services and facilities.	There should be consideration of opening places for bicycles to be recycled so that those that
To empower all sections of the community to participate in decision making and local action	P+	These schemes will aim to have public consultations in order to allow the community to have a say about what goes on	Increase opportunities to access HCC information by presenting and communicating in different ways.

SEA Analysis Table	Package 6 – Letchworth – Stevenage		
		within their area. The cycle scheme may help people of low income who cannot afford a car and thus must use another mode of transport.	
SEA Topic - Economic development			
To maintain employment, improve economic competitiveness (consistent with environmental constraints) and create a vibrant economy	P+	These schemes help to improve access to employment opportunities by improving bus services and cycle infrastructure that may encourage people to cycle to places of employment.	Encourage employees to cycle or use public transport to places of employment.
To spread economic growth more evenly to benefit deprived areas	P+	The schemes help to improve access to employment opportunities by providing sustainable transport networks that will improve the feel of the area and maybe encourage more investment into it.	Include deprived areas into local growth and improvements.
To maintain the vitality and viability of existing centres	P+	With good sustainable transport links planned it may encourage small businesses into the area.	

Significant Positive Effects:

- The schemes will improve the choice of sustainable transport modes, encourage their use, and reduce the need to travel by car.

Significant Negative Effects:

- There are no significant negative impacts identified as a result of the assessments.

Timescale (i.e. short, medium, long term):

- Timescales are not currently known.

Likelihood of effects or impacts identified occurring:

- Medium Likelihood

Permanent or Temporary impacts:

Permanent

- Improved air quality
- Buses will no longer have to do a U-turn

Unknown

The nature of the following impacts is uncertain because they are dependent on modal shift. The success of the schemes to encourage modal shift is currently unknown:

- Reduced impact on biodiversity.
- Improved air quality and reductions in noise pollution.
- Reduced greenhouse gas emissions from vehicular transport.
- Enhanced townscape and tranquillity.
- Modal shift and associated benefits for the surrounding environment.
- Enhanced local economy.

Recommendation for mitigation for adverse effects and/or enhancement or positive effects:

- Encourage Cycling and promote the associated improvements.
- Where possible new roads should utilise recycled materials and minimise the destruction of green spaces.

- Promote walking and cycling as a form of exercise for everyone.
- Consider clear signage to reduce conflicts between road users.
- Promote cycle training to help cyclists ride safely.
- Where possible any materials used in construction should be recycled and renewable products.
- Prevent soil removal where possible in the construction of new cycle ways.
- Use LED lighting where possible to minimise light pollution.
- There should be consideration of opening places for bicycles to be recycled so that those that cannot afford bicycles can still have access.
- To work with employers to encourage employees to cycle to places of employment.
- Encourage tree planting in any new scheme.

Data Issues:

- Monitoring modal shift in the area.

APPENDIX 3 - APPRAISAL MATRIX: Package 7 – Hitchin Centre (including rail station)

SEA Analysis Table	**Package 7 – Hitchin Centre (including rail station)**		
SEA Objective	**Assessment of Effect** ✓ Positive impact P+ Potentially positive impact O No relationship/ link U Uncertain/ Depends on implementation P- Potentially negative impact X Negative impact	**Justification:** • **Likelihood of effect occurring** • **Permanence of effect** • **Geographic scale of effect** • **Cumulative effects** • **Current env. Social & economic trends of affected area** • **Likelihood of affecting particularly sensitive locations**	**Recommendations (including mitigating negative effects and improving positive effects)**
SEA Topic – Biodiversity, fauna and flora			
To protect and enhance biodiversity	U	All schemes seek to encourage modal shift to sustainable forms of transport. This modal shift would have positive impacts on flora and fauna. These schemes are not in any key biodiversity areas or SSSI's. It is not until the schemes go into detail more that the effects on the biodiversity of the area will be apparent.	Encourage cycling and public transport and then promote the associated improvements.

SEA Analysis Table	Package 7 – Hitchin Centre (including rail station)		
SEA Topic - Population and human health			
To maximise the opportunities for leisure and a healthy lifestyle for all, and to improve the physical and mental health of the population, and reduce health inequalities	P+	All schemes seek to encourage modal shift. Increasing bus frequency will help improve access to leisure facilities	Promote walking and cycling as a form of exercise for everyone. Promote bus improvements including bus frequency increase.
To reduce crime and create safe environments	U	More people walking and cycling in public places leads to safer environments and a feeling of personal security. A new bus interchange, with good design will deter crime. However it depends on what measures are included to help deter crime e.g. well-lit cycle routes and station entrance. With more people using public transport there is a slight increased risk of more incidents of hate crime.	Promote cycle training to help cyclists ride safely. Make sure the walking and cycling routes are well lit. Make sure buses run late. The bus interchange must be designed in a way that reduces the opportunities for crime to occur. Ensure that any bus improvements are consistent with the Herts Hate crime strategy.

SEA Analysis Table	Package 7 – Hitchin Centre (including rail station)		
SEA Topic - Water and soil			
To improve the sustainable use of resources	P+/U	At this stage it is not known what resources will be used in the construction of the new cycle way. There may be a reduced need for road resurfacing in the future if there is a high level of modal shift. However this is dependent on the levels of modal shift.	Any materials used in construction should be recycled and renewable products. Mineral supplies need to be protected.
To move away from waste disposal to minimisation, reuse, recycling and recovery	U	These schemes could potentially have a positive impact if they promote sustainable construction practices and use recycled construction materials.	Sustainable construction practices should be implemented into the new cycleway and road widening schemes.
To ensure the efficient use of water, and safeguard water resources	U	Increased walking and cycling offers the potential to reduce roadway runoff including chemicals from tyres and road salt entering water courses if there is a high level of modal shift. Also, modal shift away from the car to a bus will also reduce the number of	Encourage walking and cycling and the associated benefits. Promote the use of sustainable urban drainage systems.

SEA Analysis Table	Package 7 – Hitchin Centre (including rail station)		
		vehicles on the road. The schemes are being built on existing infra-structure.	
To reduce contamination, and safeguard soil quality and quantity	U	Increased walking and cycling offers the poten-tial to reduce roadway runoff including chemi-cals from tyres and road salt entering soil in the long term. The schemes are being built on exist-ing infrastructure.	
SEA Topic - Air			
To protect and enhance air quality and minimise noise pollution	P+	The proposed schemes seek to facilitate modal shift to walking, cycling and public transport which would have air quality benefits.	Use LED lighting where possible to minimise light pollution. Encourage cycling and the use of the public transport systems. All buses should be low emis-sion/electric.
To improve the choice of sustainable transport modes, encourage their use, and reduce the need to travel by car	P+	The schemes seek to in-crease the choice of sus-tainable transport modes available which will help encourage modal shift.	To promote pedestrian, cy-cle way and public transport enhancements.

SEA Analysis Table	Package 7 – Hitchin Centre (including rail station)		
SEA Topic - Climatic factors			
To adapt to the impacts of climate change such as flooding	P+	Walking and cycling has no negative impacts on the causes of climate change. The public transport enhancements will have a positive impact if there is a good level of modal shift away from cars.	Encourage walking and cycling. Install facilities for vehicles that use less or no fossil fuels. Encourage buses to be low emission/electric.
To reduce greenhouse gases including carbon dioxide, emitted by vehicular transport	P+	Walking and cycling does not produce any greenhouse gases. The greenhouse gas emissions reducing will only occur if the level of modal shift is high and buses are electric/low emission.	Encourage public transport. Encourage walking and cycling and promote the associated improvements. Encourage busses to be low emission/electric.
To ensure the sustainable supply and use of energy	P+	Cycling does not use any unsustainable energy and the schemes may help facilitate modal shift reducing greenhouse gas emissions.	Encourage cycling and promote the associated improvements. Facilities should be developed to support vehicles that use less or no fossil fuels.

SEA Analysis Table	Package 7 – Hitchin Centre (including rail station)		
SEA Topic - Historic Environment and Landscape			
To protect and enhance the character of landscape, townscape and green spaces	U	Depending on the extent to the schemes will be built may affect the townscape and landscape of the area.	Consult the map of listed buildings.
To conserve and enhance the historic environment, heritage assets and their settings	U	More walking and cycling routes will enable people to get involved in leisure activities locally. The bus improvement schemes will encourage more people to visit local heritage sites.	Consult the map of listed buildings and monuments.
SEA Topic - Social inclusiveness			
To tackle the causes of poverty and social exclusion by improving access to services and community facilities for all	P+	The schemes aim to improve walking, cycling and bus infrastructure. Improving this infrastructure will improve access to services.	There should be consideration of opening places for bicycles to be recycled so that those that cannot afford bicycles can still have access. Promote cycle training to help cyclists ride safely. Promote the bus improvement measures.

SEA Analysis Table	Package 7 – Hitchin Centre (including rail station)		
To empower all sections of the community to participate in decision making and local action	P+	Improved walking and cycling infrastructure may enable more people to better access key locations for local action. An increase in bus frequency will also improve access opportunities. Also empowers people to choose a sustainable way to travel.	There should be consideration of opening places for bicycles to be recycled so that those that cannot afford bicycles can still have access. Promote cycle training to help cyclists ride safely. Promote bus improvement measures and associated benefits of this.
SEA Topic - Economic development			
To maintain employment, improve economic competitiveness (consistent with environmental constraints) and create a vibrant economy	P+	These schemes help to improve access to employment opportunities by improving the cycle infrastructure that may encourage people to cycle to work instead of driving. Increasing bus frequency will also help more to access places of employment.	To work with employers to encourage employees to walk, cycle or use public transport to places of employment.

SEA Analysis Table	Package 7 – Hitchin Centre (including rail station)		
To spread economic growth more evenly to benefit deprived areas	U	These schemes seek to improve access to employment opportunities through a more reliable public transport system and more walking and cycle routes.	
To maintain the vitality and viability of existing centres	P+	With any potential increases in employment there will be more spending power in existing centres leading to improved vitality and viability.	

Significant Positive Effects:
There are no significant positive effects identified as a result of the assessments.

Significant Negative Effects:
None.

Timescale (i.e. short, medium, long term):

- Timescales are not currently known.

Likelihood of effects or impacts identified occurring:

- Medium likelihood.

Permanent or Temporary impacts:

Permanent

- Improvement in air quality
- Improved interchange between bus services in Hitchin town centre.

Temporary

- Building work on Hermitage road for the new bus interchange will cause traffic disruption.

Unknown

The nature of the following impacts is uncertain because they are dependent on modal shift. The success of the schemes to encourage modal shift is currently unknown:

- Reduced impact on biodiversity.
- Improved air quality and reductions in noise pollution.
- Reduced greenhouse gas emissions from vehicular transport.
- Enhanced townscape and tranquillity.
- Modal shift and associated benefits for the surrounding environment.
- Enhanced local economy.
- Perpetuation of car use and associated environmental and economic impacts.
- Impacts on listed buildings.
- Whether the public transport system will be well used.

Recommendation for mitigation for adverse effects and/or enhancement or positive effects:

- Encourage walking and cycling and promote the associated improvements.
- Where possible new roads should utilise recycled materials and minimise the destruction of green spaces.
- Promote walking and cycling as a form of exercise for everyone.
- Consider clear signage to reduce conflicts between road users.
- Promote cycle training to help cyclists ride safely.
- Where possible any materials used in construction should be recycled and renewable products.
- Prevent soil removal where possible in the construction of new cycle ways.
- Use LED lighting where possible to minimise light pollution.
- There should be consideration of opening places for bicycles to be recycled so that those that cannot afford bicycles can still have access.

- To work with employers to encourage employees to walk, cycle or use public transport to places of employment.
- Encourage tree planting in any new scheme.
- Encourage the use of the public transport system.
- Sustainable construction practices should be implemented into the schemes.
- Facilities should be developed to support vehicles that use less or no fossil fuels.
- Promote the bus priority measures and the associated benefits (journey time savings).

Data Issues:

- Monitoring modal shift in the area.

APPENDIX 3 - APPRAISAL MATRIX: Package 8 – North Hitchin and Industrial Estate

SEA Analysis Table	**Package 8 – North Hitchin and Industrial Estate**		
SEA Objective	**Assessment of Effect** ✓ Positive impact P+ Potentially positive impact O No relationship/ link U Uncertain/ Depends on implementation P- Potentially negative impact X Negative impact	**Justification:** • **Likelihood of effect occurring** • **Permanence of effect** • **Geographic scale of effect** • **Cumulative effects** • **Current env. Social & economic trends of affected area** • **Likelihood of affecting particularly sensitive locations**	**Recommendations (including mitigating negative effects and improving positive effects)**
SEA Topic – Biodiversity, fauna and flora			
To protect and enhance biodiversity	P+	All schemes seek to encourage modal shift to sustainable forms of transport. This modal shift would have positive impacts on flora and fauna. These schemes are not in any SSSI's or key biodiversity areas.	Encourage walking, cycling and public transport and then promote the associated improvements..
SEA Topic - Population and human health			
To maximise the opportunities for leisure and a healthy lifestyle for all, and to improve the physical and mental health of the population, and reduce health inequalities	P+	All schemes seek to encourage modal shift to more sustainable modes of transport. This will achieve health benefits	Promote walking and cycling as a form of exercise for everyone. Promote bus frequency improvements.

SEA Analysis Table	Package 8 – North Hitchin and Industrial Estate		
		for all with a good level of modal shift.	
To reduce crime and create safe environments	U	More people walking and cycling in public places leads to safer environments and a feeling of personal security. Pedestrian crossings will improve safety at crossing points. It will depend on what additional aspects are added with the schemes for example late night buses and well-lit cycle/walking routes.	Promote cycle training to help cyclists ride safely. Make sure the walking and cycling routes are well lit. Make sure busses run late.
SEA Topic - Water and soil			
To improve the sustainable use of resources	U	At this stage it is not known what resources will be used in the construction of the new walking and cycle infrastructure. There may be a reduced need for road resurfacing in the future if there is a high level of modal shift. However this is dependent on the levels of modal shift.	Any materials used in construction should be recycled and renewable products. Mineral supplies need to be protected.

SEA Analysis Table	Package 8 – North Hitchin and Industrial Estate		
To move away from waste disposal to minimisation, reuse, recycling and recovery	U	These schemes could potentially have a positive impact if they promote sustainable construction practices and use recycled construction materials.	Sustainable construction practices should be implemented into tall schemes.
To ensure the efficient use of water, and safeguard water resources	U	Increased walking and cycling offers the potential to reduce roadway runoff including chemicals from tyres and road salt entering water courses if there is a high level of modal shift. However the construction of these cycle routes may contaminate local water sources.	Encourage walking and cycling and the associated benefits. Promote the use of sustainable urban drainage systems into the new development.
To reduce contamination, and safeguard soil quality and quantity	U	Increased walking and cycling offers the potential to reduce roadway runoff including chemicals from tyres and road salt entering soil in the long term. Building the cycle routes could damage soil in the local area but much of the con-	Ensure soil damage is kept to a minimum.

SEA Analysis Table	Package 8 – North Hitchin and Industrial Estate		
		struction will be on already existing infrastructure.	
SEA Topic - Air			
To protect and enhance air quality and minimise noise pollution	P+	The proposed schemes seek to facilitate modal shift to walking and cycling which would have air quality benefits.	Use LED lighting where possible to minimise light pollution. Encourage walking and cycling. Make sure all busses are electric/low emission.
To improve the choice of sustainable transport modes, encourage their use, and reduce the need to travel by car	✓	The schemes seek to increase the choice of sustainable transport modes available which will help encourage modal shift and reduce to need to travel by car.	To promote pedestrian and cycle way improvements. Promote the associated benefits of active travel. Make sure all busses are electric/low emission.
SEA Topic - Climatic factors			
To adapt to the impacts of climate change such as flooding	P+	Walking and cycling has no negative impacts on the causes of climate change. There will be a positive impact if there is a good level of modal shift to sustainable forms of travel.	Encourage walking and cycling, plus the associated benefits of this. Promote bus frequency improvements. Make sure all buses are electric/low emission.

SEA Analysis Table	Package 8 – North Hitchin and Industrial Estate		
To reduce greenhouse gases including carbon dioxide, emitted by vehicular transport	P+	Walking and cycling does not produce any greenhouse gases. The greenhouse gas emissions will only reduce if modal shift to active travel is high.	Encourage walking and cycling. Promote associated benefits. Make sure all busses are electric/low emission.
To ensure the sustainable supply and use of energy	P+	Walking and cycling does not use any unsustainable energy and the schemes may help facilitate modal shift reducing greenhouse gas emissions.	Encourage cycling and promote the associated improvements. Facilities should be developed to support vehicles that use less or no fossil fuels in the new development. Busses should be electric/low emission.
SEA Topic - Historic Environment and Landscape			
To protect and enhance the character of landscape, townscape and green spaces	P+	There are no listed building being affected by these schemes and the new cycle routes will make the area more appealing.	Consult the map of listed buildings before construction.
To conserve and enhance the historic environment, heritage assets and their settings	U	More walking and cycling routes will enable people to get involved in leisure activities locally.	Consult the map of listed buildings and monuments.

SEA Analysis Table	Package 8 – North Hitchin and Industrial Estate		
SEA Topic - Social inclusiveness			
To tackle the causes of poverty and social exclusion by improving access to services and community facilities for all	P+	The schemes aim to improve walking and cycling infrastructure. Improving this infrastructure will improve access to services. A higher bus frequency will also help encourage more to travel by bus to reach community facilities.	There should be consideration of opening places for bicycles to be recycled so that those that cannot afford bicycles can still have access. Promote cycle training to help cyclists ride safely. Promote bus frequency improvements.
To empower all sections of the community to participate in decision making and local action	P+	Improved walking and cycling infrastructure plus increasing bus frequency may enable more people to better access key locations for local action.	There should be consideration of opening places for bicycles to be recycled so that those that cannot afford bicycles can still have access. Promote cycle training to help cyclists ride safely.
SEA Topic - Economic development			
To maintain employment, improve economic competitiveness (consistent with environmental constraints) and create a vibrant economy	P+	These schemes help to improve access to employment opportunities by improving the walking and cycle infrastructure, which may encourage people to cycle to work instead of driving.	To work with employers to encourage employees to walk, cycle or use public transport to places of employment.
To spread economic growth more evenly to benefit deprived areas		These schemes seek to improve access to employment opportunities	Encourage capital to be put back into the local area.

SEA Analysis Table	Package 8 – North Hitchin and Industrial Estate		
	P+	through improved pedestrian and cycle infrastructure.	
To maintain the vitality and viability of existing centres	P+	With any potential increases in employment there will be more spending power in existing centres leading to improved vitality and viability.	

Significant Positive Effects:

- The schemes will improve the choice of sustainable transport modes, encourage their use, and reduce the need to travel by car.

Significant Negative Effects: None.

Timescale (i.e. short, medium, long term):

- Timescales are not currently known.

Likelihood of effects or impacts identified occurring:

- Medium likelihood.

Permanent or Temporary impacts:

Unknown

The nature of the following impacts is uncertain because they are dependent on modal shift. The success of the schemes to encourage modal shift is currently unknown:

- Reduced impact on biodiversity.
- Improved air quality and reductions in noise pollution.
- Reduced greenhouse gas emissions from vehicular transport.
- Enhanced townscape and tranquillity.
- Modal shift and associated benefits for the surrounding environment.
- Enhanced local economy.
- Perpetuation of car use and associated environmental and economic impacts.
- Impacts on listed buildings.

Recommendation for mitigation for adverse effects and/or enhancement or positive effects:

- Encourage walking and cycling and promote the associated improvements.
- Where possible new roads should utilise recycled materials and minimise the destruction of green spaces.
- Promote walking and cycling as a form of exercise for everyone.
- Consider clear signage to reduce conflicts between road users.
- Promote cycle training to help cyclists ride safely.
- Where possible any materials used in construction should be recycled and renewable products.
- Prevent soil removal where possible in the construction of new cycle ways.
- Use LED lighting where possible to minimise light pollution.
- There should be consideration of opening places for bicycles to be recycled so that those that cannot afford bicycles can still have access.
- To work with employers to encourage employees to walk, cycle or use public transport to places of employment.
- Encourage tree planting in any new scheme.
- Encourage the use of the public transport system.
- Sustainable construction practices should be implemented into the schemes.
- Promote the bus frequency improvements.

Data Issues:

- Monitoring modal shift in the area.

APPENDIX 3 - APPRAISAL MATRIX: Package 9 – West Hitchin

SEA Analysis Table	**Package 9 – West Hitchin**		
SEA Objective	**Assessment of Effect** ✓ Positive impact P+ Potentially positive impact O No relationship/ link U Uncertain/ Depends on implementation P- Potentially negative impact X Negative impact	**Justification:** • **Likelihood of effect occurring** • **Permanence of effect** • **Geographic scale of effect** • **Cumulative effects** • **Current env. Social & economic trends of affected area** • **Likelihood of affecting particularly sensitive locations**	**Recommendations (including mitigating negative effects and improving positive effects)**
SEA Topic – Biodiversity, fauna and flora			
To protect and enhance biodiversity	P+	All schemes seek to encourage modal shift to sustainable forms of transport. This modal shift would have positive impacts on flora and fauna. These schemes are not in any SSSI's, but the development may enter the Hiz valley catchment biodiversity area.	Encourage walking, cycling and public transport and then promote the associated improvements. Help protect the key biodiversity area through implementing a local biodiversity actions plans.

SEA Analysis Table	Package 9 – West Hitchin		
SEA Topic - Population and human health			
To maximise the opportunities for leisure and a healthy lifestyle for all, and to improve the physical and mental health of the population, and reduce health inequalities	P+	All schemes seek to encourage modal shift to more sustainable modes of transport. This will achieve health benefits for all with a good level of modal shift. Connecting the new development to the train station and industrial estate with pedestrian and cycle access will encourage more to travel actively.	Promote walking and cycling as a form of exercise for everyone.
To reduce crime and create safe environments	U	More people walking and cycling in public places leads to safer environments and a feeling of personal security. Pedestrian crossings will improve safety at crossing points. It does depend on what extra things will be added to the developments such as lighting.	Promote cycle training to help cyclists ride safely. Make sure the walking and cycling routes are well lit. Design access points to the new development so it discourages crime.

SEA Analysis Table	Package 9 – West Hitchin		
SEA Topic - Water and soil			
To improve the sustainable use of resources	U	At this stage it is not known what resources will be used in the construction of the new walking and cycle infrastructure. There may be a reduced need for road resurfacing in the future if there is a high level of modal shift. However this is dependent on the levels of modal shift.	Any materials used in construction should be recycled and renewable products. Mineral supplies need to be protected.
To move away from waste disposal to minimisation, reuse, recycling and recovery	U	These schemes could potentially have a positive impact if they promote sustainable construction practices and use recycled construction materials.	Sustainable construction practices should be implemented into tall schemes. Encourage recycling facilities to be included in the new development.
To ensure the efficient use of water, and safeguard water resources	U	Increased walking and cycling offers the potential to reduce roadway runoff including chemicals from tyres and road salt entering water courses if there is a high level of modal shift.	Encourage walking and cycling and the associated benefits. Promote the use of sustainable urban drainage systems into the new development.

SEA Analysis Table	Package 9 – West Hitchin		
To reduce contamination, and safeguard soil quality and quantity	P-	Increased walking and cycling offers the potential to reduce roadway runoff including chemicals from tyres and road salt entering soil in the long term. A new development will result in the loss of soils.	
SEA Topic - Air			
To protect and enhance air quality and minimise noise pollution	P+	The proposed schemes seek to facilitate modal shift to walking and cycling which would have air quality benefits.	Use LED lighting where possible to minimise light pollution. Encourage walking and cycling.
To improve the choice of sustainable transport modes, encourage their use, and reduce the need to travel by car	P+	The schemes seek to increase the choice of sustainable transport modes available which will help encourage modal shift and reduce to need to travel by car.	To promote pedestrian and cycle way improvements. Promote the associated benefits of active travel.
SEA Topic - Climatic factors			
To adapt to the impacts of climate change such as flooding	P+	Walking and cycling has no negative impacts on the causes of climate change. There will be a positive impact if there is a good level of modal	Encourage walking and cycling, plus the associated benefits of this.

SEA Analysis Table	Package 9 – West Hitchin		
		shift to active forms of travel. These areas are not in any flood zone but they are near them due to the river Purwell.	
To reduce greenhouse gases including carbon dioxide, emitted by vehicular transport	P+	Walking and cycling does not produce any greenhouse gases. The greenhouse gas emissions will only reduce if modal shift to active travel is high.	Encourage walking and cycling. Promote associated benefits.
To ensure the sustainable supply and use of energy	P+	Walking and cycling does not use any unsustainable energy and the schemes may help facilitate modal shift reducing greenhouse gas emissions.	Encourage cycling and promote the associated improvements. Facilities should be developed to support vehicles that use less or no fossil fuels in the new development.
SEA Topic - Historic Environment and Landscape			
To protect and enhance the character of landscape, townscape and green spaces	P+	No listed building will be affect in the construction of the developments. The walking and cycle route will make the areas more appealing.	Consult the map of listed buildings.

SEA Analysis Table	Package 9 – West Hitchin		
To conserve and enhance the historic environment, heritage assets and their settings	U	Depends if the schemes include the historic heritage of the area within the implementation.	Consult the map of listed buildings and monuments.
SEA Topic - Social inclusiveness			
To tackle the causes of poverty and social exclusion by improving access to services and community facilities for all	P+	The schemes aim to improve walking and cycling infrastructure. Improving this infrastructure will improve access to services.	There should be consideration of opening places for bicycles to be recycled so that those that cannot afford bicycles can still have access. Promote cycle training to help cyclists ride safely.
To empower all sections of the community to participate in decision making and local action	P+	Improved walking and cycling infrastructure may enable more people to better access key locations for local action.	There should be consideration of opening places for bicycles to be recycled so that those that cannot afford bicycles can still have access. Promote cycle training to help cyclists ride safely.
SEA Topic - Economic development			
To maintain employment, improve economic competitiveness (consistent with environmental constraints) and create a vibrant economy	P+	These schemes help to improve access to employment opportunities by improving the walking and cycle infrastructure, which may encourage people to cycle to work instead of driving.	To work with employers to encourage employees to walk, cycle or use public transport to places of employment.

SEA Analysis Table	Package 9 – West Hitchin		
To spread economic growth more evenly to benefit deprived areas	P+	These schemes seek to improve access to employment opportunities through improved pedestrian and cycle infrastructure.	Encourage capital to be put back into the local area.
To maintain the vitality and viability of existing centres	P+	With any potential increases in employment there will be more spending power in existing centres leading to improved vitality and viability.	

Significant Positive Effects: None.

Significant Negative Effects: None.

Timescale (i.e. short, medium, long term):

- Timescales are not currently known.

Likelihood of effects or impacts identified occurring:

- Medium likelihood.

Permanent or Temporary impacts:

Unknown

The nature of the following impacts is uncertain because they are dependent on modal shift. The success of the schemes to encourage modal shift is currently unknown:

- Reduced impact on biodiversity.
- Improved air quality and reductions in noise pollution.
- Reduced greenhouse gas emissions from vehicular transport.
- Enhanced townscape and tranquillity.
- Modal shift and associated benefits for the surrounding environment.
- Enhanced local economy.
- Perpetuation of car use and associated environmental and economic impacts.
- Impacts on listed buildings.

Recommendation for mitigation for adverse effects and/or enhancement or positive effects:

- Encourage walking and cycling and promote the associated improvements.
- Where possible new roads should utilise recycled materials and minimise the destruction of green spaces.
- Promote walking and cycling as a form of exercise for everyone.
- Consider clear signage to reduce conflicts between road users.
- Promote cycle training to help cyclists ride safely.
- Where possible any materials used in construction should be recycled and renewable products.
- Prevent soil removal where possible in the construction of new cycle ways.
- Use LED lighting where possible to minimise light pollution.
- There should be consideration of opening places for bicycles to be recycled so that those that cannot afford bicycles can still have access.
- To work with employers to encourage employees to walk, cycle or use public transport to places of employment.
- Encourage tree planting in any new scheme.
- Encourage the use of the public transport system.
- Sustainable construction practices should be implemented into the schemes.
- The new development should be developed to support vehicles that use less or no fossil fuels.

Data Issues:

- Monitoring modal shift in the area.

APPENDIX 3 - APPRAISAL MATRIX: Package 10 – Hitchin to Letchworth/Baldock

SEA Analysis Table	**Package 10 – Hitchin to Letchworth/Baldock**		
SEA Objective	**Assessment of Effect** ✓ Positive impact P+ Potentially positive impact O No relationship/ link U Uncertain/ Depends on implementation P- Potentially negative impact X Negative impact	**Justification:** • **Likelihood of effect occurring** • **Permanence of effect** • **Geographic scale of effect** • **Cumulative effects** • **Current env. Social & economic trends of affected area** • **Likelihood of affecting particularly sensitive locations**	**Recommendations (including mitigating negative effects and improving positive effects)**
SEA Topic – Biodiversity, fauna and flora			
To protect and enhance biodiversity	P+	The schemes seek to encourage modal shift to more sustainable modes of transport. This modal shift would have positive impacts on flora and fauna. These schemes are not in any key biodiversity areas or SSSI's.	Encourage tree planting in any new scheme. Encourage cycling and promote the associated improvements.

SEA Analysis Table	Package 10 – Hitchin to Letchworth/Baldock		
SEA Topic - Population and human health			
To maximise the opportunities for leisure and a healthy lifestyle for all, and to improve the physical and mental health of the population, and reduce health inequalities	P+	The schemes seek to improve cycling routes and associated infrastructure. This will encourage modal shift and enable residents obtain the health benefits of active travel.	Promote walking and cycling as a form of exercise for everyone.
To reduce crime and create safe environments	U	More people cycling in public places may lead to safer environments and a feeling of personal security. However it will be down to implementation such as good lighting and CCTV.	Promote cycle training to help cyclists ride safely. Make sure all cycle routes and parking areas are well lit. Encourage any new designs in a way that discourages crime.
SEA Topic - Water and soil			
To improve the sustainable use of resources	U	At this stage it is not known what resources will be used in the construction of the new cycleways. There may be a reduced need for road resurfacing in the future as a result of the schemes. However this is dependent on the levels of modal shift	Where possible any materials used in construction should be recycled and renewable products.

SEA Analysis Table	Package 10 – Hitchin to Letchworth/Baldock		
To move away from waste disposal to minimisation, reuse, recycling and recovery	U	Will not be known until the schemes are implemented.	Where possible any materials used in construction should be recycled and renewable products. Encourage cycle repair facilities to use recycled equipment and recycle materials that are not fit to be used.
To ensure the efficient use of water, and safeguard water resources	O		Encourage cycling and the associated benefits. Promote SUDS
To reduce contamination, and safeguard soil quality and quantity	O	The schemes are being built on already existing infrastructure.	
SEA Topic - Air			
To protect and enhance air quality and minimise noise pollution	P+	The proposed schemes seek to facilitate modal shift to cycling which would have air quality benefits.	Use LED lighting where possible to minimise light pollution.
To improve the choice of sustainable transport modes, encourage their use, and reduce the need to travel by car	✓	The schemes seek to provide added cycle routes and associated infrastructure which will encourage modal shift.	To promote cycle way enhancements and associated benefits of cycling.
SEA Topic - Climatic factors			
To adapt to the impacts of climate change such as flooding	P+	Cycling has no negative impacts on the causes of climate change.	

SEA Analysis Table	Package 10 – Hitchin to Letchworth/Baldock		
To reduce greenhouse gases including carbon dioxide, emitted by vehicular transport	P+	Cycling does not produce any greenhouse gases. The schemes may encourage modal shift reducing greenhouse gases emitted by vehicular transport.	Encourage cycling and promote the associated improvements.
To ensure the sustainable supply and use of energy	P+	Cycling does not use any unsustainable energy and the schemes may help facilitate modal shift reducing greenhouse gas emissions.	Encourage cycling and promote the associated improvements.
SEA Topic - Historic Environment and Landscape			
To protect and enhance the character of landscape, townscape and green spaces	P+	The schemes seek to encourage cycling in the public domain which will enhance the townscape. Local air quality and tranquillity will also be improved. Consideration needs to be made for any listed buildings in the area.	Consult the map of listed buildings.

SEA Analysis Table	Package 10 – Hitchin to Letchworth/Baldock		
To conserve and enhance the historic environment, heritage assets and their settings	P+	Modal shift to sustainable forms will help conserve the environment. The schemes will help people to access cultural and leisure opportunities.	Consult the map of listed buildings and monuments.
SEA Topic - Social inclusiveness			
To tackle the causes of poverty and social exclusion by improving access to services and community facilities for all	P+	The schemes aim to improve cycling infrastructure. Improving this infrastructure will improve access to services. A bike hire scheme will create opportunities for those who currently cannot afford a bike.	There should be consideration of opening places for bicycles to be recycled so that those that cannot afford bicycles can still have access. Promote cycle training to help cyclists ride safely.
To empower all sections of the community to participate in decision making and local action	P+	Improved cycling infrastructure may enable those who are more able to ride bicycles than run cars to better access key locations for local action.	

SEA Analysis Table	Package 10 – Hitchin to Letchworth/Baldock		
SEA Topic - Economic development			
To maintain employment, improve economic competitiveness (consistent with environmental constraints) and create a vibrant economy	P+	These schemes help to improve access to employment opportunities by improving the cycle infrastructure that may encourage people to cycle to places of employment.	To work with employers to encourage employees to cycle to places of employment.
To spread economic growth more evenly to benefit deprived areas	P+	All of the schemes will help to improve access to employment opportunities.	
To maintain the vitality and viability of existing centres	P+	With any potential increases in employment there will be more spending power in existing centres leading to improved vitality and viability. The new cycle routes and bike parking will create sustainable and safe access to the local town without the need for a car.	

Significant Positive Effects:

- The schemes will improve the choice of sustainable transport modes, encourage their use, and reduce the need to travel by car.

Significant Negative Effects: None.

Timescale (i.e. short, medium, long term):

- Timescales are not currently known.

Likelihood of effects or impacts identified occurring:

- Medium likelihood.

Permanent or Temporary impacts:

Permanent

- Improvement in air quality

Unknown

The nature of the following impacts is uncertain because they are dependent on modal shift. The success of the schemes to encourage modal shift is currently unknown:

- Reduced impact on biodiversity.
- Improved air quality and reductions in noise pollution.
- Reduced greenhouse gas emissions from vehicular transport.
- Enhanced townscape and tranquillity.
- Modal shift and associated benefits for the surrounding environment.
- Enhanced local economy.
- Negative impacts on biodiversity due to road building.
- Perpetuation of car use and associated environmental and economic impacts.
- Impacts on listed buildings.

Recommendation for mitigation for adverse effects and/or enhancement or positive effects:

- Encourage Cycling and promote the associated improvements.
- Where possible new roads should utilise recycled materials and minimise the destruction of green spaces.
- Promote walking and cycling as a form of exercise for everyone.
- Consider clear signage to reduce conflicts between road users.
- Promote cycle training to help cyclists ride safely.

- Where possible any materials used in construction should be recycled and renewable products.
- Prevent soil removal where possible in the construction of new cycle ways.
- Use LED lighting where possible to minimise light pollution.
- There should be consideration of opening places for bicycles to be recycled so that those that cannot afford bicycles can still have access.
- To work with employers to encourage employees to cycle to places of employment.
- Encourage tree planting in any new scheme.

Data Issues:

- Monitoring modal shift in the area.

APPENDIX 3 - APPRAISAL MATRIX: Package 11 – Letchworth Centre and Industrial Estate

SEA Analysis Table	**Package 11 – Letchworth Centre and Industrial Estate**		
SEA Objective	**Assessment of Effect** ✓ Positive impact P+ Potentially positive impact O No relationship/ link U Uncertain/ Depends on implementation P- Potentially negative impact X Negative impact	**Justification:** • **Likelihood of effect occurring** • **Permanence of effect** • **Geographic scale of effect** • **Cumulative effects** • **Current env. Social & economic trends of affected area** • **Likelihood of affecting particularly sensitive locations**	**Recommendations (including mitigating negative effects and improving positive effects)**
SEA Topic – Biodiversity, fauna and flora			
To protect and enhance biodiversity	P+	The schemes seek to encourage modal shift to more sustainable modes of transport. This modal shift would have positive impacts on flora and fauna. These schemes are not in any key biodiversity areas or SSSI's.	Encourage tree planting in any new scheme. Encourage cycling and promote the associated improvements.

SEA Analysis Table	Package 11 – Letchworth Centre and Industrial Estate		
SEA Topic - Population and human health			
To maximise the opportunities for leisure and a healthy lifestyle for all, and to improve the physical and mental health of the population, and reduce health inequalities	P+	The schemes seek to improve cycling routes and associated infrastructure. This will encourage modal shift and enable residents obtain the health benefits of active travel.	Promote cycling as a form of exercise for everyone.
To reduce crime and create safe environments	U	More people cycling in public places leads to safer environments and a feeling of personal security. Would be down to what implementations are added with the schemes such as good lighting on cycle routes and CCTV near cycle parking areas.	Promote cycle training to help cyclists ride safely. Make sure all cycle routes and parking areas are well lit.
SEA Topic - Water and soil			
To improve the sustainable use of resources	U	At this stage it is not known what resources will be used in the construction of the new cycleways. There may be a reduced need for road resurfacing in the future as a result of the schemes. However, this	Where possible any materials used in construction should be recycled and renewable products.

SEA Analysis Table	Package 11 – Letchworth Centre and Industrial Estate		
		is dependent on the levels of modal shift.	
To move away from waste disposal to minimisation, reuse, recycling and recovery	U	It depends on the implementation and how much construction work is done. This would lead to the amount of waste and then how it is dealt with.	Where possible any materials used in construction should be recycled and renewable products.
To ensure the efficient use of water, and safeguard water resources	U	Increased cycling offers the potential to reduce roadway runoff including chemicals from tyres and road salt entering water courses if there is a high level of modal shift. However the scale of work is not clear in most of the schemes so the effect on water resources is not known until the schemes are filled out.	Encourage cycling and the associated benefits. Ensure water resources in the area are not contaminated due to the construction.
To reduce contamination, and safeguard soil quality and quantity	U	Increased cycling offers the potential to reduce roadway runoff including chemicals from tyres and road salt entering soil in the long term. However the scale of work is not	

SEA Analysis Table	Package 11 – Letchworth Centre and Industrial Estate		
		clear in most of the schemes so the effect on the local soil is not known until the schemes are filled out. The schemes are also being built on existing infra-structure.	
SEA Topic - Air			
To protect and enhance air quality and minimise noise pollution	P+	The proposed schemes seek to facilitate modal shift to cycling which would have air quality benefits.	Use LED lighting where possible to minimise light pollution.
To improve the choice of sustainable transport modes, encourage their use, and reduce the need to travel by car	P+	The schemes seek to provide added cycle routes and associated infrastructure which will encourage modal shift.	To promote cycle way en-hancements and associated benefits of cycling.
SEA Topic - Climatic factors			
To adapt to the impacts of climate change such as flooding	U	Cycling has no negative impacts on the causes of climate change. There are no flooding areas in the local area. However, it is unclear at this stage if any design (for the cy-cle routes and pedes-trian crossings) includes adaptation for increased	Consult the HCC flooding maps before any infrastruc-ture is delivered.

SEA Analysis Table	Package 11 – Letchworth Centre and Industrial Estate		
		flooding incidents i.e. drainage	
To reduce greenhouse gases including carbon dioxide, emitted by vehicular transport	P+	Cycling does not produce any greenhouse gases. The schemes may encourage modal shift reducing greenhouse gases emitted by vehicular transport.	Encourage cycling and promote the associated improvements.
To ensure the sustainable supply and use of energy	U	Cycling does not use any unsustainable energy sources and the schemes may help facilitate modal shift reducing the use of fossil fuels. Unsure if cycle parking measures will include charging facilities for electric bikes.	Encourage cycling and promote the associated improvements. Promote any new cycle parking provision.
SEA Topic - Historic Environment and Landscape			
To protect and enhance the character of landscape, townscape and green spaces	P+	The schemes seek to encourage cycling in the public domain which will enhance the townscape. Local air quality and tranquillity will also be improved.	Consult the map of listed buildings.

SEA Analysis Table	Package 11 – Letchworth Centre and Industrial Estate		
To conserve and enhance the historic environment, heritage assets and their settings	P+	Modal shift to sustainable forms will help conserve the environment. The schemes will help people to access cultural and leisure opportunities. Consideration needs to be made for any listed buildings in the area.	Consult the map of listed buildings and monuments.
SEA Topic - Social inclusiveness			
To tackle the causes of poverty and social exclusion by improving access to services and community facilities for all	P+	The schemes aim to improve cycling infrastructure. Improving this infrastructure will improve access to services for people that may not be able to afford a car. Creating a pedestrian crossing across the A505 allows access to schools for children whose family do not own a car.	There should be consideration of opening places for bicycles to be recycled so that those that cannot afford bicycles can still have access. Promote cycle training to help cyclists ride safely.
To empower all sections of the community to participate in decision making and local action	P+	Improved cycling infrastructure may enable those who are more able to ride bicycles than run cars to better access key locations for local action. It empowers local people	

SEA Analysis Table	Package 11 – Letchworth Centre and Industrial Estate		
		to choose a healthy way to travel.	
SEA Topic - Economic development			
To maintain employment, improve economic competitiveness (consistent with environmental constraints) and create a vibrant economy	P+	These schemes help to improve access to employment opportunities by improving the cycle infrastructure that may encourage people to cycle to places of employment.	To work with employers to encourage employees to cycle to places of employment.
To spread economic growth more evenly to benefit deprived areas	U	All of the schemes will help to improve access to employment opportunities. Depends if people use the route and what other implementation are put in place to help spread economic growth.	
To maintain the vitality and viability of existing centres	P+	With any potential increases in employment there will be more spending power in existing centres leading to improved vitality and viability.	

Significant Positive Effects: None.

Significant Negative Effects: None.

Timescale (i.e. short, medium, long term):

- Timescales are not currently known.

Likelihood of effects or impacts identified occurring:

- Medium likelihood.

Permanent or Temporary impacts:

Permanent

- Improvement in air quality

Unknown

The nature of the following impacts is uncertain because they are dependent on modal shift. The success of the schemes to encourage modal shift is currently unknown:

- Reduced impact on biodiversity.
- Improved air quality and reductions in noise pollution.
- Reduced greenhouse gas emissions from vehicular transport.
- Enhanced townscape and tranquillity.
- Modal shift and associated benefits for the surrounding environment.
- Enhanced local economy.
- Negative impacts on biodiversity due to road building.
- Perpetuation of car use and associated environmental and economic impacts.
- Impacts on listed buildings.

Recommendation for mitigation for adverse effects and/or enhancement or positive effects:

- Encourage Cycling and promote the associated improvements.
- Where possible new roads should utilise recycled materials and minimise the destruction of green spaces.
- Promote walking and cycling as a form of exercise for everyone.

- Consider clear signage to reduce conflicts between road users.
- Promote cycle training to help cyclists ride safely.
- Where possible any materials used in construction should be recycled and renewable products.
- Prevent soil removal where possible in the construction of new cycle ways.
- Use LED lighting where possible to minimise light pollution.
- There should be consideration of opening places for bicycles to be recycled so that those that cannot afford bicycles can still have access.
- To work with employers to encourage employees to cycle to places of employment.
- Encourage tree planting in any new scheme.

Data Issues:

- Monitoring modal shift in the area.

APPENDIX 3 - APPRAISAL MATRIX: Package 12 – North Letchworth

SEA Analysis Table	**Package 12 – North Letchworth**		
SEA Objective	**Assessment of Effect** ✓ Positive impact P+ Potentially positive impact O No relationship/ link U Uncertain/ Depends on implementation P- Potentially negative impact X Negative impact	**Justification:** • **Likelihood of effect occurring** • **Permanence of effect** • **Geographic scale of effect** • **Cumulative effects** • **Current env. Social & economic trends of affected area** • **Likelihood of affecting particularly sensitive locations**	**Recommendations (including mitigating negative effects and improving positive effects)**
SEA Topic – Biodiversity, fauna and flora			
To protect and enhance biodiversity	P-	The schemes seek to encourage modal shift to more sustainable modes of transport. However the building of the extended bus route may affect the biodiversity of the area with the loss of green land.. These schemes are not in any key biodiversity areas or SSSI's.	Encourage tree planting in any new scheme. Encourage cycling and promote the associated improvements. Limit the damage caused to the local environment when construction is occurring.

SEA Analysis Table	Package 12 – North Letchworth		
SEA Topic - Population and human health			
To maximise the opportunities for leisure and a healthy lifestyle for all, and to improve the physical and mental health of the population, and reduce health inequalities	P+	The schemes seek to improve cycle infrastructure and bus services. Cycle improvements will encourage modal shift and enable residents obtain the health benefits of active travel. Improving the bus service will improve access to leisure facilities.	Promote cycling as a form of exercise for everyone. Promote the bus service improvements.
To reduce crime and create safe environments	U	Depends on what implementations are included such as lighting for the cycle route and late night buses to reduce crime.	Promote cycle training to help cyclists ride safely. Make sure all cycle routes and parking areas are well lit. Make sure bus services run late to improve safety. Ensure that any bus services that access the new development are consistent with the Herts Hate Crime Strategy and the LTP4 Policy 18 Transport Safety & Security.

SEA Analysis Table	Package 12 – North Letchworth		
SEA Topic - Water and soil			
To improve the sustainable use of resources	U	At this stage it is not known what resources will be used in the construction of the new cycling facilities. There may be a reduced need for road resurfacing in the future as a result of the schemes. However this is dependent on the levels of modal shift.	Where possible any materials used in construction should be recycled and renewable products.
To move away from waste disposal to minimisation, reuse, recycling and recovery	U	Depends on what materials are used within the schemes and how the waste is disposed of after the construction is completed.	Where possible any materials used in construction should be recycled and renewable products.
To ensure the efficient use of water, and safeguard water resources	P-	The construction of the cycle route and new bus route may cause damage to the local water sources through run-off contamination. Increasing the number of people who use bus services may reduce the number of vehicles travelling which will reduce roadway runoff.	Encourage cycling and the associated benefits. Ensure during construction care is taken to reduce material contaminating the local water sources. Use SUDS

SEA Analysis Table	Package 12 – North Letchworth		
To reduce contamination, and safeguard soil quality and quantity	P-	The construction of the new bus route and potential new cycle routes may result in removal and capping of the local soil environment.	Reduce the amount of soil lost when construction is occurring.
SEA Topic - Air			
To protect and enhance air quality and minimise noise pollution	P+	The proposed schemes seek to facilitate modal shift to cycling and public transport which would have air quality benefits.	Use LED lighting where possible to minimise light pollution. Encourage buses to be electric/low emission.
To improve the choice of sustainable transport modes, encourage their use, and reduce the need to travel by car	✓	The schemes seek to provide added cycle routes and associated infrastructure which will encourage modal shift. Improving bus services will encourage more to use it.	To promote cycle way enhancements and associated benefits of cycling. Promote bus service improvements.
SEA Topic - Climatic factors			
To adapt to the impacts of climate change such as flooding	P+	Cycling has no negative impacts on the causes of climate change. An improved bus service may encourage more to use public transport than to travel by car. The schemes are near local flood areas so this will	Encourage buses to be electric/low emission. Ensure the new roadway for the buses incorporate flood reduction measures (SuDS). Consult the HCC flood map.

SEA Analysis Table	Package 12 – North Letchworth		
		need to be considered in the construction stage.	
To reduce greenhouse gases including carbon dioxide, emitted by vehicular transport	P+	Cycling does not produce any greenhouse gases. The schemes may encourage modal shift reducing greenhouse gases emitted by vehicular transport.	Encourage cycling and promote the associated improvements. Encourage buses to be electric/low emission.
To ensure the sustainable supply and use of energy	P+	Cycling does not use any unsustainable energy and the schemes may help facilitate modal shift reducing fossil fuel usage.	Encourage cycling and promote the associated improvements. Encourage there to be facilities for vehicles that use less of no fossil fuels. Encourage buses to be electric/low emission.
SEA Topic - Historic Environment and Landscape			
To protect and enhance the character of landscape, townscape and green spaces	P+	The schemes seek to encourage cycling in the public domain which will enhance the townscape.	Consult the map of listed buildings. Ensure the listed building is protected during the construction.
To conserve and enhance the historic environment, heritage assets and their settings	X	The SM66 scheme would affect the grade 2 listed building in the area (The three Horseshoes). By the potential map the bus route may go right through the pub.	Ensure the historic landscape is preserved within the area. Any new development would be subject to a full Environmental Impact Assessment.

SEA Analysis Table	Package 12 – North Letchworth		
SEA Topic - Social inclusiveness			
To tackle the causes of poverty and social exclusion by improving access to services and community facilities for all	P+	The schemes aim to improve bus services and bike infrastructure. Improving this infrastructure will improve access to services.	There should be consideration of opening places for bicycles to be recycled so that those that cannot afford bicycles can still have access. Promote cycle training to help cyclists ride safely.
To empower all sections of the community to participate in decision making and local action	P+	Improving bus services and cycling infrastructure may enable those who are more able to ride bicycles than run cars to better access key locations for local action	There should be consideration of opening places for bicycles to be recycled so that those that cannot afford bicycles can still have access. Promote cycle training to help cyclists ride safely. Promote bus service improvements.
SEA Topic - Economic development			
To maintain employment, improve economic competitiveness (consistent with environmental constraints) and create a vibrant economy	P+	These schemes help to improve access to employment opportunities by improving bus services and cycle infrastructure that may encourage people to cycle to places of employment.	To work with employers to encourage employees to cycle or use public transport to places of employment.

SEA Analysis Table	Package 12 – North Letchworth		
To spread economic growth more evenly to benefit deprived areas	P+	All of the schemes will help to improve access to employment opportunities.	Encourage people to use public transport or to cycle to work.
To maintain the vitality and viability of existing centres	P+	With any potential increases in employment there will be more spending power in existing centres leading to improved vitality and viability. The new routes also create easy access to the local centres within the area.	

Significant Positive Effects:

- The schemes will improve the choice of sustainable transport modes, encourage their use, and reduce the need to travel by car.

Significant Negative Effects:

- Bus route could affect the grade 2 listed building – The Two Horseshoes.

Timescale (i.e. short, medium, long term):

- Timescales are not currently known.

Likelihood of effects or impacts identified occurring:

- Medium likelihood.

Permanent or Temporary impacts:

Permanent

- Improvement in air quality

Unknown

The nature of the following impacts is uncertain because they are dependent on modal shift. The success of the schemes to encourage modal shift is currently unknown:

- Reduced impact on biodiversity.
- Improved air quality and reductions in noise pollution.
- Reduced greenhouse gas emissions from vehicular transport.
- Enhanced townscape and tranquillity.
- Modal shift and associated benefits for the surrounding environment.
- Enhanced local economy.
- Negative impacts on biodiversity due to road building.
- Perpetuation of car use and associated environmental and economic impacts.
- Impacts on listed buildings.

Recommendation for mitigation for adverse effects and/or enhancement or positive effects:

- Encourage Cycling and promote the associated improvements.
- Where possible new roads should utilise recycled materials and minimise the destruction of green spaces.
- Promote walking and cycling as a form of exercise for everyone.
- Consider clear signage to reduce conflicts between road users.
- Promote cycle training to help cyclists ride safely.
- Where possible any materials used in construction should be recycled and renewable products.
- Prevent soil removal where possible in the construction of new cycle ways.
- Use LED lighting where possible to minimise light pollution.
- There should be consideration of opening places for bicycles to be recycled so that those that cannot afford bicycles can still have access.
- To work with employers to encourage employees to cycle to places of employment.
- Encourage tree planting in any new scheme.

Data Issues: Monitoring modal shift in the area.

APPENDIX 3 - APPRAISAL MATRIX: Package 13 – Baldock Connectivity, Rail Station and Development

SEA Analysis Table	**Package 13 – Baldock Connectivity, Rail Station and Development**		
SEA Objective	**Assessment of Effect** ✓ Positive impact P+ Potentially positive impact O No relationship/ link U Uncertain/ Depends on implementation P- Potentially negative impact X Negative impact	**Justification:** • **Likelihood of effect occurring** • **Permanence of effect** • **Geographic scale of effect** • **Cumulative effects** • **Current env. Social & economic trends of affected area** • **Likelihood of affecting particularly sensitive locations**	**Recommendations (including mitigating negative effects and improving positive effects)**
SEA Topic – Biodiversity, fauna and flora			
To protect and enhance biodiversity	X	The majority of schemes in this package seek to encourage modal shift to more sustainable modes of transport, however SM103 is for new link roads in the new developments which would significantly impact on local biodiversity and habitats. These schemes are not in any key biodiversity areas or SSSI's.	Encourage tree planting in any new scheme. Encourage cycling and promote the associated improvements. A full environmental Impact Assessment would be expected for the new development and link roads.

SEA Analysis Table	Package 13 – Baldock Connectivity, Rail Station and Development		
SEA Topic - Population and human health			
To maximise the opportunities for leisure and a healthy lifestyle for all, and to improve the physical and mental health of the population, and reduce health inequalities	P+	The schemes seek to improve cycle infrastructure and bus services. Cycle improvements will encourage modal shift and enable residents obtain the health benefits of active travel. Improving the bus service will improve access to leisure facilities.	Promote cycling as a form of exercise for everyone. Promote the bus service improvements.
To reduce crime and create safe environments	U	More people cycling in public places leads to safer environments and a feeling of personal security. It will depend on what implementations are included to help deter crime such as late bus services and well-lit cycle routes.	Promote cycle training to help cyclists ride safely. Make sure all cycle routes and parking areas are well lit. Make sure bus services run late to improve safety. Ensure any new bus services are consistent with the Herts Hate Crime Strategy and LTP4 Policy 18 (Transport Safety & Security).

SEA Analysis Table	Package 13 – Baldock Connectivity, Rail Station and Development		
SEA Topic - Water and soil			
To improve the sustainable use of resources	U	At this stage it is not known what resources will be used in the construction of the new cycleways or link roads, and whether or not recycled aggregates will be used.	Where possible any materials used in construction should be recycled and renewable products. Check HIAMP policies.
To move away from waste disposal to minimisation, reuse, recycling and recovery	U	At this stage it is not known what materials are going to be used and what extent of work will be done. Therefore it is not known what construction waste will be produced and thus have to be removed.	Where possible any materials used in construction should be recycled and renewable products.
To ensure the efficient use of water, and safeguard water resources	P-	Any new infrastructure for cycling, buses, link roads will create additional surface runoff, which could contaminate local water courses if drainage issues are not adequately considered. The River Ivel runs to the north of Baldock.	Any new infrastructure should adhere to the new SuDS guidelines.

SEA Analysis Table	Package 13 – Baldock Connectivity, Rail Station and Development		
To reduce contamination, and safeguard soil quality and quantity	P-	The Bus route, cycle route, new link roads for the new development will likely be built on a greenfield site which could contaminate the local soil and result in re-moval and capping.	Ensure the minimum soil loss occurs.
SEA Topic - Air			
To protect and enhance air quality and minimise noise pollution	P+	The proposed schemes seek to facilitate modal shift to cycling and public transport which would have air quality benefits. However the inclusion of a road link might in-crease air pollution.	Use LED lighting where possible to minimise light pollution. Encourage buses to be electric/low emission.
To improve the choice of sustainable transport modes, encourage their use, and reduce the need to travel by car	✓	The schemes seek to provide added cycle routes and associated infrastructure which will encourage modal shift. Improving bus services will encourage more to use it.	To promote cycle way en-hancements and associated benefits of cycling. Promote bus service improvements.

SEA Analysis Table	Package 13 – Baldock Connectivity, Rail Station and Development		
SEA Topic – Climatic factors			
To adapt to the impacts of climate change such as flooding	P+	Cycling has no negative impacts on the causes of climate change. An improved bus service may encourage more to use public transport than to travel by car. The schemes are not in any potential flood zones. Any infrastructure built should include flooding adaptation.	Encourage buses to be electric/low emission.
To reduce greenhouse gases including carbon dioxide, emitted by vehicular transport	P+	Cycling does not produce any greenhouse gases. The schemes may encourage modal shift reducing greenhouse gases emitted by vehicular transport.	Encourage cycling and promote the associated improvements. Encourage buses to be electric/low emission.
To ensure the sustainable supply and use of energy	P+	Cycling does not use any unsustainable energy and the schemes may help facilitate modal shift reducing the use of fossil fuels.	Encourage there to be facilities for vehicles that use less of no fossil fuels. Encourage buses to be electric/low emission.

SEA Analysis Table	Package 13 – Baldock Connectivity, Rail Station and Development		
SEA Topic – Historic Environment and Landscape			
To protect and enhance the character of landscape, townscape and green spaces	U	Without detailed scheme designs (especially for the new link roads) it is difficult to determine the impact on landscape and townscape. Any schemes that encourage modal shift should enhance the townscape by removing vehicles from roads.	It is assumed that for new link roads that a full EIA would be undertaken, which would consider impacts in further detail.
To conserve and enhance the historic environment, heritage assets and their settings	U	Without detailed scheme designs and exact locations (especially for the new link roads) it is difficult to determine the impact on any local historic assets.	Consult the map of listed buildings and monuments.
SEA Topic – Social inclusiveness			
To tackle the causes of poverty and social exclusion by improving access to services and community facilities for all	P+	The schemes aim to improve bus services and bike infrastructure in Baldock and ensure that the new development also has provision for bus use and walking and cycling to allow access to services and facilities	There should be consideration of opening places for bicycles to be recycled so that those that cannot afford bicycles can still have access. Promote cycle training to help cyclists ride safely.

SEA Analysis Table	Package 13 – Baldock Connectivity, Rail Station and Development		
		especially for those without access to a car.	
To empower all sections of the community to participate in decision making and local action	P+	Improving bus services and cycling infrastructure may enable those who are more able to ride bicycles than run cars to better access key locations for local action	There should be consideration of opening places for bicycles to be recycled so that those that cannot afford bicycles can still have access. Promote cycle training to help cyclists ride safely. Promote bus service improvements.
SEA Topic – Economic development			
To maintain employment, improve economic competitiveness (consistent with environmental constraints) and create a vibrant economy	P+	These schemes help to improve access to employment opportunities by improving bus services and cycle infrastructure that may encourage people to cycle to places of employment.	To work with employers to encourage employees to cycle or use public transport to places of employment.
To spread economic growth more evenly to benefit deprived areas	P+	All of the schemes will help to improve access to employment opportunities.	Encourage people to use public transport or to cycle to work.

SEA Analysis Table	Package 13 – Baldock Connectivity, Rail Station and Development		
To maintain the vitality and viability of existing centres	P+	With any potential increases in employment there will be more spending power in existing centres leading to improved vitality and viability.	

Significant Positive Effects:

- The schemes will improve the choice of sustainable transport modes, encourage their use, and reduce the need to travel by car.

Significant Negative Effects:

- The building of new link roads within new developments on greenfield sites, and the associated negative impacts on local biodiversity and habitats.

Timescale (i.e. short, medium, long term):

- Timescales are not currently known.

Likelihood of effects or impacts identified occurring:

- Medium likelihood.

Permanent or Temporary impacts:

<u>Permanent</u>

- Improvement in air quality

<u>Unknown</u>

The nature of the following impacts is uncertain because they are dependent on modal shift. The success of the schemes to encourage modal shift is currently unknown:

- Reduced impact on biodiversity.
- Improved air quality and reductions in noise pollution.
- Reduced greenhouse gas emissions from vehicular transport.
- Enhanced townscape and tranquillity.
- Modal shift and associated benefits for the surrounding environment.
- Enhanced local economy.
- Negative impacts on biodiversity due to road building.
- Perpetuation of car use and associated environmental and economic impacts.
- Impacts on listed buildings.

Recommendation for mitigation for adverse effects and/or enhancement or positive effects:

- Encourage Cycling and promote the associated improvements.
- Where possible new roads should utilise recycled materials and minimise the destruction of green spaces.
- Promote walking and cycling as a form of exercise for everyone.
- Consider clear signage to reduce conflicts between road users.
- Promote cycle training to help cyclists ride safely.
- Where possible any materials used in construction should be recycled and renewable products.
- Prevent soil removal where possible in the construction of new cycle ways.
- Use LED lighting where possible to minimise light pollution.
- There should be consideration of opening places for bicycles to be recycled so that those that cannot afford bicycles can still have access.
- To work with employers to encourage employees to cycle to places of employment.
- Encourage tree planting in any new scheme.

Data Issues:

- Monitoring modal shift in the area.

APPENDIX 3 - APPRAISAL MATRIX: Package 14 - Connections to Arlesley, Stotfold and Shefford

SEA Analysis Table	**Package 14 - Connections to Arlesley, Stotfold and Shefford**		
SEA Objective	**Assessment of Effect** ✓ Positive impact P+ Potentially positive impact O No relationship/ link U Uncertain/ Depends on implementation P- Potentially negative impact X Negative impact	**Justification:** • **Likelihood of effect occurring** • **Permanence of effect** • **Geographic scale of effect** • **Cumulative effects** • **Current env. Social & economic trends of affected area** • **Likelihood of affecting particularly sensitive locations**	**Recommendations (including mitigating negative effects and improving positive effects)**
SEA Topic – Biodiversity, fauna and flora			
To protect and enhance biodiversity	P+	Each scheme aims to promote a modal shift away from the private motor car to more sustainable modes of travel. This shift would have a positive impact on flora and Fauna. These schemes are not in any SSSI's or major biodiversity areas. PR76 received an O as there would be no altercation needed to existing train routes.	Actively encourage tree planting in new developments. Encourage cycling and promote the associated improvements.

SEA Analysis Table	Package 14 - Connections to Arlesley, Stotfold and Shefford		
SEA Topic - Population and human health			
To maximise the opportunities for leisure and a healthy lifestyle for all, and to improve the physical and mental health of the population, and reduce health inequalities	P+	Both encouraging more direct train routes and extended cycle lanes 'door to door' will encourage modal shift away from private cars. The cycle route improvement will encourage active travel with all the included health benefits. PR76 received a U as implementation is down to future co-operation with central Bedfordshire council	Promote cycling as a form of exercise for everyone. Encourage the new routes to the leisure facilities instead of driving.
To reduce crime and create safe environments	P+	More people cycling within public spaces leads to safer environments and a feeling of personal safety.	Ensure all cycle routes and walkways are well lit. Encourage training to help cyclist ride safely.

SEA Analysis Table	Package 14 - Connections to Arlesley, Stotfold and Shefford		
SEA Topic - Water and soil			
To improve the sustainable use of resources	U	At this stage it is unknown what material will be used in the upgrade of existing footway to shared footpath and cycleway. It may be that the footpath is split in two therefore no unnecessary use of resources will occur. For PR76 an O was given as no resources will be used in this scheme.	Where possible any materials used in construction should be recycled and renewable products.
To move away from waste disposal to minimisation, reuse, recycling and recovery	U	Unknown what construction would be needed to upgrade a walkway to cycle route and depends on implementation. PR76 is given an O as the scheme is one based on encouraging the use of a train network and no construction is involved.	Where possible any materials used in construction should be recycled and renewable products. Promote sustainable construction practices including the minimisation of construction waste.
To ensure the efficient use of water, and safeguard water resources	O	Both schemes are already on existing infrastructure.	When building the new developments encourage the design addresses efficient use of water.

SEA Analysis Table	Package 14 - Connections to Arlesley, Stotfold and Shefford		
To reduce contamination, and safeguard soil quality and quantity	U	It is not known at this stage what damage will occur to the soil when implementing the cycleway.	Ensure soil loss is kept to a minimum during construction.
SEA Topic - Air			
To protect and enhance air quality and minimise noise pollution	P+	The schemes seek to facilitate modal shift to cycling and public transport which would have air quality benefits	When including new lighting use LED lights where possible to minimise light pollution. Encourage electric sustainable modes of transport instead of fossil fuel modes
To improve the choice of sustainable transport modes, encourage their use, and reduce the need to travel by car	✓	Both schemes encourage a move away from private car either by train or bike and create safer, longer routes which reduce the need to have a car for long distance travel.	To promote the benefits of sustainable transport and to encourage cycling.
SEA Topic - Climatic factors			
To adapt to the impacts of climate change such as flooding	P+	Cycling has no negative impacts on the causes of climate change. Encouraging train usage over private cars also reduces the impact on the environment. The schemes are near flood danger	When developing new areas make sure water can runoff to a safe and suitable location.

SEA Analysis Table	Package 14 - Connections to Arlesley, Stotfold and Shefford		
		zones therefore these needs to be taken into consideration.	
To reduce greenhouse gases including carbon dioxide, emitted by vehicular transport	P+	Cycling does not produce any greenhouse gasses. Encouraging train usage over private cars also reduces the impact on the environment.	Encourage cycling and promote the associated improvements. Encourage the development of facilities for modes of transport that use less or no fossil fuel.
To ensure the sustainable supply and use of energy	P+	Cycling does not use any unsustainable energy and encouraging train routes may reduce the amount of cars on the road reducing greenhouse gas emissions.	Encourage cycling and promote the associated improvements. Encourage the development of facilities for modes of transport that use less or no fossil fuel.
SEA Topic - Historic Environment and Landscape			
To protect and enhance the character of landscape, townscape and green spaces	U	Due to these schemes being with central Bedfordshire council it is unclear what type of implementation they will take and therefore what impacts it will have on the character of the local area.	

SEA Analysis Table	Package 14 - Connections to Arlesley, Stotfold and Shefford		
To conserve and enhance the historic environment, heritage assets and their settings	U	This project is down to implementation and without knowing what Central Bedfordshire's intentions are at the moment. This objective is dependent on what implementations occur. They are near a lot of listed buildings but do not affect any of them at all.	Check listed buildings within the area.
SEA Topic - Social inclusiveness			
To tackle the causes of poverty and social exclusion by improving access to services and community facilities for all	P+	The schemes aim to provide cycle access to people who may not have access to a private car. Improving this infrastructure will improve access to services.	Bike recycling schemes could be created so unwanted bikes can be recycled and given to those who cannot afford a bicycle.
To empower all sections of the community to participate in decision making and local action	P+	Allows people access to more affordable modes of transport away from the cost of the private motor car.	Promote issues and raise awareness of quality of life issues to residents and community partners.

SEA Analysis Table	Package 14 - Connections to Arlesley, Stotfold and Shefford		
SEA Topic - Economic development			
To maintain employment, improve economic competitiveness (consistent with environmental constraints) and create a vibrant economy	P+	These schemes help to improve access to employment opportunities by improving cycle infrastructure and encouraging mix modal transport for more efficient travel.	Suggest employers encourage employees to cycle or use public transport to work.
To spread economic growth more evenly to benefit deprived areas	P+	Both of the schemes will help to improve access to employment opportunities by linking residential with places of work through sustainable and affordable means.	
To maintain the vitality and viability of existing centres	P+	With any potential increases in employment there will be more spending power in existing centres leading to improved vitality and viability.	Encourage small scale retail development within the linking developments within Central Bedfordshire.

Significant Positive Effects:

- The schemes will improve the choice of sustainable transport modes, encourage their use, and reduce the need to travel by car.

Significant Negative Effects: None.

Timescale (i.e. short, medium, long term):

- Timescales are not currently known

Likelihood of effects or impacts identified occurring:

- Medium Likelihood

Permanent or Temporary impacts:

Permanent

- Improvement in air quality
- Greater access to services and places of employment with a good public transport system in the new development.

Unknown

The nature of the following impacts is uncertain because they are dependent on modal shift. The success of the schemes to encourage modal shift is currently unknown:

- Reduced impact on biodiversity.
- Improved air quality and reductions in noise pollution.
- Reduced greenhouse gas emissions from vehicular transport.
- Enhanced townscape and tranquillity.
- Modal shift and associated benefits for the surrounding environment.
- Enhanced local economy.

Recommendation for mitigation for adverse effects and/or enhancement or positive effects:

- Encourage walking and cycling and promote the associated improvements.
- Where possible new roads should utilise recycled materials and minimise the destruction of green spaces.
- Promote walking and cycling as a form of exercise for everyone.
- Consider clear signage to reduce conflicts between road users.
- Promote cycle training to help cyclists ride safely.
- Where possible any materials used in construction should be recycled and renewable products.
- Prevent soil removal where possible in the construction of new cycle ways.
- Use LED lighting where possible to minimise light pollution.

- There should be consideration of opening places for bicycles to be recycled so that those that cannot afford bicycles can still have access.
- To work with employers to encourage employees to walk, cycle or use public transport to places of employment.
- Encourage tree planting in any new scheme.
- Sustainable construction practices should be implemented into the schemes.

Data Issues:

- Monitoring how many people use the new cycleway
- If encouraging to use the train network works

APPENDIX 3 - APPRAISAL MATRIX: Package 15 – Royston

SEA Analysis Table	**Package 15 – Royston**		
SEA Objective	**Assessment of Effect** ✓ Positive impact P+ Potentially positive impact O No relationship/ link U Uncertain/ Depends on implementation P- Potentially negative impact X Negative impact	**Justification:** • **Likelihood of effect occurring** • **Permanence of effect** • **Geographic scale of effect** • **Cumulative effects** • **Current env. Social & economic trends of affected area** • **Likelihood of affecting particularly sensitive locations**	**Recommendations (including mitigating negative effects and improving positive effects)**
SEA Topic – Biodiversity, fauna and flora			
To protect and enhance biodiversity	P+	Most of the schemes seek to encourage modal shift away from the private car to more sustainable modes of transport. This modal shift would have positive impacts on flora and fauna. Royston is next to the Therfield Heath SSSI and Coombe Bottom which are important chalk grasslands.	Royston is located next to an SSSI and a key biodiversity area, which should be considered and avoided if further construction work is undertaken, . Encourage tree planting with all new developments. The County Council will look to developing a 'light touch' Environmental Impact Assessment or checklist, for smaller scale schemes that do not require a full EIA, to

SEA Analysis Table	Package 15 – Royston		
			identify and consider impacts on the environment.
SEA Topic - Population and human health			
To maximise the opportunities for leisure and a healthy lifestyle for all, and to improve the physical and mental health of the population, and reduce health inequalities	P+	The majority of the schemes promote cycling and walking which in turn are forms of active travel, contributing to a healthy lifestyle. Improving the bus network and mix mode intersections will make leisure facilities and health facilities more accessible.	Promote cycling as a form of exercise for everyone. Promote the use of buses for longer distance travel.
To reduce crime and create safe environments	U	More people cycling in public places leads to safer environments and a feeling of personal security. Is dependent on implementation.	Promote cycling training to help cyclist ride safely. Ensure all pedestrian routes/ cycle routes are well lit. Ensure the bus services run late to improve safety.
SEA Topic - Water and soil			
To improve the sustainable use of resources	U	At this stage it is not known what materials will be used for the construction within these schemes. However if the scheme does use recycled materials when constructing then this would have a positive impact	Where possible any materials used in construction should be recycled and renewable products.

SEA Analysis Table	Package 15 – Royston		
To move away from waste disposal to minimisation, reuse, recycling and recovery	U	At this stage it is not known what materials will be used for the construction within these schemes. Therefore the waste aspect has not been discussed yet and will be decided just before implementation.	Construction waste should be kept to a minimum and the waste hierarchy should be applied.
To ensure the efficient use of water, and safeguard water resources	O	There are no rivers or streams in the project areas.	
To reduce contamination, and safeguard soil quality and quantity	P-	SM81 may include construction which could disrupt the soil in the area which is why it was given a P-.	
SEA Topic - Air			
To protect and enhance air quality and minimise noise pollution	P+	The proposed schemes seek to facilitate modal shift to cycling and public transport away from the private car. This would have benefits for air quality and minimise traffic on the road and thus reduce noise pollution from car engines.	Use LED lighting where possible to minimise light pollution. Encourage Buses to be electric/low emission.

SEA Analysis Table	Package 15 – Royston		
To improve the choice of sustainable transport modes, encourage their use, and reduce the need to travel by car	P+	The schemes seek to provide added cycle routes and associated infrastructure which will encourage modal shift. Improving the bus station will encourage more use.	Promote the new cycle routes and new infrastructure to encourage the use of sustainable modes of transport.
SEA Topic - Climatic factors			
To adapt to the impacts of climate change such as flooding	U	Cycling has no negative impact on the causes of climate change. It is unknown if any construction will incorporate climate change adaptation i.e. flooding issues.	
To reduce greenhouse gases including carbon dioxide, emitted by vehicular transport	P+	Cycling does not produce greenhouse gases and the schemes encourage a modal shift away from greenhouse gas emitting vehicles.	Encourage cycling and promote the associated improvements.
To ensure the sustainable supply and use of energy	P+	Cycling does not use fossil fuels. The schemes also encourage the development of facilities for vehicles that use less or no fossil fuel such as on street bike parking.	Encourage buses to be electric/ low emissions. Consider some electric bike charging infrastructure for PR77 cycle parking provision.

SEA Analysis Table	Package 15 – Royston		
SEA Topic - Historic Environment and Landscape			
To protect and enhance the character of landscape, townscape and green spaces	P+	The schemes seek to encourage cycling in the public space which enhances the appeal of the townscape.	
To conserve and enhance the historic environment, heritage assets and their settings	P+	Consideration is needed for any listed building in the area but within the schemes no major construction is expected that would impact on local heritage. The new cycle routes and better inter urban bus routes will help people access the local area more easily and help people to access local heritage.	Consult the map of listed buildings.
SEA Topic - Social inclusiveness			
To tackle the causes of poverty and social exclusion by improving access to services and community facilities for all	P+	The schemes intend to add cycle networks and improved bus network services which provides access to people who do not have access to a car through disabilities or fi-	There could be a place where bikes can be recycled so that those that cannot afford bikes can access them to reduce the time they would normally travel on foot.

SEA Analysis Table	Package 15 – Royston		
		nance. These also provide access to local community facilities.	
To empower all sections of the community to participate in decision making and local action	P+	When these schemes are implemented there should be community inclusion to come to an appropriate outcome.	When the schemes are ready to be implemented there should be a consultation to the community to allow them to contribute to decisions made in their community.
SEA Topic - Economic development			
To maintain employment, improve economic competitiveness (consistent with environmental constraints) and create a vibrant economy	P+	One of the schemes is developing sustainable access to the industrial estate which employs a lot of people within the area. All of the other schemes help to improve access to employment opportunities through cycling or buses.	To work with employers to encourage employees to cycle or use public transport to places of employment.
To spread economic growth more evenly to benefit deprived areas	P+	Most of the schemes will help improve access to employment opportunities.	Encourage people to cycle or use public transport to work.

SEA Analysis Table	Package 15 – Royston		
To maintain the vitality and viability of existing centres	P+	With the schemes providing improved accessibility to town centre facilities this should allow easier access and so ensure that the future of Royston town centre is kept viable.	

Significant Positive Effects: None.

Significant Negative Effects: None.

Timescale (i.e. short, medium, long term):

- Timescales are not currently known.

Likelihood of effects or impacts identified occurring:

- Medium likelihood.

Permanent or Temporary impacts:

Permanent

- Improvement in air quality

Unknown

The nature of the following impacts is uncertain because they are dependent on modal shift. The success of the schemes to encourage modal shift is currently unknown:

- Reduced impact on biodiversity.
- Improved air quality and reductions in noise pollution.
- Reduced greenhouse gas emissions from vehicular transport.
- Enhanced townscape and tranquillity.

- Modal shift and associated benefits for the surrounding environment.
- Enhanced local economy.
- Negative impacts on biodiversity due to road building.
- Perpetuation of car use and associated environmental and economic impacts**.**
- Impacts on listed buildings.

Recommendation for mitigation for adverse effects and/or enhancement or positive effects:

- Encourage Cycling and promote the associated improvements.
- Where possible new roads should utilise recycled materials and minimise the destruction of green spaces.
- Promote walking and cycling as a form of exercise for everyone.
- Consider clear signage to reduce conflicts between road users.
- Promote cycle training to help cyclists ride safely.
- Where possible any materials used in construction should be recycled and renewable products.
- Prevent soil removal where possible in the construction of new cycle ways.
- Use LED lighting where possible to minimise light pollution.
- There should be consideration of opening places for bicycles to be recycled so that those that cannot afford bicycles can still have access.
- To work with employers to encourage employees to cycle to places of employment.
- Encourage tree planting in any new scheme.

Data Issues:

- Monitoring modal shift in the area.