Appendix 5
LTP3 Preferred Option Effect Prediction Matrices

These matrices record the results of the impact assessment of the Preferred LTP3 Strategic Option completed through a workshop and individual meetings with expert officers in August 2011.

IIA topic/receptor	**Climate/CO2**					**Worksheet 1** Completed by and date:	Workshop 03/08/2010	
IIA objective(s)	**To reduce carbon and other greenhouse gas emissions from transport.**					**Time period:** **Short term = 2011 - 2014** **Medium Term = 2014 - 2018** **Long term = Beyond 2018** **Duration = Permanent/Temporary/Reversible**		
LTP measures	**Value and vulnerability of the area likely to be affected e.g. special characteristics; sensitive locations; limited resources; environmental thresholds**	**Magnitude of the effect i.e. spatial extent and size of population likely to be affected**				**Level of uncertainty (High/Medium/Low) and associated comments**	**Mitigation and its implementation**	**How the judgement was reached**
		Time	**Duration**	**Impact** +ve/-ve and brief description	**Secondary/Cumulative/ Synergistic effects**			
Maintenance of existing assets	Housing Market Area.	Short-term	Temporary	Neutral. Required to maintain network availability. Walking and cycling vulnerable to poor maintenance.	Opportunities to improve network resilience.	Low.	Seek to improve network resilience	Professional judgement
WPL with increased parking enforcement		Medium-term	Permanent	Positive. Discourages commuter travel. Encourages alternatives.	Dependent on employers passing on the charge.	High.		Professional judgement
Smarter Choices including business travel plan support and individualised travel planning		Short-term	Temporary	Positive. Encourages alternatives.	Cumulative – complements WPL.	Low.		Professional judgement
NET Phase 2 and integration with public transport network		Medium-term	Permanent	Positive. Promotes public transport use.	Removes car trips from the network. Short-term increase in carbons emitted associated with new infrastructure (manufacturing and construction).	Low.	Additional benefits through use of renewable fuel sources.	Professional judgement

Development of bus infrastructure, locallink network and smartcards and information		Short-term	Permanent	Positive. Promotes public transport use.	Removes car trips from network. Replacement vehicles will conform to latest Euro standards for diesel. Opportunities to adopt low carbon vehicles but likely to be a price premium in the short term.	Low.		Professional judgement
Walking and cycling networks including Rights of Way	Housing Market Area.	Short-term	Permanent	Positive. Offering low carbon option.	Removes car trips from the network.	Low.		Professional judgement
Road safety measures including area-wide 20 mph zones		Medium-term	Permanent	Positive. Reducing vehicle speeds creates an environment which supports walking and cycling.	Could increase journey length and stop-start driving which could increase emission levels.	Low.	Use of appropriate measures and Manual for Streets principles to create an environment where cars drive carefully by reducing forward visibility and horizontal defections rather than relying on vertical deflections.	Professional judgement
Public realm improvements including district and local centres		Short-term	Permanent	Positive. Creates attractive environment for walking and cycling.	Supports vibrant local services.	Medium.		Professional judgement
Low carbon transport system with emphasis on public transport and fleet vehicles and charging infrastructure		Medium-term	Permanent	Positive. Provides a less carbon intensive transport network.	Supports green industries and local employment opportunities.	High.	Emphasis on prioritised public transport and fleets for low carbon investment.	Professional judgement
Network management		Short-term	Temporary	Depends on implementation. Will maximise network efficiency for existing users but could encouraged increased car use.		Low.	Prioritise released capacity for sustainable transport.	Professional judgement

Local highway improvements		Medium-term	Permanent	Negative. Increases highway capacity.	Reduces congestion.	Low.	Improve complementary measures.	Professional judgement
Major highways schemes		Long-term	Permanent	Negative. Increases highway capacity which generates additional car trips.	Reduces congestion. Short-term increase in carbons emitted associated with new infrastructure (manufacturing and construction).	Low.	Improve complementary measures.	Professional judgement
Qualitative summary:				Generally positive as LTP3 aims to reduce the need to travel, encourage more active travel, and deliver modal shift to public transport and low carbon technology although new highway infrastructure will increase capacity which could generate additional car trips.				
Quantitative summary:				Nottingham City is currently estimated to contribute 1.9 million tonnes of CO_2 to the global climate, equivalent to 7.2 tonnes per capita each year. Annual carbon emissions from transport for the City were 68,400 in 2009. It will be possible to reduce carbon emissions over time through technology changes if policies are successful in continuing to constrain traffic growth.				
Assessment of significance (weighting of LTP impact in IIA objective in relation to other objectives				In terms of carbon, transport is the fastest growing source of GHG emissions in the UK, and commuter and business travel constitute nearly 40% of all miles driven by car. Our domestic transport currently contributes 22% of total UK greenhouse gas emissions, the majority of which is from cars.				
	Positive impact		Neutral impact		Negative impact		Impact depends on implementation	

IIA topic/receptor	Material Assets (Minerals, Waste, Energy & Fossil fuels)					Worksheet 2 Completed by and date:	Transport Strategy Team 10.08.10	
IIA objective(s)	To manage scarce resources (minerals, energy and fossil fuels) and minimise waste.					**Short term = 2011 - 2014** **Medium Term = 2014 - 2018** **Long term = Beyond 2018** **Duration = Permanent/Temporary/Reversible**		
LTP measures	**Value and vulnerability of the area likely to be affected**	**Magnitude of the effect**				**Level of uncertainty (High/Medium/Low) and associated comments**	**Mitigation and its implementation**	**How the judgement was reached**
		Time	**Duration**	**Impact**	**Secondary/Cumulative/ Synergistic effects**			
Maintenance of existing assets	Whole LTP area. Limited landfill capacity for waste including construction materials. Finite resources including aggregates and fossil fuels.	Short-term	Permanent	Depends on implementation - in short term will require use of construction materials and disposal of construction waste.	Maximising use of existing assets.	Low uncertainty achieved through scheme planning.	Minimise use of new materials and maximise use of recycled materials. Use Site Waste Management Plans to reduce construction waste going to landfill.	Highways Asset Mgmt Plan
WPL with increased parking enforcement		Medium-term	Permanent	Positive - will discourage commuter travel and encourage sustainable alternatives so reducing use of fossil fuels.	Will provide revenue stream to support promotion of public transport and smarter choices so improving availability of sustainable travel options.	High – depends on employers passing on the charge.		WPL Business Case
Smarter Choices including business travel plan support and individualised travel planning		Short-term	Temporary	Positive - will encourage sustainable alternatives so reducing use of fossil fuels.	Complementary to WPL and public transport investment.	Low. Effectiveness of smarter choices well evidenced.		DfT evidence including results of Sustainable Travel Towns pilot.

NET Phase 2 and integration with public transport network	Whole LTP area. Limited landfill capacity for waste including construction materials. Finite resources including aggregates and fossil fuels.	Medium-term	Permanent	Neutral – will require use of construction materials and disposal of construction waste in medium term but will reduce car journeys and use of fossil fuel in long term.	Complementary to WPL and Smarter Choices. Low carbon at pojnt of use.	Low – NET Line One exceeded expected patronage.	Minimise use of new materials and maximise use of recycled materials. Manage construction waste through adoption of Code of Construction Practice. Released network capacity to be prioritised for sustainable travel options. Explore options for local power generation.	NET Phase 2 Environmental Statement
Development of bus infrastructure, locallink network and smartcards and information		Short-term	Permanent	Depends on implementation - encourages a sustainable alternative so reducing use of fossil fuels but any new construction will require use of materials.	Complementary to WPL and Smarter Choices. Added benefits of developing low carbon bus fleet.	Low. Public transport improvements have achieved highest levels of growth on bus patronage outside London.	Minimise use of new materials and maximise use of recycled materials. Released network capacity to be prioritised for sustainable travel options. Explore options for local power generation.	Public transport team data
Walking and cycling networks including Rights of Way		Short-term	Permanent	Depends on implementation - in short terms as will require use of construction materials and disposal of construction waste.	Positive impacts in the longer term as will promote low carbon travel options.	Low.	Minimise use of new materials and maximise use of recycled materials. Use Site Waste Management Plans to reduce construction waste going to landfill.	Professional judgement
Road safety measures including area-wide 20 mph zones		Medium-term	Permanent	Depends on implementation - in short term as will require use of construction materials and disposal of construction waste.	Positive impacts in the longer term as will promote low carbon travel options by creating an environment conducive to walking and cycling.	Low.	Minimise use of new materials and maximise use of recycled materials. Use Site Waste Management Plans to reduce construction waste going to landfill.	Professional judgement

Public realm improvements including district and local centres	Whole LTP area. Limited landfill capacity for waste including construction materials. Finite resources including aggregates and fossil fuels.	Short-term	Permanent	Depends on implementation - in the short term as will require use of construction materials and disposal of construction waste.	Positive impacts in the longer term as will promote low carbon travel options by creating an environment conducive to walking and cycling.	Low.	Minimise use of new materials and maximise use of recycled materials. Use Site Waste Management Plans to reduce construction waste going to landfill.	Professional judgement
Low carbon transport system with emphasis on public transport and fleet vehicles and charging infrastructure		Medium-term	Permanent	Positive as will reduce use of fossil fuels.	May be negative global impacts caused by demand for some low carbon fuel options e.g. food crops replaced by fuel crops. Electric vehicles only currently clean at point of use.	High – which low carbon fuel/power options are commercially viable depends on global market.	Need to consider whole life costing of different fuel options. Explore options for local power generation.	Professional judgement
Network management		Short-term	Temporary	Positive as maximising use of existing network and smoothing traffic flows will reduce fuel consumption.	Risk that could encourage car use and faster flowing traffic could deter walking and cycling unless released capacity is prioritised for sustainable travel options..	Low.	Need to ensure released capacity is used for sustainable travel options.	Professional judgement
Local highway improvements		Medium-term	Permanent	Negative in the short term as will require use of construction materials and disposal of construction waste. Will support development of brownfield sites.	Smoothing traffic flows will reduce fuel consumption but could encourage car use and faster flowing traffic could deter walking and cycling.	Low.	Minimise use of new materials and maximise use of recycled materials. Improvements should prioritise sustainable travel options.	Professional judgement
Major highways schemes		Long-term	Permanent	Depends on implementation - will require use of construction materials and disposal of construction waste.	Smoothing traffic flows will reduce fuel consumption but could encourage car use and faster flowing traffic could deter walking and cycling.	Low.	Minimise use of new materials and maximise use of recycled materials. Released network capacity to be prioritised for sustainable travel options. These schemes will require EIAs to consider the impacts and mitigation in more detail.	Professional judgement

Qualitative summary:	New construction will increase the use of materials and generate construction waste but the LTP3 measures will reduce the need to travel and support modal shift thereby helping to reduce use of fossil fuels.
Quantitative summary:	The transport sector is responsible for 21% of the energy consumption in Nottingham. Petrol vehicle use is falling with an increasing use of more efficient and lower CO2 emission diesel. However there has been no appreciable increase in global conventional crude oil output since 2005 despite increases in drilling rig activity and by 2025, the UK will be importing 57% of its oil up from 15% in 2010.
Assessment of significance (weighting of LTP impact in IIA objective in relation to other objectives	Medium impact in terms of use of scarce resources. The transport sector is currently over-reliant on oil and so vulnerable to sudden fluctuations in the global oil market.

	Positive impact		Neutral impact		Negative impact		Impact depends on implementation

IIA topic/receptor	Water					Worksheet 3 Completed by and date:	Transport Strategy Team 10.08.10	
IIA objective(s)	To protect water quality and minimise the impact of flooding					**Short term = 2011 - 2014** **Medium Term = 2014 - 2018** **Long term = Beyond 2018** **Duration = Permanent/Temporary/Reversible**		
LTP measures	**Value and vulnerability of the area likely to be affected**	**Magnitude of the effect**				**Level of uncertainty (High/Medium/Low) and associated comments**	**Mitigation and its implementation**	**How the judgement was reached**
		Time	**Duration**	**Impact**	**Secondary/Cumulative/ Synergistic effects**			
Maintenance of existing assets	All water courses within the Plan area vulnerable to contamination or flooding. All highways and transport infrastructure within the flood plain. Rail lines and transport corridors in the River Leen corridor.	Short-term	Temporary	Positive as provides opportunities to improve surface water drainage but could be some impacts from run off in the short-term during construction.	Prioritising links to inter-modal facilities could promote water-borne freight options.	Low – UK Climate Impacts Programme scenarios predict wetter summers in future. NCC's Local Climate Impacts Profile 2000 - 2008 shows how extreme weather events have already affected local authority activities and services.		River Trent Water Freight Feasibility Study. Surface Water Management Plan and 3 Cities Drainage Study. Nottingham City Local Climate Impacts Profile
WPL with increased parking enforcement		N/A	N/A	None				Professional judgement
Smarter Choices including business travel plan support and individualised travel planning		N/A	N/A	None				Professional judgement

NET Phase 2 and integration with public transport network	All water courses within the Plan area vulnerable to contamination or flooding. All highways and transport infrastructure within the flood plain. Rail lines in the River Leen corridor	Medium-term	Permanent	Neutral - The Environmental Statement identifies the potential impacts of construction on local water resources and proposes adequate mitigation measures. Hydraulic modelling has shown that the scheme design will not cause adverse flooding at Fairham Brook, River Trent at Wilford Toll Bridge or River Leen.		Low – UK Climate Impacts Programme scenarios predict wetter summers in future. NCC's Local Climate Impacts Profile 2000 - 2008 shows how extreme weather events have already affected local authority activities and services.	Ensure resilience of future infrastructure by use of appropriate materials and construction techniques. Adopt best practice through Code of Construction Practice to minimise impacts on local water resources	NET Phase 2 Environmental Statement
Development of bus infrastructure, locallink network and smartcards and information		Short-term	Permanent	Depends on implementation - provides opportunities to improve surface water drainage but could be some impacts from run off in the short-term during construction.		Low – UK Climate Impacts Programme scenarios predict wetter summers in future. NCC's Local Climate Impacts Profile 2000 - 2008 shows how extreme weather events have already affected local authority activities and services.	Ensure resilience of future infrastructure and highway assets by steering development away from areas of highest risk and use of appropriate materials and construction techniques.	Strategic Flood Risk Assessments for the River Trent and the River Leen.
Walking and cycling networks including Rights of Way		Short-term	Permanent	Positive opportunities to improve access to waterways and green infrastructure.	Increased human activity may adversely impact on ecological quality of water courses.		Education and management.	Professional judgement.
Road safety measures including area-wide 20 mph zones		Medium-term	Permanent	Depends on implementation - provides opportunities to improve surface water drainage but could be some impacts from run off in the short-term during construction.		Low – UK Climate Impacts Programme scenarios predict wetter summers in future. NCC's Local Climate Impacts Profile 2000 - 2008 shows how extreme weather events have already affected local authority activities and services.	Use of appropriate materials and construction techniques including SUDS and porous materials. Improve drainage systems in line with Surface Water Management Plan and 3 Cities Drainage Study.	Surface Water Management Plan and 3 Cities Drainage Study.

Public realm improvements including district and local centres	All water courses within the Plan area vulnerable to contamination or flooding. All highways and transport infrastructure within the flood plain. Rail lines in the River Leen corridor	Short-term	Permanent	Depends on implementation - provides opportunities to improve surface water drainage but could be some impacts from run off in the short-term during construction.		Low – UK Climate Impacts Programme scenarios predict wetter summers in future. NCC's Local Climate Impacts Profile 2000 - 2008 shows how extreme weather events have already affected local authority activities and services.	Use of appropriate materials and construction techniques including SUDS and porous materials. Improve drainage systems in line with Surface Water Management Plan and 3 Cities Drainage Study.	Surface Water Management Plan and 3 Cities Drainage Study.
Low carbon transport system with emphasis on public transport and fleet vehicles and charging infrastructure		N/A	N/A	None				Professional judgement
Network management		Short-term	Temporary	Neutral - prioritising links to inter-modal facilities could promote water-borne freight options.		Low – UK Climate Impacts Programme scenarios predict wetter summers in future. NCC's Local Climate Impacts Profile 2000 - 2008 shows how extreme weather events have already affected local authority activities and services.		Professional judgement
Local highway improvements		Medium-term	Permanent	Depends on implementation - provides opportunities to improve surface water drainage but could be some impacts from run off in the short-term during construction.	Prioritising links to inter-modal facilities could promote water-borne freight options.		Use of appropriate materials and construction techniques including SUDS and porous materials. Improve drainage systems in line with Surface Water Management Plan and 3 Cities Drainage Study.	Surface Water Management Plan and 3 Cities Drainage Study.

Major highways schemes	All water courses within the Plan area vulnerable to contamination or flooding. All highways and transport infrastructure within the flood plain. Rail lines in the River Leen corridor	Long-term	Permanent	Depends on implementation - provides opportunities to improve surface water drainage but could be some impacts from run off in the short-term during construction and from increased road traffic and long term impacts of increased coverage of impermeable surfacing.	Prioritising links to inter-modal facilities could promote water-borne freight options.		Ensure resilience of future infrastructure and highway assets by steering development away from areas of highest risk. Improve drainage systems in line with Surface Water Management Plan and 3 Cities Drainage Study. Use of appropriate materials and construction techniques including SUDS and porous materials.	Surface Water Management Plan and 3 Cities Drainage Study.
Qualitative summary:				Increasing impermeable surfaces increases surface water run-off and flooding risks. Mitigation through the appropriate management of surface water, design of drainage systems and use of appropriate construction for resilience.				
Quantitative summary:				Refer to Strategic Flood Risk Assessments for the River Trent and the River Leen; Surface Water Management Plan; 3 Cities Drainage Study				
Assessment of significance (weighting of LTP impact in IIA objective in relation to other objectives				LTP3 has the potential to make a positive contribution to reducing flood risk and to ensuring resilience of future transport infrastructure. Level of impact depends on implementation.				

	Positive impact		Neutral impact		Negative impact		Impact depends on implementation

IIA topic/receptor	Natural Environment (Biodiversity, Landscape and Soil)					Worksheet 4 Completed by and date:	Transport Strategy Team 10.08.10	
IIA objective(s)	To protect and enhance the rich diversity of the natural environment including enhancing and conserving biodiversity.					**Short term = 2011 - 2014** **Medium Term = 2014 - 2018** **Long term = Beyond 2018** **Duration = Permanent/Temporary/Reversible**		
LTP measures	**Value and vulnerability of the area likely to be affected**	**Magnitude of the effect**				**Level of uncertainty (High/Medium/Low) and associated comments**	**Mitigation and its implementation**	**How the judgement was reached**
		Time	**Duration**	**Impact**	**Secondary/Cumulative/ Synergistic effects**			
Maintenance of existing assets	20% of the Plan area comprises accessible open and green spaces. Quality varies widely from habitat types that are irreplaceable to those of marginal importance. The connectivity value of otherwise poor sites may be significant.	Short	Permanent	Negative – maintenance practices may impact on biodiversity in transport corridors.	Maximising use of existing network reduces need for new capacity and land take for transport schemes.	High – depends on ability of species to survive relocation and future climate change and any relevant licencing for protected species and consents for protected sites	Adoption of best practice. Opportunities for positive maintenance of remaining habitats with a biodiversity focus.	Professional judgement
WPL with increased parking enforcement		Medium	Temporary	Positive impact - promoting modal shift will reduce impact of traffic on species and habitats.	Parking could be displaced to undeveloped land with negative impacts for biodiversity	High – depends on whether employers pass WPL charge onto employees	Business support for liable businesses to reduce parking demand and parking controls and enforcement in vulnerable areas.	Professional judgement
Smarter Choices including business travel plan support and individualised travel planning		Short	Temporary	Positive impact - promoting modal shift will reduce impact of traffic on species and habitats.	Provides opportunities to improve access to open space.			Professional judgement

NET Phase 2 and integration with public transport network	20% of the Plan area comprises accessible open and green spaces. Quality varies widely from habitat types that are irreplaceable to those of marginal importance. The connectivity value of otherwise poor sites may be significant.	Long term	Permanent	Negative - Land take for construction on NET corridors may impact on biodiversity and protected sites along the routes corridors.	Secondary positive impact - promoting modal shift will reduce impact of traffic on species and habitats. Provides opportunities to improve access to open space.	Medium uncertainty as depends on outcome of ecological surveys as to the effects on protected species.	A full assessment of the impacts and appropriate mitigation measures has been carried out: Habitat loss will be kept to a minimum; appropriate mitigation will be agreed with Natural England and ecological advice will be taken to implement the mitigation measures; removal of woodland and trees will take place outside the bird breeding season and bridges, built structures and mature and dead trees will be checked for bats and roosting birds prior to removal; site drainage will be designed to avoid impact on wetland habitats and water courses; direct effects on identified SINCs, LNRs and Wildlife Corridors which interesect the routes will be avoided and opportunities will be taken to enhance habitats of value.	NET Phase 2 Environmental Statement
Development of bus infrastructure, locallink network and smartcards and information		Long term	Permanent	Depends in implementation - construction of new infrastructure may impact on species and habitats.	Secondary positive impact - promoting modal shift will reduce impact of traffic on species and habitats. Provides opportunities to improve access to open space.		Adoption of best practice. Consider appropriate ecological surveys for protected species including badgers, water voles, white clawed crayfish and great crested newts as appropriate to the existing land use prior to implementation.	Professional judgement

Walking and cycling networks including Rights of Way	20% of the Plan area comprises accessible open and green spaces. Quality varies widely from habitat types that are irreplaceable to those of marginal importance. The connectivity value of otherwise poor sites may be significant.	Long term	Permanent	Depends on implementation - construction of new infrastructure may impact on species and habitats but offers an opportunity to enhance the green infrastructure network.	Provides opportunities to improve access to open space. However improved access to green and open spaces. Increasing human activity levels may adversely impact on habitats and species.		Appropriate design and construction. Education and management. Consider appropriate ecological surveys for protected species above prior to implementation.	Professional judgement
Road safety measures including area-wide 20 mph zones		Long term	Permanent	Depends on implementation - construction of new infrastructure may impact on species and habitats but offers an opportunity to enhance the green infrastructure network.	Secondary positive impact – encouraging more walking and cycling will reduce impact of traffic on species and habitats.		Appropriate design and construction including use of SUDS.	Professional judgement
Public realm improvements including district and local centres		Long term	Permanent	Depends on implementation – potential to enhance habitats through design and management.	Secondary positive impact – encouraging more walking and cycling will reduce impact of traffic on species and habitats.		Appropriate design and construction including use of SUDS.	Professional judgement
Low carbon transport system with emphasis on public transport and fleet vehicles and charging infrastructure		Long term	Permanent	Depends on implementation and the type of low carbon fuel options/power sources used.	May be negative impacts outside the UK caused by demand for some low carbon fuel options e.g. food crops replaced by fuel crops.	High – which low carbon fuel/power options are commercially viable depends on global market.	Need to consider whole life costing of different fuel options.	Professional judgement
Network management		Long term	Permanent	Positive - maximising use of existing network reduces need for new capacity and land take for transport schemes.				Professional judgement

Local highway improvements		Long term	Permanent	Depends in implementation - construction of new infrastructure may impact on species and habitats.	Could impact on loss of recreational open space in terms of public enjoyment.		Appropriate design and construction including use of SUDS. Consider appropriate ecological surveys for protected species above prior to implementation.	Professional judgement
Major highways schemes	20% of the Plan area comprises accessible open and green spaces. Quality varies widely from habitat types that are irreplaceable to those of marginal importance. The connectivity of value of otherwise poor sites may be significant.	Long term	Permanent	Depends in implementation - construction of new infrastructure may impact on species and habitats.	Could impact on loss of recreational open space in terms of public enjoyment.		Will require EIAs for all major highways schemes to identify the full impacts and appropriate mitigation measures.	Professional judgement
Qualitative summary:				Impacts are dependent on design, implementation and ongoing management. Will also provide opportunities to improve access to open spaces by improving the transport network and travel options. However some highways schemes could reduce public enjoyment of open space.				
Quantitative summary:				The Biodiversity Action Plan provides details of protected species and habitats. Relevant legislation to be adhered to including Wildlife and Countryside Act 1981 (as amended), the Conservation of Habitats and Species Regulations 2010, Protection of Badgers Act, Planning Policy Statement 9, Natural England and Rural Communities Act 2006.				
Assessment of significance (weighting of LTP impact in IIA objective in relation to other objectives				LTP3 is most significant in terms of improving connectivity by improving access to open space and providing opportunities to develop and enhance green infrastructure.				

	Positive impact		Neutral impact		Negative impact		Impact depends on implementation

IIA topic/receptor	Urban Environment (Cultural Heritage & Townscape)	Worksheet 5 Completed by and date:	Transport Strategy Team 10.08.10
IIA objective(s)	To protect and enhance buildings, areas, features of historic, archaeological and architectural interest and their settings.	**Short term = 2011 - 2014** **Medium Term = 2014 - 2018** **Long term = Beyond 2018** **Duration = Permanent/Temporary/Reversible**	

LTP measures	Value and vulnerability of the area likely to be affected	Magnitude of the effect				Level of uncertainty (High/Medium/Low) and associated comments	Mitigation and its implementation	How the judgement was reached
		Time	Duration	Impact	Secondary/Cumulative/ Synergistic effects			
Maintenance of existing assets	Plan area	Short-term.	Temporary	Positive – opportunity to improve streetscape.		Low	Use Streetscape Design Guide and Manual for Streets.	Professional judgement
WPL with increased parking enforcement	Plan area – sensitive locations include conservation areas and residential areas	Medium	Permanent	Positive - promoting modal shift will reduce impact of traffic.	Complements Smarter Choices and public transport measures	High – effectiveness to reduce commuting by car depends on employers passing on charge to employees	Need to reduce streetscape clutter from additional parking restriction signing and lining.	Professional judgement
Smarter Choices including business travel plan support and individualised travel planning	Plan area	Short-term	Temporary	Positive - promoting modal shift will reduce impact of traffic.	Complements WPL and public transport measures. ITP can help to improve access to cultural activities and destinations.	Medium		Professional judgement

NET Phase 2 and integration with public transport network	NET Phase 2 corridors	Medium	Permanent	Depends on implementation – The Environmental Statement identifies three listed buildings along the route which will experience some permanent alteration: Nottingham Station; Wilford Toll Bridge; Beeston Police Station. The EIA also identifies some potential for adverse impact on Lenton Priory Scheduled Ancient Monument. The EIA also identifies areas where there will be temporary disruption to townscape and visual amenity during construction of major structures.	Positive – opportunity to upgrade waiting facilities and improve streetscape. Promoting modal shift will reduce impact of traffic. Complements Smarter Choices and WPL measures.	Low	Mitigation measures have been identified through NET Phase 2 EIA which will be included in the Code of Construction Practice. The authority will work in consultation with English Heritage to ensure there is no significant adverse residual impact on these listed buildings and conservation areas. There is also mitigation to take account of any potential significant archaeological deposits. Adoption of Urban Design and Landscape Statement to guide replacement tree planting, landscaping and streetscape improvements.	NET Phase 2 Environmental Statement
Development of bus infrastructure, locallink network and smartcards and information	Plan area along bus routes	Short-term	Permanent	Positive – opportunity to upgrade waiting facilities and improve streetscape.	Promoting modal shift will reduce impact of traffic. Complements Smarter Choices and WPL measures.	Low		Professional judgement
Walking and cycling networks including Rights of Way	Plan area along specific routes	Short-term	Permanent	Positive - promoting modal shift will reduce impact of traffic and encourage more local journeys.		Low		Professional judgement
Road safety measures including area-wide 20 mph zones	Residential areas	Short-term	Permanent	Positive - opportunities to improve streetscape and introduce home zone style areas.	Encouraging more local journeys on foot and by bike.	Low	Use appropriate Streetscape Design Guide and Manual for Streets principles	Professional judgement

Public realm improvements including district and local centres	Regeneration areas, district and local centres.	Short-term	Permanent	Positive – opportunity to improve, refurbish or clean building facades. Will improve sense of place and local distinctiveness.		Low	Use appropriate Streetscape Design Guide and Manual for Streets principles	Professional judgement
Low carbon transport system with emphasis on public transport and fleet vehicles and charging infrastructure	Bus corridors, City centre and district and local centres.	Long-term	Permenet	Impact depends on implementation – cleaner fuel options may reduce damage to building facades.	Providing charging for EVs may encourage increased car use.	High – depends on market and uptake of low carbon vehicles	Need to consider impact of on-street EV charging points on streetscape.	Professional judgement
Network management	Plan area			None				Professional judgement
Local highway improvements	Plan area – specific locations	Medium		Depends on implementation.		Medium	Use appropriate Streetscape Design Guide and Manual for Streets.	Professional judgement
Major highways schemes	Plan area – specific locations	Long -term		Depends on implementation.		Medium	Use appropriate Streetscape Design Guide and Manual for Streets and consider through EIA for individual major highways schemes	Professional judgement
Qualitative summary:				Impacts are generally positive as offers opportunities to upgrade streetscape.				
Quantitative summary:				Existing examples of transport projects providing the catalyst for urban improvement is evidenced through satisfaction surveys.				
Assessment of significance (weighting of LTP impact in IIA objective in relation to other objectives				Impact of LTP3 is significant as the City is primarily an urban environment.				

	Positive impact		Neutral impact		Negative impact		Impact depends on implementation

IIA topic/receptor	**Population and Economy (Sustainable communities)**	**Worksheet 6** Completed by and date:	Workshop 03/08/2010
IIA objective(s)	**To respond to the regeneration and growth agendas in a sustainable way.**	**Short term = 2011 - 2014** **Medium Term = 2014 - 2018** **Long term = Beyond 2018** **Duration = Permanent/Temporary/Reversible**	

LTP measures	Value and vulnerability of the area likely to be affected	Magnitude of the effect				Level of uncertainty (High/Medium/Low) and associated comments	Mitigation and its implementation	How the judgement was reached
		Time	Duration	Impact	Secondary/Cumulative/ Synergistic effects			
Maintenance of existing assets	Housing Market Area.	Short-term	Temporary	Positive through minimising mileage in the long term but in short-term would cause disruption during construction.	Prioritising links to inter-modal facilities could promote sustainable freight options.	High	Advertisement of advance information about road works and co-ordination of works.	Professional judgement
WPL with increased parking enforcement		Medium-term	Permanent	Positive. Reduces congestion. Supports modal change.	Generates a revenue stream to improve alternatives. Could discourage employers from locating in the city.	High.		Professional judgement
Smarter Choices including business travel plan support and individualised travel planning		Short-term	Temporary	Positive. Increases travel choice.	Contributes to reducing congestion helping to improve business competitiveness.	Low.		Professional judgement
NET Phase 2 and integration with public transport network		Medium-term	Permanent	Positive. Generates local employment opportunities during construction. Increases travel choice and access to jobs and services in the long term.	Contributes to reducing congestion helping to improve business competitiveness. May be some disruption to businesses and traders along the route during construction.	Low.	No significant disruption identified within City boundary.	NET Phase 2 Environmental Statement
Development of bus infrastructure, locallink network and smartcards and information		Medium-term	Permanent	Positive. Increases travel choice.	Contributes to reducing congestion helping to improve business competitiveness.	Low.		Professional judgement

Walking and cycling networks including Rights of Way	Housing Market Area.	Short-term	Permanent	Positive. Increases travel choice.	Contributes to making the city more attractive to live.	Low.		Professional judgement
Road safety measures including area-wide 20 mph zones		Medium-term	Permanent	Impact depends upon implementation.	Will encourage take up of walking and cycling.	Medium.	Consultation and promotion of suitable alternative routes.	Professional judgement
Public realm improvements including district and local centres		Short-term	Permanent	Positive. Strong district centres will help to improve employment opportunities.	Supports housing growth in the existing urban area.	Medium.		Professional judgement
Low carbon transport system with emphasis on public transport and fleet vehicles and charging infrastructure		Medium to Long-term	Permanent	Positive. Supports sustainable development and smart technologies.	Supports green industries and local employment opportunities.	High.		Professional judgement
Network management		Short-term	Temporary	Positive. Journey time savings.	Will encourage increased car use.	Medium.		Professional judgement
Local highway improvements		Medium-term	Permanent	Positive. Journey time savings	Will encourage increased car use.	Low.	Disruption during construction.	Professional judgement
Major highways schemes		Long-term	Permanent	Positive. Journey time savings	Will encourage increased car use.	Low.	Disruption during construction.	Professional judgement

Qualitative summary:							
Almost entirely positive impacts as transport assessments are weighted towards economic criteria.							
Quantitative summary:							
Refer to emerging Local Economic Assessment to quantify role of transport infrastructure to support the local economy. Major scheme business cases quantify economic benefits.							
Assessment of significance (weighting of LTP impact in IIA objective in relation to other objectives							
Very significant.							
	Positive impact		Neutral impact		Negative impact		Impact depends on implementation

IIA topic/receptor	Equality and Inclusion including accessibility and cr					Worksheet 7 Completed by and date:	Meeting with the Equality & Diversity Officer 17/08/10	
IIA objective(s)	To improve access to services and opportunities for all.					**Short term = 2011 - 2014 Medium Term = 2014 - 2018 Long term = Beyond 2018 Duration = Permanent/Temporary/Reversible**		
LTP measures	**Value and vulnerability of the area likely to be affected**	**Magnitude of the effect**				**Level of uncertainty (High/Medium/Low) and associated comments**	**Mitigation and its implementation**	**How the judgement was reached**
		Time	**Duration**	**Impact**	**Secondary/Cumulative/ Synergistic effects**			
Maintenance of existing assets	Need to consider the specific needs of BME, gender, disability, faith, and LGBT communities, younger and older people. Also need to consider the needs of low income families, parents with young children and households without a car.	Short-term	Temporary	Positive impact for older and disabled people as footways in good condition reduce the incidence of slips and falls. Also maintenance of lighting will have a positive impact on perceptions of personal safety.		Medium		Professional judgement
WPL with increased parking enforcement		Short-term	Reversible	Positive impact as provides funding support for the link bus network. Also associated parking enforcement will help ensure disabled parking spaces are available for those eligible.	Both positive and negative: If the levy is passed on to employees this could have a negative impact for those on a low income. However the charge will not be levied on smaller businesses which have fewer than 10 parking spaces - these are more likely to be minority or female led.	High – impacts depend on whether employers pass the charge on.	Businesses with 10 or fewer parking spaces are exempt from the charge. WPL communications need to use the most appropriate information formats for different locations and communities.	Professional judgement
Smarter Choices including business travel plan support and individualised travel planning		Short-term	Temporary	Improves accessibility of businesses for those without a car. Positive impact for people on low incomes as will promote affordable travel options and the best ticketing options.		Medium		Professional judgement

NET Phase 2 and integration with public transport network	Need to consider the specific needs of BME, gender, disability, faith, and LGBT communities, younger and older people. Also need to consider the needs of low income families, parents with young children and households without a car.	Medium	Permanent	Positive impact to improve access to services for those without a car, particularly benefiting the student community and low income families in the Meadows and Clifton areas including older and disabled people.		Low	Need to consider equalities impact of any future changes to the local bus network and about appropriate ways to communicate any changes.	NET Phase 2 Business Case
Development of bus infrastructure, locallink network and smartcards and information		Medium to Long-term	Temporary	Positive impact to improve access to services for those without a car, particularly older and younger people and low income families. The locallink services are very important for these groups.	Locallink network is also important for older and disabled people in terms of supporting social interaction. Ensuring equality of access to information depends on implementation.	Low	Important to raise awareness of concessions entitlement for eligible communities when promoting new bus services. Consider maximising accessibility for new vehicles purchased for NCC fleet. Information needs to consider literacy levels and use appropriate formats, languages, plain English symbols etc.	Locallink user surveys and feedback from older and disabled communities.
Walking and cycling networks including Rights of Way		Short-term	Permanent	Positive as supports affordable travel options for low income households.	More active streets improve community safety.	Low	Need to ensure RoW are fully accessible for disabled people through appropriate design of barriers, gates etc	Professional judgement.
Road safety measures including area-wide 20 mph zones		Medium	Permanent	Positive impact for vulnerable road users, in particular young people and older people as will reduce traffic impact and speeds and create safer environments.	More active streets improve community safety. If adopting a home zone style approach there could be a negative impact for disabled people if creating shared street spaces.	Low	Need to balance the needs of different sectors of the community when designing road safety schemes.	Deprivation/ road safety evidence.

Public realm improvements including district and local centres	Need to consider the specific needs of BME, gender, disability, faith, and LGBT communities, younger and older people. Also need to consider the needs of low income families, parents with young children and households without a car.	Short-term	Permanent	Depends on implementation – creation of shared street spaces could be negative for disabled people. Provide opportunities to improve lighting for pedestrians.	More active streets improve community safety.	Medium	Public realm improvements need to consider the needs of disabled people and adopt best practice.	Professional judgement and feedback from the disabled community.
Low carbon transport system with emphasis on public transport and fleet vehicles and charging infrastructure		Medium	Permanent	Depends on implementation – potential negative impact of electric vehicles for deaf people, people with hearing difficulties, blind people and partially sighted.	Positive impact of improved air quality for people with breathing disabilities in the long term.	High – depends on the market uptake of low carbon fuel and vehicle options	EU legislation is considering ways to ensure electric vehicles are audible.	Professional judgement
Network management		Short-term	Temporary	Depends on implementation – could provide opportunities to maximise the benefits for disabled people, children and older people.	Maintenance of signal crossings provides opportunity to adjust green time in favour of younger, older and disabled people.	Low	Location, type and timing of pedestrian crossings and signage should respond to the needs and profile of the local population.	Professional judgement and feedback from the disabled community.
Local highway improvements		Medium	Permanent	Positive as provides opportunities to improve lighting and crossing facilities for pedestrians.		Low	Location, type and timing of pedestrian crossings and signage should respond to the needs and profile of the local population. Need to ensure pavement widths are maintained.	Professional judgement and feedback from the disabled community.

Major highways schemes	Need to consider the specific needs of BME, gender, disability, faith, and LGBT communities, younger and older people. Also need to consider the needs of low income families, parents with young children and households without a car.	Long-term	Permanent	Depends on implementation – could provide opportunities to improve lighting and crossing facilities for pedestrians.		Medium	Carry out EqIAs for major highways schemes. Location, type and timing of pedestrian crossings and signage should respond to the needs and profile of the local population. Need to ensure pavement widths are maintained. Footbridge design needs to be suitable for pushchairs and wheelchairs.	Professional judgement and feedback from the disabled community.
Qualitative summary:				Mostly positive as many transport improvements are targeted at improving transport accessibility.				
Quantitative summary:				Accessibility mapping has been used to identify gaps in transport provision.				
Assessment of significance (weighting of LTP impact in IIA objective in relation to other objectives				Transport planning plays an important role to improve accessibility and inclusion for all groups.				

	Positive impact		Neutral impact		Negative impact		Impact depends on implementation

IIA topic/receptor	Human Health – health inequalities	Worksheet 8 Completed by and date:	Workshop 03/08/2010
IIA objective(s)	To improve health and reduce health inequalities.	**Short term = 2011 - 2014** **Medium Term = 2014 - 2018** **Long term = Beyond 2018** **Duration = Permanent/Temporary/Reversible**	

LTP measures	Value and vulnerability of the area likely to be affected	Magnitude of the effect				Level of uncertainty (High/Medium/Low) and associated comments	Mitigation and its implementation	How the judgement was reached
		Time	Duration	Impact	Secondary/Cumulative/ Synergistic effects			
Maintenance of existing assets	Populations as identified in JSNA.	Short-term	Temporary	Positive impact through supporting walking and cycling for short journeys.	Supports long term behaviour change.	Medium		Professional judgement
WPL with increased parking enforcement		Medium-term	Permanent	Positive as discourages car use and provides revenue stream to improve alternatives	Supports long term behaviour change. Consistent with smarter choices and promoting alternatives.	Medium. Dependent on employers passing on charge to users		Professional judgement
Smarter Choices including business travel plan support and individualised travel planning		Short-term	Temporary	Positive impact through supporting walking and cycling for short journeys.	Supports long term behaviour change. With individualised travel planning improves access to employment opportunities.	Low. Proven techniques		Professional judgement
NET Phase 2 and integration with public transport network		Medium-term	Permanent	Positive through improving access to employment opportunities and key services.	Cumulative linked to WPL and smarter choices. Air quality improvements.	Low.		Professional judgement
Development of bus infrastructure, locallink network and smartcards and information		Medium-term	Permanent	Positive through improving access to employment opportunities and key services.	Cumulative linked to WPL and smarter choices. Air quality improvements. Encourages community cohesion.	Low.		Professional judgement
Walking and cycling networks including Rights of Way		Short-term	Permanent	Positive. Supports active travel.	Supports long term behaviour change.	Low.		Professional judgement

Road safety measures including area-wide 20 mph zones	Populations as identified in JSNA.	Short-term	Permanent	Positive. Supports active travel.	Increased physical activity and outdoor play.	Low.		Professional judgement
Public realm improvements including district and local centres		Short-term	Permanent	Positive impact through supporting walking and cycling for short journeys.	Encourages people to use public spaces. Encourages community cohesion.	Medium.		Professional judgement
Low carbon transport system with emphasis on public transport and fleet vehicles and charging infrastructure		Medium-term	Permanent	Impact depends upon implementation. Short-term negative impact as paying a premium for low carbon vehicles.	Potential to encourage increased transfer from car. Could encourage increased car use.	Medium.	Focus on public and fleet vehicles in short term. Need to ensure EV charging for private vehicles is compatible with local parking policies e.g. provide EV charging at Park & Ride sites.	Professional judgement
Network management		Short-term	Temporary	Negative – could potentially encourage increased car use		Medium.	Complementary measures to improve alternative travel options.	Professional judgement
Local highway improvements		Medium	Permanent	Negative – could potentially encourage increased car use		Medium.	Complementary measures to improve alternative travel options.	Professional judgement
Major highways schemes		Long-term	Permanent	Negative – could potentially encourage increased car use		Medium.	Complementary measures to improve alternative travel options.	Professional judgement
Qualitative summary:				Significant opportunity for LTP3 to support active travel modes and to increase physical activity levels.				
Quantitative summary:				Monitoring to determine activity levels in addition to health indicators.				
Assessment of significance (weighting of LTP impact in IIA objective in relation to other objectives				Acknowledged to be of increasing importance in Notttingham. Life expectancy in the most deprived wards in the City is currently is 10 years lower than in the City's most affluent wards.				

	Positive impact		Neutral impact		Negative impact		Impact depends on implementation

IIA topic/receptor	Human Health – Air Quality					Worksheet 9 Completed by and date:	Meeting with Pollution Control Team 06/08/2010	
IIA objective(s)	To improve air quality in the AQMAs and maintain and wherever possible improve air quality across Nottingham City and the wider conurbation					Short term = 2011 - 2014 Medium Term = 2014 - 2018 Long term = Beyond 2018 Duration = Permanent/Temporary/Reversible		
LTP measures	**Value and vulnerability of the area likely to be affected**	**Magnitude of the effect**				**Level of uncertainty (High/Medium/Low) and associated comments**	**Mitigation and its implementation**	**How the judgement was reached**
		Time	**Duration**	**Impact**	**Secondary/Cumulative/ Synergistic effects**			
Maintenance of existing assets	Schools hospitals and residential properties. Also receptors of medium sensitivity – people in shopping areas. E.g. Sherwood.	Short-term	Temporary	Negative Increased emissions due to diversions transferring traffic to other areas.	Short term congestion during construction and maintenance.	Low	Careful planning and routing and timing to avoid areas of sensitivity and quiet traffic periods	Professional judgement
WPL with increased parking enforcement		Medium-term	Permanent	Positive Reduced emissions from private vehicles.	Reduces congestion by discouraging car use and promotes modal shift from car.	Low		Professional judgement
Smarter Choices including business travel plan support and individualised travel planning		Short-term	Temporary	Positive Reduced emissions from private vehicles.	Reduces congestion by discouraging car use and promotes modal shift from car.	Low		Professional judgement
NET Phase 2 and integration with public transport network		Medium-term	Permanent	During construction some potential for dust impacts. Overall improvement in air quality wrt to particulates and general air quality but a small proportion of the population will experience increased NO2 emissions although these changes are considered to be insignificant. considered to be insignificant.	Reducing the number of vehicles on the roads and easing traffic flow thereby reducing congestion.	Medium	Code of Construction Practice identifies mitigation measures to reduce construction dust.	NET Phase 2 Environmental Statement

Development of bus infrastructure, locallink network and smartcards and information	Schools hospitals and residential properties. Also receptors of medium sensitivity – people in shopping areas. E.g. Sherwood.	Medium-term	Permanent	Positive Reduced emissions from private vehicles.	Additional benefits with a cleaner bus fleet. Reduces congestion by discouraging car use and promotes modal shift from car.	Medium		Professional judgement
Walking and cycling networks including Rights of Way		Short-term	Permanent	Positive Reduced emissions from private vehicles due to modal shift *****	Cyclists have a higher respiratory turnover than car drivers/passengers so pollution does not remain in the lungs.	Low		Evidence from study by Kings College, London
Road safety measures including area-wide 20 mph zones		Short-term	Permanent	Neutral. Will lower speeds and smooth traffic flow. However 20mph is not an efficient running speed for many current vehicles. Could be become more positive over time with move towards vehicles with smaller engines.	Maybe benefits for lower traffic noise levels	Medium	Depends on implementation and driver education and future vehicle technology	Professional judgement
Public realm improvements including district and local centres		Short-term	Permanent	Depends on implementation. Potential to create an environment conducive to walking and cycling but may also need to accommodate demand for car parking.		High	Depends on implementation – will need to balance demands for additional parking with improving access by walking, cycling and public transport.	Professional judgement
Low carbon transport system with emphasis on public transport and fleet vehicles and charging infrastructure		Long term	Permanent	Positive Reduced local emissions but electric vehicles are only clean at the point of source based on current power generation.	Electric vehicles are also quieter.	High – unclear of market direction at present and level of take-up of low carbon fuel options		Professional judgement
Network management		Short-term	Temporary	Impact depends on implementation – could reduce congestion.		Medium	Need to ensure released capacity is prioritised for sustainable transport.	Professional judgement

Local highway improvements	Schools hospitals and residential properties. Also receptors of medium sensitivity – people in shopping areas. E.g. Sherwood.	Medium-term	Permanent	Impact depends on implementation – could reduce congestion.		Medium	Need to ensure released capacity is prioritised for sustainable transport.	Professional judgement
Major highways schemes		Long term	Permanent	Impact depends on implementation – could reduce congestion.		Medium	Need to ensure released capacity is prioritised for sustainable transport.	Professional judgement
Qualitative summary:				Actions plans are in place to address air quality problems in designated Air Quality Management Areas (AQMAs).				
Quantitative summary:				Two AQMAs currently designated in the Plan area.				
Assessment of significance (weighting of LTP impact in IIA objective in relation to other objectives				Congested traffic is the primary cause of exceedences of air quality standards in the City.				

	Positive impact		Neutral impact		Negative impact		Impact depends on implementation

IIA topic/receptor	Human Health – Noise					Worksheet 10 Completed by and date:	Meeting with Pollution Control Team 06/08/2010	
IIA objective(s)	To reduce levels of transport related noise in areas of sensitivity.					**Short term = 2011 - 2014** **Medium Term = 2014 - 2018** **Long term = Beyond 2018** **Duration = Permanent/Temporary/Reversible**		
LTP measures	**Value and vulnerability of the area likely to be affected**	**Magnitude of the effect**				**Level of uncertainty (High/Medium/Low) and associated comments**	**Mitigation and its implementation**	**How the judgement was reached**
		Time	**Duration**	**Impact**	**Secondary/Cumulative/ Synergistic effects**			
Maintenance of existing assets	Schools hospitals and residential properties. Also areas of tranquillity e.g. Wollaton - areas still to be determined by DEFRA	Short-term	Temporary	Negative	Negative impact on air quality.	Low	Yes – careful work programme	Professional judgement
WPL with increased parking enforcement		Medium-term	Permanent	Positive Reduced emissions from private vehicles	Reduces congestion by discouraging car use and promotes modal shift from car.	Low		Professional judgement
Smarter Choices including business travel plan support and individualised travel planning		Short-term	Temporary	Positive Reduced emissions from private vehicles	Reduces congestion by discouraging car use and promotes modal shift from car.	Low		Professional judgement
NET Phase 2 and integration with public transport network		Medium-term	Permanent	Negative Increased noiseand vibration for some properties along the route during construction and moderate residual noise impact for 340 properties and substantial impact at up to 130 properties along both routes once operational.	Reduces congestion by discouraging car use and promotes modal shift from car.	Low	Mitigation of construction noise and vibration will be addressed through Code of Construction Practice.	NET Phase 2 Environmental Statement
Development of bus infrastructure, locallink network and smartcards and information		Medium-term	Permanent	Neutral	Potential reduction in noise from private vehicles.	Medium	Choice of vehicle.	Professional judgement

Walking and cycling networks including Rights of Way	Schools hospitals and residential properties. Also areas of tranquillity e.g. Wollaton - areas still to be determined by DEFRA	Short-term	Permanent	Positive if achieves 50% modal shift but this may not be realistic.	Potential reduction in noise from private vehicles.	Medium		Professional judgement
Road safety measures including area-wide 20 mph zones		Short-term	Permanent	Depends on implementation and vehicles	Potential for reduction of noise from private vehicles	High		Professional judgement
Public realm improvements including district and local centres		Short-term	Permanent	Depends on implementation – Potential to create environment conducive to walking and cycling	Potential for reduction of noise from private vehicles	High	Depends on implementation – will need to balance demands for access by car with improving access by walking, cycling and public transport.	Professional judgement
Low carbon transport system with emphasis on public transport and fleet vehicles and charging infrastructure		Long term	Permanent	Positive if electric vehicles are used for public transport and fleet		High – as depends on the market		Professional judgement
Network management		Short-term	Temporary	Positive if smoothes flow and veh speeds are below 40mph in the dry	Potential impact on air quality. Cumulative with road safety benefits.	High	Depends on implementation Need to ensure released capacity is prioritised for sustainable transport.	Professional judgement
Local highway improvements		Medium-term	Permanent	Positive if smoothes flow and vehicles speeds are below 40mph (in the dry).	Potential impact on air quality.	High	Need to ensure released capacity is prioritised for sustainable transport.	Professional judgement
Major highways schemes		Long term	Permanent	Positive if smoothes flow and vehicles speeds are below 40mph (in the dry).	Potential impact on air quality.	High	Need to ensure released capacity is prioritised for sustainable transport.	Professional judgement

Qualitative summary:	LTP3 provides the opportunity to implement quieter technologies and to upgrade transport infrastructure to reduce noise levels.						
Quantitative summary:	Noise maps identify households most affected by noise from transport sources (road, rail and air).						
Assessment of significance (weighting of LTP impact in IIA objective in relation to other objectives	Transport related noise is an increasing area of concern.						
	Positive impact		Neutral impact		Negative impact		Impact depends on implementation