Appraisal Summary Table

Date produced:	28/01/2020

Contact:	
Name	
Organisation	Highways England
Role	Promoter/Official

Name of scheme:	A1 in Northumberland - Morpeth to Felton
Description of scheme:	Dualling of existing single carriageway section of A1 between Morpeth and Felton, mostly offline, including the provision of 3 grade seperated junctions at Highlaws, Fenrother and Westmoor.

Impacts		Summary of key impacts	Assessment					
			Quantitative				Qualitative	Monetary £(NPV)	Distributional 7-pt scale/ vulnerable grp
Economy	Business users & transport providers	The additional capacity will provide journey time benefits especially during the peak periods. However there will be delays during construction and also an increase in vehicle operating costs due to higher running speeds. - Nearly 30% of TEE benefit is due to changes in business journey times and vehicle operating costs. - In the opening year AM peak, there is a saving of 3 &1/2 minutes in the NB direction and 4 minutes in the SB direction. - In the opening year PM peak, there is a saving of 3 &1/2 minutes in both directions. - In the opening year inter peak, savings are approximately 2 &1/2 minutes in the NB direction and 3 minutes in the SB direction.	**Value of journey time changes(£)** 54,745,000 **Net journey time changes (£)** 0 to 2min: 2,290,000 2 to 5min: 41,825,000 > 5min: 10,630,000				N/A	20,592,000	There are user benefits for all income quintiles but the biggest benefit is to the second richest quintile (60% to 80% income group) and the lowest benefit is to the poorest quintile (0% to 20% income group).
	Reliability impact on Business users	Reliability is improved due to the scheme, with the extra capacity providing extra resilience.	-				N/A	2,737,000	
	Regeneration	Not assessed	-				-	NA	
	Wider Impacts	Significant Wider Impacts are expected for the scheme, largely due to improved agglomoration.	Agglomoration Impacts £19,473,000, Output change in imperfectly competitive market, £870,000, Tax Revenues from labour market impacts £633,000.				N/A	20,975,000	
Environmental	Noise	There are 383 residential dwellings, with an estimated population of 881, and seven other sensitive receptors within the Calculation Area. Four noise barriers have been proposed for the Scheme. There are two noise important areas (NIAs) within the Calculation Area of the Scheme. In the short-term, noise levels are predicted to decrease at the residential properties within these two NIAs as a result of the Scheme. Three residential properties are predicted to experience significant adverse effects as a result of the Scheme. The majority of properties are predicted to experience no change or a negligible increase in noise levels from the Scheme. The noise levels, and by association, changes are influenced by a number of factors, including the new alignment of the A1, the four proposed noise barriers, the low noise road surface which will be laid for the entire Scheme and the predicted traffic flow, speed and percentage of heavy vehicles on the road network in the opening and forecast years. Non-significant adverse effects are anticipated during the construction phase with the inclusion of specific mitigation measures identified in the noise and vibration chapter of the ES.	Households experiencing increased daytime noise in forecast year: 52 Households experiencing reduced daytime noise in forecast year: 58 Households experiencing increased night time noise in forecast year: 50 Households experiencing reduced night time noise in forecast year: 41				N/A	£435,251	Q1: Neutral Q2: Neutral Q3: Neutral Q4: Neutral Q5: Large Beneficial Educational Facility: Large Beneficial
	Air Quality	Overall, there would be a net improvement in local air quality at properties within 200 m of the Affected Road Network as a result of the Scheme. However, there would be negative impacts on regional emissions of NOx and PM2.5 due to increased total vehicle kilometres travelled as a result of re-distribution of traffic on to the A1 with subsequent increase in flows along the A1. The Scheme would not result in worsening of any existing or new exceedances of standards. There are no PCM links with EU limit value compliance risk.	Assessment score for 2023 NO2: -247 PM2.5: -37 Assessment scores for 2038 NO2: -208 PM2.5: -46 Emissions NOx: +834 tonnes PM2.5: +96 tonnes				N/A	NPV of change in NOx emissions: -£1,555,872 NPV of change in PM2.5 emissions: -£2,905,589 Total NPV of change in air quality: -£4,461,462	Overall: Moderate Adverse Q1: Neutral Q2: Moderate Adverse Q3: Substantial Adverse Q4: Substantial Beneficial Q5: Substantial Adverse
	Greenhouse gases	The appraisal reflects a net increase in vehicle kilometres travelled over the modelled road network as a result of re-distribution of traffic on to the A1 with a subsequent increase in flows along the A1. The Scheme would result in a net worsening in regional emissions.	Change in non-traded carbon over 60y (CO2e): 1,007,334 Change in traded carbon over 60y (CO2e): 0				N/A	NPV: -£45,055,172	
	Landscape	There are no nationally designated landscapes, although there are direct impacts on historic estates and an Area of High Landscape Value. Perceptible adverse change to the landscape character and views experienced as a result of the interruption to the existing field patterns, loss of woodland, some of which is ancient woodland, erosion to existing tranquillity and new detracting features. The majority, with the exception of Ancient Woodland, can be replaced in the short to medium term. Coronation Avenue, a feature of note, would be replaceable in the long term.	NA				Moderate Adverse	NA	
	Townscape	N/A - due to the location of the Scheme, it is considered that the nature of impacts relate to landscape only and that no effects on the townscape of settlements will occur.	NA				N/A	NA	
	Historic Environment	No World Heritage Sites or Registered Battlefields. 156 heritage assets within the study area, comprising 63 designated,93 non-designated assets. Adverse effect on one Grade II Listed milestone, temporarily removed during construction and repositioned. Temporary impacts on built heritage assets (designated and non-designated) during construction and permanent impacts during operation due to change in setting. Impacts on known below-ground archaeology potential effects on unknown below-ground archaeological assets due to their destruction during ground disturbance. Impacts on historic landscape character due to loss of field pattern.	NA				Moderate Adverse	NA	
	Biodiversity	No impacts to European designated sites. Loss of ancient woodland within the River Coquet and Coquet Valley Woodlands SSSI (Duke's Bank Wood). Ancient Woodland Strategy developed. Effects to two locally designated sites (single LNR and single LWS) and one ancient woodland as a result of NOX emissions during operation. Impacts on Habitats of Principal Importance but mitigable except for ancient woodland, arable field margins and running water. Mitigable impacts on protected and notable species.	NA				Large Adverse	NA	
	Water Environment	The Scheme includes embedded mitigation, including watercourse crossings and the surface water drainage strategy which ensure that the potential impacts on the water environment are insignificant. No increase in fluvial flood risk to any upstream or downstream receptors as a result of the Scheme. Sections of Scheme are at high, medium and low risk of flooding from surface water sources, and existing surface water flow paths have been incorporated into the Scheme. The proposed surface water drainage system will provide appropriate treatment prior to discharge, and the design of the new bridge over the River Coquet and culverts has taken hydromorphological and ecological considerations into account.	NA				Neutral	NA	
Social	Commuting and Other users	The additional capacity will provide journey time benefits especially during the peak periods. However there will be delays during construction and also an increase in vehicle operating costs due to higher running speeds. - Over 60% of TEE benefit is due to changes in consumer journey times and vehicle operating costs. - In the opening year AM peak, there is a saving of 3 &1/2 minutes in the NB direction and 4 minutes in the SB direction. - In the opening year PM peak, there is a saving of 3 &1/2 minutes in both directions. - In the opening year inter peak, savings are approximately 2 &1/2 minutes in the NB direction and 3 minutes in the SB direction.	**Value of journey time changes(£)** 74,865,000 **Net journey time changes (£)** 0 to 2min: 8,917,200 2 to 5min: 64,925,700 > 5min: 1,022,000				N/A	49,032,000	There are user benefits for all income quintiles but the biggest benefit is to the second richest quintile (60% to 80% income group) and the lowest benefit is to the poorest quintile (0% to 20% income group).
	Reliability impact on Commuting and Other users	Reliability is improved due to the scheme, with the extra capacity providing extra resilience.	-				N/A	3,743,000	
	Physical activity	Not Assessed. The scheme is unlikely to have a significant impact on the level of walking and cycling in the area as NMU provision is unchanged by the scheme.	-				Neutral	NA	
	Journey quality	Not Assessed. It is expected that the scheme will reduce traveller frustration due to increased speeds and smaller queues on the scheme route. Furthermore the fear of accidents is likely to reduce.	-				Moderate Beneficial	NA	
	Accidents	The scheme is expected to save a significant number of accidents, including 16 fatalities, during the 60 year appraisal period.	413 accidents saved (16 fatalities, 114 serious injuries and 569 slight injuries saved)				Major Beneficial	30,519,000	There is a reduction in accidents on the dualled section due to the increased safety of dualled carriageways. There is also a reduction on other roads. On the A1, away from the dualled section, there is an increase in accidents due to increased traffic. Local accident victim age profile is close to local average.
	Security	The scheme is unlikely to have a significant impact on security.	-				Neutral	NA	NA
	Access to services	The scheme is unlikely to have a significant impact on access to public transport and therefore little impact on access to services	-				Neutral	NA	NA
	Affordability	There is a reduction in affordability due to an increase in vehicle operating costs.	-				Slight adverse	included within user benefits	The scheme provides adverse affordability impacts across all income groups.
	Severance	Although there are several areas that are forecast to experience significant changes in flow due to the A1 Dualling schemes, none of these locations are expected to have a large change in severance as a result of the scheme. This is due to the isolation of the schemes main road links from pedestrian movements, as well as the proposed facilities for pedestrian crossings on the new junctions, which allow pedestrians to cross the road even with the increases in traffic flow.	-				Neutral	NA	NA
	Option and non-use values	Not assessed	-				-	-	
Public Accounts	Cost to Broad Transport Budget	The scheme cost includes construction, preparation, supervision and land costs. There is also a saving of £3,269,000 (2010 prices and values) due to a reduction in maintenance costs due to the scheme.	Includes maintenance cost saving - £3,269,000				-	100,315,000	
	Indirect Tax Revenues	There is an increase in indirect tax revenue due to increased fuel consumption caused by increased speeds.	-				-	38,116,000	

Appraisal Summary Table

Date produced:	09/03/2020

Contact:	
Name	
Organisation	Highways England
Role	Promoter/Official

Name of scheme:	A1 in Northumberland - Alnwick to Ellingham
Description of scheme:	Dualling of existing single carriageway section of A1 between Alnwick and Ellingham, online, including the provision of 1 grade seperated junction at South Charlton.

Impacts		Summary of key impacts	Assessment					
			Quantitative				Qualitative	Monetary £(NPV)	Distributional 7-pt scale/ vulnerable grp
Economy	Business users & transport providers	The additional capacity will provide journey time benefits especially during the peak periods. However these are negated by the increase in vehicle operating costs and user charges. - Therefore, there is a slight overall disbenefit to business users due to the scheme. - In the opening year AM peak, there is a saving of above 1 minute in the NB direction and of just under one minute in the SB direction. - In the opening year PM peak, there is a saving of above 1 minute in both directions. - In the opening year inter peak, there is a saving of above 1 minute in both directions.	**Value of journey time changes(£)** 12,915,000 **Net journey time changes (£)** 0 to 2min: 8,083,000 | 2 to 5min: 779,000 | > 5min: 4,053,000				N/A	-463,000	There are user benefits for all income quintiles but the biggest benefit is to the medium richest quintile (40% to 60% income group) and the lowest benefit is to the poorest quintile (0% to 20% income group).
	Reliability impact on Business users	Reliability improvement is expected to be negligible due to the scheme.	-				N/A	0	
	Regeneration	Not assessed	-				-	NA	
	Wider Impacts	Wider Impacts are expected for the scheme, largely due to improved agglomoration.	Agglomoration Impacts £3,298,000, Output change in imperfectly competitive market, £187,000, Tax Revenues from labour market impacts £118,000.				N/A	3,602,000	
Environmental	Noise	There are 77 residential dwellings, with an estimated population of 177, and 11 other sensitive receptors in the Calculation Area. Overall, when operational, the Scheme would result in beneficial effects on sensitive receptors. The Scheme would move the A1 to the east and away from the existing A1 alignment near Patterson Cottage and West Link Hall Cottages; benefits are predicted within this locality. Predicted benefits also due to Low Noise Road Surface along the full length of the Scheme in the do-something scenarios. No Noise Important Areas in the Scheme.	Households experiencing increased daytime noise in forecast year: 7 Households experiencing reduced daytime noise in forecast year: 12 Households experiencing increased night time noise in forecast year: 0 Households experiencing reduced night time noise in forecast year: 7				NA	£28,508	Quintiles: 0-20%: N/A 20-40%: Slight Beneficial 40-60%: Large Beneficial 60-80%: Slight Beneficial 80-100%: N/A Education Facilities: N/A Elderly Facilities: N/A
	Air Quality	Overall there is a net worsening (albeit small) in local air quality at properties within 200 m of the Affected Road Network due to the Scheme. There would be a negative impact on regional NOx emission due to a small increase in vehicle kilometres travelled over a small network. The Scheme would not result in worsening of any existing or new exceedances of standards. There are no PCM links with EU limit value compliance risk.	Assessment Score 2023 PM10: -20.07 NO2: -13.01 Assessment Score 2038 PM10: -19.84 NO2: -9.17 Emissions 2023 NOx: 198 Properties affected (NO2) Improved: 29 Neutral: 0 Worsening: 5 Properties affected (PM10) Improved: 29 Neutral: 0 Worsening: 5				NA	NPV of change in PM2.5 concentration: -£2,386,022 NPV of change in NOx emissions: - £939,575 Total NPV of change in air quality: -£3,325,597	Q1: Neutral Q2: Neutral Q3: Large Beneficial Q4: Large Adverse Q5: Neutral
	Greenhouse gases	The appraisal reflects a net increase in vehicle kilometres travelled over a small network extent.	Change in non-traded carbon over 60y (CO2e): 177,557 Change in traded carbon over 60y (CO2e): 0				NA	NPV: -£7,913,307	
	Landscape	Landscape character is dominated by characteristics of open countryside including farmland and fields bounded by a network of hedgerows. Limited change to existing landscape and views experienced of it, local reduction in the existing tranquillity and limited new detracting features, which can generally be replaced in the short to medium term with mitigation in place.	N/A				Slight Adverse	N/A	
	Townscape	N/A - due to the location of the Scheme, it is considered that the nature of impacts relate to landscape only and that no effects on the townscape of settlements will occur.	N/A				N/A	N/A	
	Historic Environment	There are 111 heritage assets within the study areas: 60 designated assets (within 1km of the Scheme); and 51 non-designated assets (within 500m of the Scheme). Adverse effect on one non-designated built heritage asset due to its demolition. Temporary effects during construction on the setting of four Scheduled Monuments and 13 built heritage assets (designated and non-designated) and permanent effects in operation on the setting of two Scheduled Monuments and four built heritage assets (designated and non-designated). Permanent effects on below-ground archaeology and historic landscape character through their loss during construction.	N/A				Moderate Adverse	N/A	
	Biodiversity	No impacts to European designated sites. Impacts on Habitats of Principal Importance but mitigatable except for broad-leaved semi-natural woodland, hedgerows and running water. Loss of bat roosts associated with removal of woodland and buildings but this is mitigatable. Mitigatable impacts on protected and notable species including habitat loss / damage, disturbance, fragmentation, and injury and mortality.	N/A				Slight Adverse	N/A	
	Water Environment	Majority of the Study Area is within low-risk Flood Zone 1, with sections in medium risk Flood Zone 2 and high-risk Flood Zone 3. Sections of the Scheme at high, medium and low risk of flooding from surface water sources. Existing surface water flow paths incorporated into the Scheme. With mitigation in place, including the surface water drainage strategy, the Scheme would have no adverse effects on water quality or increase flood risk.	N/A				Neutral	N/A	
Social	Commuting and Other users	will be delays during construction and also an increase in vehicle operating costs due to higher running speeds. - All of the overall TEE benefit is due to changes in consumer journey times and vehicle operating costs. - In the opening year AM peak, there is a saving of above 1 minute in the NB direction and of just under one minute in the SB direction. - In the opening year PM peak, there is a saving of above 1 minute in both directions. - In the opening year inter peak, there is a saving of above 1 minute in both directions.	**Value of journey time changes(£)** 16,348,000 **Net journey time changes (£)** 0 to 2min: 15,631,000 | 2 to 5min: 515,000 | > 5min: 202,000				N/A	8,749,000	There are user benefits for all income quintiles but the biggest benefit is to the medium richest quintile (40% to 60% income group) and the lowest benefit is to the richest quintile (80% to 100% income group).
	Reliability impact on Commuting and Other users	Reliability improvement is expected to be negligible due to the scheme.	-				N/A	0	
	Physical activity	Not Assessed. The scheme is unlikely to have a significant impact on the level of walking and cycling in the area as NMU provision is unchanged by the scheme.	-				Neutral	NA	
	Journey quality	Not Assessed. It is expected that the scheme will reduce traveller frustration due to increased speeds and smaller queues on the scheme route. Furthermore the fear of accidents is likely to reduce.	-				Moderate Beneficial	NA	
	Accidents	The scheme is expected to save a significant number of accidents, including 2 fatalities, during the 60 year appraisal period.	40 accidents saved (2 fatalities, 17 serious injuries and 57 slight injuries saved)				Major Beneficial	4,044,000	There is a reduction in accidents on the dualled section due to the increased safety of dualled carriageways. There is also a reduction on other roads. On the A1, away from the dualled section, there is an increase in accidents due to increased traffic. Local accident victim age profile is close to local average.
	Security	The scheme is unlikely to have a significant impact on security.	-				Neutral	NA	NA
	Access to services	The scheme is unlikely to have a significant impact on access to public transport and therefore little impact on access to services	-				Neutral	NA	NA
	Affordability	There is a reduction in affordability due to an increase in vehicle operating costs.	-				Slight adverse	included within user benefits	The scheme provides adverse affordability impacts across all income groups.
	Severance	Although there are several areas that are forecast to experience significant changes in flow due to the A1 Dualling schemes, none of these locations are expected to have a large change in severance as a result of the scheme. This is due to the isolation of the schemes main road links from pedestrian movements. There will also be suitable facilities at the South Charlton Junction to provide vehicular and pedestrian accesses to local sites.	-				Neutral	NA	NA
	Option and non-use values	Not assessed	-				-	-	
Public Accounts	Cost to Broad Transport Budget	The scheme cost includes construction, preparation, supervision and land costs. There is also a saving of £1,986,000 (2010 prices and values) due to a reduction in maintenance costs due to the scheme.	Includes maintenance cost saving - £1,986,000				-	63,502,000	
	Indirect Tax Revenues	There is an increase in indirect tax revenue due to increased fuel consumption caused by increased speeds.	-				-	11,235,000	

Appraisal Summary Table

Date produced:	28/01/2020

Contact:	
Name	
Organisation	Highways England
Role	Promoter/Official

Name of scheme:	A1 in Northumberland - Morpeth to Ellingham
Description of scheme:	Dualling of existing single carriageway sections of A1 between Morpeth and Felton, mostly offline, including the provision of 3 grade seperated junctions at Highlaws, Fenrother and Westmoor as well as dualling of single carriagway between Alnwick and Ellingham, including the provision of a grade seperated junction at South Charlton.

Impacts		Summary of key impacts	Assessment: Quantitative	Qualitative	Monetary £(NPV)	Distributional 7-pt scale/ vulnerable grp
Economy	Business users & transport providers	The additional capacity will provide journey time benefits especially during the peak periods. However there will be delays during construction and also an increase in vehicle operating costs due to higher running speeds. - Nearly 30% of TEE benefit is due to changes in business journey times and vehicle operating costs. - In the opening year AM and PM peaks, there is a saving of 5 minutes in both directions. - In the opening year inter peak, savings are approximately 4 minutes in both directions.	**Value of journey time changes(£)**: 68,043,000 **Net journey time changes (£)** 0 to 2min: 5,812,000; 2 to 5min: 40,939,000; > 5min: 21,292,000	N/A	23,780,000	There are user benefits for all income quintiles but the biggest benefit is to the second richest quintile (60% to 80% income group) and the lowest benefit is to the poorest quintile (0% to 20% income group).
	Reliability impact on Business users	Reliability is improved due to the scheme, with the extra capacity providing extra resilience.	-	N/A	3,402,000	
	Regeneration	Not assessed	-	-	NA	
	Wider Impacts	Significant Wider Impacts are expected for the scheme, largely due to improved agglomoration.	Agglomoration Impacts £22,330,000, Output change in imperfectly competitive market, £1,081,000, Tax Revenues from labour market impacts £745,000.	N/A	24,157,000	
Environmental	Noise	Predicted noise levels for the M2F Section within the M2E scheme are the same or very slightly higher. Four noise barriers have been proposed for the Scheme. There are two noise important areas (NIAs) within the Calculation Area of the Scheme. In the short-term, noise levels are predicted to decrease at the residential properties within these two NIAs as a result of the Scheme. Predicted cumulative noise levels for the A2E Section within the M2E scheme are the same or slightly higher. No Noise Important Areas in the Scheme.	Households experiencing increased daytime noise in forecast year: 75 Households experiencing reduced daytime noise in forecast year: 64 Households experiencing increased night time noise in forecast year: 56 Households experiencing reduced night time noise in forecast year: 48	N/A	£389,391	
	Air Quality	Overall, there is a net worsening in local air quality at properties with the Scheme with negative impacts on regional emissions of NOx and PM2.5 due to increased total vehicle kilometres travelled. The Scheme does not result in worsening of any existing or new exceedances of standards. There are no PCM links with EU limit value compliance risk.	Assessment score for 2023 NO2: -96 PM2.5: +119 Assessment scores for 2038 NO2: -62 PM2.5: +109 Emissions NOx: +1,177 tonnes PM2.5: +133 tonnes	N/A	NPV of change in NOx emissions: -£2,196,035 NPV of change in PM2.5 emissions: -£4,025,712 Total NPV of change in air quality: -£6,221,747	Overall: Moderate Adverse Q1: Neutral Q2: Moderate Adverse Q3: Substantial Adverse Q4: Substantial Beneficial Q5: Substantial Adverse
	Greenhouse gases	The appraisal reflects a net increase in vehicle kilometres travelled.	Change in non-traded carbon over 60y (CO2e): 1,378,282 Change in traded carbon over 60y (CO2e): 0	N/A	NPV: -£61,557,855	
	Landscape	Direct impacts on historic estates and an Area of High Landscape Value. Perceptible adverse change to the landscape character and views experienced as a result of the interruption to the existing field patterns, loss of woodland, some of which is ancient woodland, erosion to existing tranquillity and new detracting features. The majority, with the exception of Ancient Woodland, can be replaced in the short to medium term. Coronation Avenue, a feature of note, would be replaceable in the long term.	N/A	Moderate Adverse	N/A	
	Townscape	N/A - due to the location of the Scheme, it is considered that the nature of impacts relate to landscape only and that no effects on the townscape of settlements will occur.	N/A	N/A	N/A	
	Historic Environment	Adverse effect on one non-designated built heritage asset due to its demolition. Adverse effect on one Grade II Listed milestone, temporarily removed during construction and repositioned. Temporary effects during construction on the setting of four Scheduled Monuments and built heritage assets (designated and non-designated) and permanent effects in operation on the setting of two Scheduled Monuments and built heritage assets (designated and non-designated). Permanent effects on below-ground archaeology and historic landscape character through their loss during construction.	N/A	Moderate Adverse	N/A	
	Biodiversity	No impacts to European designated sites. Loss of ancient woodland within the River Coquet and Coquet Valley Woodlands SSSI (Duke's Bank Wood). Ancient Woodland Strategy developed. Effects to two locally designated sites (single LNR and single LWS) and one ancient woodland as a result of NOX emissions during operation. Impacts on Habitats of Principal Importance but mitigable except for ancient woodland, broad-leaved semi-natural woodland, hedgerows, arable field margins and running water. Loss of bat roosts associated with removal of woodland and buildings but this is mitigatable. Mitigatable impacts on protected and notable species including habitat loss / damage, disturbance, fragmentation, and injury and mortality.	N/A	Large Adverse	N/A	
	Water Environment	Majority of the Study Area is within low-risk Flood Zone 1, with sections in medium risk Flood Zone 2 and high-risk Flood Zone 3. Sections of the Scheme at high, medium and low risk of flooding from surface water sources. Existing surface water flow paths incorporated into the Scheme. With mitigation in place, including the surface water drainage strategy and design of the new bridge over the River Coquet, the Scheme would have no adverse effects on water quality or increase flood risk.	N/A	Neutral	N/A	
Social	Commuting and Other users	The additional capacity will provide journey time benefits especially during the peak periods. However there will be delays during construction and also an increase in vehicle operating costs due to higher running speeds. - Over 60% of TEE benefit is due to changes in consumer journey times and vehicle operating costs. - In the opening year AM and PM peaks, there is a saving of 5 minutes in both directions. - In the opening year inter peak, savings are approximately 4 minutes in both directions.	**Value of journey time changes(£)**: 93,859,000 **Net journey time changes (£)** 0 to 2min: 16,628,000; 2 to 5min: 64,797,000; > 5min: 12,434,000	N/A	58,264,000	There are user benefits for all income quintiles but the biggest benefit is to the second richest quintile (60% to 80% income group) and the lowest benefit is to the poorest quintile (0% to 20% income group).
	Reliability impact on Commuting and Other users	Reliability is improved due to the scheme, with the extra capacity providing extra resilience.	-	N/A	4,693,000	
	Physical activity	Not Assessed. The scheme is unlikely to have a significant impact on the level of walking and cycling in the area as NMU provision is unchanged by the scheme.	-	Neutral	NA	
	Journey quality	Not Assessed. It is expected that the scheme will reduce traveller frustration due to increased speeds and smaller queues on the scheme route. Furthermore the fear of accidents is likely to reduce.	-	Moderate Beneficial	NA	
	Accidents	The scheme is expected to save a significant number of accidents, including 17 fatalities, during the 60 year appraisal period.	414 accidents saved (17 fatalities, 125 serious injuries and 566 slight injuries saved)	Major Beneficial	32,489,000	There is a reduction in accidents on the dualled section due to the increased safety of dualled carriageways. There is also a reduction on other roads. On the A1, away from the dualled sections, there is an increase in accidents due to increased traffic. Local accident victim age profile is close to local average.
	Security	The scheme is unlikely to have a significant impact on security.	-	Neutral	NA	NA
	Access to services	The scheme is unlikely to have a significant impact on access to public transport and therefore little impact on access to services	-	Neutral	NA	NA
	Affordability	There is a reduction in affordability due to an increase in vehicle operating costs.	-	Slight adverse	included within user benefits	The scheme provides adverse affordability impacts across all income groups.
	Severance	Although there are several areas that are forecast to experience significant changes in flow due to the A1 Dualling schemes, none of these locations are expected to have a large change in severance as a result of the scheme. This is due to the isolation of the schemes main road links from pedestrian movements, as well as the proposed facilities for pedestrian crossings on the new junctions, which allow pedestrians to cross the road even with the increases in traffic flow.	-	Neutral	NA	NA
	Option and non-use values	Not assessed	-	-	-	
Public Accounts	Cost to Broad Transport Budget	The scheme cost includes construction, preparation, supervision and land costs. There is also a saving of £5,254,000 (2010 prices and values) due to a reduction in maintenance costs due to the scheme.	Includes maintenance cost saving - £5,254,000	-	156,792,000	
	Indirect Tax Revenues	There is an increase in indirect tax revenue due to increased fuel consumption caused by increased speeds.	-	-	49,330,000	