

A96 Dualling Programme

Strategic Environmental Assessment Tier 2 Environmental Report

Appendix C - Preliminary Assessment of 16 Improvement Strategy Options

May 2015



Appendix C - Preliminary Assessment of 16 Improvement Strategy Options

Table C-1 Option A

Option Information	SEA Topic	Overview of Environmental Constraints	Commentary on Population/ Communities	SEA Comment	
Option A	Landscape	- No national designations identified - 9 Landscape Character Areas crossed	this option include: potentially be avoided within a 1km wide	While many of the constraints identified could potentially be avoided within a 1km wide zone, SEA	
For the purpose of assessment, SEA assumes that this online option constitutes a 500m buffer zone around the existing A96 between Aberdeen and Inverness	Historic Environment	- 43 Scheduled Monuments - 2 Battlefields covering 1.4% of the option area (196.50Ha) - 7 Conservation Areas covering 0.8% of the option area (114.70Ha) - 791 Listed Buildings (41 Cat. A) - 6 GDL sites covering 2.2% of the option area (300.88Ha)	Alves, Ardgye, Auldearn, Bainshole, Blackcastle, Blinkbonny, Brackley, Cairnie, Coachford, Colpy, Elgin, Fochabers, Forgie, Forres, Gollanfield, Hillhead, Huntly, Inveramsay, Inverurie, Keith, Lhanbryde, Lochside, Milton of Gollanfield, Mosstodloch, Nairn,	Blackcastle, Blinkbonny, Brackley, Cairnie, Coachford, Colpy, Elgin, Fochabers, Forgie, Forres, Gollanfield, Hillhead, Huntly, Inveramsay, Inverurie, Keith, Lhanbryde, Lochside, Milton of Gollanfield, Mosstodloch, Nairn,	On-line dualling reduces the requirement for additional land-take Key issues:
Approx. Length: 139Km Approx. Area: 13,877Ha	Biodiversity, Flora & Fauna Water Soils & Geology	- 2 Ramsar sites covering 0.6% of the option area (82.07Ha) - 3 SAC covering 0.2% of the option area (25.21Ha) - 3 SPA covering 0.6% of the option area (82.11Ha) - 4 Biological SSSIs covering 1.0% of the option area (132.84Ha) - 2 Mixed SSSIs covering 0.2% of the option area (28.66Ha) - Ancient Woodland covers 12.3% of the option area (0.2% (30.59Ha) semi-natural, 12.0% (1,660.86Ha) plantation, 0.1% (13.42Ha) Roy) - SEPA 1 in 200 fluvial flood zone covers 11.6 % of the option area (1,605.27Ha) - SEPA 1 in 200 year coastal flood zone covers 0.8% of the option area (106.79Ha) - 1 Geological SSSI covering <0.1% of the option area (2.48Ha) - 2 Mixed SSSIs covering 0.2% of the option area (28.66Ha) - Peat and peaty soils cover 2.8% of the option area (383.02Ha) - 3 GCR sites covering 0.3% of the option area (36.77Ha) - Arable agricultural land covers 20.3% of the option area (2,812.31Ha) - Mixed agricultural land	Pitmachie, Port Elphinstone, Skares, Springfield, Tornagrain, and Whiteford As this option represents full dualling of the existing A96, the communities likely to be affected by the dualling would be those currently located on or near the A96 Impacts on these communities may include demolition of properties, and increased air and noise pollution	 No environmental relief provided for communities on/ near the existing A96, exacerbating existing issues such as road safety, noise and air quality Large areas of land at risk of flooding span the breadth of this option Conservation Areas and numerous Listed Buildings are clustered around a number of settlements throughout this option Auldearn Battlefield spans the majority of the breadth of this option Land take around the current A96 has the potential for significant environmental effects on the cultural and natural environment and particularly on the people and communities currently affected 	
SEA Option Review Summary	 covers 63.6% of the option area (8,825.76Ha) Key risks include the lack of environmental relief and increased disruption to communities along the existing A96 Includes increased risk to properties either side of existing A96 through settlements Benefits include a reduced requirement for additional land take when compared with off-line options On balance, SEA review considers that option A should not be taken forward for further consideration due to the potential for adverse effects on population and human health, exacerbating existing conditions 				





Table C-2 Option B North

Option Information	SEA Topic	Overview of Environmental Constraints	Commentary on Population/ Communities	SEA Comment
Option B North	Landscape	No national designations identified8 Landscape Character Areas crossed	The main settlements within this option include:	While many of the constraints identified could potentially be avoided within a 1km wide zone, SEA
For the purpose of assessment, SEA assumes that this online option constitutes a 500m buffer zone around the existing A96 between Aberdeen and Inverness with bypasses to the north of Forres, Elgin and Inverurie The major settlements of Keith and Nairn, also situated within this option, are bypassed to the south Approx. Length: 155Km Approx. Area: 19,564Ha	For the purpose of assessment, SEA assumes hat this online option constitutes a 500m puffer zone around the existing A96 between Aberdeen and Inverness with bypasses to the north of Forres, Elgin and invertie Biodiversity, Flora & Fauna Constituated within this aption, are bypassed to the south Constitution of the south Constitu	- 43 Scheduled Monuments - 2 Battlefields covering 2.1% of the option area (473.24Ha) - 2 Conservation Areas covering 0.1% of the option area (16.51Ha) - 217 Listed Buildings (16 Cat. A) - 6 GDL sites covering 2.6% of the option area (501.29Ha) - 2 Ramsar sites covering 0.5% of the option area (91.82Ha) - 2 SAC covering 0.1% of the option area (21.51Ha) - 3 SPA covering 0.5% of the option area (91.85Ha) - 3 Biological SSSIs covering 0.6% of the option area (121.24Ha) - 2 Mixed SSSIs covering 1.2% of the option area (235.67Ha) - Ancient Woodland covers 10.7% of the option area (0.2% (31.84Ha) semi-natural, 10.4% (2,042.18Ha) plantation, 0.1% (23.17Ha) Roy)		potentially be avoided within a 1km wide zone, SEA considers that the key issues and benefits associated with this particular option include: Key benefits: Bypasses around major settlements will improve road safety and air quality Also reduces the potential impact on Listed Buildings within settlements On-line dualling of the existing A96, on sections between bypasses, will reduce the additional land-take required Key issues: Contains more land at risk of fluvial and coastal flooding when compared with option B South (spanning the breadth of this option at multiple points) Contains more productive agricultural land when compared with option B South (spanning the breadth of this option at multiple points) Areas designated as Ancient Woodland could be adversely affected Keith Hall GDL spans the breadth of this option
	Water	-SEPA 1 in 200 fluvial flood zone covers 11.2% of the option area (2,184.85Ha) - SEPA 1 in 200 year coastal flood zone covers 1.5% of the option area (301.24Ha)		 Auldearn and Harlaw Battlefields s majority/ all of the breadth of this The River Spey SAC/ SSSI crosses the
	Soils & Geology		the option (however it should be noted that this is also the case for options A and B South)	
SEA Option Review Summary	 Key risks include more land at risk of flooding (fluvial and coastal) when compared with option B South, and the presence of more historic environment designations spanning a large proportion of the breadth of this option Key benefits include bypasses around major settlements, providing environmental relief for communities B North and B South only vary in terms of the bypass options around Forres, Elgin and Inverurie and, on balance, SEA review considers that option B North is more significantly constrained than option B South However, bypass options to the North of these settlements should be taken forward for further consideration, in order to provide flexibility at this early stage should the PES engineering studies determine that options to the South of these settlements are particularly constrained in engineering terms 			





Table C-3 Option B South

Option Information	SEA Topic	Overview of Environmental Constraints	Commentary on Population/ Communities	SEA Comment
Option B South	Landscape	- No national designations identified - 8 Landscape Character Areas crossed	The main settlements within option B South include:	While many of the constraints identified could potentially be avoided within a 1km wide zone, SEA
For the purpose of assessment, SEA assumes that this online option constitutes a 500m buffer zone around the existing A96 with bypasses to the south of Forres, Elgin and Inverurie The major settlements of Keith and Nairn, also situated within this option, are bypassed to the south Approx. Length: 151Km Approx. Area: 18,777Ha	- 8 Landscape Character Areas crossed Historic Environment - 43 Scheduled Monuments - 1 Battlefield covering 1.7% of the option area (314.26Ha) - 2 Conservation Areas covering 0.1% of the option area (16.51Ha) - 195 Listed Buildings (26 Cat. A) - 6 GDL sites covering 1.6% of the option area (299.21Ha) - 2 Ramsar sites covering 0.5% of the option area (93.31Ha) - 2 SAC covering 0.1% of the option area (93.31Ha) - 3 SPA covering 0.5% of the option area (93.31Ha) - 3 Biological SSSIs covering 0.7% of the option area (122.31Ha) - 2 Mixed SSSIs covering 1.2% of the option area (234.33Ha) - Ancient Woodland - Ancient Woodland South include: Auldearn, Bainshole, Blackburn, Blackcastle, Blinkbonny, Brackley, Cairnie, Chapel of Garioch, Chapel of Stoneywood, Cloves, Coachford, Colpy, Fochabers, Forgie, Gollanfield Hillhead, Househill, Huntly, Kintore Lhambryde, Lochside, Milton off Gollanfield, Moss-side, Mosstodloch, Muir of Kinellar, Nair Newton, Old Rayne, Paddockhaugh Pitmachie, Skares, Tornagrain. All of these communities could potentially be affected by dualling within option B South, however it should be noted that settlements including Inverurie, Keith, Elgin, Forres and Nairn would be bypasse by this option, providing environmental relief and reducing the risk of potentially adverse	Blackcastle, Blinkbonny, Brackley, Cairnie, Chapel of Garioch, Chapel of Stoneywood, Cloves, Coachford, Colpy, Fochabers, Forgie, Gollanfield, Hillhead, Househill, Huntly, Kintore, Lhanbryde, Lochside, Miltonduff, Milton of Gollanfield, Moss-side, Mosstodloch, Muir of Kinellar, Nairn, Newton, Old Rayne, Paddockhaugh, Pitmachie, Skares, Tornagrain. All of these communities could potentially be affected by dualling within option B South, however it should be noted that settlements including Inverurie, Keith, Elgin, Forres and Nairn would be bypassed by this option, providing environmental relief and reducing the risk of potentially adverse impacts on these communities when	considers that the key issues and benefits associated with this particular option include: Key benefits: Bypasses around major settlements will improve road safety and air quality Also reduces the potential impact on Listed Buildings within settlements On-line dualling of the existing A96, on sections between bypasses, will reduce the additional land-take required Avoids Keith Hall GDL and Harlaw Battlefield (both near Inverurie) that would be affected by option B North Impacts less productive agricultural land than option B North Crosses less land at risk of flooding than option B North (approx. 66% less coastal flood risk approx. 20% less fluvial flood risk)	
		option A	 Key issues: The River Spey SAC/SSSI crosses the breadth of this option (however it should be noted that this is also the 	
		covers 9.1% of the option area (1,717.90Ha) - SEPA 1 in 200 year coastal flood zone covers 0.5% of the option area (101.63Ha)		 case for options A and B North) Crosses significant areas of land at risk of flooding (fluvial/ river crossings)
	Soils & Geology	- 1 Geological SSSI covering <0.1% of the option area (2.48Ha) - 2 Mixed SSSIs covering 1.2% of the option area (234.33Ha) - Peat and peaty soils cover 2.3% of the option area (422.51Ha) - 3 GCR sites covering 1.3% of the option area (234.85Ha) - Arable agricultural land covers 17.3% of the option area (3,242.91Ha) - Mixed agricultural land covers 73.3% of the option area (13,759.49Ha)		 Areas designated as Ancient Woodland could be adversely affected Auldearn Battlefield spans the majority of the breadth of this option
SEA Option Review Summary	 B North and B South only vary in terms of the bypass options around Forres, Elgin and Inverurie and, on balance, SEA review considers that option B South is less significantly constrained than option B North Key benefits include bypasses around major settlements providing environmental relief for communities and avoidance of historic environment features potentially affected by B North Key risks include significant areas of land at risk of flooding within the bypass options to the south of communities (less; however, than B North) and potential risk of adverse impacts on Ancient Woodland designations SEA considers that, at this early stage, option B South could be viewed as the reference case for SEA comparison of other broad alternative options On balance, SEA review considers that option B South is less significantly constrained than online option A and option B North and therefore should be taken forward for further consideration 			





Table C-4 Option C

Option Information	SEA Topic	Overview of Environmental Constraints	Commentary on Population/ Communities	SEA Comment
Option C	Landscape	No national designations identified4 Landscape Character Areas crossed	The main community located within option C is Insch, however the	While many of the constraints identified could potentially be avoided within a 1km wide zone, SEA
For the purpose of assessment, SEA assumes	Historic Environment	- 8 Scheduled Monuments - 14 Listed Buildings (1 Cat. A)	majority of Insch is situated outside the South-west extent of the option, and therefore dualling towards the	considers that the key issues and benefits associated with this particular option include:
that this offline option consists of a 500m buffer zone which commences at the existing A96 between Boddum Hill and Dunbennan Hill	Biodiversity, Flora & Fauna	- Ancient Woodland covers 8.6% of the option area (0.3% (10.90Ha) semi-natural, 8.1% (331.61Ha) plantation, 0.2% (7.08Ha) Roy)	north-east of this option could potentially avoid/ bypass the settlement Other settlements in this option	 Key benefits: Bypassing the major settlements of Inverurie and Huntly on the existing A96, will improve road safety and local air quality Crosses less land at risk of fluvial flooding than
It bypasses to the south	Water	- SEPA 1 in 200 fluvial flood zone covers 4.8% of the option area (196.14Ha)	include Aquhythie, Ardoyne, Burnhervie, Shanquhar, and	the corresponding section of options A, B North and B South
of Huntly and runs in a straight line through the north of Insch, bypassing to the south west of Inverurie and rejoining the existing A96 south of Kintore Approx. Length: 41Km Approx. Area: 4,102Ha	Soils & Geology	- Peat and peaty soils cover 7.3% of the option area (299.05Ha) - Arable agricultural land covers 9.9% of the option area (407.20Ha) - Mixed agricultural land covers 80.2% of the option area (3,288.86Ha)	Westhall, all of which could potentially be impacted by dualling within this option Impacts on communities may include, for example, demolition of properties, and increased air and noise pollution This option does bypass Huntly and Inverurie, potentially providing environmental relief for these larger settlements	 Fewer historic environment designations when compared with the equivalent section of options A, B North and B South Key issues: More Ancient Woodland (predominantly to the south of the option) than in the corresponding sections of options A, B North and B South Arable agricultural land, close to Insch, is more of a constraint compared with the corresponding sections of options A, B North and B South Peaty soil stretches across this option, west of Garioch, presenting potential engineering, management and restoration constraints when compared with the equivalent sections of options A, B North and B South The southern extent of this option connects to the existing A96 dualled section south of Kintore but may require a link to one of the broad options (e.g. options L/ M) which propose offline dualling from north of Huntly either direct to Nairn, or via Dufftown to Inverness
SEA Option Review Summary	 When compared with the corresponding stretches of options A, B North and B South, this option is less significantly constrained Risk of adverse impacts in terms of losses of productive (mixed agricultural) land, and impacts on areas designated as Ancient Woodland Key risk is the introduction of potentially adverse impacts on those smaller settlements presently unaffected by A96 issues Key benefits include the avoidance of the larger settlements of Inverurie and Huntly, potentially providing environmental relief Also avoids a number of historic environment designations potentially affected by options A, B North and B South On balance, SEA review considers that option C should be taken forward for further consideration as it could potentially provide a less constrained alternative to the corresponding sections of options A, B North and B South 			





Table C-5 Option D

Option Information	SEA Topic	Overview of Environmental Constraints	Commentary on Population/ Communities	SEA Comment
Option D	Landscape	No national designations identified2 Landscape Character Areas crossed	The main community located within option D is Whiteford	While many of the constraints identified could potentially be avoided within a 1km wide zone, SEA
For the purpose of assessment, SEA assumes that this offline option	Historic Environment	- 2 Scheduled Monuments - 4 Listed Buildings (2 Cat. A)	Whiteford is situated on the south- west boundary of the option, and	considers that the key issues and benefits associated with this particular option include:
consists of a 500m buffer zone which commences at the existing A96	Biodiversity, Flora & Fauna	- Ancient Woodland covers 9.6% of the option area (125.56Ha plantation)	dualling towards the north east of the option around this area could reduce potential for adverse impacts	Key Benefits Bypassing communities including Colpy and Pitmachie on the existing A96 will improve road
between Hill of Skares and Hill of Tillymorgen It is assumed that this	Water Soils & Geology	- SEPA 1 in 200 year fluvial flood risk zone covers 6.6% of the option area (86.25Ha) - 1 Geological SSSI covering 0.2% of the option area (3.09Ha)	Other settlements in this option include Bonnyton, Durno, and Kirkton	 safety and local air quality Crosses less land at risk of fluvial flooding than the corresponding sections of options A, B North and B South
option does not bypass any major settlements but runs in straight line to re-join the existing A96 just north of Milton of Inveramsay Approx. Length: 13Km Approx. Area: 1,308Ha		- 1 GCR site covering 0.2% of the option area (2.95Ha) - Arable agricultural land covers 31.1% of the option area (406.65Ha) - Mixed agricultural land covers 66.6% of the option area (870.66Ha)	•	. •
SEA Option Review Summary	 When compared with the corresponding stretches of options A, B North and B South, this option is less significantly constrained Key risk is the introduction of potentially adverse impacts on those smaller settlements presently unaffected by A96 issues Also risk of adverse impacts in terms of losses of productive (arable and mixed) agricultural land, and impacts on areas designated as Ancient Woodland No larger A96 settlements bypassed by this option; however, does enable the avoidance of a number of GDLs Option D would be most beneficial when considered in conjunction with a north bypass option around Inverurie Option D may be removed from further consideration should PES engineering assessments determine that either option B South or option C is preferred in this area On balance, SEA review considers that option D should be taken forward for further consideration as it could potentially provide a less constrained alternative to the corresponding sections of options A, B North and B South 			





Table C- 6 Option E

Option Information	SEA Topic	Overview of Environmental Constraints	Commentary on Population/ Communities	SEA Comment	
Option E For the purpose of assessment, SEA assumes that this offline option consists of a 500m buffer zone which commences at the existing A96 between Hillhead of Thomaston and Rack Moss It is assumed that this option does not bypass any major settlements but provides a straight line/ tunnelling option to re-join the existing A96 just north of the B992 intersections Approx. Length: 9Km Approx. Area: 876Ha	Landscape Historic Environment Biodiversity, Flora & Fauna Water Soils & Geology	Constraints - No national designations identified - 2 Landscape Character Areas crossed - 1 Listed Building (Cat. C) - 1 GDL site covering 0.2% of the option area (1.64Ha) - Ancient Woodland covers 0.4% of the option area (3.11Ha plantation) - SEPA 1 in 200 year fluvial flood risk zone covers 2.4% of the option area (20.88Ha) - Arable agricultural land covers 11.7% of the option area (102.31Ha) - Mixed agricultural land covers 72.8% of the option area (638.08Ha)	The main settlement within option E is Wrangham Wrangham, along with a number of smaller settlements could potentially be affected by dualling within this option through, for example, demolition of properties or increased air or noise pollution during construction and operation Tunnelling presents additional issues including safety of workers during construction, operations and maintenance phases, with further safety issues associated with the transportation of flammable materials (eg. whisky)	While many of the constraints identified could potentially be avoided within a 1km wide zone, SEA considers that the key issues and benefits associated with this particular option include: Key benefits: Although this option is constrained by 200-year fluvial flood risk zones (river crossings) at the north and south extents, there is much lower flood risk when compared with corresponding stretches of options A, B North and B South When compared with options A, B North and B South, this option presents greater potential to avoid Williamston House GDL Key issues: This option involves the construction of a twin bore dual carriageway tunnel (distance not confirmed) and the associated environmental issues (e.g. excavations, blasting, spoil management/ waste, construction and maintenance accesses for ventilation shafts, etc.) should be considered significant The southern end of this option is constrained by an area of Ancient Woodland (plantation) near Cranieston and an expanse of productive (arable) agricultural land	
SEA Option Review Summary					





Table C-7 Option F

Option Information	SEA Topic	Overview of Environmental Constraints	Commentary on Population/ Communities	SEA Comment	
Option F For the purpose of assessment, SEA assumes that this offline option consists of a 500m buffer zone which commences south of Elgin between the Benraich-Glenlivet Distillery off the A941 and Longmorn and Raich Farm It is assumed that this option then runs in a straight line, bypassing to the south of Fochabers, until the junction of the B9103 and B9015 near Orton From here it is assumed to follow the B9103 and then the A95 to Hillockhead Wood, just west of Keith Approx. Length: 21Km Approx. Area: 2,112Ha	Landscape Historic Environment Biodiversity, Flora & Fauna Water Soils & Geology	Constraints - No national designations identified - 4 Landscape Character Areas crossed - 3 Listed Buildings (1 Cat. A) - 1 SAC covering 1.3% of the option area (26.66Ha) - 1 Biological SSSI covering 0.9% of the option area (19.05Ha) - Ancient Woodland covers 22.4% of the option area (0.3% (5.50Ha) semi-natural, 22.1% (466.69Ha) plantation) - SEPA 1 in 200 year fluvial flood risk zone covers 6.2% of the option area (131.65Ha) Various rivers/ burns to cross in this option including the River Spey, Longmorn Burn, Burn of Auchlunkart, Loan Burn – these burns/ rivers feed the range of distilleries found within this option - Peat and peaty soils cover 18.9% of the option area (398.31Ha) - Arable agricultural land covers 7.8% of the option area (163.71Ha) - Mixed agricultural land covers 58.2% of the option area (1,230.22Ha)	This option would require connections with a southern bypass around Elgin and Keith It bypasses Fochabers and Mosstoldoch on the A96; however, a number of small settlements including Longmorn, Mulben, Newlands of Dundurcas, and Rosarie, along with a number of distilleries are all dispersed within option F Each of these communities/ distillery businesses could potentially be impacted by dualling within this option An option linking the south of Elgin to the south side of Keith, could provide some relief for existing A96 communities, but could adversely impact those communities within this option Mixed effects likely with some benefits for A96 communities, disbenefits for communities, disbenefits for communities within the boundaries of this option and potential benefits/ disbenefits for distillery businesses as improved transport links could benefit businesses within the option	While many of the constraints identified could potentially be avoided within a 1km wide zone, SEA considers that the key issues and benefits associated with this particular option include: Key Benefits Bypasses communities including Llanbryde, Mosstodloch and Fochabers on the existing A96 – could help improve road safety and local air quality (although recently completed bypass work at Fochabers and Mosstodloch would limit likely extent of benefits) Avoids Gordon Castle (Bog of Gight) GDL (Present in options A/B North/B South) While this option does contain 3 Listed Buildings, it avoids a number of Listed Buildings and Conservation Area at Fochabers (present in options A/B North/B South) Key Issues Links to option B South at the southern bypass around Elgin and A/B North/B South to the west of Keith and would therefore rely on these bypass options being taken forward The River Spey SAC/SSSI crosses the breadth of this option (however it should be noted that this is also the case for options A/B North/B South) Ancient Woodland crosses the breadth of this option (however it should be noted that this is also the case for options A/B North/B South) Ancient Woodland crosses the breadth of this option (however it should be noted that this is also the case for options A/B North/B South) Peaty soils and arable agricultural land span the breadth of this option Dualling could potentially impact upon a number	
SEA Option Review Summary	 In terms of environmental constraint designations, when compared with the corresponding sections of options A/B North/B South, this option is less significantly constrained However, in terms of watercourses and water quality, this option contains a number of distilleries which would support consideration of this option only where others do not prove viable Key issues include valuable habitats (including Ancient Woodland and peaty soils which traverse the breadth of the option) and the River Spey SAC/SSSI Relies on selection of a southern bypass option around both Elgin and Keith 				





Table C-8 Option G

Option Information	SEA Topic	Overview of Environmental Constraints	Commentary on Population/ Communities	SEA Comment	
For the purpose of assessment, SEA assumes that this offline option consists of a 500m buffer zone which commences at Inshes on the A96 east of Inverness, and runs in a straight line south east to rejoin the existing A96 at the Kinellar roundabout near Blackburn, north west of Aberdeen It is assumed that this option therefore bypasses all of the major settlements on the current A96 route	Historic Environment Biodiversity, Flora & Fauna	- Cairngorms NP covers 8.2% of the option area (963.84Ha) Direct option which would require construction/ excavation/ tunnelling through extremely challenging terrain - 7 Landscape Character Areas crossed - 6 Scheduled Monuments -25 Listed Buildings (3 Cat. A) - 2 GDL sites covering <0.01% of the option area (2.55Ha) - 3 SAC covering 8.9% of the option area (1,047.03Ha) - 4 Biological SSSIs covering 5.8% of the option area (682.19Ha) - 1 Mixed SSSI covering 3.2% of the option area (373.57Ha) - Ancient Woodland covers 6.2% of the option area (0.7% (78.53Ha) semi-natural, 5.3% (624.77Ha) plantation, 0.2% (25.89Ha) Roy)	In addition to Westhill on the outskirts of Inverness, option G contains a number of small communities including: Auchnagallin, Castletown,Drumin, Keig, Lettoch, Leylodge. Lumsden, Mains of Dalvey, Muir of Kinellar, Pitfichie, and Shenval Any of these communities could potentially be impacted by dualling within this option, for example through demolition of properties or increased air/ noise pollution A direct end-to-end option between Inverness and Aberdeen would really only benefit traffic travelling end-to-end – it would not benefit travel along and between communities on the A96 corridor	outskirts of Inverness, option G contains a number of small communities including: Auchnagallin, Castletown,Drumin, Keig, Lettoch, Leylodge. Lumsden, Mains of Dalvey, Muir of Kinellar, Pitfichie, and Shenval Any of these communities could potentially be impacted by dualling within this option, for example through demolition of properties or increased air/ noise pollution A direct end-to-end option between Inverness and Aberdeen would really only benefit traffic travelling end-to-end — it would not benefit travel along and between communities on	 associated with this particular option include: Key benefits: This option contains less land at risk of flooding than options A/B North/B South While this option contains a number of sites of historic and cultural designation, it avoids more of these sites than options A/B North/B South There is less productive agricultural land compared with options A/B North/B South Key issues: This offline option would require commitment to complete an entirely new route through mountainous terrain, and that does not address the community relief issues on the A96 corridor Would really only benefit end-to-end travel Carn nan Tri-tighearnan, River Spey, Coreen Hills
Direct end-to-end straight line option	Water	- SEPA 1 in 200 fluvial flood zone covers 5.1% of the option area (592.25Ha)	Rough estimate for end-to-end traffic is in the order of 10-15%	and Hill of Towanreef SAC/ SPAs span the entire breadth of the option	
Approx. Length: 117Km Approx. Area: 11,721Ha	Soils & Geology	- 1 Mixed SSSI covering 3.2% of the option area (373.57Ha) - Peat and peaty soils cover 48.8% of the option area (5,716.38Ha) - Arable agricultural land covers 1.8% of the option area (210.33Ha) - Mixed agricultural land covers 34.5% of the option area (4,047.46Ha)	Would not really provide environmental relief for communities on the A96 as the majority of trips would not be addressed by this option	 This option cuts through areas of the Cairngorms National Park Peaty soils cover a large proportion of this option Ancient Woodland crosses the breadth of this option at multiple points Fluvial flooding from several waterbodies is still a significant constraint, Lochindorb in particular spanning the breadth of this option Larger settlements such as Westhill and Lumsden present constraints along this offline option with potential risks to properties within these communities 	
SEA Option Review Summary	Does not addCuts throughKey benefits	clude the mountainous terrain and cutting through dress the community relief issues on the A96 corric three Natura sites that would be avoided entirely include the avoidance of a number of designated I SEA review considers that option G should not be	for as would only really help end-to-end t by focusing on solutions along the existin historic environment sites when compare	raffic ng A96 corridor d with options A/B North/B South	





Table C-9 Option H

Option Information	SEA Topic	Overview of Environmental Constraints	Commentary on Population/ Communities	SEA Comment	
Option H For the purpose of assessment, SEA assumes that this offline option	Landscape	- Cairngorms NP covers 48.8% of the option area (8,003.82Ha) This option would require dualling of approx. 70-75km of existing roads through the north end of the Cairngorms National Park - 7 Landscape Character Areas crossed	Option H contains a number of settlements of varying size including: Alford, Bellabeg, Blairnamarrow, Bridge of Alford, Bridge of Brown, Carrbridge / Drochaid Charr, Colnabaichin, Craggan, Craggie,	While many of the constraints identified could potentially be avoided within a 1km wide zone, SEA considers that the key issues and benefits associated with this particular option include: Key Benefits	
consists of a 500m buffer zone which commences at the Raigmore Interchange in Inverness and follows the A9 south east until the junction with the A938 near Baddengorm From here it is assumed to follow the A938 east	Historic Environment	- 28 Scheduled Monuments - 1 Battlefield covering 1.4% of the option area (234.40Ha) - 1 Conservation Area covering <0.1% of the option area (0.02Ha) - 173 Listed Buildings (12 Cat. A) - 3 GDL sites covering 1.4% of the option area (229.63Ha) - 2 Ramsar sites	Culcabock, Daviot, Dirdhu, Drumnahive, Dulnain Bridge, Dunecht, Duthil, Elrick, Forbestown, Glenkindie, Heugh-head, Kirkton of Skene, Lochanhully, Lynemore, Mains of Kildrummy, Moy, Old Kinnernie, Ordhead, Sauchen, Scatraig, Skye of Curr, Slochd, Speybridge, Strathdon, Tillyfourie, Tomatin, Tomintoul,	 Contains less land at risk of flooding than options A/B North/B South Contains less productive agricultural land than options A/B North/B South Presumed on-line dualling of existing A class roads Key Issues This option would not be useful for current A96 	
and then the A95 toward Granton-on-Spey It is then assumed to follow the A939 south east to the junction with the A944 near Colnabaichin, continuing to follow the A944 to join the A97 near Deskry Bridge	Flora & Fauna	covering 0.3% of the option area (55.12Ha) - 4 SAC sites covering 4.3% of the option area (703.81Ha) - 3 SPA sites covering 0.5% of the option area (75.28Ha) - 5 Biological SSSIs covering 0.6% of the option area (103.28Ha) - 1 Mixed SSSI covering 2.9% of the option area (474.25Ha) - Ancient Woodland covers 14.3% of the option area (3.3% (545.60Ha) semi-natural,	of Aberdeen, and Whitehouse This option also crosses the southern extent of Grantown on Spey Each of these communities could potentially be affected by dualling within this option An end-to-end option between Inverness and Aberdeen would really only benefit traffic travelling end-to-end – it would not benefit travel	users unless travelling directly from Aberdeen to Inverness or vice versa Does not address the community relief issues for the A96 corridor Requires dualling through 70-75km of the Cairngorms National Park (almost half of the option area) The River Spey, Creag nan Gamhainn, and Ladder Hills SACs and SSSIs span the breadth of the option Alford Battlefield spans the breadth of this option Areas of fluvial floodrisk span the breadth of the	
For the purposes of SEA it is then assumed to follow the A97 to Mossat, then the A944 all		10.3% (1,689.37Ha) plantation, 0.7% (111.85Ha) Roy) - 1 LNR covering 0.1% (9.17Ha)	along and between communities on the A96 corridor	 option at multiple points Peat and peaty soils span the breadth of the option at multiple points GCR sites may be difficult to avoid, spanning the 	
the way to the east of Westhill, which is west of Aberdeen This option is assumed to	Water	- SEPA 1 in 200 fluvial flood zone covers 6.9% of the option area (1,133.15Ha) - SEPA 1 in 200 coastal flood zone covers <0.1% of the option area (3.48Ha)	Rough estimate for end-to-end traffic is in the order of 10-15% Would not really provide environmental relief for communities	majority of the breadth of the option at multiple points • Ancient Woodland cross the breadth of this option at multiple points	
bypass all of the major settlements on the current A96 route	Soils & Geology	- 1 Geological SSSI covering 0.1% of the option area (14.07Ha) - 1 Mixed SSSI covering 2.9% of the option area (474.25Ha)	on the A96 as the majority of trips would not be addressed by this option	Presumed dualling of current A class roads within the option is likely to exacerbate existing issues including air quality, noise and community severance, and may put local properties at risk	
Alternative end-to-end option using existing roads		- Peat and peaty soils cover 21.3% of the option area (3,495.85Ha) - 4 GCR sites covering 0.5% of the option area (80.38Ha)	In terms of overall distance, this is a longer option than options A/B North/B South		
Approx. Length: 166Km Approx. Area: 16,392Ha		- Arable agricultural land covers 3.9% of the option area (646.59Ha)- Mixed agricultural land			
SEA Option Review Summary	covers 53.3% of the option area (8,743.39Ha) • Key issues include the mountainous terrain and dualling through the Cairngorms National Park which covers almost half of this option • Does not address the community relief issues on the A96 corridor as would only really help end-to-end traffic • Introduces dual carriageway through Cairngorms communities not currently affected by A96 issues • Cuts through Natura sites that would be completely avoided by focusing on solutions around the existing A96 corridor • Key benefits include potentially reduced land take if dualling existing A class roads, and use of less land at risk of flooding • On balance, SEA review considers that option H should not be carried forward for further consideration				





Table C- 10 Option I

Option Information	SEA Topic	Overview of Environmental Constraints	Commentary on Population/ Communities	SEA Comment
For the purpose of assessment, SEA assumes that this offline option consists of a 500m buffer zone which commences at Carrbridge on the A938, running south east towards Bridge of Brown on the A939 From here it is assumed to continue in a straight line east to the junction of the A97 and the A944 at Bridgend This option is assumed to bypass all of the major settlements on the current A96 route Straight line connection option to shorten distances between key points on option H Requires approval on key sections of option H Approx. Length: 52Km	Historic Environment Biodiversity, Flora & Fauna Water Soils & Geology	- Cairngorms NP covers 81.5% of the option area (4,240.28Ha) As option I provides connections between points on option H, the majority of this option would require direct route construction/ excavation/ tunnelling through extremely challenging terrain - 4 Landscape Character Areas crossed - 6 Scheduled Monuments - 21 Listed Buildings (6 Cat. A) - 1 GDL Site covering 0.2% of the option area (10.11Ha) - 2 SACs covering 2.4% of the option area (127.37Ha) - 1 SPA covering 3.0% of the option area (157.28Ha) - 2 Biological SSSIs covering 0.4% of the option area (20.16Ha) - 1 Mixed SSSI covering 0.9% of the option area (46.31Ha) - Ancient Woodland covers 6.3% of the option area (49% (255.10Ha) semi-natural, 0.7% (37.06Ha) plantation, 0.7% (37.36Ha) Roy) - SEPA 1 in 200 year fluvial flood risk zone covers 7.4% of the option area (386.74Ha) - 1 Mixed SSSI covering 0.9% of the option area (46.31Ha) - Peat and peaty soils cover 47.6% of the option area (2,477.36Ha) - Mixed agricultural land covers 37.3% of the option area (1,941.21Ha)	The main settlements of Carrbridge / Drochaid Charr, Chapeltown, and Silemore, as well as the northern extent of Nethy Bridge and Abernethy are located in option I While any of these communities could potentially be impacted by dualling within this option, it should be noted that Abernethy comprises a number of developments spread across the majority of the option breadth which may therefore be difficult to avoid This option would be part of an end-to-end solution comprising parts of option H Would really only benefit traffic travelling end-to-end – it would not benefit travel along and between communities on the A96 corridor Would not really provide environmental relief for communities on the A96 as the majority of trips would not be addressed by this option Introduces dual carriageway through Cairngorms communities not currently affected by A96 issues	 While many of the constraints identified could potentially be avoided within a 1km wide zone, SEA considers that the key issues and benefits associated with this particular option include: Key benefits: This option avoids Ladder Hills SAC and SSSI which constrain the corresponding sections of option H More Ancient Woodland of plantation origin and mixed agricultural land is avoided when compared with the corresponding sections of option H The option includes fewer Scheduled Monuments and Listed Buildings than the corresponding sections of option H Key issues: This option provides shorter, more direct links to sections of option H and is therefore reliant on option H being taken forward The Cairngorms National Park covers more than 80% of this option An area of Craigmore Wood, designated as an SPA and containing semi-natural Ancient Woodland, crosses the option A large continuous section of this option, near Nethy Bridge, is at risk of fluvial flooding Peaty soil is a major constraint, covering a large expanse of the option Does not address community relief issues on the A96 corridor
SEA Option Review Summary	Key issues inDoes not addIntroduces dCuts through	approval of parts of option H clude the mountainous terrain and dualling through fress the community relief issues on the A96 corricual carriageway through Cairngorms communities Natura sites that would be completely avoided by SEA review considers that option I should not be of	dor as would only really help end-to-end t not currently affected by A96 issues of focusing on solutions around the existing	raffic 3 A96 corridor





Table C-11 Option J

Option Information	SEA Topic	Overview of Environmental Constraints	Commentary on Population/ Communities	SEA Comment	
Option J For the purpose of assessment, SEA assumes that this offline option consists of a 500m buffer zone which commences on the A941 south of Elgin at the Benraich-Glenlivet Distillery It is assumed to follow the A941 through Rothes, Craigellachie, Dufftown, bypassing to the south of Fochabers, Keith and Huntly The assumption is that this option then follows the A97 south from	SEA Topic Landscape Historic Environment Biodiversity, Flora & Fauna Water Soils & Geology			While many of the constraints identified could potentially be avoided within a 1km wide zone, SEA considers that the key issues and benefits associated with this particular option include: Key Issues Links option H in the south to option B South in the north and likely to require the dualling of several existing A roads in between The River Spey SAC and SSSI crosses the option at multiple locations Land at risk of flooding crosses the option at several locations Peaty soils span the breadth of this option at multiple locations A number of Ancient Woodlands span the breadth of the option Potential to impact communities within the option including Rothes, Craigellachie and Dufftown which span the breadth of the option	
Rhynie and terminates at the junction with the A944 at Bridgend Approx. Length: 59Km Approx. Area: 5,894Ha		covering 0.9% of the option area (53.23Ha) - 4 GCR sites covering 0.4% of the option area (22.21Ha) - Peat and peaty soils cover 11.6% of the option area (683.30Ha) - Arable agricultural land covers 2.6% of the option area (153.06Ha) - Mixed agricultural land covers 52.1% of the option area (3,068.52Ha)	Not likely to address the community relief issues along the A96 corridor		
SEA Option Review Summary					



ch2m:

Table C- 12 Option K

Option Information	SEA Topic	Overview of Environmental Constraints	Commentary on Population/ Communities	SEA Comment
Option K	Landscape	No national designations identified3 Landscape Character Areas crossed	The main settlements located in option K are Lumsden and the small settlement of Elrick Lumsden spans approximately half the breadth of this option, and	While many of the constraints identified could potentially be avoided within a 1km wide zone, SEA considers that the key issues and benefits associated with this particular option include: Key benefits:
For the purpose of assessment, SEA assumes that this offline option consists of a 500m buffer	Historic Environment Biodiversity,	- 1 Scheduled Monument - 2 Listed Buildings (Cat. B & C) - 1 SAC		
zone which commences on the A941 just west of the junction with the B9002 near Elrick It is assumed to run in a straight line south east to Hill of Towanreef where	re which commences I the A941 just west of e junction with the I the approximate to run in a raight line south east to	avoided by bypassing to the southwest Elrick is located to the north east of the option and therefore could also	 This option provides a shorter connection between options H and J The option avoids areas prone to flooding which are a constraint in the corresponding section of option J When compared with the equivalent section of option J, a smaller area of productive agricultural land is contained within the option 	
it curves south towards Lumsden on the A97,	Water	- SEPA 1 in 200 year fluvial flood risk zone covers 2.7% of the option area (27.56Ha)	Depends on the approval of the majority of options H and J, as well as a southern bypass around Elgin Not likely to address the community relief issues along the A96 corridor	 Avoids the settlement of Rhynie which spans the majority of the breadth of the corresponding section of Option J Key issues: This short connecting option depends on the approval of the majority of options H and J The Hill of Towanreef SAC and SSSI is a significant constraint, as this option bisects the site The presence of peaty soil across the option south east of Elrick represents a construction constraint
which it follows until the junction with the A944 at Bridgend Provides a shorter linking route between option H and option J	Soils & Geology	- 1 Mixed SSSI covering 43.5% of the option area (449.30Ha) Dissects the Hill of Towanreef SAC/ SSSI site - Peat and peaty soils cover 9.6% of the option area (98.76Ha) - Mixed agricultural land		
Approx. Area: 1,032Ha		covers 35.4% of the option area (365.12Ha)		
SEA Option Review Summary	Depends on tUnlikely to acKey benefits	ith the corresponding section of option J, this option the approval of the majority of options H and J ddress the community relief issues along the A96 coinclude the avoidance of the settlement of Rhynie SEA review considers that option K should not be	corridor , present in the corresponding section of o	option J



ch2m:

Table C- 13 Option L

Option Information	SEA Topic	Overview of Environmental Constraints	Commentary on Population/ Communities	SEA Comment
Option L For the purpose of assessment, SEA assumes that this offline option consists of a 500m buffer zone which commences at the Raigmore Interchange in Inverness and runs in a straight line south east to Dufftown It is then assumed to follow the A920 east to the junction with the existing A96 to the north west of Huntly This option is assumed to bypass the major settlements of Nairn, Forres, Elgin and Keith Provides a direct end-to-end option between Inverness and Huntly Approx. Length: 83Km	Landscape Historic Environment Biodiversity, Flora & Fauna Water Soils & Geology	Constraints - No national designations identified - 7 Landscape Character Areas crossed - 5 Scheduled Monuments - 1 Battlefield covering 3.7% of the option area (308.27Ha) - 1 Conservation Area covering 1.8% of the option area (149.65Ha) - 32 Listed Buildings (6 Cat. A) - 2 SACs covering 3.5% of the option area (289.35Ha) - 1 SPA covering 0.3% of the option area (26.63Ha) - 3 Biological SSSIs covering 3.6% of the option area (296.30Ha) - Ancient Woodland covers 9.3% of the option area (0.9% (75.82Ha) semi-natural, 7.8% (651.50Ha) plantation, 0.6% (47.68Ha) Roy) - SEPA 1 in 200 year fluvial flood zone covers 4.2% of the option area (354.14Ha) - 1 Geological SSSI covering 0.2% of the option area (14.21Ha) - 1 GCR site covering 0.1% of the option area (9.84Ha) - Peat and peaty soils cover 41.4% of the option area - Arable agricultural land	Option L settlements include: Culcabock, Dalroy, Dufftown, Milltown of Auchindoun, Milltown of Edinvillie, Smithton, Torry, and a number of dispersed properties and distilleries to the south of Carron Together, Cradlehall, Westhill and Smithton span the breadth of the option and are therefore likely to be impacted to some extent by dualling The southern extent of Dufftown also spans the majority of the breadth of this option, may therefore be impacted by dualling Unlikely to address community relief issues for larger A96 communities (including Keith, Elgin, Forres, Nairn) Would require approval of a completely new route from Inverness to Dufftown (in addition to current dual carriageway from Inverness to Nairn/ Nairn bypass)	While many of the constraints identified could potentially be avoided within a 1km wide zone, SEA considers that the key issues and benefits associated with this particular option include: Key Benefits Contains less land at risk of flooding than options A/B North/B South Contains less productive agricultural land than options A/B North/B South Avoids multiple GDLs present in options A/B North/B South Key Issues Contains substantially more peat and peaty soils than options A/B North/B South, crossing the breadth of the option at multiple points Passes through the centre of Culloden Battlefield, which spans the breadth of this option Moidach More and the River Spey SACs and SSSIs span the breadth of the option The Tips of Coursemaul SPA and SSSI, and the Dalroy and Clava Landforms SSSI span a large proportion of the option and may therefore be difficult to avoid Ancient Woodland spans the breadth of this option at multiple points Potential to impact communities within the option including Smithton and Dufftown which
Approx. Area: 8,335Ha		covers 3.1% of the option area (256.04Ha) - Mixed agricultural land covers 36.9% of the option area (3,076.58Ha)		span the breadth of the option Unlikely to address community relief issues for larger A96 communities (including Keith, Elgin, Forres and Nairn)
SEA Option Review Summary	 Key benefits include less land at risk of flooding than corresponding sections of options A/B North/B South Key issues include Culloden Battlefield which is intersected by this option Affects a range of SAC/ SPA/ SSSI/ GCR sites that would be avoided completely by focusing on solutions along the A96 corridor Would require approval and construction of a completely new route from Inverness to Dufftown On balance, SEA review considers that option L should not be carried forward for further consideration 			





Table C- 14 Option M

Option Information	SEA Topic	Overview of Environmental Constraints	Commentary on Population/ Communities	SEA Comment		
Option M	Landscape	No national designations identified5 Landscape Character Areas crossed	Settlements within option M include: Conicavel, Dandaleith,	While many of the constraints identified could potentially be avoided within a 1km wide zone, SEA		
For the purpose of assessment, SEA assumes that this offline option consists of a 500m buffer zone which commences on the existing A96 just east of Aldearn It is then assumed to run in a straight line south east, where it rejoins the existing A96 to the north west of Huntly This option is assumed to bypass the major settlements of Forres, Elgin and Keith Provides a direct end-to-end option between Nairn and Huntly Approx. Length: 60Km Approx. Area: 6,042Ha	Historic Environment Biodiversity, Flora & Fauna Water Soils & Geology	- 3 Scheduled Monuments - 1 Conservation Area covering 0.1% of the option area (3.75Ha) - 20 Listed Buildings (1 Cat. A) - 1 GDL site covering 4.0% of the option area (241.69Ha) - 2 SACs covering 1.1% of the option area (67.80Ha) - 1 SPA covering 3.2% of the option area (193.44Ha) - 2 Biological SSSIs covering 1.0% of the option area (62.48Ha) - Ancient Woodland covers 19.4% of the option area (2.9% (176.21Ha) semi-natural, 16.1% (971.98Ha) plantation, 0.4% (22.26Ha) Roy) - SEPA 1 in 200 year fluvial flood zone covers 4.7% of the option area (284.13Ha) - 1 Geological SSSI covering <0.1% of the option area (1.42Ha) - 1 GCR site covering <0.1% of the option area (1.43Ha) - Peat and peaty soils cover 23.5% of the option area (1,418.5Ha) - Arable agricultural land covers 4.2% of the option area (251.71Ha) - Mixed agricultural land covers 57.3% of the option area (3,464.61Ha)	Maggieknockater, and Whitemire, as well as a number of smaller settlements All of these communities could potentially be impacted by dualling within this option through, for example, demolition of properties and increased air and noise pollution Would require approval and construction of an entirely new route between Nairn and Huntly May not provide community relief for Elgin, Forres and Keith Would not necessarily improve issues for Huntly either Assuming dual carriageway and bypass at Nairn, this option is not expected to negatively impact flows around Nairn itself	considers that the key issues and benefits associated with this particular option include: Key benefits: An end-to-end link between Nairn and Huntly could remove some through traffic from Forres, Elgin and Keith, but is less likely to affect traffic between these centres Less land at risk of flooding compared with the corresponding sections of options A/B North/B South Less arable agricultural land compared with the corresponding sections of options A/B North/B South Fewer Scheduled Monuments, Conservation Areas and Listed Buildings when compared with options A/B North/B South Key issues: Would require approval and construction of an entirely new route between Nairn and Huntly – difficult terrain (hills, watercourses, peat and forested land) The Darnaway and Lethen Forest SPA spans the whole option near Conicavel Lower Findhorn Woods and River Spey SAC/ SSSI sites cross the breadth of the option River Spey fluvial flood plain is a significant constraint Large continuous sections of Ancient Woodland crossing the breadth of this option Peaty soils present a significant constraint, covering a large area in the middle of the option Darnaway Castle GDL spans the breadth of the		
SEA Option Review Summary	 Compared with the corresponding sections of options A/B North/B South, option M appears to be more significantly constrained Key issues include the Darnaway and Lethen Forest SPA, Lower Findhorn Woods and River Spey SAC/ SSSI sites and large areas of Ancient Woodland cover Numerous watercourses and flood plain issues Would require the approval and construction of a completely new route between Nairn and Huntly Key benefit might include the bypassing of large A96 settlements including Forres, Elgin and Keith – however, option is unlikely to address traffic between 					
	these centres • On balance, SEA review considers that option M should not be carried forward for further consideration					





Table C- 15 Option N

Option Information	SEA Topic	Overview of Environmental Constraints	Commentary on Population/ Communities	SEA Comment	
Option N	Landscape	- No national designations identified - 4 Landscape Character Areas crossed	Settlements within option N include: Altonside, Fogwatt, Orbliston, Rafford, and Tulloch, as well as a number of smaller settlements, all of which could potentially be impacted by dualling within this option	While many of the constraints identified could potentially be avoided within a 1km wide zone, SEA	
For the purpose of assessment, SEA assumes that this offline option consists of a 500m buffer	Historic Environment	 - 4 Scheduled Monuments -14 Listed Buildings (2 Cat. A) -1 GDL site covering 8.7% of the option area (379.82Ha) 		considers that the key issues and benefits associated with this particular option include: Key Benefits	
on the existing A96 just east of Aldearn The assumption is that it then runs in a straight line east, where it rejoins the existing A96 to the south east of Fochabers	Biodiversity, Flora & Fauna Covering 0.8% of the option area (34.77Ha) Bisects Lower Findhorn Woods and River Spey SAC at locations not currently affected 1 SPA 1 SPA 1 SPA 2 SACs 2 SACs 2 SACs 3 SAC at locations not currently affected 2 SPA 3 SPA 4 SPA 4 SPA 5 SPA 5 SPA 6 SPA 6 SPA 7 SPA 7 SPA 7 SPA 8 Sequence 1 SPA 8 Sequence 1 SPA 8 Sequence 2 SACs 6 South east of covering 0.8% of the option area (75.55HA) 8 Sects Darnaway and Lethen Forest 2 Biological SSSIs 6 Sequence 2 Biological SSSIs 7 Sequence 3 SACs 5 Could potentially provide som by removing through traffic from address issues for traffic between address issues for traffic between Aldearn and Fochable between	Could potentially provide some relief by removing through traffic from Forres and Elgin, but would not address issues for traffic between these larger settlements and other communities on the existing A96 between Aldearn and Fochabers	 Contains less land at risk of flooding than options A/B North/B South Contains less arable agricultural land than options A/B North/B South Avoids Conservation Area and multiple Listed Buildings at Fochabers (present in options A/B North/B South) Key Issues This option joins the A96 between Auldearn 		
This option is assumed to bypass the major settlements of Forres and Elgin		covers 30.0% of the option area (0.2% (9.57Ha) semi-natural, 29.8% (1,297.42Ha) plantation)		 (East) and Fochabers (South-east) and would therefore require to link to options A/B North/B South The Darnaway and Lethen Forest SPA, and Lower 	
· ·	Water	- SEPA 1 in 200 year fluvial flood risk zone covers 5.8% of the option area (253.59Ha)		Findhorn Woods and River Spey SACs and SSSIs all span the breadth of the option	
Provides a direct end-to- end route option between Nairn and existing A96 between Fochabers and Keith Approx. Length: 44Km Approx. Area: 4,359Ha	Soils & Geology	- 2 Geological SSSIs covering 0.1% of the option area (4.19Ha) - 2 GCR sites covering 0.1% of the option area (3.30Ha) - Peat and peaty soils cover 2.0% of the option area (88.93Ha) - Arable agricultural land covers 3.1% of the option area (135.93Ha - Mixed agricultural land covers 77.3% of the option area (3,369.86Ha)		 This option passes through the centre of Darnaway Castle GDL, which spans the breadth of the option Ancient Woodland habitat crosses the breadth of this option at various points Potential to impact communities within the option including Rafford and Fogwatt 	
SEA Option Review Summary	 Key issues al. Uncertain whexisting corriii Key benefits On balance, 		ent ents between Aldearn and Fochabers that ment designations at Fochabers (present	t may be more likely provided by options along the in options A/B North/B South)	





Table C- 16 Option P

Option Information	SEA Topic	Overview of Environmental Constraints	Commentary on Population/ Communities	SEA Comment	
Option P	Landscape	No national designations identified5 Landscape Character Areas crossed	Settlements in option P include Aultmore, Forgie, Keith and Newmill	While many of the constraints identified could potentially be avoided within a 1km wide zone, SEA considers that the key issues and benefits associated with this particular option include:	
For the purpose of assessment, SEA assumes	Historic Environment	- 1 Scheduled Monument - 4 Listed Buildings	Any of these settlements, along with a number of smaller settlements,		
CONSISTS OF A SOUTH DUTTER 1	Biodiversity, Flora & Fauna	- 1 SAC covering 0.2% of the option area (7.41Ha) - 2 Biological SSSIs covering 0.3% of the option area (10.22Ha) - Ancient Woodland covers 15.3% of the option area (0.4% (12.46) semi-natural, 14.5% (489.09) plantation, 0.4% (12.33) Roy) Bisects the Bin Forest north of Huntly	could potentially be impacted by dualling within this option Would be most effective if combined with a northern bypass around Inverurie, and linked through option D to provide a continuous northern bypass option from Craigiebank (south of Fochabers) past Keith, Huntly and Inverurie	Key Benefits Provides a northern bypass option around the settlements of Huntly and Keith Avoids Conservation Area and Listed Buildings located in Keith (present in option A) Key Issues This option is likely to involve the construction of a twin bore dual carriageway tunnel and the associated environmental issues (e.g.	
bypass the major settlements of Huntly and Keith	Water	- SEPA 1 in 200 fluvial flood zone covers 3.2% of the option area (106.55Ha) 2 major floodplain areas north of Keith and Huntly	Tunnelling presents additional issues including safety of workers during construction, operations and	excavations, blasting, spoil management/ waste, construction and maintenance accesses for ventilation shafts, etc.) should be considered significant	
Provides an extension to option D, effectively providing a wider northern bypass option around Huntly, Keith and Inverurie A tunnel will be required for option P (approx. 1.6 km long) through Miekle Balloch hill immediately south east of Keith Approx. Length: 34Km	Soils & Geology	- Peat and peaty soils cover 13.5% of the option area (456.64Ha) - Arable agricultural land covers 0.2% of the option area (6.13Ha) - Mixed agricultural land covers 93.9% of the option area (3,172.84Ha)	maintenance phases, with further safety issues associated with the transportation of flammable materials (e.g. whisky)	 Ancient Woodland habitat crosses the breadth of the option at various points – dissects the Bin Forest Includes major river and flood plain crossings to the north of Huntly and Keith Peaty soils cross the breadth of the option Southern bypass options around Keith and Huntly appear less constrained 	
Approx. Area: 3,381Ha					
SEA Option Review Summary	 Compared with the corresponding section of option A, this option appears less significantly constrained Compared with the corresponding section of options B North/B South, this option is more significantly constrained Key issues include peaty soils and Ancient Woodland which across the breadth of the option and therefore cannot be avoided (bisects the Bin Forest) Major river and flood plain crossings to north of Keith and Huntly Likely to be most beneficial when combined with a northern bypass around Inverurie and linking through option D However, southern bypass options around Keith and Huntly appear less significantly constrained Other key issues relate to environmental impacts of tunnelling operations (e.g. excavations, spoil, construction and maintenance accesses for ventilation shafts, etc.) However, tunnelling spoil could provide substrate aggregate material for other sections of A96 dualling SEA recommendation would be to avoid a tunnelling option in favour of an 'open' solution On balance, SEA review considers that a tunnelling option should only be taken forward for further consideration where the PES engineering studies determine that the alternative options in this area are particularly constrained; however, option P should be carried forward for further consideration as it may provide flexibility to consider a continuous northern bypass option from Craigiebank (south of Fochabers) past Keith, Huntly and Inverurie 				





Table C-17 Option Q

Option Information	SEA Topic	Overview of Environmental Constraints	Commentary on Population/ Communities	SEA Comment
For the purpose of assessment, SEA assumes that this offline option consists of a 500m buffer zone which commences at the existing A96 at Colpy, and curves round, approximately following the route of the A920 to Oldmeldrum and the A947 to just north of Dyce This option is assumed to provide an alternative bypass route around Inverurie, but may affect various other (non-A96) settlements including Oldmeldrum and Newmachar Approx. Length: 33km Approx. Area: 3,314Ha	Landscape Historic Environment Biodiversity, Flora & Fauna Water Soils & Geology	- No national designations identified - 2 Landscape Character Areas crossed - 4 Scheduled Monuments - 1 Battlefield covering 6.8% of the option area (226.46Ha) - 8 Listed Buildings (2 Cat. A) - 2 GDL sites covering 3.9% of the option area (130.22Ha) - 1 Biological SSSI covering 1.0% of the option area (32.27Ha) - Ancient Woodland covers 3.2% of the option area (105.28Ha plantation) - SEPA 1 in 200 fluvial flood zone covers 3.7% of the option area (122.58Ha) - Peat and peaty soils cover 2.7% of the option area (90.57Ha) - Arable agricultural land covers 37.2% of the option area (1,232.28Ha) - Mixed agricultural land covers 59.7% of the option area (1,978.86Ha)	Settlements within option Q include: Cairnhill, Fingask, Hattoncrook, Kinmundy, Kirkton of Culsalmond, Mill of Kingoodie, Newmachar, Newseat, Oldmeldrum, Rothmaise, Straloch, Tocher, Whitefield and Whiterashes (all communities along the existing A920 between Colpy and Oldmeldrum and the existing A947 between Oldmedrum and Dyce) Any of these settlements could potentially be impacted by dualling within this option In purely environmental terms, this option would appear to introduce road construction (dualling) issues into communities not currently directly affected by A96 issues; however, given current plans for the AWPR, this option may be worth considering due to the potential to remove traffic from the already congested A96 Inverurie/ Aberdeen dual carriageway May not be viable due to the number of communities affected on this alternative option	While many of the constraints identified could potentially be avoided within a 1km wide zone, SEA considers that the key issues and benefits associated with this particular option include: Key Benefits Provides an alternative bypass around Inverurie Connects to the AWPR north of Dyce and could remove some airport traffic from the existing A96 dual carriageway south of Inverurie Crosses less land at risk of flooding than options A, B North and B South Key Issues Would require bypass solutions around Oldmeldrum and Newmachar to avoid dualling through these communities While this option avoids Harlaw Battlefield (present in option B North), it bisects Barra Battlefield south of Oldmeldrum SSSI, Ancient Woodland, peat, watercourse and flood plain issues – however, similar issues exist around Inverurie While this option avoids Williamston House and Newton House GDLs, it does contain Straloch GDL which crosses the breadth of the option May provide additional dual carriageway connection to AWPR (outwith A96 route) assuming existing A96 dual carriageway section
SEA Option Review Summary	 Key constrain Would introd Key benefits Also could pr south of Inve On balance, 	<u> </u>	rth/ B South, this option appears more sign L which both span the breadth of the option t directly affected by A96 issues sponding sections of options A/ B North/ E AWPR north of Dyce that may relieve som	on S South e traffic from existing A96 dual carriageway section







© Crown copyright 2015

You may re-use this information (excluding logos) free of charge in any format or medium, under the terms of the Open Government Licence. To view this licence, visit http://www.nationalarchives.gov.uk/doc/open-government-licence/ or e-mail: psi@nationalarchives.gsi.gov.uk.

Where we have identified any third party copyright information you will need to obtain permission from the copyright holders concerned.