

**A66 Northern Trans-Pennine Project
TR010062**

**3.2 Environmental Statement
Chapter 16 Summary**

APFP Regulations 5(2)(a)

Planning Act 2008

**Infrastructure Planning (Applications: Prescribed Forms and
Procedure) Regulations 2009**

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Infrastructure Planning

Planning Act 2008

**The Infrastructure Planning
(Applications: Prescribed
Forms and Procedure)
Regulations 2009**

A66 Northern Trans-Pennine Project
Development Consent Order 202x

**3.2 ENVIRONMENTAL STATEMENT
CHAPTER 16 SUMMARY**

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FIGURES (VOLUME 2)

None

TECHNICAL APPENDICES (VOLUME 3)

None

16 Summary

16.1 Introduction

- 16.1.1 The previous technical chapters of the Environmental Statement (ES), Chapter 5: Air Quality to Chapter 15: Cumulative Effects, present the assessments for the individual EIA topics. Each individual chapter provides an assessment of the likely significant effects and have appendices setting out any non-significant effects. Table 16-1: Summary of assessment of residual likely significant effects by scheme provides a high level summary of likely significant effects remaining after mitigation has been implemented. This summary presents significant effects in operation which refers to the completion of the construction and the fully open and operational A66. The exception would be landscape and visual wherein the residual effects in operation are considered to be those that are still present 15 years after opening.
- 16.1.2 A summary of the assessment set out in the ES can be found in the ES Non-Technical Summary (Application Document 3.1).

Table 16-1: Summary of assessment of residual likely significant effects by scheme

Topic	Assessment of likely significant environmental effects	
	Construction stage	Operation stage
Air Quality	No significant effects in any scheme	No significant effects in any scheme
Biodiversity	M6 Junction 40 to Kemplay Bank No significant effects	M6 Junction 40 to Kemplay Bank <ul style="list-style-type: none"> No significant effects
	Penrith to Temple Sowerby <ul style="list-style-type: none"> No significant effects 	Penrith to Temple Sowerby <ul style="list-style-type: none"> No significant effects
	Temple Sowerby to Appleby <ul style="list-style-type: none"> No significant effects 	Temple Sowerby to Appleby <ul style="list-style-type: none"> Permanent moderate adverse effect on barn owl as a result of new carriageway increasing barn owl mortality in areas known to be used by foraging barn owl
	Appleby to Brough <ul style="list-style-type: none"> No significant effects 	Appleby to Brough <ul style="list-style-type: none"> No significant effects
	Bowes Bypass <ul style="list-style-type: none"> No significant effects 	Bowes Bypass <ul style="list-style-type: none"> No significant effects
	Cross Lanes to Rokeby <ul style="list-style-type: none"> No significant effects 	Cross Lanes to Rokeby <ul style="list-style-type: none"> No significant effects
	Stephen Bank to Carkin Moor <ul style="list-style-type: none"> No significant effects 	Stephen Bank to Carkin Moor <ul style="list-style-type: none"> Permanent moderate adverse effect on barn owl as a result of new carriageway increasing barn owl mortality in areas known to be used by foraging barn owl
	A1(M) Junction 53 Scotch Corner <ul style="list-style-type: none"> No significant effects 	A1(M) Junction 53 Scotch Corner <ul style="list-style-type: none"> No significant effects
Climate	No significant effects in any scheme	No significant effects in any scheme

Topic	Assessment of likely significant environmental effects	
	Construction stage	Operation stage
Cultural Heritage	M6 Junction 40 to Kemplay Bank <ul style="list-style-type: none"> • Temporary moderate adverse effects upon setting of Grade II* listed Carleton Hall • Temporary moderate adverse effects upon setting of Grade II Toll Bar Cottage 	M6 Junction 40 to Kemplay Bank <ul style="list-style-type: none"> • No significant effects
	Penrith to Temple Sowerby <ul style="list-style-type: none"> • Temporary moderate adverse effects upon setting of Grade II* listed Countess Pillar • Temporary moderate adverse effects upon setting of Grade II* listed Alms Table • Temporary moderate adverse effects upon setting of Grade II listed Milestone East of Whinell Park • Permanent moderate adverse effect upon archaeology at Scheduled Monument of Brougham Roman fort (Brocavum) and civil settlement and Brougham Castle • Permanent moderate adverse effect upon archaeology at Ring ditches at Brougham • Permanent moderate adverse effect upon archaeology at Peat deposit 	Penrith to Temple Sowerby <ul style="list-style-type: none"> • Permanent moderate beneficial effects upon Scheduled Monument and Grade II* listed Countess Pillar, Grade II* listed Alms Table due to a new amenity parking area and footway access providing better access to the site. • Permanent moderate beneficial effects on scheduled Monument of St Ninian's and Grade II listed Church of St Ninian as a result of relocation of car park improving accessibility.
	Temple Sowerby to Appleby <ul style="list-style-type: none"> • Temporary moderate adverse effect upon setting at Grade II listed Milestone to the north-east of Crackenthorpe Hall • Temporary moderate adverse effect upon setting at Grade II listed Spital Farmhouse with adjoining Stables 	Temple Sowerby to Appleby <ul style="list-style-type: none"> • No significant effects

Topic	Assessment of likely significant environmental effects	
	Construction stage	Operation stage
	<ul style="list-style-type: none"> • Temporary moderate adverse effect upon setting at Grade II listed Threshing Barn and Byre to the east of Spital Farmhouse • Temporary moderate adverse effect upon setting at Grade II listed Coach House, Barns, Byres and Entrance Arch to the north of Spital Farmhouse • Permanent moderate adverse effect upon archaeology at Enclosure and other features north-west of Kirkby Thore 	
	<p>Appleby to Brough</p> <ul style="list-style-type: none"> • Temporary moderate adverse effect upon setting (physical removal) at Grade II listed Boundary Stone To North Of Bullistone Cottage • Permanent moderate adverse effect upon archaeology at Scheduled Monument of Warcop Roman Camp • Permanent moderate adverse effect upon archaeology at Sandford Moor Barrow • Permanent moderate adverse effect upon archaeology at Sandford Ring Cairn Site • Permanent moderate adverse effect upon archaeology at Sandford Moor Barrow Flint Find • Permanent moderate adverse effect upon archaeology at Sandford Moor Barrow 	<p>Appleby to Brough</p> <ul style="list-style-type: none"> • No significant effects
	<p>Bowes Bypass</p> <ul style="list-style-type: none"> • Temporary and permanent moderate adverse effect upon setting at Grade II listed Stone Bridge Farmhouse 	<p>Bowes Bypass</p> <ul style="list-style-type: none"> • Permanent moderate adverse effect upon Grade II listed Stone Bridge Farmhouse, Grade II listed Loose boxes, 5 metres east of Stone Bridge Farmhouse. Grade II listed Farm buildings and gin-gang attached to south of Stonebridge Farmhouse due to an increase in traffic passing immediately

Topic	Assessment of likely significant environmental effects	
	Construction stage	Operation stage
	<ul style="list-style-type: none"> • Temporary and permanent moderate adverse effect upon setting at Grade II listed Loose boxes, 5 metres east of Stone Bridge Farmhouse • Temporary and permanent moderate adverse effect upon setting at Grade II listed Farm buildings and gin-gang attached to south of Stonebridge Farmhouse 	in front of the farmhouse group in addition to that along the main road corridor.
	Cross Lanes to Rokeby <ul style="list-style-type: none"> • No significant effects 	Cross Lanes to Rokeby <ul style="list-style-type: none"> • No significant effects
	Stephen Bank to Carkin Moor <ul style="list-style-type: none"> • Permanent moderate adverse effect upon archaeology and setting at Roman Fort and Prehistoric enclosed settlement 400m west of Carkin Moor Farm • Permanent moderate adverse effect upon archaeology at Roman Settlement at Carkin Moor Roman Fort 	Stephan Bank to Carkin Moor <ul style="list-style-type: none"> • No significant effects
	A1(M) Junction 53 Scotch Corner <ul style="list-style-type: none"> • No significant effects 	A1(M) Scotch Corner <ul style="list-style-type: none"> • No significant effects
Geology and soils	Significant permanent adverse effects to Grade 2 and Grade 3a soils in every scheme with the exception of the A1(M) Junction 53 Scotch Corner. No significant effects at A1(M) Junction 53 Scotch Corner	No significant effects
Landscape and Visual	M6 Junction 40 to Kemplay Bank Significant temporary moderate adverse effects to: <ul style="list-style-type: none"> • Residences along Clifford Road and Skirsgill Lane; • Visitors of Mayburgh Henge • Motorists and pedestrians using the A6 Significant temporary large adverse effects to:	M6 Junction 40 to Kemplay Bank <ul style="list-style-type: none"> • No significant effects in operation

Topic	Assessment of likely significant environmental effects	
	Construction stage	Operation stage
	<ul style="list-style-type: none"> Recreational users of Wetheriggs Park, two public rights of way 	
	<p>Penrith to Temple Sowerby</p> <p>Significant temporary moderate adverse effects to:</p> <ul style="list-style-type: none"> Local Character Areas of Sandstone Ridge and Broad Valleys <p>Significant temporary large adverse effects to:</p> <ul style="list-style-type: none"> Recreational users of the junction of the B6262 and Moor Lane near Brougham Castle Motorists and pedestrians of the minor road south of High Moss Woodland leading to the properties of Lane Ends Recreational users of two public rights of way in the area Residents of Ash Hill Cottages along Cliburn Road 	<p>Penrith to Temple Sowerby</p> <p>No significant effects in operation</p>
	<p>Temple Sowerby to Appleby</p> <p>Significant temporary moderate adverse effects to:</p> <ul style="list-style-type: none"> Residences at Low Moor Park and Sleastonhow Farm Motorists and pedestrians of Sleastonhow Lane Recreational users of one public right of way east of Low Abbey Farm <p>Significant temporary large adverse effects to:</p> <ul style="list-style-type: none"> Local Character Areas of Broad Valleys and Intermediate Farmland Recreational users of five public rights of way as well as the Eden Valley Cycle Route 	<p>Temple Sowerby to Appleby</p> <p>Significant permanent moderate adverse effects to:</p> <ul style="list-style-type: none"> Local Character Areas of Broad Valleys and Intermediate Farmland Recreational users of two public rights of way Motorists and pedestrians of Priest Lane <p>Significant permanent large adverse effects to:</p> <ul style="list-style-type: none"> Recreational users of one public right of way

Topic	Assessment of likely significant environmental effects	
	Construction stage	Operation stage
	<ul style="list-style-type: none"> Motorists and pedestrians of Long Marton Road, Sleastonhow Lane and Priest Lane Residents at Sandersons Croft Significant temporary very large adverse effects to: <ul style="list-style-type: none"> Recreational users of one public right of way near Kirkby Thore Primary School and one public right of way adjacent to the Roman Road north of Crackenthorpe 	
	Appleby to Brough Significant temporary moderate adverse effects to: <ul style="list-style-type: none"> Local Character Areas of Broad Valleys Motorists and pedestrians of the minor road leading to Moor House Farm and of the B6259 Significant temporary moderate adverse effects to: <ul style="list-style-type: none"> Local Character Area of Foothills Recreational users of five public rights of way and the Warcop Railway Station 	Appleby to Brough <ul style="list-style-type: none"> Significant permanent moderate adverse effects to recreational users of Warcop Railway Station
	Bowes Bypass Significant temporary moderate adverse effects to: <ul style="list-style-type: none"> Broad Character Area of Urban Area Bowes Residences of Bowes Recreational users of one public right of way, as well as the Pennine Way Significant temporary large adverse effects to: <ul style="list-style-type: none"> Recreational users of Clint Lane Motorists and pedestrians on and adjacent to The Street 	Bowes Bypass Significant permanent moderate adverse effects to: <ul style="list-style-type: none"> Recreational users of one public rights of way Motorists and pedestrians on and adjacent to The Street

Topic	Assessment of likely significant environmental effects	
	Construction stage	Operation stage
	<ul style="list-style-type: none"> Recreational users of two public rights of way 	
	<p>Cross Lanes to Rokeby</p> <p>Significant temporary moderate adverse effects to:</p> <ul style="list-style-type: none"> Broad Character Area of Barmingham, Brigantia and Rokeby Residents in Boldron Rokeby Historic Park and Garden and associated Church of St Mary Motorists and pedestrians of Barnard Castle Road <p>Significant temporary large adverse effects to:</p> <ul style="list-style-type: none"> Residences of Dent House Farm Recreational users of three public rights of way, as well as users of the Church of St Mary 	<p>Cross Lanes to Rokeby</p> <p>Significant permanent large adverse effects to:</p> <ul style="list-style-type: none"> Residences in Dent House Farm Recreational users of three public rights of way, as well as users of Rokeby Park, the Church of St Mary
	<p>Stephen Bank to Carkin Moor</p> <p>Significant temporary moderate adverse effects:</p> <ul style="list-style-type: none"> Local Landscape Character Area of East and West Layton Fringe and Local Character Area of West Layton Recreational users of four public rights of way as well as visitors to Mainsgill Farm <p>Significant temporary large adverse effects:</p> <ul style="list-style-type: none"> Motorists and pedestrians of Colliers Lane Recreational users of four public rights of way <p>Significant temporary very large adverse effects:</p> <ul style="list-style-type: none"> Recreational users of one public rights of way 	<p>Stephen Bank to Carkin Moor</p> <p>Significant permanent moderate adverse effects:</p> <ul style="list-style-type: none"> Recreational users of two public rights of way
	<p>A1(M) Junction 53 Scotch Corner</p> <p>No significant effects anticipated</p>	<p>A1(M) Junction 53 Scotch Corner</p> <p>No significant effects anticipated</p>

Topic	Assessment of likely significant environmental effects	
	Construction stage	Operation stage
Material Assets and Waste	Significant permanent adverse effect to one mineral safeguarding site as part of the Cross Lanes to Rokeby scheme	No significant effects
Noise and Vibration	M6 Junction 40 to Penrith <ul style="list-style-type: none"> Significant adverse effects upon receptors in Penrith, Eamont Bridge, Redhill 	M6 Junction 40 to Penrith <ul style="list-style-type: none"> Significant adverse effects upon receptors at commercial receptors by Skirsgill Roundabout (Gillian Way)
	Penrith to Temple Sowerby <ul style="list-style-type: none"> Significant adverse effects upon receptors at Brougham, Temple Sowerby 	Penrith to Temple Sowerby <ul style="list-style-type: none"> Significant adverse effects upon receptors at Residential dwellings at Whinfall Park
	Temple Sowerby to Appleby <ul style="list-style-type: none"> Significant adverse effects upon receptors at Kirkby Thore, Long Marton, Crackenthorpe, Temple Sowerby, Colby, Appleby-In-Westmorland 	Temple Sowerby to Appleby <ul style="list-style-type: none"> Significant adverse effects upon receptors at Residential dwellings to the north of Kirkby Thore by Sandersons Croft Significant adverse effects upon receptors at Residential dwellings by Spitals Farm, Halefield Farm, Sleastonhow, Powls House, Catrigg Hill and Roger Head Significant adverse effects upon receptors at Non-residential receptor at Spital Farm Significant adverse effects upon receptors at Residential dwellings by West View and Foxtower (Mains House)
	Appleby to Brough <ul style="list-style-type: none"> Significant adverse effects upon receptors at Brough, Warcop, Sandford, Coupland Beck 	Appleby to Brough <ul style="list-style-type: none"> Significant adverse effects upon receptors at Residential dwellings at Warcop Significant adverse effects upon receptors at Non-residential receptor at Apple Tree Farm

Topic	Assessment of likely significant environmental effects	
	Construction stage	Operation stage
	<p>Bowes Bypass</p> <ul style="list-style-type: none"> Significant adverse effects upon receptors at Bowes, Boldron, Gilmonby 	<p>Bowes Bypass</p> <ul style="list-style-type: none"> Significant adverse effects upon receptors at Residential dwelling at Stone Bridge Farm Significant adverse effects upon receptors at Non-residential receptor by A66 (western outskirts of Bowes)
	<p>Cross Lanes to Rokeby</p> <ul style="list-style-type: none"> Significant adverse effects upon receptors at Barnard Castle, Rokeby, Brignall 	<p>Cross Lanes to Rokeby</p> <ul style="list-style-type: none"> Significant adverse effects upon receptors at Residential dwellings located at Cross Lanes and Rokeby Significant adverse effects upon receptors at Residential dwelling located at North Bitts Farm Significant adverse effects upon receptors at residential dwellings near Tutta Beck and Birk House Significant adverse effects upon receptors at Non-residential receptor at Cross Lanes Organic Farm Shop
	<p>Stephen Bank to Carkin Moor</p> <ul style="list-style-type: none"> Significant adverse effects upon receptors at East Layton, Ravensworth, West Layton 	<p>Stephen Bank to Carkin Moor</p> <ul style="list-style-type: none"> Significant adverse effects upon receptors at Residential receptors near West Layton and Carkin Moor Farm
	<p>A1(M) Junction 53 Scotch Corner</p> <ul style="list-style-type: none"> Significant adverse effects upon receptors at Middleton Tyas, Scotch Corner 	<p>A1(M) Junction 53 Scotch Corner</p> <p>No significant effects</p>

Topic	Assessment of likely significant environmental effects	
	Construction stage	Operation stage
Population & Human Health	M6 Junction 40 to Kemplay Bank <ul style="list-style-type: none"> • Significant temporary adverse effects to local community, businesses and community assets. • Significant adverse permanent effects to one community asset • Significant adverse permanent effects to three agricultural land holdings 	M6 Junction 40 to Kemplay Bank <ul style="list-style-type: none"> • Significant permanent beneficial effects to 24 community assets and to the tourism sector of the Lake District. • Significant permanent beneficial effect to one community asset as a result of permanent noise and vibration changes.
	Penrith to Temple Sowerby <ul style="list-style-type: none"> • Significant permanent adverse effect to five private properties • Significant permanent adverse effects to one business • Significant temporary adverse effects to one business as a result of construction related dust, landscape changes, and noise and vibration • Significant permanent adverse effects on two agricultural land holdings 	Penrith to Temple Sowerby <ul style="list-style-type: none"> • Significant permanent beneficial effect to one community asset as a result of permanent noise and vibration changes. • Significant permanent beneficial effect to one business in the operational phase.
	Temple Sowerby to Appleby <ul style="list-style-type: none"> • Significant permanent adverse effect to two private properties • Significant temporary adverse effects to six community assets and one business as a result of construction related dust, landscape changes, temporary landtake, and noise and vibration • Significant permanent adverse effects on 12 agricultural land holdings 	Temple Sowerby to Appleby <ul style="list-style-type: none"> • Significant beneficial effects to four community assets • Significant permanent beneficial effects to six community assets and four businesses as a result of permanent noise and vibration changes • Significant permanent beneficial effect to one business

Topic	Assessment of likely significant environmental effects	
	Construction stage	Operation stage
	<p>Appleby to Brough</p> <ul style="list-style-type: none"> • Significant permanent adverse effect to two private properties • Significant temporary adverse effects to nine community assets as a result of construction related dust, landscape changes, and noise and vibration. • Significant temporary adverse effects to two businesses as a result of construction related dust, landscape changes, temporary landtake, and noise and vibration. • Significant permanent adverse effects on six agricultural land holdings 	<p>Appleby to Brough</p> <ul style="list-style-type: none"> • Significant permanent beneficial effects to 12 community assets • Significant permanent beneficial effect to one business in the operational phase.
	<p>Bowes Bypass</p> <ul style="list-style-type: none"> • Significant permanent adverse effect to one private property • Significant temporary adverse effects to three community assets as a result of construction related dust, landscape changes, and noise and vibration • Significant permanent adverse effects to one business • Significant temporary adverse effects to one business as a result of construction related dust, landscape changes, and noise and vibration • Significant permanent adverse effects on 11 agricultural land holdings • Significant permanent adverse effect to National Cycle Route 70 Pennine Way 	<p>Bowes Bypass</p> <ul style="list-style-type: none"> • Significant permanent beneficial effects to three community assets • Significant permanent beneficial effect to one business in the operational phase.

Topic	Assessment of likely significant environmental effects	
	Construction stage	Operation stage
	Cross Lanes to Rokeby <ul style="list-style-type: none"> • Significant permanent adverse effects to one business • Significant permanent adverse effects on seven agricultural land holdings 	Cross Lanes to Rokeby No additional significant effects anticipated
	Stephen Bank to Carkin Moor <ul style="list-style-type: none"> • Significant permanent adverse effect to one private property • Significant permanent adverse effects on three agricultural land holdings 	Stephen Bank to Carkin Moor <ul style="list-style-type: none"> • Significant permanent beneficial effect to two businesses
	A1(M) Junction 53 Scotch Corner No significant effects anticipated	A1(M) Junction 53 Scotch Corner No significant effects anticipated
Road Drainage and Water Environment	Significant permanent adverse effect to Flitholme Spring as a result of risk posed by the design encroaching into it.	No significant effects
Cumulative Effects	No significant effects	No significant effects