## Bowes Bypass

Factor	Preliminary assessment of likely significant environmental effects		
	Construction stage	Operation stage	
Air Quality	<ul> <li>Preliminary assessment for air quality has been undertaken on the basis of the whole route (see route wide table above).</li> </ul>	<ul> <li>Preliminary assessment for air quality has been undertaken on the basis of the whole route (see route wide table above).</li> </ul>	
Biodiversity	<ul> <li>There is the potential for likely significant effects on North Pennine Moors SAC and SPA and Bowes Moor SSSI relating to air quality. Subject to further assessment.</li> <li>There is potential for likely significant effects due to loss of Priority Habitats.</li> <li>Effects will be the same as route wide table above on bat roosts and bat activity, barn owls, amphibians (including great crested newt), reptiles and terrestrial invertebrates subject to ongoing surveys.</li> <li>Effects will be the same as route wide table above on red squirrel and other terrestrial</li> </ul>	<ul> <li>There is potential for likely significant effects on North Pennine Moors SAC and SPA, Bowes Moor SSSI and Deepdale Wood AW as a result of air quality impacts. Subject to further assessment.</li> <li>Effects will be the same as route wide table above on bat roosts and bat activity, barn owls, wintering birds, breeding birds, amphibians (including great crested newt), reptiles and terrestrial invertebrates subject to ongoing surveys.</li> <li>Effects will be the same as route wide table above on red squirrel and other terrestrial mammal species due to habitat loss and possible fragmentation impacts.</li> </ul>	

Table 5-6: Summary of preliminary assessment of likely significant environmental effects – Bowes Bypass

Factor	Preliminary assessment of likely significant environmental effects	
	Construction stage	Operation stage
	mammal species due to habitat loss and possible fragmentation impacts.	
Climate	<ul> <li>No likely significant effects anticipated.</li> </ul>	No likely significant effects anticipated.
Cultural Heritage	<ul> <li>No likely significant effects anticipated.</li> </ul>	No likely significant effects anticipated.
Geology and Soils	<ul> <li>Likely significant effects due to the potential permanent land take and loss of medium value agricultural soil resource (Grade 3b agricultural land).</li> </ul>	<ul> <li>Potential beneficial significant effects on the UNESCO Global Geopark due to the potential for enhancement if cuttings or earthworks offer an opportunity to permanently expose geology of scientific interest.</li> </ul>
Landscape and Visual Effects	<ul> <li>Likely significant, temporary effects on:         <ul> <li>Dales Fringe Area of High Landscape Value</li> <li>a localised part of Bowes broad character area</li> <li>a localised part of Cotherstone Moor broad character area</li> <li>a localised part of Lower Greta broad character area</li> <li>a localised part of Bowes: North end of Kilmond View, West End Bungalow, Ivy Hall Cottage and Ivy Hall Farm</li> <li>residents to the south of Bowes and the A66</li> <li>residents along Clint Lane</li> <li>Stone Bridge Farm</li> <li>users of PRoW 6 and 9 around Bowes</li> <li>users of PRoW 3, 7 and 22 in the North Pennines AONB</li> <li>a short section of the Pennine Way National Trail</li> </ul> </li> </ul>	<ul> <li>Likely significant effects at year 1 on:         <ul> <li>Dales Fringe Area of High Landscape Value</li> <li>A localised part of Bowes broad character area</li> <li>Stone Bridge Farm</li> <li>Users of PRoW 6 around Bowes</li> <li>Users of PRoW 7 and 22 in the North Pennines AONB</li> </ul> </li> <li>Likely significant effects at year 15 on:         <ul> <li>Dales Fringe Area of High Landscape Value</li> <li>A localised part of Bowes broad character area</li> </ul> </li> </ul>
Material Assets and Waste	<ul> <li>Preliminary assessment for material assets and waste has been undertaken on the basis of the whole route (see route wide table above).</li> </ul>	• Preliminary assessment for material assets and waste has been undertaken on the basis of the whole route (see route wide table above).

Factor Preliminary assessment of likely significant environmental effects		l effects
	Construction stage	Operation stage
Noise and Vibration	<ul> <li>There is potential for significant effects across the scheme. Effects will be temporary and localized depending on the specific activity and construction stage.</li> <li>The location and duration of these effects are yet to be determined and are subject to further assessment.</li> </ul>	<ul> <li>Significant adverse effects are predicted to nine residential receptors and one non-residential receptor. Subject to on-going mitigation design and further assessment.</li> </ul>
Population and Human Health	<ul> <li>Walkers, cyclists and horse riders – likely significant effects due to the severance of PRoW and other WCH provisions due to the land required for the construction of the project.</li> <li>Agricultural land holdings – the loss of or damage to key characteristics, features or elements of the agricultural holding and potential effect of this change on viability.</li> <li>Bowes Moor (two areas) – potential loss of use/access of land during construction.</li> <li>Allotment/Community growing Space - Potential loss of use/access of land during construction.</li> <li>Property would require acquisition and demolition as part of the scheme. At this stage potential significant effects on wellbeing and quality of life due to visual effects</li> <li>Rural communities – potentially negative health effect due to severance caused by construction activities and traffic, leading to reduced access to services and facilities</li> <li>Users of allotments/community growing space located off the Pennine Way – reduced access</li> </ul>	<ul> <li>Walkers, cyclists and horse riders – Potential for beneficial significant effects if additional formal crossing points are introduced across the A66, that will bring improvements to WCH journey times, in some cases. However, there is also the potential for adverse significant effects due to increased journey times dependent upon the permanent scheme design.</li> <li>Rural communities - potentially positive health effect due to improved access to community facilities resulting from improved traffic flows on the A66.</li> </ul>

Factor	Preliminary assessment of likely significant environmental effects	
	Construction stage	Operation stage
	to green space and outdoor leisure activities due to direct impact on this resource	
Road Drainage and the Water Environment	<ul> <li>No likely significant effects anticipated.</li> </ul>	<ul> <li>No likely significant effects anticipated.</li> </ul>

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