

Table 5-3: Summary of preliminary assessment of likely significant environmental effects - Penrith to Temple Sowerby

Factor	Preliminary assessment of likely significant environmental effects	
	Construction stage	Operation stage
Air Quality	<ul style="list-style-type: none"> Preliminary assessment for air quality has been undertaken on the basis of the whole route (see route wide table above). 	<ul style="list-style-type: none"> Preliminary assessment for air quality has been undertaken on the basis of the whole route (see route wide table above).
Biodiversity	<ul style="list-style-type: none"> There is potential for significant adverse effects on River Eden SAC and River Eden and Tributaries SSSI relating to habitat loss, subject to further design and assessment. There is potential for adverse effects at Whinfell Forest CWS relating to Red squirrel. Effects will be the same as route wide table above on habitats (due to loss of Priority Habitats). Effects will be the same as route wide table above on bat roosts and bat activity, barn owls, amphibians (common toad and Great Crested Newts), reptiles, terrestrial invertebrates and macrophytes, subject to ongoing surveys. 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. 	<ul style="list-style-type: none"> There is potential for significant adverse effects on River Eden SAC and River Eden and Tributaries SSSI relating to air quality, subject to further assessment. Potential significant beneficial effects on Whinfell Forest CWS subject to ecology mitigation design and agreement. Effects will be the same as route wide table above on habitats. Effects will be the same as route wide table above on bat roosts and bat activity, breeding birds and wintering birds, barn owls, amphibians (common toad and Great Crested Newts), reptiles, terrestrial invertebrates and macrophytes, subject to ongoing surveys. 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.
Climate	<ul style="list-style-type: none"> No likely significant effects anticipated. 	<ul style="list-style-type: none"> No likely significant effects anticipated.
Cultural Heritage	<ul style="list-style-type: none"> Permanent significant adverse effects are anticipated at the scheduled monuments of the Ring ditches at Brougham. Permanent significant adverse effects are anticipated to affect the Site of the Hartshorn Tree and associated cropmarks. 	<ul style="list-style-type: none"> No likely significant effects anticipated.

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Geology and Soils	<ul style="list-style-type: none"> Likely significant effects due to the potential permanent land take and loss of high value agricultural soil resource (Grade 2 and 3a agricultural land). 	<ul style="list-style-type: none"> No likely significant effects anticipated.
Landscape and Visual Effects	<ul style="list-style-type: none"> Likely significant, temporary effects: <ul style="list-style-type: none"> In a localised part of 6: Intermediate Farmland landscape sub-type In a localised part of 8b: Broad Valleys landscape sub-type In a localised part of 10: Sandstone Ridge landscape sub-type On residents of Brovacum, Dinglefield, Foxgloves and Lightwater Cottages, Whinfall Park, Lane End, Woodside and Whinfall House On users of PRoW On visitors to Center Parcs Holiday Village 	<ul style="list-style-type: none"> Likely significant effects at year 1: <ul style="list-style-type: none"> In a localised part of 6: Intermediate Farmland landscape sub-type In a localised part of 8b: Broad Valleys landscape sub-type In a localised part of 10: Sandstone Ridge landscape sub-type On residents of Brovacum, Foxgloves and Lightwater Cottages, three cottages at Whinfall Park and Lane End On users of PRoW 311004 On visitors to Center Parcs Holiday Village Likely significant effects at year 15: <ul style="list-style-type: none"> In a localised part of 8b: Broad Valleys landscape sub-type In a localised part of 10: Sandstone Ridge landscape sub-type On residents of Lightwater Cottages, Whinfall Park and Lane End On users of PRoW 311004 On visitors to Center Parcs Holiday Village
Material Assets and Waste	<ul style="list-style-type: none"> Preliminary assessment for material assets and waste has been undertaken on the basis of the whole route (see route wide table above). 	<ul style="list-style-type: none"> Preliminary assessment for material assets and waste has been undertaken on the basis of the whole route (see route wide table above).
Noise and Vibration	<ul style="list-style-type: none"> There is potential for significant effects across the scheme. Effects will be temporary and 	<ul style="list-style-type: none"> Significant adverse effects are predicted to 12 residential receptors. Subject to on-going mitigation design and further assessment.

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	<p>localized depending on the specific activity and construction stage.</p> <ul style="list-style-type: none"> The location and duration of these effects are yet to be determined and are subject to further assessment. 	<ul style="list-style-type: none"> Significant beneficial effects are predicted to four residential receptor and one non-residential receptors.
Population and Human Health	<ul style="list-style-type: none"> Walkers, cyclists and horse riders – potential for likely significant effects due to the severance of PRow and other WCH provisions due to the land required for the construction of the project. Agricultural land holdings – potential for likely significant adverse effects due to the loss of or damage to key characteristics, features or elements of the agricultural holding and potential effect of this change on viability. Property would require acquisition and demolition as part of the scheme. At this stage potential significant effects cannot be ruled out Center Parcs Whinfell Forest - potential for likely significant effects due to disruption to the local road network which may impact visitors accessing the facility. Residents of rural properties, potentially negative health effects on wellbeing and quality of life due to noise and visual effects. Rural communities – potentially negative health effect due to severance caused by construction activities and traffic, leading to reduced access to services and facilities. 	<ul style="list-style-type: none"> 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. Center Parcs Whinfell Forest - potential for likely significant effects due improved access due to the provision of a new junction. Residents of rural properties - potentially negative health effects due to impacts on quality of life from noise effects Rural communities - potentially positive health effect due to improved access to community facilities resulting from improved traffic flows on the A66.
Road Drainage and the Water Environment	<ul style="list-style-type: none"> No likely significant effects anticipated. 	<ul style="list-style-type: none"> No likely significant effects anticipated.