

Table 5-2: Summary of preliminary assessment of likely significant environmental effects - M6 Junction 40 to Kemplay Bank

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 likely significant adverse effects to Skirsgill Wood County Wildlife Site (CWS), Yanwath Wood CWS, Myers Beck (Mardale Road) CWS, Lowther Bridge Site of Invertebrate Significance, due to habitat loss and air quality, subject to further assessment and design. Effects will be the same as route wide table above on habitats - improved grassland, woodlands, semi-improved neutral grasslands, hedgerows, rivers and streams. Effects will be the same as route wide table above on bat roosts and bat activity, barn owls, reptiles, common toad, 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 likely significant adverse effects to the River Eden SAC and River Eden and Tributaries SSSI, Asby Complex SAC, Crosby Ravensworth Fell SSSI, Skirsgill Wood County Wildlife Site (CWS), Yanwath Wood CWS, Myers Beck (Mardale Road) CWS, Newbiggin Wood Ancient Woodland (AW), Raughtongill Wood AW and Lowther Bridge Site of Invertebrate Significance relating to air quality, subject to further assessment. Effects will be the same as route wide table above on habitats - improved grassland, woodlands, semi-improved neutral grasslands, hedgerows, rivers and streams. Effects will be the same as route wide table above on bat roosts and bat activity, wintering birds, breeding birds, barn owls, reptiles, common toad, 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.

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Cultural Heritage	<ul style="list-style-type: none"> No likely significant effects anticipated. 	<ul style="list-style-type: none"> No likely significant effects anticipated.
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 3a agricultural land). Likely significant effects on soils supporting SAC or SSSI. 	<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 On residents of Clifton Road On users of Wetheriggs Country Park On users of visitors to Mayburgh Henge On users of PRow to the south of the scheme 	<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 On residents of Clifford Road On users of Wetheriggs Country Park Likely significant effects at year 15: <ul style="list-style-type: none"> None
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 localized depending on the specific activity and construction stage. 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 adverse effects predicted to 117 residential receptors. Subject to on-going mitigation design and further assessment.
Population and Human Health	<ul style="list-style-type: none"> Walkers, cyclists and horse riders (WCH) – likely significant effects due to the severance of PRow and other WCH provisions due to the land required for the construction of the project. 	<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

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	<ul style="list-style-type: none"> • Agricultural land holdings - likely significant effects due the loss of or damage to key characteristics, features or elements of the agricultural holding and potential effect of this change on viability. • Skirsgill employment allocation, at land adjacent to Skirsgill Depot – potential likely significant effects due to permanent loss of allocated land. • Kingdom Hall of Jehovah’s Witnesses – potential likely significant effects due to permanent land take. • Wetheriggs Country Park – potential likely significant effects due to land take required for construction of the scheme, including the woodland edge of the park to be felled. • Skirsgill Park – potential likely significant effects due land take. This potentially could affect access to this section of the park. • Happy Hooves Riding Centre – potential likely significant effects due to permanent land take required. Construction nuisance and disruption could impact the Centre’s ability to function due to potential effects upon the animals. • Study area population (including vulnerable groups) – potentially negative health effect due to increased HGV movements on the local road network. • Local residents and users of local footpaths, Wetheriggs Country Park, Carleton Heights, Wetheriggs and Pategill Open Spaces - potentially negative health effect due to construction noise. 	<p>significant effects due to increased journey times dependent upon the permanent scheme design.</p> <ul style="list-style-type: none"> • Local residents, users of local footpaths, Wetheriggs Country Park and Pategill Open Space - potentially negative health effect due to increased traffic noise. • Local residents and users of Wetheriggs Country Park - potentially negative health effect due to the visual impact of vegetation clearance and new road infrastructure. • Residents to the south of Penrith - potentially positive health effect due to improved access to community facilities due to improved traffic flows around Kemplay Bank Roundabout.

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	<ul style="list-style-type: none"> Local residents and users of local footpaths and Wetheriggs Country Park - potentially negative health effect due to the visual impact of vegetation clearance and construction activities. Local residents - potentially negative health effect due to night-time construction lighting and noise. Residents to the south of Penrith - potentially negative health effect due to temporary traffic delays at Kemplay Bank Roundabout affecting journeys to Penrith Hospital, and emergency vehicles exiting the Community Fire and Ambulance Station. Residents to the south of Penrith - potentially negative health effect due to temporary traffic delays at Kemplay Bank Roundabout reducing access by car/bus to community facilities in Penrith. Residents to the north of Carleton Avenue - potentially negative health effect due to temporary disruption of pedestrian access to Carleton Hall Park via the Carleton Avenue underpass. 	
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.