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**14 Preliminary Assessment of Receptor Importance ..... 1**

## 14 Preliminary Assessment of Receptor Importance

14.1.1 The preliminary importance assigned to receptors has been determined with reference to Table 3.70 of *The Design Manual for Roads and Bridges (DMRB) LA 113 Road drainage and the water environment (DMRB LA 113)* (Highways England, 2020)<sup>1</sup>, recreated in Table 14-1: Estimating the importance of water environment attributes, whereby importance is assigned based on the quality indicators of a receptor<sup>2</sup>.

Table 14-1: Estimating the importance of water environment attributes

Importance	Criteria	Attribute	
Very High	Nationally significant attribute of high importance	Surface water	Watercourse having a WFD classification shown in a RBMP and Q95 $\geq 1.0$ m <sup>3</sup> /s Site protected/designated under EC or UK legislation (SAC, SPA, SSSI, Ramsar site, salmonid water)/Species protected by EC legislation Ecology and Nature Conservation
		Groundwater	Principal aquifer providing a regionally important resource and/or supporting a site protected under EC and UK legislation Ecology and Nature Conservation Groundwater locally supports GWDTE SPZ1
		Flood risk	Essential infrastructure or highly vulnerable development
High	Locally significant attribute of high importance	Surface water	Watercourse having a WFD classification shown in a RBMP and Q95 $< 1.0$ m <sup>3</sup> /s Species protected under EC or UK legislation Ecology and Nature Conservation
		Groundwater	Principal aquifer providing locally important resource or supporting a river ecosystem Groundwater supports a GWDTE SPZ2
		Flood risk	More vulnerable development
Medium	Moderate quality and rarity	Surface water	Watercourses not having a WFD classification shown in a RBMP and Q95 $> 0.001$ m <sup>3</sup> /s
		Groundwater	Aquifer providing water for agricultural or industrial use with limited connection to surface water SPZ3
		Flood risk	Less vulnerable development

<sup>1</sup> Highways England (2020) Design Manual for Roads and Bridges LA 113 Road drainage and the water environment, available from:

<https://www.standardsforhighways.co.uk/prod/attachments/d6388f5f-2694-4986-ac46-b17b62c21727?inline=true> [accessed 10 August 2021]

<sup>2</sup> It should be noted that 'importance' in this context has the same definition and use as 'value' does within *DMRB LA 104*.

Low	Lower quality	Surface water	Watercourses not having a WFD classification shown in a RBMP and Q95 ≤0.001m <sup>3</sup> /s
		Groundwater	Unproductive strata
		Flood risk	Water compatible development

14.1.2 Table 14-2: Preliminary importance of environmental receptors – road drainage and the water environment details the key receptors identified at this stage of assessment and their assigned preliminary importance.

Table 14-2: Preliminary importance of environmental receptors – road drainage and the water environment

Scheme	Key Receptor	Preliminary Importance	Value Rationale	Location relative to draft DCO boundary
M6 Junction 40 to Kemplay Bank	Carlsike Beck	Medium	Watercourse not classified under WFD. Q <sup>95</sup> 0.001 to 1 m <sup>3</sup> /s	470m south-west
	Myers Beck	Medium	Watercourse not classified under WFD. Q <sup>95</sup> 0.001 to 1 m <sup>3</sup> /s	580m north of scheme
	Dog Beck	Medium	Watercourse not classified under WFD. Q <sup>95</sup> 0.001 to 1 m <sup>3</sup> /s	920m north-east of scheme
	River Eamont	Very High	WFD classified watercourse River Eden and Tributaries SSSI River Eden SAC	Inside draft DCO boundary
	Thacka Beck	Medium	Watercourse not classified under WFD. Q <sup>95</sup> 0.001 to 1 m <sup>3</sup> /s	Crossed by scheme
	River Lowther	Very High	WFD classified watercourse. River Eden and Tributaries SSSI. River Eden SAC.	600m south of scheme
	Unnamed Tributary of River Eamont 3.2	Low	Watercourse not classified under WFD. Q <sup>95</sup> ≤0.001 m <sup>3</sup> /s	730m east of scheme
	Secondary A bedrock	Medium	Capable of supporting water supplies	Underlying part of the scheme
	Principal Bedrock Aquifer	High	Principal aquifer providing locally important resource.	Underlying part of the scheme

Scheme	Key Receptor	Preliminary Importance	Value Rationale	Location relative to draft DCO boundary
	Secondary A superficial deposits	Medium	Permeable layers capable of supporting water supplies at local scale	Underlying scheme
	Total Catchment GW SPZ (Zone 3)	Medium	SPZ3	Underlying part of the scheme
	Abstraction well 2776004056/R01 at Penrith Industrial area	High	Licensed abstraction	600m north
	Abstraction well 277600644 at Penrith and District Farmers Auction Mart	High	Licensed abstraction	<50m west
	Small private domestic and agricultural supplies <20m <sup>3</sup> /d	Medium	Potable water supply	Downgradient of scheme and 200m upgradient of the scheme
Penrith to Temple Sowerby	River Eamont	Very High	WFD classified watercourse. River Eden and Tributaries SSSI. River Eden SAC.	20m west
	River Lowther	Very High	WFD classified watercourse. River Eden and Tributaries SSSI. River Eden SAC.	490m west of the scheme
	Unnamed Tributary of River Eamont 3.2	Low	Watercourse not classified under WFD. Q <sup>95</sup> ≤ 0.001 m <sup>3</sup> /s	250m north
	Unnamed Tributary of Light Water 3.1	Low	Watercourse not classified under WFD. Q <sup>95</sup> ≤ 0.001 m <sup>3</sup> /s	Crossed by scheme
	Light Water	Medium	Medium	Crossed by scheme
	Unnamed Tributary of River Eamont 3.3	Low	Watercourse not classified under WFD. Q <sup>95</sup> ≤ 0.001 m <sup>3</sup> /s	Crossed by scheme

Scheme	Key Receptor	Preliminary Importance	Value Rationale	Location relative to draft DCO boundary
	Unnamed Tributary of River Eamont 3.5	Low	Watercourse not classified under WFD. Q <sup>95</sup> ≤0.001 m <sup>3</sup> /s	Crossed by scheme
	Swine Gill	Medium	Watercourse not classified under WFD. Q <sup>95</sup> 0.001 to 1 m <sup>3</sup> /s	Crossed by scheme
	Unnamed tributary of River Eden 4.5	Low	Watercourse not classified under WFD. Q <sup>95</sup> ≤0.001 m <sup>3</sup> /s	Crossed by scheme
	Principal Bedrock Aquifer	High	Principal aquifer providing locally important resource.	Underlying scheme
	Secondary A superficial deposits	Medium	Permeable layers capable of supporting water supplies at local scale.	Underlying scheme
	Spring S29	Medium	Supporting river baseflow	Within draft DCO boundary
	Total Catchment GW SPZ (Zone 3)	Medium	As defined Table 3.70 of DMRB LA 113.	At western margin of scheme
	Small private domestic and agricultural supplies <20m <sup>3</sup> /d	Medium	Potable water supply	Downgradient of scheme and 200m upgradient of the scheme
Temple Sowerby to Appleby – Blue Alternative	Birk Sike	Medium	Watercourse not classified under WFD. Q <sup>95</sup> 0.001 to 1 m <sup>3</sup> /s	Inside draft DCO boundary
	Trout Beck	Very High	WFD classified watercourse. River Eden and Tributaries SSSI. River Eden SAC.	Crossed by scheme
	Unnamed tributary of Birk Sike 4.2	Low	Watercourse not classified under WFD. Q <sup>95</sup> ≤0.001 m <sup>3</sup> /s	Crossed by scheme
	Unnamed tributary of Birk Sike 4.3	Low	Watercourse not classified under WFD. Q <sup>95</sup> ≤0.001 m <sup>3</sup> /s	Within draft DCO boundary

Scheme	Key Receptor	Preliminary Importance	Value Rationale	Location relative to draft DCO boundary
	Unnamed tributary of Trout Beck 4.1	Low	Watercourse not classified under WFD. $Q^{95} \leq 0.001 \text{ m}^3/\text{s}$	Immediately adjacent to draft DCO boundary
	Unnamed tributary of Keld Sike 4.1	Low	Watercourse not classified under WFD. $Q^{95} \leq 0.001 \text{ m}^3/\text{s}$	Within draft DCO boundary
	Keld Sike (1)	Medium	Watercourse not classified under WFD. $Q^{95} 0.001 \text{ to } 1 \text{ m}^3/\text{s}$	Crossed by scheme
	Keld Sike (2)	Medium	Watercourse not classified under WFD. $Q^{95} 0.001 \text{ to } 1 \text{ m}^3/\text{s}$	180m east
	River Eden	Very High	WFD classified watercourse. River Eden and Tributaries SSSI. River Eden SAC.	Immediately adjacent to draft DCO boundary
	River Lyvennet	Very High	WFD classified watercourse. River Eden and Tributaries SSSI. River Eden SAC.	800m south-west
	Unnamed tributary of Trout Beck 4.2/4.5	Low	Watercourse not classified under WFD. $Q^{95} \leq 0.001 \text{ m}^3/\text{s}$	Crossed by scheme
	Unnamed Tributary of Trout Beck 4.6	Low	Watercourse not classified under WFD. $Q^{95} \leq 0.001 \text{ m}^3/\text{s}$	Underlying scheme
	Unnamed Tributary of Trout Beck 4.3	Low	Watercourse not classified under WFD. $Q^{95} \leq 0.001 \text{ m}^3/\text{s}$	50m north
	Unnamed tributary of Eden 4.2	Low	Watercourse not classified under WFD. $Q^{95} \leq 0.001 \text{ m}^3/\text{s}$	Immediately adjacent to draft DCO boundary
	Unnamed Tributary of River Eden 4.3	Low	Watercourse not classified under WFD. $Q^{95} \leq 0.001 \text{ m}^3/\text{s}$	Crossed by scheme

Scheme	Key Receptor	Preliminary Importance	Value Rationale	Location relative to draft DCO boundary
	Principal bedrock aquifer	High	Principal aquifer providing locally important resource.	Underlying scheme
	Secondary B bedrock aquifer	Low	Predominantly lower permeability layers which may store and yield limited amounts of groundwater.	Underlying scheme
	Unproductive strata (non-aquifer)	Low	Lower permeability layers with minimal amounts of groundwater.	Underlying scheme
	Secondary A superficial deposits	Medium	Permeable layers capable of supporting water supplies at local scale.	Underlying scheme
	Secondary (undifferentiated) superficial deposits	Medium	Permeable layers capable of supporting water supplies at local scale.	Underlying scheme
	Spring S24	Medium	Supporting river baseflow	20m north
	Spring S26	Medium	Supporting river baseflow	40m north
	Spring S27	Medium	Supporting river baseflow	100m north
	Spring S28	Medium	Supporting river baseflow	80m north
	Agricultural abstraction well (Licence number: 2776003013) at Spittals Farm, Kirkby Thore	High	Licensed abstraction	<50m north
	Two industrial abstraction wells (Licence number: 277600311) in Kirkby Thore	High	Licensed abstraction	<50m (one well north and one well south)
	One industrial abstraction well (Licence number: 2776003009) in Kirkby Thore	High	Licensed abstraction	320m north

Scheme	Key Receptor	Preliminary Importance	Value Rationale	Location relative to draft DCO boundary
	Agricultural abstraction well (Licence number: 2776003012/R01) in Kirkby Thore	High	Licensed abstraction	100m east of adjoining highways improvement
	Agricultural abstraction well (License number: 2776001134/R01) west of Appleby-in-Westmorland	High	Licensed abstraction	130m south
	Small private domestic and agricultural supplies <20m <sup>3</sup> /d	Medium	Potable water supply	Downgradient of scheme and 200m upgradient of the scheme
Temple Sowerby to Appleby – Red Alternative	Birk Sike	Medium	Watercourse not classified under WFD. Q <sup>95</sup> 0.001 to 1 m <sup>3</sup> /s	Within draft DCO boundary
	Eden	Very High	WFD classified watercourse. River Eden and Tributaries SSSI. River Eden SAC.	Immediately adjacent to draft DCO boundary
	Lyvennet	Very High	WFD classified watercourse. River Eden and Tributaries SSSI. River Eden SAC.	800m south-west
	Unnamed tributary of Birk Sike 4.2	Low	Watercourse not classified under WFD. Q <sup>95</sup> ≤0.001 m <sup>3</sup> /s	Crossed by scheme
	Unnamed tributary of Birk Sike 4.3	Low	Watercourse not classified under WFD. Q <sup>95</sup> ≤0.001 m <sup>3</sup> /s	Within draft DCO boundary
	Trout Beck	Very High	WFD classified watercourse. River Eden and Tributaries SSSI. River Eden SAC.	Crossed by scheme
	Unnamed tributary of Trout Beck 4.1	Low	Watercourse not classified under WFD. Q <sup>95</sup> ≤0.001 m <sup>3</sup> /s	Immediately adjacent to draft DCO boundary



Scheme	Key Receptor	Preliminary Importance	Value Rationale	Location relative to draft DCO boundary
	Unnamed tributary of Keld Sike 4.1	Low	Watercourse not classified under WFD. $Q^{95} \leq 0.001 \text{ m}^3/\text{s}$	Within draft DCO boundary
	Keld Sike (1)	Medium	Watercourse not classified under WFD. $Q^{95} 0.001 \text{ to } 1 \text{ m}^3/\text{s}$	220m north-east
	Unnamed tributary of Trout beck 4.2	Low	Watercourse not classified under WFD. $Q^{95} \leq 0.001 \text{ m}^3/\text{s}$	Immediately adjacent to draft DCO boundary
	Unnamed Tributary of Trout Beck 4.3	Low	Watercourse not classified under WFD. $Q^{95} \leq 0.001 \text{ m}^3/\text{s}$	50m north
	Keld Sike (2)	Medium	Watercourse not classified under WFD. $Q^{95} 0.001 \text{ to } 1 \text{ m}^3/\text{s}$	560m north
	Unnamed Tributary of Trout Beck 4.6	Low	Watercourse not classified under WFD. $Q^{95} \leq 0.001 \text{ m}^3/\text{s}$	150m south-west of scheme
	Unnamed tributary of Eden 4.2	Low	Watercourse not classified under WFD. $Q^{95} \leq 0.001 \text{ m}^3/\text{s}$	Immediately adjacent to draft DCO boundary
	Unnamed Tributary of River Eden 4.3	Low	Watercourse not classified under WFD. $Q^{95} \leq 0.001 \text{ m}^3/\text{s}$	60m south
	Principal bedrock aquifer	High	Principal aquifer providing locally important resource.	Underlying scheme
	Secondary B bedrock aquifer	Low	Predominantly lower permeability layers which may store and yield limited amounts of groundwater.	Underlying scheme
	Unproductive strata (non-aquifer)	Low	Lower permeability layers with minimal amounts of groundwater.	Underlying scheme
	Secondary A superficial deposits	Medium	Permeable layers capable of supporting water	Underlying scheme

Scheme	Key Receptor	Preliminary Importance	Value Rationale	Location relative to draft DCO boundary
			supplies at local scale.	
	Secondary (undifferentiated) superficial deposits	Medium	Permeable layers capable of supporting water supplies at local scale.	Underlying scheme
	Spring S24	Medium	Supporting river baseflow	20m north
	Spring S26	Medium	Supporting river baseflow	40m north
	Spring S27	Medium	Supporting river baseflow	100m north
	Spring S28	Medium	Supporting river baseflow	80m north
	Agricultural abstraction well (Licence number: 2776003013) at Spittals Farm, Kirkby Thore	High	Licensed abstraction	<50m north
	Two Industrial abstraction wells (Licence number: 277600311) in Kirkby Thore	High	Licensed abstraction	<50m (one well north and one well south)
	One industrial abstraction well (Licence number: 2776003009) in Kirkby Thore	High	Licensed abstraction	320m north
	Agricultural abstraction well (Licence number: 2776003012/R01) in Kirkby Thore	High	Licensed abstraction	100m east of adjoining highways improvement
	Agricultural abstraction well (License number: 2776001134/R01) west of Appleby-in-Westmorland	High	Licensed abstraction	130m south
	Small private domestic and agricultural supplies <20m <sup>3</sup> /d	Medium	Potable water supply	Downgradient of scheme and 200m upgradient of the scheme

Scheme	Key Receptor	Preliminary Importance	Value Rationale	Location relative to draft DCO boundary
Temple Sowerby to Appleby – Orange Alternative	Birk Sike	Medium	Watercourse not classified under WFD. Q <sup>95</sup> 0.001 to 1 m <sup>3</sup> /	Within draft DCO boundary
	River Eden	Very High	WFD classified watercourse. River Eden and Tributaries SSSI. River Eden SAC.	Immediately adjacent to draft DCO boundary
	River Lyvennet	Very High	WFD classified watercourse. River Eden and Tributaries SSSI. River Eden SAC.	800m south-west
	Trout Beck	Very High	WFD classified watercourse. River Eden and Tributaries SSSI. River Eden SAC.	Crossed by scheme
	Unnamed tributary of Birk Sike 4.2	Low	Watercourse not classified under WFD. Q <sup>95</sup> ≤0.001 m <sup>3</sup> /s	Crossed by scheme
	Unnamed tributary of Birk Sike 4.3	Low	Watercourse not classified under WFD. Q <sup>95</sup> ≤0.001 m <sup>3</sup> /s	Within draft DCO boundary
	Unnamed tributary of Trout Beck 4.1	Low	Watercourse not classified under WFD. Q <sup>95</sup> ≤0.001 m <sup>3</sup> /s	Immediately adjacent to draft DCO boundary
	Unnamed tributary of Keld Sike 4.1	Low	Watercourse not classified under WFD. Q <sup>95</sup> ≤0.001 m <sup>3</sup> /s	Within draft DCO boundary
	Keld Sike (1)	Medium	Watercourse not classified under WFD. Q <sup>95</sup> 0.001 to 1 m <sup>3</sup> /	220m north-east
	Keld Sike (2)	Medium	Watercourse not classified under WFD. Q <sup>95</sup> 0.001 to 1 m <sup>3</sup> /	560m north
	Unnamed tributary of Trout Beck 4.2	Low	Watercourse not classified under WFD. Q <sup>95</sup> ≤0.001 m <sup>3</sup> /s	Immediately adjacent to draft DCO boundary

Scheme	Key Receptor	Preliminary Importance	Value Rationale	Location relative to draft DCO boundary
	Unnamed Tributary of Trout Beck 4.6	Low	Watercourse not classified under WFD. $Q^{95} \leq 0.001 \text{ m}^3/\text{s}$	20m north
	Unnamed Tributary of Trout Beck 4.3	Low	Watercourse not classified under WFD. $Q^{95} \leq 0.001 \text{ m}^3/\text{s}$	50m north
	Unnamed tributary of River Eden 4.2	Low	Watercourse not classified under WFD. $Q^{95} \leq 0.001 \text{ m}^3/\text{s}$	Immediately adjacent to draft DCO boundary
	Unnamed Tributary of River Eden 4.3	Low	Watercourse not classified under WFD. $Q^{95} \leq 0.001 \text{ m}^3/\text{s}$	60m south
	Principal bedrock aquifer	High	Principal aquifer providing locally important resource.	Underlying scheme
	Secondary B bedrock aquifer	Low	Predominantly lower permeability layers which may store and yield limited amounts of groundwater.	Underlying scheme
	Unproductive strata (non-aquifer)	Low	Lower permeability layers with minimal amounts of groundwater.	Underlying scheme
	Secondary A superficial deposits	Medium	Permeable layers capable of supporting water supplies at local scale.	Underlying scheme
	Secondary (undifferentiated) superficial deposits	Medium	Permeable layers capable of supporting water supplies at local scale.	Underlying scheme
	Spring S24	Medium	Supporting river baseflow	20m north
	Spring S26	Medium	Supporting river baseflow	40m north
	Spring S27	Medium	Supporting river baseflow	120m north
	Spring S28	Medium	Supporting river baseflow	140m north

Scheme	Key Receptor	Preliminary Importance	Value Rationale	Location relative to draft DCO boundary
	Agricultural abstraction well (Licence number: 2776003013) at Spittals Farm, Kirkby Thore	High	Licensed abstraction	<50m north
	Two Industrial abstraction wells (Licence number: 277600311) in Kirkby Thore	High	Licensed abstraction	<50m (one well north and one well south)
	One industrial abstraction well (Licence number: 2776003009) in Kirkby Thore	High	Licensed abstraction	320m north
	Agricultural abstraction well (Licence number: 2776003012/R01) in Kirkby Thore	High	Licensed abstraction	100m east of adjoining highways improvement
	Agricultural abstraction well (License number: 2776001134/R01) west of Appleby-in-Westmorland	High	Licensed abstraction	130m south
	Small private domestic and agricultural supplies <20m <sup>3</sup> /d	Medium	Potable water supply	Downgradient of scheme and 200m upgradient of the scheme
Appleby to Brough (all alternatives)	Hilton Beck	Medium	Watercourse not classified under WFD. Q <sup>95</sup> 0.001 to 1 m <sup>3</sup> /s	830m west of the scheme
	George Gill	Medium	Watercourse not classified under WFD. Q <sup>95</sup> 0.001 to 1 m <sup>3</sup> /s	680m north of the west of the scheme
	Coupland Beck	Medium	Watercourse not classified under WFD.	670m north-west of the scheme
	Lycum Beck	Medium	Watercourse not classified under WFD. Q <sup>95</sup> 0.001 to 1 m <sup>3</sup> /s	650m north of the scheme

Scheme	Key Receptor	Preliminary Importance	Value Rationale	Location relative to draft DCO boundary
	River Eden	Very High	WFD classified watercourse. River Eden and Tributaries SSSI. River Eden SAC.	600m south-west, parallel to the scheme
	Unnamed Tributary of Mire Sike 6.1	Low	Watercourse not classified under WFD. $Q^{95} \leq 0.001 \text{ m}^3/\text{s}$	320m south of scheme
	Unnamed Tributary of Mire Sike 6.4	Low	Watercourse not classified under WFD. $Q^{95} \leq 0.001 \text{ m}^3/\text{s}$	230m south of scheme
	Unnamed Tributary of Mire Sike 6.8	Low	Watercourse not classified under WFD. $Q^{95} \leq 0.001 \text{ m}^3/\text{s}$	120m south of scheme
	Unnamed Tributary of Mire Sike 6.12	Low	Watercourse not classified under WFD. $Q^{95} \leq 0.001 \text{ m}^3/\text{s}$	Crossed by scheme
	Mire Sike	Medium	Watercourse not classified under WFD. $Q^{95} 0.001 \text{ to } 1 \text{ m}^3/\text{s}$	Within DCO boundary
	Unnamed Tributary of Cringle Beck 6.1	Low	Watercourse not classified under WFD. $Q^{95} \leq 0.001 \text{ m}^3/\text{s}$	Crossed by scheme
	Cringle Beck	Medium	Watercourse not classified under WFD. $Q^{95} 0.001 \text{ to } 1 \text{ m}^3/\text{s}$	Crossed by scheme
	Hayber Beck	High	Watercourse is functionally linked to the River Eden SAC	Crossed by scheme
	Moor Beck	High	Watercourse is functionally linked to the River Eden SAC	Crossed by scheme
	Eastfield Sike	High	Watercourse is functionally linked to the River Eden SAC	Crossed by scheme
	Crooks Beck	High	Watercourse is functionally linked to the River Eden	Within draft DCO boundary

Scheme	Key Receptor	Preliminary Importance	Value Rationale	Location relative to draft DCO boundary
			SAC. WFD classified watercourse.	
	Lowgill Beck	High	WFD classified watercourse. Assumed Q95 <1.0m <sup>3</sup> /s as precautionary approach.	Crossed by Scheme
	Unnamed Tributary of Lowgill Beck 6.1	Low	Watercourse not classified under WFD. Q <sup>95</sup> ≤0.001 m <sup>3</sup> /s	Crossed by scheme
	Woodend Sike	Medium	Watercourse not classified under WFD. Q <sup>95</sup> 0.001 to 1 m <sup>3</sup> /	Crossed by scheme
	Yosgill Sike	Medium	Watercourse not classified under WFD. Q <sup>95</sup> 0.001 to 1 m <sup>3</sup> /	Crossed by scheme
	Unnamed Tributary of Lowgill Beck 6.7	Low	Watercourse not classified under WFD. Q <sup>95</sup> ≤0.001 m <sup>3</sup> /s	Crossed by scheme
	Unnamed Tributary of Lowgill Beck 6.3	Low	Watercourse not classified under WFD. Q <sup>95</sup> ≤0.001 m <sup>3</sup> /s	Within draft DCO boundary
	Swindale Beck	Medium	Watercourse not classified under WFD. Q <sup>95</sup> 0.001 to 1 m <sup>3</sup> /	210m east of scheme
	Augill Beck	Medium	Watercourse not classified under WFD. Q <sup>95</sup> 0.001 to 1 m <sup>3</sup> /	400m east of scheme
	Principal bedrock aquifer	High	Principal aquifer providing locally important resource.	Underlying scheme
	Secondary A bedrock	Medium	Capable of supporting water supplies	Underlying part of the scheme
	Secondary A superficial deposits	Medium	Permeable layers capable of supporting water supplies at local scale.	Underlying scheme

Scheme	Key Receptor	Preliminary Importance	Value Rationale	Location relative to draft DCO boundary
	Secondary (undifferentiated) superficial deposits	Medium	Permeable layers capable of supporting water supplies at local scale.	Underlying scheme
	Spring S23	Medium	Supporting baseflow	910m north
	Spring S50	Medium	Supporting baseflow	380m south
	Eastfield Farm (Licence Number: NW/076/0001/009)	High	Licensed abstraction	140m south
	Borehole at West View Brough, Kirkby Stephen (Licence number: 2776001135/R01)	High	Licensed abstraction	100m south
	Small private domestic and agricultural supplies <20m <sup>3</sup> /d	Medium	Potable water supply	Downgradient of scheme and 200m upgradient of the scheme
Bowes Bypass	Bessy Sike	Medium	Watercourse not classified under WFD. Q <sup>95</sup> 0.001 to 1 m <sup>3</sup> /	600m north of the scheme
	Unnamed Tributary of River Greta 7.7	Low	Watercourse not classified under WFD. Q <sup>95</sup> ≤0.001 m <sup>3</sup> /s	560m west of the scheme
	Unnamed Tributary of River Greta 7.1	Low	Watercourse not classified under WFD. Q <sup>95</sup> ≤0.001 m <sup>3</sup> /s	Within draft DCO boundary
	Unnamed Tributary of River Greta 7.3	Low	Watercourse not classified under WFD. Q <sup>95</sup> ≤0.001 m <sup>3</sup> /s	Within draft DCO boundary
	Chert Gill	Medium	Watercourse not classified under WFD. Q <sup>95</sup> 0.001 to 1 m <sup>3</sup> /	120m south of the scheme
	How Low Gill	Medium	Watercourse not classified under WFD. Q <sup>95</sup> 0.001 to 1 m <sup>3</sup> /	560m south of the scheme



Scheme	Key Receptor	Preliminary Importance	Value Rationale	Location relative to draft DCO boundary
	Unnamed Tributary of River Greta 7.5	Low	Watercourse not classified under WFD. $Q^{95} \leq 0.001 \text{ m}^3/\text{s}$	Within draft DCO boundary
	Unnamed Tributary of River Greta 7.6	Low	Watercourse not classified under WFD. $Q^{95} \leq 0.001 \text{ m}^3/\text{s}$	Within draft DCO boundary
	River Greta	High	WFD classified. $Q^{95} < 1.0 \text{ m}^3/\text{s}$	Within draft DCO boundary
	Thorsgill Beck	Medium	Watercourse not classified under WFD. $Q^{95} 0.001 \text{ to } 1 \text{ m}^3/\text{s}$	370m north of scheme
	Secondary A bedrock	Medium	Capable of supporting water supplies.	Underlying scheme
	Secondary (undifferentiated) superficial deposits	Medium	Permeable layers capable of supporting water supplies at local scale.	Underlying scheme
	Spring S2	Medium	Supporting baseflow	690m south
	Spring S3	Medium	Supporting baseflow	580m south
	Spring S4	Medium	Supporting baseflow	580m south
	Spring S6	Medium	Supporting baseflow	580m south
	Spring S7	Medium	Supporting baseflow	650m south
	Spring S8	Medium	Supporting baseflow	850m south
	Spring S9	Medium	Supporting baseflow	850m south
	Spring S10	Medium	Supporting baseflow	850m south
	Spring S11	Medium	Supporting baseflow	770m south
	Spring S12	Medium	Supporting baseflow	800m south
	Spring S13	Medium	Supporting baseflow	460m south
	Spring S14	Medium	Supporting baseflow	580m south

Scheme	Key Receptor	Preliminary Importance	Value Rationale	Location relative to draft DCO boundary
	Spring S15	Medium	Supporting baseflow	650m south
	Spring S16	Medium	Supporting baseflow	500m south
	Spring S17	Medium	Supporting baseflow	630m south
	Spring S19	Medium	Supporting baseflow	300m south
	Spring S21	Medium	Supporting baseflow	350m north
	Spring S22	Medium	Supporting baseflow	750m north
	Sink S20	Medium	Input to groundwater	70m north
	Sink 126	Medium	Input to groundwater	690m north
	Small private domestic and agricultural supplies <20m <sup>3</sup> /d	Medium	Potable water supply	Downgradient of scheme and 200m upgradient of the scheme
Cross Lanes to Rokeby (all alternatives)	Thorsgill Beck	Medium	Watercourse not classified under WFD. Q <sup>95</sup> 0.001 to 1 m <sup>3</sup> /s	650m north of scheme
	Punder Gill	Medium	Watercourse not classified under WFD. Q <sup>95</sup> 0.001 to 1 m <sup>3</sup> /s	Crossed by scheme
	Unnamed Tributary of Punder Gill 8.1	Low	Watercourse not classified under WFD. Q <sup>95</sup> ≤0.001 m <sup>3</sup> /s	Within draft DCO boundary
	Unnamed Tributary of Tutta Beck 8.1	Low	Watercourse not classified under WFD. Q <sup>95</sup> ≤0.001 m <sup>3</sup> /s	Within draft DCO boundary
	Tutta Beck	Medium	Watercourse not classified under WFD. Q <sup>95</sup> 0.001 to 1 m <sup>3</sup> /	Crossed by scheme
	New Cut	Medium	Watercourse not classified under WFD. Q <sup>95</sup> 0.001 to 1 m <sup>3</sup> /	360m south of the scheme
	Unnamed Tributary of Tutta Beck 8.2	Low	Watercourse not classified under WFD.	Within draft DCO boundary

Scheme	Key Receptor	Preliminary Importance	Value Rationale	Location relative to draft DCO boundary
			$Q^{95} \leq 0.001 \text{ m}^3/\text{s}$	
	Unnamed Tributary of Tutta Beck 8.3	Low	Watercourse not classified under WFD. $Q^{95} \leq 0.001 \text{ m}^3/\text{s}$	<50m south
	Partridge Gill	Medium	Watercourse not classified under WFD. $Q^{95} 0.001 \text{ to } 1 \text{ m}^3/\text{s}$	300m south of the scheme
	Wellfield Strand	Medium	Watercourse not classified under WFD. $Q^{95} 0.001 \text{ to } 1 \text{ m}^3/\text{s}$	250m south of the scheme
	Manyfold Beck	Medium	Watercourse not classified under WFD. $Q^{95} 0.001 \text{ to } 1 \text{ m}^3/\text{s}$	50m north
	Unnamed Tributary of Manyfold Beck 8.3	Low	Watercourse not classified under WFD. $Q^{95} \leq 0.001 \text{ m}^3/\text{s}$	Within draft DCO boundary
	Unnamed Tributary of Manyfold Beck 8.1	Low	Watercourse not classified under WFD. $Q^{95} \leq 0.001 \text{ m}^3/\text{s}$	Crossed by scheme
	River Greta	High	WFD classified. $Q^{95} < 1.0 \text{ m}^3/\text{s}$	260m east
	River Tees	Very High	WFD classified. $Q^{95} \geq 1.0 \text{ m}^3/\text{s}$	170m north
	Secondary A bedrock	Medium	Capable of supporting water supplies.	Underlying scheme
	Secondary (undifferentiated) superficial deposits	Medium	Permeable layers capable of supporting water supplies at local scale.	Underlying scheme
	Spring S18	Medium	Supporting baseflow	720m south
	Spring S21	Medium	Supporting baseflow	320m north-east
	Spring	Medium	Supporting baseflow	520m south
	Small private domestic and agricultural supplies <20m <sup>3</sup> /d	Medium	Potable water supply	Downgradient of scheme and 200m upgradient of the scheme

Scheme	Key Receptor	Preliminary Importance	Value Rationale	Location relative to draft DCO boundary
Stephen Bank to Carkin Moor	Smallways Beck	Medium	Watercourse not classified under WFD. $Q^{95} 0.001 \text{ to } 1 \text{ m}^3/$	800m west
	Unnamed Tributary of Smallways Beck 9.1	Low	Watercourse not classified under WFD. $Q^{95} \leq 0.001 \text{ m}^3/s$	210m west of scheme
	Unnamed Tributary of Smallways Beck 9.4	Low	Watercourse not classified under WFD. $Q^{95} \leq 0.001 \text{ m}^3/s$	100m south of scheme
	Cottonmill Beck	Medium	Watercourse not classified under WFD. $Q^{95} 0.001 \text{ to } 1 \text{ m}^3/$	Within draft DCO boundary
	Unnamed Tributary of Cottonmill Beck 9.3	Low	Watercourse not classified under WFD. $Q^{95} \leq 0.001 \text{ m}^3/s$	Within draft DCO boundary
	Browson Beck	Medium	Watercourse not classified under WFD. $Q^{95} 0.001 \text{ to } 1 \text{ m}^3/$	Within draft DCO boundary
	Stalwath Beck	Medium	Watercourse not classified under WFD. $Q^{95} 0.001 \text{ to } 1 \text{ m}^3/$	850m south of scheme
	Holme Beck	Medium	Watercourse not classified under WFD. $Q^{95} 0.001 \text{ to } 1 \text{ m}^3/$	320m south
	Unnamed Tributary of Dalton Beck 9.1	Low	Watercourse not classified under WFD. $Q^{95} \leq 0.001 \text{ m}^3/s$	Within draft DCO boundary
	Unnamed Tributary of Holme Beck 9.3	Low	Watercourse not classified under WFD. $Q^{95} \leq 0.001 \text{ m}^3/s$	Crossed by scheme
	Unnamed Tributary of Holme Beck 9.4	Low	Watercourse not classified under WFD. $Q^{95} \leq 0.001 \text{ m}^3/s$	Crossed by scheme
	Unnamed Tributary of Mains Gill 9.1	Low	Watercourse not classified under WFD. $Q^{95} \leq 0.001 \text{ m}^3/s$	Within draft DCO boundary

Scheme	Key Receptor	Preliminary Importance	Value Rationale	Location relative to draft DCO boundary
	Unnamed Tributary of Mains Gill 9.3	Low	Watercourse not classified under WFD. $Q^{95} \leq 0.001 \text{ m}^3/\text{s}$	Crossed by scheme
	Mains Gill	Medium	Watercourse not classified under WFD. $Q^{95} 0.001 \text{ to } 1 \text{ m}^3/\text{s}$	Within draft DCO boundary
	Unnamed Tributary of Holme Beck 9.1	Low	Watercourse not classified under WFD. $Q^{95} \leq 0.001 \text{ m}^3/\text{s}$	Crossed by scheme
	Unnamed Tributary of Holme Beck 9.2	Low	Watercourse not classified under WFD. $Q^{95} \leq 0.001 \text{ m}^3/\text{s}$	Crossed by scheme
	Hartforth Beck	Medium	Watercourse not classified under WFD. $Q^{95} 0.001 \text{ to } 1 \text{ m}^3/\text{s}$	800m south of scheme
	Secondary A bedrock	Medium	Capable of supporting water supplies.	Underlying scheme
	Secondary (undifferentiated) superficial deposits	Medium	Permeable layers capable of supporting water supplies at local scale.	Underlying scheme
	Spring S1	Medium	Supporting baseflow	480m south
	Pond Dale abstraction well (license number: 2/27/23/661/R01)	High	Licensed abstraction	150m south
	Blackhill Farm abstraction well (no licence number)	High	Licensed abstraction	250m south-east
Small private domestic and agricultural supplies <math>20\text{m}^3/\text{d}</math>	Medium	Potable water supply	Downgradient of scheme and 200m upgradient of the scheme	
A1(M) Junction 53 Scotch Corner	Ludburn Beck	Medium	Watercourse not classified under WFD. $Q^{95} 0.001 \text{ to } 1 \text{ m}^3/\text{s}$	660m east of the scheme

Scheme	Key Receptor	Preliminary Importance	Value Rationale	Location relative to draft DCO boundary
	Secondary A bedrock	Medium	Capable of supporting water supplies.	Underlying scheme
	Secondary (undifferentiated) superficial deposits	Medium	Permeable layers capable of supporting water supplies at local scale.	Underlying scheme
	Abstraction well (license no: 2/27/23/702/R1)	High	Licensed abstraction	970m north
	Small private domestic and agricultural supplies <20m <sup>3</sup> /d	Medium	Potable water supply	Downgradient of scheme and 200m upgradient of the scheme

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**CONTENTS**

**14 Receptors Scoped Out..... 1**

## 14 Receptors Scoped Out

- 14.1.1 Following the identification of receptors and their provisional importance, a review was done to establish which receptors were not considered to have potential for significant effects.
- 14.1.2 The receptors that have been scoped out have been done so due to lack of hydrological connection to the scheme or being situated upstream/upgradient of the scheme. The justification for receptors not taken further in the assessment is outlined in Table 14-1: Receptors scoped out.

Table 14-1: Receptors scoped out

Receptor	Justification to determine no further assessment or mitigation required
<b>M6 Junction 40 to Kemplay Bank</b>	
Carlsike Beck	1.7km upstream of the proposed outfall into the River Eamont, for which potential impacts are assessed.
Myers Beck	1.5km upstream of the scheme, flows into Dog Beck followed by Thacka Beck, for which potential impacts are assessed.
Dog Beck	575m upstream of scheme, flows into Thacka Beck, for which potential impacts are assessed.
River Lowther	To the south of the River Eamont, upstream of any interaction with the scheme. Flows into the River Lowther 250m west of the existing A66, potential downstream impacts to the River Eamont are considered further.
Unnamed tributary of River Eamont 3.2	Not hydrologically connected to the scheme. Flows into the River Eamont from the west, for which potential impacts are assessed.
<b>Penrith to Temple Sowerby</b>	
River Lowther	380m upstream of the existing A66 crossing of the River Eamont and 490m west of the western section of the scheme. Potential impacts to the River Eamont are considered further.
Unnamed tributary of River Eamont 3.2	Not hydrologically connected to the scheme. Flows into the River Eamont from the west, joining the Eamont 260m north of the scheme. Potential impacts to the River Eamont are considered further.
<b>Temple Sowerby to Appleby – Blue Alternative</b>	
River Lyvennet	Joins the River Eden 800m south-west of scheme. Not hydrologically connected to the scheme.
Springs S24, S26, S27 and S28	Not hydraulically connected to the scheme.
Licensed abstraction 2776001134/R01	Not hydraulically connected to the scheme.
<b>Temple Sowerby to Appleby – Red Alternative</b>	
River Lyvennet	Joins the River Eden 800m south-west of scheme. Not hydrologically connected to the scheme.
Springs S24, S26, S27 and S28	Not hydraulically connected to the scheme.
<b>Temple Sowerby to Appleby – Orange Alternative</b>	
River Lyvennet	Joins the River Eden 800m south-west of scheme. Not hydrologically connected to the scheme.
Springs S24, S26, S27 and S28	Not hydraulically connected to the scheme.



Receptor	Justification to determine no further assessment or mitigation required
<b>Appleby to Brough (all alternatives)</b>	
George Gill	400m upstream of the scheme. Not hydrologically connected to the scheme.
Coupland Beck	750m west of the scheme. Joins the River Eden 800m south-west of scheme. Not hydrologically connected to the scheme.
Lycum Beck	450m upstream of the scheme. Joins the River Eden 800m south-west of scheme. Not hydrologically connected to the scheme.
Augill Beck	400m east of the scheme and flows into the Swindale Beck. Not hydrologically connected to the scheme.
Unnamed Tributary of Lowgill Beck 6.3	Watercourse located on opposite side of valley with no hydrological connection to the scheme.
Spring S23	Not hydraulically connected to the scheme.
<b>Bowes Bypass</b>	
Bessy Sike	800m north of the scheme and upstream with no hydrological connection to the scheme.
Unnamed Tributary of River Greta 7.7	560m west of the scheme and upstream with no hydrological connection to the scheme.
Chert Gill	360m west of the scheme and upstream with no hydrological connection to the scheme.
How Low Gill	560m west of the scheme and upstream with no hydrological connection to the scheme.
Thorsgill Beck	370m north of the scheme and upstream with no hydrological connection to the scheme.
All springs south of the River Greta	Not hydraulically connected to the scheme.
<b>Cross Lanes to Rokeby (all alternatives)</b>	
Thorsgill Beck	600m north of the scheme and upstream with no hydrological connection to the scheme.
Partridge gill	600m south of the scheme and upstream with no hydrological connection to the scheme.
Wellfield Strand	600m south of the scheme and upstream with no hydrological connection to the scheme.
<b>Stephen Bank to Carkin Moor</b>	
Dyson Beck	800m upstream of the scheme and flows into Smallways Beck. Watercourse not hydrologically connected to the scheme.
Stalwath Beck	950m upstream of scheme and flows into the Dalton Beck. Watercourse not hydrologically connected to the scheme.
Hartforth Beck	Watercourse located on opposite side of valley with no hydrological connection to the scheme.
<b>A1(M) Junction 53 Scotch Corner</b>	
Ludburn Beck	660m east of the scheme with no pathway to the receptor, no hydrological connection.