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THE NETWORK RAIL EAST WEST RAIL (WESTERN SECTION) PHASE 2 ORDER APPENDIX 15.1: INTRA-PROJECT CUMULATIVE EFFECTS ON HUMANS

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Appendix 15.1: Intra-project Cumulative Effects on Humans

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1. INTRODUCTION

- 1.1.1 Unless effects are stated to be “beneficial” they are considered to be adverse.
- 1.1.2 A dash means that the methodology of the chapter in question does not consider that type of receptor.
- 1.1.3 “Not assessed” means that that particular receptor was not specifically assessed as a representative receptor in that chapter.
- 1.1.4 Under Agriculture and Land Use, some entries are given as “Some amenity effects”. This was a term used in the chapter when generally noting the possibility of, for example, noise and dust effects not directly within the purview of that assessment. It is included here for completeness, although it is considered that this is sufficiently covered when considering all the other topic assessments.
- 1.1.5 Conclusions summarised in the final column of the tables relate to whether the accumulation of effects is significant above and beyond the individual effects themselves.
- 1.1.6 Where the table indicates a significant cumulative effect this is discussed after the tables. In determining whether cumulative effects were likely to be significant, consideration was given to the nature of the individual effects; for example effects that could commonly be defined as being a “nuisance” such as noise and air quality were considered to be most susceptible to giving rise to a cumulative effect.

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Appendix 15.1: Intra-project Cumulative Effects on Humans

Table 1.1- Human Intra-Project Effects in CDC Sub-Section

Receptor	Phase	Air Quality	Noise and Vibration	Geology and Soils	Landscap e and Visual	Water	Traffic and Transport	Agricultur e and Land Use	Significant accumulatio n of effects?
Allotment gardens at Charbridge Lane	Constructio n	No significant effects	-	-	Not assessed	-	TBC	Moderate	No
	Operation	No significant effects	-	-	Not assessed	-	TBC	Major	No
St Marys Church	Constructio n	No significant effects	-	-	Not assessed	-	TBC	Moderate	No
	Operation	No significant effects	-	-	Not assessed	-	TBC	Negligible	No
Launton Sports and Social Club (CH1 in Fig. 12.1.5)	Constructio n	No significant effects	-	-	Not assessed	-	TBC	Moderate	No
	Operation	No significant effects	-	-	Not assessed	-	TBC	Not assessed	No
Bicester Road (three properties)	Constructio n	No significant effects	No significant effect	Minor	Not assessed	No significant effect	TBC	Major	No
	Operation	No significant effects	Not assessed	Neutral	Not assessed	No significant effect	TBC	Not assessed	No
Folly Cottage, Station Road	Constructio n	No significant effects	No significant effect	Minor	Not assessed	No significant effect	TBC	Major	No
	Operation	No significant	Not assessed	Neutral	Not assessed	No significant	TBC	Not assessed	No

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Receptor	Phase	Air Quality	Noise and Vibration	Geology and Soils	Landscap e and Visual	Water	Traffic and Transport	Agricultur e and Land Use	Significant accumulation of effects?
		t effects				t effect			
Station Cottage, Station Road (CH9 in Fig 12.1.5)	Construction	No significant effects	No significant effect	Minor	Not assessed	No significant effect	TBC	Major	No
	Operation	No significant effects	Major	Neutral	Not assessed	No significant effect	TBC	Not assessed	No
Construction workers	Construction	-	-	Minor	-	-	TBC	-	No
Users of PRoW accessed from West End, Launton (CH3 in Fig. 12.1.5)	Construction	No significant effects	-	-	Neutral	-	TBC	-	No
	Operation	No significant effects	-	-	Neutral	-	TBC	-	No
Users of National Cycle Route 51	Construction	No significant effects	-	-	Not assessed	-	TBC	-	No
	Operation	No significant effects	-	-	Not assessed	-	TBC	-	No
Users of PRoW	Construction	No significant effects	-	-	Large	-	TBC	-	No
	Operation	No significant effects	-	-	Moderate (Yr1) to Slight (Yr15)	-	TBC	-	No

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Receptor	Phase	Air Quality	Noise and Vibration	Geology and Soils	Landscape and Visual	Water	Traffic and Transport	Agriculture and Land Use	Significant accumulation of effects?
Users of PRow connecting Gavray Drive and Charbridge Lane (CH4)	Construction	No significant effects	-	-	Large	-	TBC	-	No
	Operation	No significant effects	-	-	Moderate (Yr1) to Slight (Yr15)	-	TBC	-	No
Blenheim Drive (CH6 in Fig. 12.1.5)	Construction	No significant effects	No significant effect	Minor	Large	No significant effect	TBC	-	No
	Operation	No significant effects	Moderate	Neutral	Large (Yr1) to Moderate (Yr15)	No significant effect	TBC	-	No
Users of PRow to north (CH7 in Fig. 12.1.5)	Construction	No significant effects	-	-	Moderate	-	TBC	-	No
	Operation	No significant effects	-	-	Slight (Yr1) to Neutral (Yr15)	-	TBC	-	No
Users of PRow to north (CH8 in Fig. 12.1.5)	Construction	No significant effects	-	-	Large	-	TBC	-	No
	Operation	No significant effects	-	-	Moderate (Yr1) to Slight (Yr15)	-	TBC	-	No
Users of PRow to	Construction	No significant	-	-	Slight	-	TBC	-	No

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Receptor	Phase	Air Quality	Noise and Vibration	Geology and Soils	Landscap e and Visual	Water	Traffic and Transport	Agriculture and Land Use	Significant accumulation of effects?
north - Field Farm (CH10 in Fig. 12.1.5)	Operation	No significant effects	-	-	Neutral	-	TBC	-	No
Users of PRoW to south (CH11 in Fig. 12.1.5)	Construction	No significant effects	-	-	Neutral	-	TBC	-	No
	Operation	No significant effects	-	-	Neutral	-	TBC	-	No
Users of PRoW on outskirts of Launton (CH12 in Fig.12.1.5)	Construction	No significant effects	-	-	Moderate	-	TBC	-	No
	Operation	No significant effects	-	-	Slight (Yr1) to Neutral (Yr15)	-	TBC	-	No
Stratton Audley (CH13 in Fig. 12.1.5)	Construction	No significant effects	No significant effect	-	Neutral	-	TBC	-	No
	Operation	No significant effects	Not assessed	-	Neutral	-	TBC	-	No

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Appendix 15.1: Intra-project Cumulative Effects on Humans

Table 1.2- Human Intra-Project Effects in CQ-AVDC Sub-Section

Receptor	Phase	Air Quality	Noise and Vibration	Geology and Soils	Landscap e and Visual	Water	Traffic and Transport	Agricultur e and Land Use	Significant accumulatio n of effects?
Willow Croft, Station Road	Constructio n	No significa nt effects	No significa nt effects	Minor	Not assessed	No significa nt effects	TBC	Major	No
	Operation	No significa nt effects	-	Minor benefici al	Not assessed	No significa nt effects	TBC	Some amenity effects	No
Station House, Station Road (CQ5 in Fig. 12.2.5)	Constructio n	No significa nt effects	No significa nt effects	Minor	Moderate	No significa nt effects	TBC	Major	Yes
	Operation	No significa nt effects	Major	Minor benefici al	Moderate (Yr1) to neutral (Yr15)	No significa nt effects	TBC	Some amenity effects	Yes
Pear Tree House, Queen Catherine Road (CQ12 in Fig. 12.2.5)	Constructio n	No significa nt effects	No significa nt effects	Minor	Large	No significa nt effects	TBC	Major	Yes
	Operation	No significa nt effects	Major	Minor benefici al	Large (Yr1-15)	No significa nt effects	TBC	Some amenity effects	Yes
Railway Cottages, Queen Catherine Road (CQ14 in Fig. 12.2.5)	Constructio n	No significa nt effects	No significa nt effects	Minor	Large	No significa nt effects	TBC	Major (access)	Yes
	Operation	No significa nt effects	Major	Minor benefici al	Large (Yr1-15)	No significa nt effects	TBC	Some amenity effects	Yes
Properties near Verney Junction (CQ20 in Fig. 12.2.5)	Constructio n	No significa nt effects	No significa nt effects	Minor benefici al	Large	No significa nt effects	TBC	Some amenity effects	Yes
	Operation	No	Major	-	Large	No	TBC	Some	No

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Receptor	Phase	Air Quality	Noise and Vibration	Geology and Soils	Landscap e and Visual	Water	Traffic and Transport	Agricultur e and Land Use	Significant accumulatio n of effects?
		significa nt effects			(Yr1) to moderate (Yr15)	significa nt effects		amenity effects	
Properties near Buckinghamshire Railway Centre	Constructio n	No significa nt effects	Not assesse d	Minor benefici al	Not assessed	No significa nt effects	TBC	Not assessed	No
	Operation	No significa nt effects	Major	Minor benefici al	Not assessed	No significa nt effects	TBC	Some amenity effects	No
Construction Workers	Constructio n	No significa nt effects	No significa nt effects	Moderat e	-	-	TBC	-	No
Mount Pleasant Farm near unspecified PRoW (CQ17 in Fig. 12.2.5)	Constructio n	No significa nt effects	No significa nt effects	-	Slight	-	TBC	-	No
	Operation	No significa nt effects	Not assesse d	-	Slight (Yr1) to neutral (Yr15)	-	TBC	-	No
Bridge Farm Cottages (CQ22 in Fig. 12.2.5)	Constructio n	No significa nt effects	No significa nt effects	Minor	Moderate	No significa nt effects	TBC	-	No
	Operation	No significa nt effects	Not assesse d	Minor benefici al	Moderate (Yr1) to neutral (Yr15)	No significa nt effects	TBC	-	No
Rectory Farm (CQ15 in Fig. 12.2.5)	Constructio n	No significa nt effects	No significa nt effects	Minor	Moderate	No significa nt effects	TBC	-	No
	Operation	No	Not	Minor	Slight	No	TBC	-	No

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Receptor	Phase	Air Quality	Noise and Vibration	Geology and Soils	Landscap e and Visual	Water	Traffic and Transport	Agricultur e and Land Use	Significant accumulatio n of effects?
		significa nt effects	assesse d	benefici al	(Yr1- Yr15)	significa nt effects			
Littleworth Properties (CQ19 in Fig. 12.2.5)	Constructio n	No significa nt effects	No significa nt effects	Minor	Moderate	No significa nt effects	TBC	-	No
	Operation	No significa nt effects	Not assesse d	Minor benefici al	Moderate (Yr1- Yr15)	No significa nt effects	TBC	-	No
Residential Fringe of Mash Gibbon (CQ4 in Fig. 12.2.5)	Constructio n	No significa nt effects	No significa nt effects	Minor	Slight	No significa nt effects	TBC	-	No
	Operation	No significa nt effects	-	Minor benefici al	Slight (Yr1) to neutral (Yr15)	No significa nt effects	TBC	-	No
Twyford Lodge (CQ7 in Fig. 12.2.5)	Constructio n	No significa nt effects	No significa nt effects	Minor	Slight	No significa nt effects	TBC	-	No
	Operation	No significa nt effects	-	Minor benefici al	Slight (Yr1) to neutral (Yr15)	No significa nt effects	TBC	-	No
Portway Farm (CQ8 in Fig. 12.2.5)	Constructio n	No significa nt effects	No significa nt effects	Minor	Slight	No significa nt effects	TBC	-	No
	Operation	No significa nt effects	-	Minor benefici al	Slight (Yr1) to neutral (Yr15)	No significa nt effects	TBC	-	No
Shepherd	Constructio n	No	No	Minor	No	No	TBC	-	No

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Receptor	Phase	Air Quality	Noise and Vibration	Geology and Soils	Landscap e and Visual	Water	Traffic and Transpo rt	Agricultur e and Land Use	Significant accumulatio n of effects?
Furze Farm (CQ9 in Fig. 12.2.5)	n	significa nt effects	significa nt effects		significant effects	significa nt effects			
	Operation	No significa nt effects	Not assesse d	Minor benefici al	Neutral (Yr1- Yr15)	No significa nt effects	TBC	-	No
Properties adjacent to Calvert Station (CQ25 in Fig. 12.2.5)	Constructio n	No significa nt effects	No significa nt effects	Minor	No significant effects	No significa nt effects	TBC	-	No
	Operation	No significa nt effects	Moderat e	Minor benefici al	Neutral (Yr1- Yr15)	No significa nt effects	TBC	-	No
Properties along Brackley Lane (CQ26 in Fig. 12.2.5)	Constructio n	No significa nt effects	No significa nt effects	Minor	No significant effects	No significa nt effects	TBC	-	No
	Operation	No significa nt effects	Moderat e	Minor benefici al	Neutral (Yr1- Yr15)	No significa nt effects	TBC	-	No
Woodhouse Farm Cottages (CQ29 in Fig. 12.2.5)	Constructio n	No significa nt effects	No significa nt effects	Minor	No significant effects	No significa nt effects	TBC	-	No
	Operation	No significa nt effects	Moderat e	Minor benefici al	Neutral (Yr1- Yr15)	No significa nt effects	TBC	-	No
Doddershall House (CQ32 in Fig. 12.2.5)	Constructio n	No significa nt effects	No significa nt effects	Minor	No significant effects	No significa nt effects	TBC	-	No
	Operation	No significa nt effects	Not assesse d	Minor benefici al	Neutral (Yr1- Yr15)	No significa nt effects	TBC	-	No
PRoW	Constructio n	No	-	-	Moderate	-	TBC	-	No

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Receptor	Phase	Air Quality	Noise and Vibration	Geology and Soils	Landscap e and Visual	Water	Traffic and Transpo rt	Agricultur e and Land Use	Significant accumulatio n of effects?
(Unspecified)	n	significa nt effects							
	Operation	No significa nt effects	-	-	Moderate	-	TBC	-	No
NCR 51	Constructio n	No significa nt effects	-	-	No significant effects	-	TBC	-	No
	Operation	No significa nt effects	-	-	No significant effects	-	TBC	-	No
PRoW (near Westbury Court, NW Marsh Gibbon) (CQ2 in Fig. 12.2.5)	Constructio n	No significa nt effects	-	-	Moderate	-	TBC	-	No
	Operation	No significa nt effects	-	-	Moderate (Yr1) to slight (Yr15)	-	TBC	-	No
PRoW (Jubilee and Cross Bucks Way near Barnwell Farm (CQ3 in Fig. 12.2.5)	Constructio n	No significa nt effects	-	-	Moderate	-	TBC	-	No
	Operation	No significa nt effects	-	-	Slight	-	TBC	-	No
PRoW (Queen Catherine Road Level Crossing) (CQ13 in Fig. 12.2.5)	Constructio n	No significa nt effects	-	-	Large	-	TBC	-	No
	Operation	No significa nt effects	-	-	Large (Yr1-Yr15)	-	TBC	-	No

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Receptor	Phase	Air Quality	Noise and Vibration	Geology and Soils	Landscap e and Visual	Water	Traffic and Transpo rt	Agricultur e and Land Use	Significant accumulatio n of effects?
PRoW near Windmill Farm (CQ16 in Fig. 12.2.5)	Constructio n	No significa nt effects	-	-	Moderate	-	TBC	-	No
	Operation	No significa nt effects	-	-	Slight (Yr1-Yr15)	-	TBC	-	No
Mount Pleasant Farm near unspecified PRoW (CQ17 in Fig. 12.2.5)	Constructio n	No significa nt effects	-	-	Moderate	-	TBC	-	No
	Operation	No significa nt effects	-	-	Moderate (Yr1) to slight (Yr15)	-	TBC	-	No
PRoW near Furzen Farm (CQ21 in Fig. 12.2.5)	Constructio n	No significa nt effects	-	-	Moderate	-	TBC	-	No
	Operation	No significa nt effects	-	-	Moderate (Yr1) to slight (Yr15)	-	TBC	-	No
Junction of Schools Hill and Main Street (CQ40 in Fig. 12.2.5)	Constructio n	No significa nt effects	-	-	Moderate	-	TBC	-	No
	Operation	No significa nt effects	-	-	Slight (Yr1) to neutral (Yr15)	-	TBC	-	No
PRoW (Bernwood Jubilee)	Constructio n	No significa nt effects	-	-	Moderate	-	TBC	-	No

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Receptor	Phase	Air Quality	Noise and Vibration	Geology and Soils	Landscap e and Visual	Water	Traffic and Transpo rt	Agricultur e and Land Use	Significant accumulatio n of effects?
Way/Rectory Farm) (CQ15 in Fig. 12.2.5)	Operation	No significant effects	-	-	Moderate (Yr1) to slight (Yr15)	-	TBC	-	No
PRoW near Twyford Lodge (CQ7 in Fig. 12.2.5)	Constructio n	No significant effects	-	-	Slight	-	TBC	-	No
	Operation	No significant effects	-	-	Slight (Yr1) to neutral (Yr15)	-	TBC	-	No
Road users near Portway Farm (CQ8 in Fig. 12.2.5)	Constructio n	No significant effects	-	-	Slight	-	TBC	-	No
PRoW near Rose Hill Farm (CQ10 in Fig. 12.2.5)	Constructio n	No significant effects	-	-	No significant effect	-	TBC	-	No
	Operation	No significant effects	-	-	Slight (Yr1) to neutral (Yr15)	-	TBC	-	No
PRoW (s. Steeple Claydon) (CQ11 in Fig. 12.2.5)	Constructio n	No significant effects	-	-	No significant effects	-	TBC	-	No
	Operation	No significant effects	-	-	Neutral (Yr1-Yr15)	-	TBC	-	No
Claydon Park (CQ18 in Fig.	Constructio n	No significant effects	-	-	Neutral	-	TBC	-	No

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Receptor	Phase	Air Quality	Noise and Vibration	Geology and Soils	Landscap e and Visual	Water	Traffic and Transpo rt	Agricultur e and Land Use	Significant accumulatio n of effects?
12.2.5)		nt effects							
	Operation	No significant effects	-	-	Neutral (Yr1-Yr15)	-	TBC	-	No
Claydon Road (CQ23 in Fig. 12.2.5)	Constructio n	No significant effects	-	-	No significant effects	-	TBC	-	No
	Operation	No significant effects	-	-	Neutral (Yr1-Yr15)	-	TBC	-	No
PRoW adjacent to Calvert Cottages (CQ24 in Fig. 12.2.5)	Constructio n	No significant effects	-	-	No significant effects	-	TBC	-	No
	Operation	No significant effects	-	-	Neutral (Yr1-Yr15)	-	TBC	-	No
PRoW near railway (CQ27 in Fig. 12.2.5)	Constructio n	No significant effects	-	-	No significant effects	-	TBC	-	No
	Operation	No significant effects	-	-	Neutral (Yr1-Yr15)	-	TBC	-	No
PRoW near Oak Tree Farm (CQ28 in Fig. 12.2.5)	Constructio n	No significant effects	-	-	No significant effects	-	TBC	-	No
	Operation	No significant effects	-	-	Neutral (Yr1-Yr15)	-	TBC	-	No
PRoW near Diddershall	Constructio n	No significant effects	-	-	No significant effects	-	TBC	-	No

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Receptor	Phase	Air Quality	Noise and Vibration	Geology and Soils	Landscap e and Visual	Water	Traffic and Transpo rt	Agricultur e and Land Use	Significant accumulatio n of effects?
House (CQ30 in Fig. 12.2.5)		nt effects			effects				
	Operation	No significant effects	-	-	Neutral (Yr1-Yr15)	-	TBC	-	No
Railway Centre Overspill Car Park (CQ32 in Fig. 12.2.5)	Constructio n	No significant effects	-	-	No significant effects	-	TBC	-	No
	Operation	No significant effects	-	-	No significant effects	-	TBC	-	No
PRoW near St Mary the Virgin Church (CQ35 in Fig. 12.2.5)	Constructio n	No significant effects	-	-	Slight	-	TBC	-	No
	Operation	No significant effects	-	-	Neutral (Yr1-Yr15)	-	TBC	-	No
Addison Road (near Rose Hill Farm) (CQ36 in Fig. 12.2.5)	Constructio n	No significant effects	-	-	To be determined on completion of study	-	TBC	-	No
	Operation	No significant effects	-	-	To be determined on completion of study	-	TBC	-	No
PRoW north of Calvert Junction (CQ37 in Fig. 12.2.5)	Constructio n	No significant effects	-	-	No significant effects	-	TBC	-	No
	Operation	No	-	-	To be	-	TBC	-	No

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Receptor	Phase	Air Quality	Noise and Vibration	Geology and Soils	Landscape and Visual	Water	Traffic and Transport	Agriculture and Land Use	Significant accumulation of effects?
		significant effects			determined on completion of study				
The Lodge (E15 in Fig. TBC)	Construction	No significant effects	No significant effects	Minor	Not assessed	No significant effects	TBC	-	No
	Operation	No significant effects	Major	Minor beneficial	Not assessed	No significant effects	TBC	-	No
Red Kites View (E13 in Fig. TBC)	Construction	No significant effects	No significant effects	Minor	Not assessed	No significant effects	TBC	-	No
	Operation	No significant effects	Minor	Minor beneficial	Not assessed	No significant effects	TBC	-	No
Sandhill Road, including Ashmore Farm House (B05 in Fig. TBC)	Construction	No significant effects	No significant effects	Minor	Not assessed	No significant effects	TBC	-	No
	Operation	No significant effects	Moderate	Minor beneficial	Not assessed	No significant effects	TBC	-	No

Table 1.3 - Human Intra-Project Effects in WS-AVDC Sub-Section

Receptor	Phase	Air Quality	Noise and Vibration	Geology and Soils	Landscape and Visual	Water	Traffic and Transport	Agriculture and Land Use	Significant accumulation of effects?
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Receptor	Phase	Air Quality	Noise and Vibration	Geology and Soils	Landscape and Visual	Water	Traffic and Transport	Agriculture and Land Use	Significant accumulation of effects?
Buckingham Road properties	Construction	No significant effects	No significant effects	Minor	Not assessed	No significant effects	TBC	Moderate	No
	Operation	No significant effects	-	Minor beneficial	Not assessed	No significant effects	TBC	Some amenity effects	No
Highfield Road properties	Construction	No significant effects	No significant effects	Minor	Not assessed	No significant effects	TBC	Moderate	No
	Operation	No significant effects	Not assessed	Minor beneficial	Not assessed	No significant effects	TBC	Moderate	No
Mill close properties	Construction	No significant effects	No significant effects	Minor	Not assessed	No significant effects	TBC	Moderate	No
	Operation	No significant effects	Not assessed	Minor beneficial	Not assessed	No significant effects	TBC	Some amenity effects	No
Courthouse Close properties	Construction	No significant effects	No significant effects	Minor	Not assessed	No significant effects	TBC	Moderate	No
	Operation	No significant effects	Not assessed	Minor beneficial	Not assessed	No significant effects	TBC	Some amenity effects	No
Old Station Close properties	Construction	No significant effects	No significant effects	Minor	Not assessed	No significant effects	TBC	Moderate	No
	Operation	No significant effects	Not assessed	Minor beneficial	Not assessed	No significant effects	TBC	Some amenity effects	No

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Receptor	Phase	Air Quality	Noise and Vibration	Geology and Soils	Landscape and Visual	Water	Traffic and Transport	Agriculture and Land Use	Significant accumulation of effects?
White House, Winslow (WS4 in Fig. 12.3.5)	Construction	No significant effects	No significant effects	Minor	Moderate	No significant effects	TBC	Not assessed	No
	Operation	No significant effects	Not assessed	Minor beneficial	Moderate (Yr1) to slight (Yr15)	No significant effects	TBC	Some amenity effects	No
106 Blechley Road, Winslow	Construction	No significant effects	No significant effects	Minor	Not assessed	No significant effects	TBC	Not assessed	No
	Operation	No significant effects	Not assessed	Minor beneficial	Not assessed	No significant effects	TBC	Some amenity effects	No
Station House, Station Road (WS9 in Fig. 12.3.5)	Construction	No significant effects	Not assessed	Minor	Large	No significant effects	TBC	-	No
	Operation	No significant effects	No significant effects	Minor Beneficial	Moderate (Yr1-15)	No significant effects	TBC	Not assessed	No
Construction Workers	Construction	No significant effects	No significant effects	Moderate	Not assessed	-	TBC	-	No
PRoW (No.4)	Construction	No significant effects	-	-	Moderate	-	TBC	-	No
	Operation	No significant effects	-	-	No significant effects	-	TBC	-	No
Lakers (WS1 in Fig. 12.3.5)	Construction	No significant effects	No significant effects	Minor	Moderate	No significant effects	TBC	-	No

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Receptor	Phase	Air Quality	Noise and Vibration	Geology and Soils	Landscape and Visual	Water	Traffic and Transport	Agriculture and Land Use	Significant accumulation of effects?
	Operation	No significant effects	Not assessed	Minor beneficial	Moderate (Yr1-15)	No significant effects	TBC	-	No
PRoW near Furze Lane (WS1 in Fig. 12.3.5)	Construction	No significant effects	No significant effects	-	Moderate	-	TBC	-	No
	Operation	No significant effects	-	-	Moderate (Yr1-15)	-	TBC	-	No
PRoW near Magpie Way (WS3 in Fig. 12.3.5)	Construction	No significant effects	No significant effects	-	Large	-	TBC	-	No
	Operation	No significant effects	-	-	Moderate (Yr1) to slight (Yr15)	-	TBC	-	No
Properties near Magpie Way (WS3 in Fig. 12.3.5)	Construction	No significant effects	No significant effects	Minor	Moderate	No significant effects	TBC	-	No
	Operation	No significant effects	Not assessed	Minor beneficial	Slight (Yr1-15)	No significant effects	TBC	-	No
PRoW near Moco Farm (WS6 in Fig. 12.3.5)	Construction	No significant effects	No significant effects	-	Large/moderate	-	TBC	-	No
	Operation	No significant effects	-	-	Large/moderate (Yr1) to moderate (Yr15)	-	TBC	-	No
Midshires Way /	Construction	No significant effects	No significant effects	-	Large	No significant effects	TBC	-	No

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Appendix 15.1: Intra-project Cumulative Effects on Humans

Receptor	Phase	Air Quality	Noise and Vibration	Geology and Soils	Landscape and Visual	Water	Traffic and Transport	Agriculture and Land Use	Significant accumulation of effects?
Swan's Way (WS7 in Fig. 12.3.5)	Operation	No significant effects	-	Minor Beneficial	Moderate (Yr1) to slight (Yr15)	No significant effects	TBC	-	No
	Construction	No significant effects	No significant effects	-	Moderate	-	TBC	-	No
Horwood House Grounds PRow (WS8 in Fig. 12.3.5)	Operation	No significant effects	-	-	Moderate (Yr1) to slight (Yr15)	-	TBC	-	No
	Construction	No significant effects	No significant effects	-	Large	-	TBC	-	No
PRow near Station House (WS9 in Fig. 12.3.5)	Operation	No significant effects	-	-	Moderate (Yr1-Yr15)	-	TBC	-	No
	Construction	No significant effects	No significant effects	-	Large/moderate	-	TBC	-	No
PRow – Midshires Way / Swan's Way Level Crossing (WS10 in Fig. 12.3.5)	Operation	No significant effects	-	-	Large/moderate (Yr1) to moderate (Yr15)	-	TBC	-	No
	Construction	No significant effects	No significant effects	-	Moderate	-	TBC	-	No
Salden Crabtree farm Access (WS11 in Fig. 12.3.5)	Operation	No significant effects	-	-	Slight (Yr1) to neutral (Yr15)	-	TBC	-	No
	Construction	No significant effects	No significant effects	-	Moderate	-	TBC	-	No

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Appendix 15.1: Intra-project Cumulative Effects on Humans

Receptor	Phase	Air Quality	Noise and Vibration	Geology and Soils	Landscape and Visual	Water	Traffic and Transport	Agriculture and Land Use	Significant accumulation of effects?
The Weasels (WS13 in Fig. 12.3.5)	Construction	No significant effects	No significant effects	Minor	Large/moderate	No significant effects	TBC	-	No
	Operation	No significant effects	Not assessed	Minor beneficial	Large/moderate (Yr1) to moderate (Yr15)	No significant effects	TBC	-	No
Bridlepath near the Weasels (WS13 in Fig. 12.3.5)	Construction	No significant effects	No significant effects	-	Large/moderate	-	TBC	-	No
	Operation	No significant effects	-	-	Large/moderate (Yr1) to moderate (Yr15)	-	TBC	-	No
Manor farm (WS14 in Fig. 12.3.5)	Construction	No significant effects	No significant effects	Minor	Moderate	No significant effects	TBC	-	No
	Operation	No significant effects	Not assessed	Minor beneficial	Moderate (Yr1-15)	No significant effects	TBC	-	No
Grove Lodge (WS15 in Fig. 12.3.5)	Construction	No significant effects	No significant effects	Minor	Large/moderate	No significant effects	TBC	-	No
	Operation	No significant effects	Not assessed	Minor beneficial	Large/moderate (Yr1) to moderate (Yr15)	No significant effects	TBC	-	No
Swans Way (WS16 in Fig. 12.3.5)	Construction	No significant effects	No significant effects	Minor	Large	No significant effects	TBC	-	No

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Appendix 15.1: Intra-project Cumulative Effects on Humans

Receptor	Phase	Air Quality	Noise and Vibration	Geology and Soils	Landscape and Visual	Water	Traffic and Transport	Agriculture and Land Use	Significant accumulation of effects?
Fig. 12.3.5)	Operation	No significant effects	Not assessed	Minor beneficial	Moderate (Yr1-15)	No significant effects	TBC	-	No
PRoW near Furze Cottage (WS17 in Fig. 12.3.5)	Construction	No significant effects	No significant effects	-	Moderate	-	TBC	-	No
	Operation	No significant effects	-	-	Slight (Yr1-Yr15)	-	TBC	-	No
Brickyard Farm Access Road (WS2 in Fig. 12.3.5)	Construction	No significant effects	No significant effects	-	Slight	-	TBC	-	No
	Operation	No significant effects	-	-	Neutral (Yr1-15)	-	TBC	-	No
The Hollows (WS5 in Fig. 12.3.5)	Construction	No significant effects	No significant effects	Minor	Slight	No significant effects	TBC	-	No
	Operation	No significant effects	Not assessed	Minor beneficial	Slight (Yr1-Yr15)	No significant effects	TBC	-	No
Farm East of Waddon Road (WS12 in Fig. 12.3.5)	Construction	No significant effects	No significant effects	Minor	Neutral	No significant effects	TBC	-	No
	Operation	No significant effects	Not assessed	Minor beneficial	Neutral (Yr1-Yr15)	No significant effects	TBC	-	No
Winslow Community Centre	Construction	No significant effects	-	-	Not assessed	-	TBC	Negligible	No

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Appendix 15.1: Intra-project Cumulative Effects on Humans

Receptor	Phase	Air Quality	Noise and Vibration	Geology and Soils	Landscape and Visual	Water	Traffic and Transport	Agriculture and Land Use	Significant accumulation of effects?
Furze Lane Burial Ground	Construction	No significant effects	-	-	Not assessed	-	TBC	Moderate	No
Jubilee Cottages, Furze Lane Cottage (B07 in Fig. TBC)	Construction	No significant effects	No significant effects	Minor	Not assessed	No significant effects	TBC	-	No
	Operation	No significant effects	Major	Minor beneficial	Not assessed	No significant effects	TBC	-	No
Comersford Way and McLernen Way (B08 in Fig. TBC)	Construction	No significant effects	No significant effects	Minor	Not assessed	No significant effects	TBC	-	No
	Operation	No significant effects	Major	Minor beneficial	Not assessed	No significant effects	TBC	-	No
Newton Road (B09 in Fig. TBC)	Construction	No significant effects	No significant effects	Minor	Not assessed	No significant effects	TBC	-	No
	Operation	No significant effects	Minor (Yr1) to moderate (Yr15)	Minor beneficial	Not assessed	No significant effects	TBC	-	No

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Appendix 15.1: Intra-project Cumulative Effects on Humans

Table 1.4 – Human Intra-Project Effects in A-AVDC Sub-Section

Receptor	Phase	Air Quality	Noise and Vibration	Geology and Soils	Landscap e and Visual	Water	Traffic and Transport	Agricultur e and Land Use	Significant accumulation of effects?
Catherine's Court, St Edmunds Close Aylesbury	Construction	No significant effects	No significant effects	Minor	-	No significant effects	TBC	Moderate	No
	Operation	No significant effects	Moderate	Minor beneficial	-	No significant effects	TBC	Not assessed	No
St Hilda's Court	Construction	No significant effects	No significant effects	Minor	-	No significant effects	TBC	Moderate	No
	Operation	No significant effects	Moderate	Minor beneficial	-	No significant effects	TBC	Not assessed	No
Rear of flats, Wycliffe End, Aylesbury	Construction	No significant effects	No significant effects	Minor	-	No significant effects	TBC	Moderate	No
	Operation	No significant effects	Not assessed	Minor beneficial	-	No significant effects	TBC	Not assessed	No
Construction workers	Construction	No significant effects	No significant effects	Minor	-	-	TBC	-	No
PRoW MCJ2/164 BR. 164	Construction	No significant effects	-	-	Neutral	-	TBC	-	No
	Operation	No significant effects	-	-	Neutral (Yr1-Yr15)	-	TBC	-	No
Paradise Orchard (A1)	Construction	No significant	No significant	Minor	Moderate	No significant	TBC	-	No

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Appendix 15.1: Intra-project Cumulative Effects on Humans

Receptor	Phase	Air Quality	Noise and Vibration	Geology and Soils	Landscap e and Visual	Water	Traffic and Transport	Agricultur e and Land Use	Significant accumulation of effects?
in Fig. 12.4.6)		t effects	t effects			t effects			
	Operation	No significant effects	Not assessed	Minor beneficial	Slight (Yr1-Yr15)	No significant effects	TBC	-	No
Properties near Akeman Street underbridge (A2 in Fig. 12.4.6)	Construction	No significant effects	No significant effects	Minor	Moderate	No significant effects	TBC	-	No
	Operation	No significant effects	Not assessed	Minor beneficial	Moderate (Yr1) to slight (Yr15)	No significant effects	TBC	-	No
Fleet Marston Farm (A3 in Fig. 12.4.6)	Construction	No significant effects	No significant effects	Minor	Moderate	No significant effects	TBC	-	No
	Operation	No significant effects	Not assessed	Minor beneficial	Slight (Yr1-Yr15)	No significant effects	TBC	-	No
Lower Blackgrove Farm (A5 in Fig. 12.4.6)	Construction	No significant effects	No significant effects	Minor	Moderate	No significant effects	TBC	-	No
	Operation	No significant effects	Moderate	Minor beneficial	Slight (Yr1-Yr15)	No significant effects	TBC	-	No
Cottages adjacent to Lower Blackgrove farm (A5 in Fig. 12.4.6)	Construction	No significant effects	No significant effects	Minor	Moderate	No significant effects	TBC	-	No
	Operation	No significant effects	Moderate	Minor beneficial	Slight (Yr1-Yr15)	No significant effects	TBC	-	No
PRoW near	Construction	No	-	-	Moderate	-	TBC	-	No

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Appendix 15.1: Intra-project Cumulative Effects on Humans

Receptor	Phase	Air Quality	Noise and Vibration	Geology and Soils	Landscap e and Visual	Water	Traffic and Transpor t	Agricultur e and Land Use	Significant accumulatio n of effects?
Lower Blackgrove Farm (A5 in Fig. 12.4.6)	n	significan t effects							
	Operation	No significan t effects	-	-	Slight (Yr1- Yr15)	-	TBC	-	No
Valour Drive Residential Properties (A7 in Fig. 12.4.6)	Constructio n	No significan t effects	No significan t effects	Minor	Moderate	No significan t effects	TBC	-	No
	Operation	No significan t effects	Not assesse d	Minor benefici al	Slight (Yr1) to neutral (Yr15)	No significan t effects	TBC	-	No
Middle Blackgrove Farm (A4 in Fig. 12.4.6)	Constructio n	No significan t effects	No significan t effects	Minor	Neutral	No significan t effects	TBC	-	No
	Operation	No significan t effects	Not assesse d	Minor benefici al	Neutral (Yr1- Yr15)	No significan t effects	TBC	-	No
PRoW edge of Waddesdon Pastoral Land (A11 in Fig. 12.4.6)	Constructio n	No significan t effects	No significan t effects	-	Neutral	-	TBC	-	No
	Operation	No significan t effects	-	-	Neutral (Yr1- Yr15)	-	TBC	-	No
Bear Brook greenspace and PRoW, Griffin Lane	Constructio n	No significan t effects	No significan t effects	-	Not assessed	-	TBC	Moderate	No
	Operation	No significan t effects	-	-	Not assessed	-	TBC	Not assessed	No

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Appendix 15.1: Intra-project Cumulative Effects on Humans

Receptor	Phase	Air Quality	Noise and Vibration	Geology and Soils	Landscap e and Visual	Water	Traffic and Transpor t	Agricultur e and Land Use	Significant accumulatio n of effects?
Hemmingwa y Road (A8 in Fig. 12.4.6)	Constructio n	No significant effects	-	-	Slight	-	TBC	-	No
	Operation	No significant effects	-	-	Slight (Yr1-Yr15)	-	TBC	-	No
St Anne’s Road (A9 in Fig. 12.4.6)	Constructio n	No significant effects	-	-	Slight	-	TBC	-	No
	Operation	No significant effects	-	-	Slight (Yr1-Yr15)	-	TBC	-	No
Aylesbury Station (A10 in Fig. 12.4.6)	Constructio n	No significant effects	-	-	Slight	-	TBC	-	No
	Operation	No significant effects	-	-	Neutral (Yr1-Yr15)	-	TBC	-	No
York Place (E20 in Fig. TBC)	Constructio n	No significant effects	-	Minor	-	-	TBC	-	No
	Operation	No significant effects	Major	Minor beneficial	-	-	TBC	-	No

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Appendix 15.1: Intra-project Cumulative Effects on Humans

Table 1.5 - Human Intra-Project Effects in MKC Sub-Section

Receptor	Phase	Air Quality	Noise and Vibration	Geology and Soils	Landscape and Visual	Water	Traffic and Transport	Agriculture and Land Use	Significant accumulation of effects?
Construction workers	Construction	No significant effects	No significant effects	Moderate	-	-	TBC	-	No
Fisherman's Path (PRoW)	Construction	No significant effects	No significant effects	-	Moderate	-	TBC	-	No
	Operation	No significant effects	-	-	No significant effects	-	TBC	-	No
Terraced Properties Duncombe Street (MK4 in Fig. 12.6.6)	Construction	No significant effects	No significant effects	Minor	Moderate	No significant effects	TBC	-	No
	Operation	No significant effects	Minor	Neutral	Neutral (Yr1-Yr15)	No significant effects	TBC	-	No
Woodleys Farm (MK8 in Fig. 12.6.6)	Construction	No significant effects	No significant effects	Minor	Large	No significant effects	TBC	-	No
	Operation	No significant effects	Not assessed	Neutral	Moderate (Yr1) to slight (Yr15)	No significant effects	TBC	-	No
Residential properties near Woburn Sands Level Crossing (MK9 in Fig. 12.6.6)	Construction	No significant effects	No significant effects	Minor	Moderate	No significant effects	TBC	-	No
	Operation	No significant effects	Not assessed	Neutral	Moderate (Yr1-Yr15)	No significant effects	TBC	-	No

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Appendix 15.1: Intra-project Cumulative Effects on Humans

Receptor	Phase	Air Quality	Noise and Vibration	Geology and Soils	Landscape and Visual	Water	Traffic and Transport	Agriculture and Land Use	Significant accumulation of effects?
Fig. 12.6.6)									
Woburn Sands Level Crossing (MK9 in Fig. 12.6.6)	Construction	No significant effects	No significant effects	-	Moderate	-	TBC	-	No
	Operation	No significant effects	-	-	Moderate (Yr1-Yr15)	-	TBC	-	No
Residential Properties Cranfield Road (MK10 in Fig. 12.6.6)	Construction	No significant effects	No significant effects	Minor	Large/moderate	No significant effects	TBC	-	No
	Operation	No significant effects	Not assessed	Neutral	Large/moderate (Yr1-Yr15)	No significant effects	TBC	-	No
Bettina Grove (MK3 in Fig. 12.6.6)	Construction	No significant effects	No significant effects	Minor	Neutral	No significant effects	TBC	-	No
	Operation	No significant effects	Not assessed	Neutral	Neutral (Yr1-Yr15)	No significant effects	TBC	-	No
Beethoven Close (MK7 in Fig. 12.6.6)	Construction	No significant effects	No significant effects	Minor	Moderate	No significant effects	TBC	-	No
	Operation	No significant effects	Not assessed	Neutral	Slight (Yr1-Yr15)	No significant effects	TBC	-	No
PRoW south of Wavendon (MK12 in Fig. 12.6.6)	Construction	No significant effects	-	-	Slight	-	TBC	-	No
	Operation	No significant effects	-	-	Slight (Yr1-Yr15)	-	TBC	-	No

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Appendix 15.1: Intra-project Cumulative Effects on Humans

Receptor	Phase	Air Quality	Noise and Vibration	Geology and Soils	Landscape and Visual	Water	Traffic and Transport	Agriculture and Land Use	Significant accumulation of effects?
		nt effects							
Drayhorse Crescent (MK14 in Fig. 12.6.6)	Construction	No significant effects	Minor	Minor	Slight	No significant effects	TBC	-	No
	Operation	No significant effects	Neutral	Neutral	Neutral (Yr1-Yr15)	No significant effects	TBC	-	No
Green space south of Blaydon Close	Construction	No significant effects	-		Not assessed		TBC	Negligible	No
	Operation	No significant effects	-		Not assessed		TBC	Negligible	No
Swallowfield Lower School Playing fields	Construction	No significant effects	-		Large/moderate		TBC	Negligible	No
	Operation	No significant effects	-	-	Moderate (Yr1-Yr15)	-	TBC	-	No
Bletchley allotment gardens	Construction	No significant effects	-	-	Not assessed	-	TBC	Moderate	No
	Operation	No significant effects	-	-	Not assessed	-	TBC	Negligible	No
Selbourne Avenue Cemetery	Construction	No significant effects	-	-	Not assessed	-	TBC	Moderate	No
	Operation	No significant effects	-	-	Not assessed	-	TBC	Not assessed	No

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Appendix 15.1: Intra-project Cumulative Effects on Humans

Receptor	Phase	Air Quality	Noise and Vibration	Geology and Soils	Landscape and Visual	Water	Traffic and Transport	Agriculture and Land Use	Significant accumulation of effects?
		nt effects							
Bletchley Road (MK1 in Fig. 12.6.6)	Construction	No significant effects	-	-	Moderate	-	TBC	-	No
	Operation	No significant effects	-	-	Slight (Yr1-Yr15)	-	TBC	-	No
Blue Lagoon Park (MK2 in Fig. 12.6.6)	Construction	No significant effects	-	-	Slight	-	TBC	-	No
	Operation	No significant effects	-	-	Slight (Yr1-Yr15)	-	TBC	-	No
Blue Lagoon Park (MK5 in Fig. 12.6.6)	Construction	No significant effects	-	-	Moderate	-	TBC	-	No
	Operation	No significant effects	-	-	Moderate (Yr1-Yr15)	-	TBC	-	No
Summerlin Community Centre (MK9 in Fig. 12.6.6)	Construction	No significant effects	-	-	Moderate	-	TBC	-	No
	Operation	No significant effects	-	-	Moderate (Yr1-Yr15)	-	TBC	-	No
Bletchley Park (MK6 in Fig. 12.6.6)	Construction	No significant effects	-	-	Slight	-	TBC	-	No
	Operation	No significant effects	-	-	Neutral (Yr1-Yr15)	-	TBC	-	No

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Appendix 15.1: Intra-project Cumulative Effects on Humans

Receptor	Phase	Air Quality	Noise and Vibration	Geology and Soils	Landscape and Visual	Water	Traffic and Transport	Agriculture and Land Use	Significant accumulation of effects?
		nt effects							
Caldecotte Lake Park (MK13 in Fig. 12.6.6)	Construction	No significant effects	-	-	Slight	-	TBC	-	No
	Operation	No significant effects	-	-	Neutral (Yr1-Yr15)	-	TBC	-	No
Newton Road (B09 in Fig. TBC)	Construction	No significant effects	-	Minor	-	-	TBC	-	No
	Operation	No significant effects	Minor (Yr1) to moderate (Yr15)	Neutral	-	-	TBC	-	No
Milton Grove (C10 in Fig. TBC)	Construction	No significant effects	-	Minor	-	-	TBC	-	No
	Operation	No significant effects	Moderate	Neutral	-	-	TBC	-	No
Barons Close (C32 in Fig. TBC)	Construction	No significant effects	-	Minor	-	-	TBC	-	No
	Operation	No significant effects	Minor	Neutral	-	-	TBC	-	No

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Appendix 15.1: Intra-project Cumulative Effects on Humans

Table 1.6 - Human Intra-Project Effects in CBC Sub-Section

Receptor	Phase	Air Quality	Noise and Vibration	Geology and Soils	Landscap e and Visual	Water	Traffic and Transport	Agricultur e and Land Use	Significant accumulatio n of effects?
Constructio n workers	Constructio n	No significant effects	No significant effects	Moderate	-	No significant effects	TBC	-	No
Crossing Cottage	Constructio n	No significant effects	No significant effects	Minor	Not assessed	No significant effects	TBC	Not assessed	No
	Operation	No significant effects	-	Minor beneficial	Not assessed	No significant effects	TBC	Not assessed	No
Chuffa Cottage, Marston Road	Constructio n	No significant effects	No significant effects	Minor	Not assessed	No significant effects	TBC	Major	No
	Operation	No significant effects	Not assessed	Minor beneficial	Not assessed	No significant effects	TBC	Not assessed	No
Building adjacent to Chuffa Cottage	Constructio n	No significant effects	No significant effects	Minor	Not assessed	No significant effects	TBC	Major	No
	Operation	No significant effects	Not assessed	Minor beneficial	Not assessed	No significant effects	TBC	Not assessed	No
Unspecified properties to the north of the	Constructio n	No significant effects	No significant effects	Minor	Not assessed	No significant effects	TBC	Moderate	No
	Operation	No	Not	Minor	Not	No	TBC	Not	No

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Appendix 15.1: Intra-project Cumulative Effects on Humans

Receptor	Phase	Air Quality	Noise and Vibration	Geology and Soils	Landscap e and Visual	Water	Traffic and Transport	Agriculture and Land Use	Significant accumulation of effects?
works		significant effects	Assessed	beneficial	assessed	significant effects		assessed	
Berry Lane PRoW (CB1 in Fig. 12.7.5)	Construction	No significant effects	No significant effects	-	Moderate	-	TBC	-	No
	Operation	No significant effects	-	-	Neutral (Yr1-15)	-	TBC	-	No
PRoW (unnamed) (CB2 in Fig. 12.7.5)	Construction	No significant effects	No significant effects	-	Slight	-	TBC	-	No
	Operation	No significant effects	-	-	Neutral (Yr1-15)	-	TBC	-	No
John Bunyan Trail (CB3 in Fig. 12.7.5)	Construction	No significant effects	No significant effects	-	Neutral	-	TBC	-	No
	Operation	No significant effects	-	-	Neutral (Yr1-15)	-	TBC	-	No
PRoW in Folly Wood (CB4 in Fig. 12.7.5)	Construction	No significant effects	No significant effects	-	Moderate	-	TBC	-	No
	Operation	No significant effects	-	-	Neutral (Yr1-15)	-	TBC	-	No
Marston Vale Trail at Thrup End Scheduled	Construction	No significant effects	No significant effects	-	Large	-	TBC	-	No
	Operation	No	-	-	Large	-	TBC	-	No

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Appendix 15.1: Intra-project Cumulative Effects on Humans

Receptor	Phase	Air Quality	Noise and Vibration	Geology and Soils	Landscap e and Visual	Water	Traffic and Transport	Agricultur e and Land Use	Significant accumulatio n of effects?
Monument (CB5 in Fig. 12.7.5)		significan t effects			(Yr1) to moderate (Yr15)				
Marston Vale Millenium Country Park	Constructio n	No significant effects	-	-	-	-	TBC	Negligible	No
	Operation	No significant effects	-	-	-	-	TBC	Negligible	No
Playground at Riglen Close (CB6 in Fig. 12.7.5)	Constructio n	No significant effects	-	-	Very large	-	TBC	-	No
	Operation	No significant effects	-	-	Large (Yr1) to moderate (Yr15)	-	TBC	-	No

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Appendix 15.1: Intra-project Cumulative Effects on Humans

Table 1.7 - Human Intra-Project Effects in BBC Sub-Section

Receptor	Phase	Air Quality	Noise and Vibration	Geology and Soils	Landscap e and Visual	Water	Traffic and Transport	Agricultur e and Land Use	Significant accumulatio n of effects?
South View, near Kempston Hardwick Lxing (to be demolished)	Constructio n	No significant effects	No significant effects	Minor	-	No significant effects	TBC	Major	No
Eastwood Cottages	Constructio n	No significant effects	No significant effects	Minor	Very large	No significant effects	TBC	Major	No
Eastwood Cottages and adjacent additional Cottages	Operation	No significant effects	Not assessed	-	Large (Yr1) to slight (Yr15)	No significant effects	TBC	Major	No
Constructio n workers	Constructio n	No significant effects	No significant effects	Moderate	-	No significant effects	TBC	-	No
Kempster Close (B1 in Fig. 12.8.6)	Constructio n	No significant effects	No significant effects	Minor	Slight	No significant effects	TBC	-	No
	Operation	No significant effects	Not assessed	Neutral	Neutral (Yr1-Yr15)	No significant effects	TBC	-	No
PRoW near Interchange Retail Park (B2 in Fig. 12.8.6)	Constructio n	No significant effects	No significant effects	-	Moderate	-	TBC	-	No
	Operation	No significant effects	-	-	Slight (Yr1-	-	TBC	-	No

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Appendix 15.1: Intra-project Cumulative Effects on Humans

Receptor	Phase	Air Quality	Noise and Vibration	Geology and Soils	Landscap e and Visual	Water	Traffic and Transpor t	Agricultur e and Land Use	Significant accumulatio n of effects?
		t effects			Yr15)				
Housing Developme nt Fields Road (B4 in Fig. 12.8.6)	Constructio n	No significant effects	No significant effects	Minor	Neutral	No significant effects	TBC	-	No
	Operation	No significant effects	-	Neutral	Neutral (Yr1-Yr15)	No significant effects	TBC	-	No
Footpath next to Eastwood Cottages (B6 in Fig. 12.8.6)	Constructio n	No significant effects	No significant effects	-	Very large	-	TBC	-	No
	Operation	No significant effects	Not assessed	-	Large (Yr1) to slight (Yr15)	-	TBC	-	No
Residential Properties on Bedford Road (B3 in Fig. 12.8.6)	Constructio n	No significant effects	No significant effects	Minor	Neutral	No significant effects	TBC	-	No
	Operation	No significant effects	Not assessed	Adverse	Neutral (Yr1-Yr15)	No significant effects	TBC	-	No
Footpath and green space north of Manor Road at Kempston Hardwick Lxing	Constructio n	No significant effects	-	-	-	-	TBC	Negligible	No
	Operation	No significant effects	-	-	-	-	TBC	Negligible	No
Footpath and green	Constructio n	No significant	-	-	-	-	TBC	Negligible	No

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Appendix 15.1: Intra-project Cumulative Effects on Humans

Receptor	Phase	Air Quality	Noise and Vibration	Geology and Soils	Landscap e and Visual	Water	Traffic and Transpor t	Agricultur e and Land Use	Significant accumulatio n of effects?
space near Woburn Road Lxing		t effects							

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Appendix 15.1: Intra-project Cumulative Effects on Humans

Table 1.8 - Human Intra-Project Effects in WDC Sub-Section

Receptor	Phase	Air Quality	Noise and Vibration	Geology and Soils	Landscap e and Visual	Water	Traffic and Transport	Agricultur e and Land Use	Significant accumulatio n of effects?
Willows Caravan Park	Constructio n	No significant effects	No significant effects	Minor	-	No significant effects	TBC	Moderate	No
	Operation	No significant effects	-	Neutral	-	No significant effects	TBC	-	No
Springfield farm, Marsh Lane	Constructio n	No significant effects	No significant effects	Minor	-	No significant effects	TBC	Moderate	No
	Operation	No significant effects	-	Neutral	-	No significant effects	TBC	Moderate	No
Oak Tree Park, Marsh Lane	Constructio n	No significant effects	No significant effects	Minor	-	No significant effects	TBC	Moderate	No
	Operation	No significant effects	-	Neutral	-	No significant effects	TBC	Moderate	No
Constructio n workers	Constructio n	No significant effects	No significant effects	Moderate	-	No significant effects	TBC	-	No
PRoW, Marsh Lane (W1 in Fig. 12.5.5)	Constructio n	No significant effects	No significant effects	-	Large	-	TBC	-	No
	Operation	No significant effects	-	-	Large (Yr1) to slight (Yr15)	-	TBC	-	No
PRoW near	Constructio n	No	No	-	Large	-	TBC	-	No

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Appendix 15.1: Intra-project Cumulative Effects on Humans

Receptor	Phase	Air Quality	Noise and Vibration	Geology and Soils	Landscap e and Visual	Water	Traffic and Transport	Agriculture and Land Use	Significant accumulation of effects?
Aspley manor Farm (W2 in Fig. 12.5.5)	n	significant effects	significant effects						
	Operation	No significant effects	-	-	Moderate (Yr1) to slight (Yr15)	-	TBC	-	No
PRoW near Aspley Cottages (W3 in Fig. 12.5.5)	Construction	No significant effects	No significant effects	-	Moderate	-	TBC	-	No
	Operation	No significant effects	-	-	Moderate (Yr1) to slight (Yr15)	-	TBC	-	No
Whiteleaf Hill PRoW (W6 in Fig. 12.5.5)	Construction	No significant effects	No significant effects	-	Neutral	-	TBC	-	No
	Operation	No significant effects	-	-	Neutral (Yr1-Yr15)	-	TBC	-	No
Princes Risborough Station (W5 in Fig. 12.5.5)	Construction	No significant effects	-	-	Slight	-	TBC	-	No
	Operation	No significant effects	-	-	Neutral (Yr1-15)	-	TBC	-	No