

Lower Thames Crossing

6.3 Environmental Statement Appendices

Appendix 11.4 – Material Assets Assessment Supporting Data

APFP Regulation 5(2)(a)

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Appendix 11.4 – Material Assets Assessment Supporting Data

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1 Appendix 11.4 – Material Assets Assessment Supporting Data

1.1 Estimated material quantities

Table 1.1 Estimated key material quantities – construction phase

Activity	Material assets required	Roads South		Tunnels		Roads North		Additional management information
		Estimated tonnes	Estimated m ³	Estimated tonnes	Estimated m ³	Estimated tonnes	Estimated m ³	
Site clearance/ utility connections/ enabling works	Primary aggregate for utility trenching	373	207	18,249	10,138	108,783	60,435	Imported from offsite
	Recycled aggregate for utility trenching	167	93	8,199	4,555	48,873	27,152	Imported from offsite and supplemented by concrete from demolition to meet 31% target (where design permits) [MW001]
	Primary aggregates for compounds and haul roads	144,675	80,375	103,977	57,765	450,171	250,095	Imported from offsite
	Recycled aggregates for compounds and haul roads	64,999	36,111	46,714	25,952	202,251	112,362	Imported from offsite and supplemented by concrete from demolition to meet 31% target (where design permits) [MW001]

Activity	Material assets required	Roads South		Tunnels		Roads North		Additional management information
		Estimated tonnes	Estimated m ³	Estimated tonnes	Estimated m ³	Estimated tonnes	Estimated m ³	
	Asphalt for compounds and haul roads	829	460	18,994	10,552	45,515	25,286	Imported from offsite
	Aluminium (power cable and transmission towers)	180	67	35	13	66	24	Imported from offsite
	Steel	17,788	2,252	16,982	2,150	11,602	1,469	Imported from offsite
	Concrete for compounds and haul roads	700	292	33,979	14,158	41,583	17,326	Imported from offsite
	Concrete for utilities	1,348	562	991	413	99,129	41,304	Imported from offsite
	Plastic compounds and haul roads	449	499	209	232	1,191	1,323	Imported from offsite
	Copper (power cable installed)	62	7	85	10	31	3	Imported from offsite
	Rubber			548	365			Imported from offsite
	Plastic (utility pipework)	2,001	2,223	149	166	731	812	Imported from offsite

Activity	Material assets required	Roads South		Tunnels		Roads North		Additional management information
		Estimated tonnes	Estimated m ³	Estimated tonnes	Estimated m ³	Estimated tonnes	Estimated m ³	
	Sand			7,133	5,944	2,382	1,985	Imported from offsite
	Cement			49,769	20,737	3,077	1,282	Imported from offsite
	Clay					8	6	Imported from offsite
	Bentonite			16,061	20,238			Imported from offsite
	Admixtures			9,374	31,247			Imported from offsite
Construction	Steel	20,628	2,611	100,246	41,769	64,050	8,108	Imported from offsite
	Timber	317	352	110	46	1,150	1,278	Imported from offsite
	Concrete	236,999	98,749	2,521,579	319,187	466,695	194,456	Imported from offsite as precast products and cast onsite
	Plastic	1,510	1,677	1,719	1,910	13,540	15,044	Imported from offsite
	Primary aggregate (direct use)	137,285	76,270	265,844	147,691	501,637	278,687	Imported from offsite
	Recycled aggregate (direct use)	305,571	169,761	591,717	328,732	594,723	330,402	Imported from offsite and supplemented by concrete from demolition to meet 31% target (where design permits) [MW001]
	Asphalt	201,480	111,933	208,020	115,567	430,513	239,174	Imported from offsite
	Rubber					17	11	Imported from offsite
	Aluminium	85	32	781	391	160	59	Imported from offsite
Copper	1	0			1	0	Imported from offsite	

Activity	Material assets required	Roads South		Tunnels		Roads North		Additional management information
		Estimated tonnes	Estimated m ³	Estimated tonnes	Estimated m ³	Estimated tonnes	Estimated m ³	
	Bitumen	376	376	1,276	1,276	1,045	1,045	Imported from offsite
	Cement			307,723	128,218			Imported from offsite
	Resin	2,804	1,402	1,725	862	7,720	3,860	Imported from offsite
	Gypsum			77	85			Imported from offsite
	Admixtures			199	663			Imported from offsite
	Glass fibre reinforced polymer	964	1,071	251	279	1,709	1,899	Imported from offsite
	Lime			1,241	1,241	1,226	908	Imported from offsite
	Stone					27,057	22,547	Imported from offsite

Notes:

As detailed in the Outline Materials Handling Plan (Application Document 6.3, Appendix 2.2, Annex 3), it has been calculated that 12,500,000m³ of excavated materials sourced onsite within the Order Limits would be generated and would comprises of the following:

11,176,500 m³ of inert excavated material reused within the Order Limits

350,000m³ of non-hazardous excavated material managed offsite for reuse, recycling and/or recovery outside the Order Limits

150,000m³ of non-hazardous excavated material managed offsite and disposed of to landfill outside the Order Limits

660,000m³ of non-hazardous excavated material to be disposed of to landfill within the Order Limits

163,500m³ of hazardous excavated material managed offsite outside the Order Limits

In line with the Design Manual for Roads and Bridges (DMRB) LA 110 Material assets and waste (Highways England 2019), these figures are reported in this Environmental Statement as ‘materials’, rather than waste diversion from landfill, as these are non-waste under Article 2 of the Waste Framework Directive and using the Materials Management Plan in line with the Contaminated Land: Applications in Real Environments -Definition of Waste: Code of Practice (CL:AIRE DOW COP)(2011)

Table 1.2 Estimated key material quantities – operational phase

Material	Tonnage, annual average	Additional management information
Timber	42	Imported from offsite
Concrete	785	Imported from offsite
Steel	88	Imported from offsite
Iron	5	Imported from offsite
Plastic	130	Imported from offsite
Aggregate	446	Imported from offsite
Asphalt	32,221	Imported from offsite
Bitumen	23	Imported from offsite
Aluminium	23	Imported from offsite
TOTAL	33,763	

Note:

Following the requirement to assess the first year of operational activities, an annual average tonnage has been identified by using data collected for maintenance and operational activities completed for the nearby M25.

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