

APPENDIX 10.3 Land Contamination PCSM and Risk Assessment during the Baseline, Construction and Operation of the Proposed Development

Source	Receptor		Pathway	Baseline			Construction with mitigation			Operation (including maintenance) (assuming all mitigation undertaken prior to and during construction)		
				Probability	Consequence	Risk	Probability	Consequence	Risk	Probability	Consequence	Risk
<b>On-site</b> Agricultural land use (fertiliser/chemical usage/fuel spillages)  Agricultural land use (burying of wastes such as asbestos and animal waste)	<b>Human health:</b> On-site	Future user of the site (residential occupants / visitors)	Dermal contact with and / or ingestion of contaminants in soils, soil-derived dusts and water	Receptor not present			Receptor not present			Unlikely	Mild	<b>Very Low</b>
		Farmers working on agricultural land		Unlikely	Mild	<b>Very Low</b>	Receptor not present			Receptor not present		
		Future users of the proposed open space area	Inhalation of soil derived dust, fibres and gas/vapours	Receptor not present			Receptor not present			Unlikely	Minor	<b>Very Low</b>
Made Ground associated with infilling of ponds  <i>Contaminants (Inorganic and organic contaminants including metals, hydrocarbons, PAHs, asbestos, herbicides and pesticides. Potential generation of ground gas including carbon dioxide and methane)</i>	<b>Human health:</b> Off-site	Farmers working on surrounding agricultural land	Dermal contact with and/or ingestion of contaminants in windblown soil-derived dusts and water that may have migrated off site	Unlikely	Minor	<b>Very Low</b>	Unlikely	Minor	<b>Very Low</b>	Unlikely	Minor	<b>Very Low</b>
		Members of the public accessing the surrounding area		Unlikely	Minor	<b>Very Low</b>	Unlikely	Minor	<b>Very Low</b>	Unlikely	Minor	<b>Very Low</b>
		Occupants of nearby residential, commercial properties and visitors	Inhalation of windblown soil derived dust, fibres and gas/vapours which may have migrated off site	Unlikely	Minor	<b>Very Low</b>	Unlikely	Minor	<b>Very Low</b>	Unlikely	Minor	<b>Very Low</b>
	<b>Controlled Waters</b>	Groundwater in Principal Aquifer (Keresley Member)	Leaching / migration of contaminants in soil to groundwater in underlying aquifers.	Low Likelihood	Mild	<b>Low</b>	Low Likelihood	Mild	<b>Low</b>	Unlikely	Mild	<b>Very Low</b>
			Migration of contaminated water through preferential pathways such as underground services, pipes and granular material to groundwater in underlying aquifers.	Low Likelihood	Mild	<b>Low</b>	Low Likelihood	Mild	<b>Low</b>	Unlikely	Mild	<b>Very Low</b>
		On site surface waters: Ponds Drains	Lateral migration of contaminated groundwater with discharge to surface watercourses as base flow	Low Likelihood	Mild	<b>Low</b>	Low Likelihood	Mild	<b>Low</b>	Unlikely	Mild	<b>Very Low</b>
Discharge of contaminants entrained in groundwater and/or surface water run-off followed by overland flow and discharge			Low Likelihood	Mild	<b>Low</b>	Low Likelihood	Mild	<b>Low</b>	Unlikely	Mild	<b>Very Low</b>	
Off-site surface waters:	Lateral migration of contaminated groundwater with discharge to surface watercourses as base flow	Unlikely	Mild	<b>Very Low</b>	Unlikely	Mild	<b>Very Low</b>	Unlikely	Mild	<b>Very Low</b>		

Source	Receptor		Pathway	Baseline			Construction with mitigation			Operation (including maintenance) (assuming all mitigation undertaken prior to and during construction)		
				Probability	Consequence	Risk	Probability	Consequence	Risk	Probability	Consequence	Risk
		Off-site unnamed streams, ponds and drains	Discharge of contaminants entrained in groundwater and/or surface water run-off followed by overland flow and discharge	Unlikely	Mild	<b>Very Low</b>	Unlikely	Mild	<b>Very Low</b>	Unlikely	Mild	<b>Very Low</b>
	<b>Property and services</b>	On-site proposed residential properties	Direct contact of contaminants in soil and/or groundwater with existing and proposed structures and buried services	Receptor not present			Receptor not present			Unlikely	Mild	<b>Very Low</b>
		On-site proposed services	Migration of contaminated groundwater, ground gas and/or vapours along strata and preferential pathways such as service routes or differentially permeable strata.	Receptor not present			Receptor not present			Unlikely	Mild	<b>Very Low</b>
		Existing on-site services	Migration of contaminated waters/dust/fibres and subsequent uptake by crops or ingestion/inhalation/dermal contact by livestock.	Unlikely	Mild	<b>Very Low</b>	Unlikely	Mild	<b>Very Low</b>	Unlikely	Mild	<b>Very Low</b>
		Crops and livestock		Unlikely	Mild	<b>Very Low</b>	Receptor not present			Unlikely	Mild	<b>Very Low</b>
<b>Off-site</b> Agricultural land use (north, west & south) Made Ground associated with adjacent infrastructure and residential development (east) and pockets of infilled land across the area Made Ground and groundwater contamination associated with historic pumping station to the north Former Coventry Colliery and associated activities, railway line (375m south)	<b>Human health: on-site</b>	Future user of the site (residential occupants / visitors)	Dermal contact with and / or ingestion of contaminants in soil-derived dusts and water	Receptor not present			Receptor not present			Unlikely	Mild	<b>Very Low</b>
		Farmers working on agricultural land	Inhalation of soil derived dust, fibres and gas/vapours	Unlikely	Mild	<b>Very Low</b>	Receptor not present			Receptor not present		
		Future users of the proposed open space area		Receptor not present			Receptor not present			Unlikely	Mild	<b>Very Low</b>
	<b>Controlled waters</b>	Groundwater in Principal Aquifer (Keresley Member)	Leaching / migration of contaminants in soil to groundwater in underlying aquifers.	Low Likelihood	Mild	<b>Low</b>	Low Likelihood	Mild	<b>Low</b>	Low Likelihood	Mild	<b>Low</b>
			Migration of contaminated water through preferential pathways such as underground services, pipes and granular material to groundwater in underlying aquifers.	Low Likelihood	Mild	<b>Low</b>	Low Likelihood	Mild	<b>Low</b>	Low Likelihood	Mild	<b>Low</b>
		On-site surface waters: Ponds	Lateral migration of contaminated groundwater with discharge to surface watercourses as base flow	Unlikely	Mild	<b>Very Low</b>	Unlikely	Mild	<b>Very Low</b>	Unlikely	Mild	<b>Very Low</b>

**ENVIRONMENTAL STATEMENT APPENDIX**

**Ground Conditions**

Source	Receptor		Pathway	Baseline			Construction with mitigation			Operation (including maintenance) (assuming all mitigation undertaken prior to and during construction)					
				Probability	Consequence	Risk	Probability	Consequence	Risk	Probability	Consequence	Risk			
Former electrical power station (380m south)  Former sewage treatment works (500m east)  Former sewage tank (200m south); Former saw mill (380m south).  <i>Contaminants (Inorganic and organic contaminants including metals, hydrocarbons, oils, PAHs, PCBs, asbestos, biological contaminants, herbicides and pesticides. Potential for ground gas generation)</i>		Off-site unnamed streams, ponds and drains	Discharge of contaminants entrained in groundwater and/or surface water run-off followed by overland flow and discharge.	Unlikely	Mild	<b>Very Low</b>	Unlikely	Mild	<b>Very Low</b>	Unlikely	Mild	<b>Very Low</b>			
				<b>Property and services</b>			Receptor not present			Receptor not present			Unlikely	Mild	<b>Very Low</b>
	On-site proposed services			Direct contact of contaminants in soil and/or groundwater with existing and proposed structures and buried services			Receptor not present			Receptor not present			Unlikely	Mild	<b>Very Low</b>
	Existing on-site services			Migration of contaminated groundwater, ground gas and/or vapours along strata and preferential pathways such as service routes or differentially permeable strata.			Unlikely	Mild	<b>Very Low</b>	Unlikely	Mild	<b>Very Low</b>	Unlikely	Mild	<b>Very Low</b>
	Crops and livestock			Migration of contaminated waters/dust/fibres and subsequent uptake by crops or ingestion/inhalation/dermal contact by livestock.			Unlikely	Mild	<b>Very Low</b>	Unlikely	Mild	<b>Very Low</b>	Unlikely	Mild	<b>Very Low</b>