

APPENDIX 10.4 Impact Assessment

Construction Impact Assessment for the Proposed Development (with mitigation)

Source	Receptor		Pathway	Baseline (current) Risk Assessment	Construction Phase Risk Assessment (with mitigation)	Classification of Effect
<p>On-site Agricultural land use (fertiliser/chemical usage/fuel spillages) Agricultural land use (burying of wastes such as asbestos and animal waste) Historical drains Made Ground associated with infilling of ponds <i>Contaminants</i> (Inorganic and organic contaminants including metals, hydrocarbons, PAHs, asbestos, herbicides and pesticides. Potential generation of ground gas including carbon dioxide and methane)</p>	Human health: On-site	Occupants of proposed residential properties and visitors	Dermal contact with and / or ingestion of contaminants in soils, soil-derived dusts and water	Receptor not present	Receptor not present	Negligible
		Farmers working on agricultural land	Inhalation of soil derived dust, fibres and gas/vapours	Very Low	Receptor not present	Minor beneficial
		Future users of the proposed open space area		Receptor not present	Receptor not present	Negligible
	Human health: 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	Very Low	Very Low	Negligible
		Members of the public accessing the surrounding area		Very Low	Very Low	Negligible
		Occupants of nearby residential, commercial properties and visitors	Inhalation of windblown soil derived dust, fibres and gas/vapours which may have migrated off site	Very Low	Very Low	Negligible
	Controlled Waters	Groundwater in Principal Aquifer (Keresley Member)	Leaching / migration of contaminants in soil to groundwater in underlying aquifers.	Low	Low	Negligible
			Migration of contaminated water through preferential pathways such as underground services, pipes and granular material to groundwater in underlying aquifers.	Low	Low	Negligible
		On site surface waters: Ponds Drains	Discharge of contaminants entrained in surface water runoff followed by overland flow and discharge	Low	Low	Negligible
			Lateral migration of contaminated groundwater with discharge to surface watercourses as base flow	Low	Low	Negligible
		Off-site surface waters: Off-site unnamed streams, ponds and drains	Discharge of contaminants entrained in surface water runoff followed by overland flow and discharge	Very Low	Very Low	Negligible
			Lateral migration of contaminated groundwater with discharge to surface watercourses as base flow	Very Low	Very Low	Negligible
	Property and services	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	Negligible
		On-site proposed services		Receptor not present	Receptor not present	Negligible
		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	Very Low	Very Low	Negligible
		Crops and livestock	Migration of contaminated waters/dust/fibres and subsequent uptake by crops or ingestion/inhalation/dermal contact by livestock.	Very Low	Very Low	Negligible

Source	Receptor		Pathway	Baseline (current) Risk Assessment	Construction Phase Risk Assessment (with mitigation)	Classification of Effect	
Off-site 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 reservoirs and historic pumping station to the north Former Coventry Colliery and associated activities, railway line (375m south) 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>	Human health on-site	Occupants of proposed residential properties and visitors	Dermal contact with and / or ingestion of contaminants in soils, soil-derived dusts and water	Receptor not present	Receptor not present	Negligible	
		Farmers working on agricultural land	Inhalation of soil derived dust, fibres and gas/vapours	Very Low	Receptor not present	Negligible	
		Future users of the proposed open space area	Dermal contact with and/or ingestion of contaminants in windblown soil-derived dusts and water that may have migrated off site	Receptor not present	Receptor not present	Negligible	
	Controlled waters	Groundwater in Principal Aquifer (Keresley Member)		Leaching / migration of contaminants in soil to groundwater in underlying aquifers.	Low	Low	Negligible
				Migration of contaminated water through preferential pathways such as underground services, pipes and granular material to groundwater in underlying aquifers.	Low	Low	Negligible
		Offsite surface waters Drains, streams and ponds		Discharge of contaminants entrained in surface water runoff followed by overland flow and discharge	Very Low	Very Low	Negligible
				Lateral migration of contaminated groundwater with discharge to surface watercourses as base flow	Very Low	Very Low	Negligible
		Property and services	Proposed on-site 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	Negligible
	On-site proposed services		Receptor not present				
	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	Very Low	Very Low	Negligible	
	Crops and livestock		Migration of contaminated waters/dust/fibres and subsequent uptake by crops or ingestion/inhalation/dermal contact by livestock.	Very Low	Receptor not present	Negligible	

Operational Phase Impact Assessment for the Proposed Development

ENVIRONMENTAL STATEMENT

Ground Conditions

Source	Receptor	Pathway	Baseline (current) Risk Assessment	Operational Phase Risk Assessment	Classification of Effect	
<p>On-site Agricultural land use (fertiliser/chemical usage/fuel spillages) Agricultural land use (burying of wastes such as asbestos and animal waste) Historical drains 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></p>	<p>Human health: On-site</p>	Occupants of proposed residential properties and visitors	Dermal contact with and / or ingestion of contaminants in soils, soil-derived dusts and water	Receptor not present	Receptor not present	Negligible
		Future users of the proposed open space area	Inhalation of soil derived dust, fibres and gas/vapours	Receptor not present	Receptor not present	Negligible
	<p>Human health: Off-site</p>	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	Very Low	Very Low	Negligible
		Members of the public accessing the surrounding area	Inhalation of windblown soil derived dust, fibres and gas/vapours which may have migrated off site	Very Low	Very Low	Negligible
		Occupants of nearby residential, commercial properties and visitors		Very Low	Very Low	Negligible
	<p>Controlled Waters</p>	Groundwater in Principal Aquifer (Keresley Member)	Leaching / migration of contaminants in soil to groundwater in underlying aquifers.	Low	Low	Negligible
			Migration of contaminated water through preferential pathways such as underground services, pipes and granular material to groundwater in underlying aquifers.	Low	Low	Negligible
		On site surface waters: Ponds Drains	Discharge of contaminants entrained in surface water runoff followed by overland flow and discharge	Low	Low	Negligible
			Lateral migration of contaminated groundwater with discharge to surface watercourses as base flow	Low	Low	Negligible
		Off-site surface waters: Off-site unnamed streams, ponds and drains	Discharge of contaminants entrained in surface water runoff followed by overland flow and discharge	Very Low	Very Low	Negligible
			Lateral migration of contaminated groundwater with discharge to surface watercourses as base flow	Very Low	Very Low	Negligible
	<p>Property and services</p>	On-site proposed residential properties	Direct contact of contaminants in soil and/or groundwater with existing and proposed structures and buried 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	Negligible
		On-site proposed services		Receptor not present	Receptor not present	Negligible
		Existing on-site services		Very Low	Very Low	Negligible
<p>Off-site Agricultural land use (north, west & south) Made Ground associated with adjacent infrastructure and residential development (east) and pockets of infilled land across the area</p>	<p>Human health on-site</p>	Occupants of proposed residential properties and visitors	Dermal contact with and / or ingestion of contaminants in soils, soil-derived dusts and water	Receptor not present	Receptor not present	Negligible
		Farmers working on agricultural land	Inhalation of soil derived dust, fibres and gas/vapours	Very Low	Receptor not present	Negligible
		Future users of the proposed open space area		Receptor not present	Receptor not present	Negligible
		Dermal contact with and/or ingestion of contaminants in windblown soil-derived				

Source	Receptor		Pathway	Baseline (current) Risk Assessment	Operational Phase Risk Assessment	Classification of Effect
<p>Made Ground and groundwater contamination associated with reservoirs and historic pumping station to the north</p> <p>Former Coventry Colliery and associated activities, railway line (375m south)</p> <p>Former electrical power station (380m south)</p> <p>Former sewage treatment works (500m east)</p> <p>Former sewage tank (200m south); Former saw mill (380m south).</p> <p><i>Contaminants (Inorganic and organic contaminants including metals, hydrocarbons, oils, PAHs, PCBs, asbestos, biological contaminants, herbicides and pesticides. Potential for ground gas generation)</i></p>			<p>dusts and water that may have migrated off site</p> <p>Inhalation of windblown soil derived dust, fibres and gas/vapours which may have migrated off site</p>			
	Controlled waters	Groundwater in Principal Aquifer (Keresley Member)	Leaching / migration of contaminants in soil to groundwater in underlying aquifers.	Low	Low	Negligible
			Migration of contaminated water through preferential pathways such as underground services, pipes and granular material to groundwater in underlying aquifers.	Low	Low	Negligible
		Offsite surface waters Drains, streams and ponds	Discharge of contaminants entrained in surface water runoff followed by overland flow and discharge	Very Low	Very Low	Negligible
			Lateral migration of contaminated groundwater with discharge to surface watercourses as base flow	Very Low	Very Low	Negligible
	Property and services	Proposed on-site residential properties	Direct contact of contaminants in soil and/or groundwater with existing and proposed structures and buried 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	Negligible
		On-site proposed services		Receptor not present	Receptor not present	Negligible
		Existing on-site services		Very Low	Very Low	Negligible
		Crops and livestock		Very Low	Receptor not present	Negligible