

Appendix 11-5 Risk Tables

Receptor	Sensitivity Value or 0 if not present	Pathway	Present (Y=1, N=0)	EPH & Solvents	PAHs	Metals	Asbestos	Biocides	Permanent Gases	Consequence (Hazard Classification x Sensitivity)	Probability/ Likelihood	Estimated Risk
Human Health - On-Site Current Users	0	Ingestion of fruit or vegetable leaf or roots	0	x	x	√	x	√	x	N/A	N/A	N/A
		Ingestion of contaminated drinking water	0	√	√	x	x	√	x	N/A	N/A	N/A
		Ingestion of water / sediments when swimming	1	√	√	√	√	√	x	N/A	N/A	N/A
		Ingestion of soil/dust indoors	0	√	√	√	√	√	x	N/A	N/A	N/A
		Ingestion of soil/dust outdoors	1	√	√	√	√	√	x	N/A	N/A	N/A
		Inhalation of particles (dust / soil) indoor and outdoor	1	√	√	√	√	√	x	N/A	N/A	N/A
		Inhalation of vapours/gases – outdoor	1	√	x	x	x	x	√	N/A	N/A	N/A
		Inhalation of vapours/gases - indoor	0	√	x	x	x	x	√	N/A	N/A	N/A
		Dermal absorption via direct contact with soil	1	√	√	√	√	√	x	N/A	N/A	N/A
		Dermal absorption via waters (swimming / showering)	1	√	√	√	√	√	x	N/A	N/A	N/A
Human Health On-Site Future User	5	Ingestion of fruit or vegetable leaf or roots	0	x	x	√	x	√	x	N/A	N/A	N/A
		Ingestion of contaminated drinking water	0	√	√	x	x	√	x	N/A	N/A	N/A
		Ingestion of water / sediments when swimming	1	√	√	x	x	√	x	Medium	Unlikely	Low
		Ingestion of soil/dust indoors	0	√	√	√	√	√	x	N/A	N/A	N/A
		Ingestion of soil/dust outdoors	1	√	√	√	√	√	x	Medium	Unlikely	Low
		Inhalation of particles (dust / soil) indoor and outdoor	1	√	√	√	√	√	x	Medium	Unlikely	Low
		Inhalation of vapours – outdoor	1	√	x	x	x	x	√	Medium	Unlikely	Low
		Inhalation of vapours - indoor	0	√	x	x	x	x	√	N/A	N/A	N/A
		Dermal absorption via direct contact with soil	1	√	√	√	√	√	x	Medium	Unlikely	Low
		Dermal absorption via waters (swimming / showering)	1	√	√	√	√	√	x	Medium	Unlikely	Low
Human Health - Neighbours	5	Ingestion of fruit or vegetable leaf or roots	0	x	x	√	x	√	x	N/A	N/A	N/A
		Ingestion of contaminated drinking water	1	√	√	x	x	√	x	Medium	Unlikely	Low
		Ingestion of water / sediments when swimming	1	√	√	x	x	√	x	Medium	Unlikely	Low
		Ingestion of soil/dust indoors	1	√	√	√	√	√	x	Medium	Unlikely	Low
		Ingestion of soil/dust outdoors	1	√	√	√	√	√	x	Medium	Unlikely	Low
		Inhalation of particles (dust / soil) indoor and outdoor	1	√	√	√	√	√	x	Medium	Unlikely	Low
		Inhalation of vapours – outdoor	1	√	x	x	x	x	√	Medium	Unlikely	Low
		Inhalation of vapours - indoor	1	√	x	x	x	x	√	Medium	Unlikely	Low
		Dermal absorption via direct contact with soil	1	√	√	√	√	√	x	Medium	Unlikely	Low
		Dermal absorption via waters (swimming / showering)	1	√	√	√	√	√	x	Medium	Unlikely	Low
Human Health - Construction/ Maintenance Workers*	0	Ingestion of soil/dust indoors	0	√	√	√	√	√	x	N/A	N/A	N/A
		Ingestion of soil/dust outdoors	1	√	√	√	√	√	x	N/A	N/A	N/A
		Inhalation of particles (dust / soil) outdoor	1	√	√	√	√	√	x	N/A	N/A	N/A
		Inhalation of vapours – outdoor	1	√	x	x	x	x	√	N/A	N/A	N/A
		Inhalation of vapours - indoor	0	√	x	x	x	x	√	N/A	N/A	N/A
		Dermal absorption via direct contact with soil	1	√	√	√	√	√	x	N/A	N/A	N/A
Groundwater (Shallow)	3	Leaching	1	√	√	√	√	√	x	Mild	Unlikely	Very Low
		Migration via natural or anthropogenic	1	√	√	√	√	√	√	Mild	Unlikely	Very Low
Groundwater (Deep)	5	Leaching	1	√	√	√	√	√	x	Medium	Unlikely	Low
		Migration via natural or anthropogenic	1	√	√	√	√	√	√	Medium	Unlikely	Low
Surface Water	5	Direct runoff or discharges from pipes	1	√	√	√	√	√	x	Medium	Unlikely	Low
		Indirect via recharge from groundwater (hydraulic flow)	1	√	√	√	√	√	x	Medium	Unlikely	Low
		Deposition of wind blown dust	1	√	√	√	√	√	x	Medium	Unlikely	Low
Property - Buildings	2	Direct contact	1	√	√	x	x	x	x	Mild	Unlikely	Very Low
		Explosion due to gas migration via natural / anthropogenic	0	√	x	x	x	x	√	N/A	N/A	N/A
Ecological Systems	2	Direct deposition of particles / dust - wind blown or flood	1	√	√	√	√	√	x	Mild	Unlikely	Very Low
		Indirect - through watering	1	√	√	√	x	x	x	Mild	Unlikely	Very Low
		Inhalation of gases/vapours or particulates/dust by animals	1	√	√	√	x	x	√	Mild	Unlikely	Very Low
		Ingestion of of vegetation / water / soil by animals	1	√	√	√	√	√	x	Mild	Unlikely	Very Low
Property - Animal/Crop	1	Direct (including deposition via wind or flood)	1	√	√	√	√	√	x	Minor	Unlikely	Very Low
		Indirect (through watering)	1	√	√	√	x	x	x	Minor	Unlikely	Very Low
		Inhalation of gas / vapour / particulates / dust by animals	1	√	x	x	x	x	√	Minor	Unlikely	Very Low
		Ingestion of vegetation / water / soil by animals	1	√	√	√	√	√	x	Minor	Unlikely	Very Low

Risk estimation establishes the magnitude and probability of the possible consequences (what degree of harm might result and how likely).
The criteria for classifying probability and consequence are set out in Tables 3 and 4 of the PBA methodology.
Green text highlights one or more elements of the Pollutant Linkage are missing and therefore eliminated

EPH = Extractable hydrocarbons
PAHs = Poly Aromatic Hydrocarbons

	Client		TABLE SUMMARISING POLLUTANT LINKAGES AND RISK ESTIMATION - OPERATIONAL PHASE WITH MITIGATION				Date	26/06/2017			
	 Reading Borough Council Working better with you	MRT, EAST READING SCHEME					A3 Scale	nts			
										Drawn	
										Checked	
										Caversham Bridge House, Waterman Place, Reading, RG1 8DN	
Tel 0118 950 0761 Fax 0118 959 7499		HAZARD CLASSIFICATION	3	POTENTIAL HAZARDS ARE GROUND GASES, ASBESTOS, METALS AND HYDROCARBONS							

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Receptor	Sensitivity Value or 0 if not present	Pathway	Present (Y=1, N=0)	EPH & Solvents	PAHs	Metals	Asbestos	Biocides	Permanent Gases	Consequence (Hazard Classification x Sensitivity)	Probability/ Likelihood	Estimated Risk
Human Health - On-Site Current Users	0	Ingestion of fruit or vegetable leaf or roots	0	x	x	√	x	√	x	N/A	N/A	N/A
		Ingestion of contaminated drinking water	0	√	√	x	x	√	x	N/A	N/A	N/A
		Ingestion of water / sediments when swimming	1	√	√	√	√	√	x	N/A	N/A	N/A
		Ingestion of soil/dust indoors	0	√	√	√	√	√	x	N/A	N/A	N/A
		Ingestion of soil/dust outdoors	1	√	√	√	√	√	x	N/A	N/A	N/A
		Inhalation of particles (dust / soil) indoor and outdoor	1	√	√	√	√	√	x	N/A	N/A	N/A
		Inhalation of vapours/gases – outdoor	1	√	x	x	x	x	√	N/A	N/A	N/A
		Inhalation of vapours/gases - indoor	0	√	x	x	x	x	√	N/A	N/A	N/A
		Dermal absorption via direct contact with soil	1	√	√	√	√	√	x	N/A	N/A	N/A
		Dermal absorption via waters (swimming / showering)	1	√	√	√	√	√	x	N/A	N/A	N/A
Human Health On-Site Future User	0	Ingestion of fruit or vegetable leaf or roots	0	x	x	√	x	√	x	N/A	N/A	N/A
		Ingestion of contaminated drinking water	0	√	√	x	x	√	x	N/A	N/A	N/A
		Ingestion of water / sediments when swimming	1	√	√	x	x	√	x	N/A	N/A	N/A
		Ingestion of soil/dust indoors	0	√	√	√	√	√	x	N/A	N/A	N/A
		Ingestion of soil/dust outdoors	1	√	√	√	√	√	x	N/A	N/A	N/A
		Inhalation of particles (dust / soil) indoor and outdoor	1	√	√	√	√	√	x	N/A	N/A	N/A
		Inhalation of vapours – outdoor	1	√	x	x	x	x	√	N/A	N/A	N/A
		Inhalation of vapours - indoor	0	√	x	x	x	x	√	N/A	N/A	N/A
		Dermal absorption via direct contact with soil	1	√	√	√	√	√	x	N/A	N/A	N/A
		Dermal absorption via waters (swimming / showering)	1	√	√	√	√	√	x	N/A	N/A	N/A
Human Health - Neighbours	5	Ingestion of fruit or vegetable leaf or roots	0	x	x	√	x	√	x	N/A	N/A	N/A
		Ingestion of contaminated drinking water	1	√	√	x	x	√	x	Medium	Unlikely	Low
		Ingestion of water / sediments when swimming	1	√	√	x	x	√	x	Medium	Unlikely	Low
		Ingestion of soil/dust indoors	1	√	√	√	√	√	x	Medium	Unlikely	Low
		Ingestion of soil/dust outdoors	1	√	√	√	√	√	x	Medium	Unlikely	Low
		Inhalation of particles (dust / soil) indoor and outdoor	1	√	√	√	√	√	x	Medium	Unlikely	Low
		Inhalation of vapours – outdoor	1	√	x	x	x	x	√	Medium	Unlikely	Low
		Inhalation of vapours - indoor	1	√	x	x	x	x	√	Medium	Unlikely	Low
		Dermal absorption via direct contact with soil	0	√	√	√	√	√	x	N/A	N/A	N/A
		Dermal absorption via waters (swimming / showering)	1	√	√	√	√	√	x	Medium	Unlikely	Low
Human Health - Construction/ Maintenance Workers*	4	Ingestion of soil/dust indoors	0	√	√	√	√	√	x	N/A	N/A	N/A
		Ingestion of soil/dust outdoors	1	√	√	√	√	√	x	Medium	Unlikely	Low
		Inhalation of particles (dust / soil) outdoor	1	√	√	√	√	√	x	Medium	Unlikely	Low
		Inhalation of vapours – outdoor	1	√	x	x	x	x	√	Medium	Unlikely	Low
		Inhalation of vapours - indoor	0	√	x	x	x	x	√	N/A	N/A	N/A
		Dermal absorption via direct contact with soil	1	√	√	√	√	√	x	Medium	Unlikely	Low
Groundwater (Shallow)	3	Leaching	1	√	√	√	√	√	x	Mild	Unlikely	Very Low
		Migration via natural or anthropogenic	1	√	√	√	√	√	√	Mild	Unlikely	Very Low
Groundwater (Deep)	5	Leaching	1	√	√	√	√	√	x	Medium	Unlikely	Low
		Migration via natural or anthropogenic	1	√	√	√	√	√	√	Medium	Unlikely	Low
Surface Water	5	Direct runoff or discharges from pipes	1	√	√	√	√	√	x	Medium	Unlikely	Low
		Indirect via recharge from groundwater (hydraulic flow)	1	√	√	√	√	√	x	Medium	Unlikely	Low
		Deposition of wind blown dust	1	√	√	√	√	√	x	Medium	Unlikely	Low
Property - Buildings	0	Direct contact	1	√	√	x	x	x	x	N/A	N/A	N/A
		Explosion due to gas migration via natural / anthropogenic	1	√	x	x	x	x	√	N/A	N/A	N/A
Ecological Systems	2	Direct deposition of particles / dust - wind blown or flood	1	√	√	√	√	√	x	Mild	Unlikely	Very Low
		Indirect - through watering	1	√	√	√	x	x	x	Mild	Unlikely	Very Low
		Inhalation of gases/vapours or particulates/dust by animals	1	√	√	√	x	x	√	Mild	Unlikely	Very Low
		Ingestion of of vegetation / water / soil by animals	1	√	√	√	√	√	x	Mild	Unlikely	Very Low
Property - Animal/Crop	0	Direct (including deposition via wind or flood)	1	√	√	√	√	√	x	N/A	N/A	N/A
		Indirect (through watering)	1	√	√	√	x	x	x	N/A	N/A	N/A
		Inhalation of gas / vapour / particulates / dust by animals	1	√	x	x	x	x	√	N/A	N/A	N/A
		Ingestion of vegetation / water / soil by animals	1	√	√	√	√	√	x	N/A	N/A	N/A

Risk estimation establishes the magnitude and probability of the possible consequences (what degree of harm might result and how likely).
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Green text highlights one or more elements of the Pollutant Linkage are missing and therefore eliminated

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PAHs = Poly Aromatic Hydrocarbons

 Client  Reading Borough Council Working better with you		TABLE SUMMARISING POLLUTANT LINKAGES AND RISK ESTIMATION - CONSTRUCTION PHASE WITH MITIGATION		Date26/06/2017 A3 Scalents Drawn Checked	
Caversham Bridge House, Waterman Place, Reading, RG1 8DN		MRT, EAST READING SCHEME		Table	
				Appendix 11.5	
Tel 0118 950 0761 Fax 0118 959 7499		HAZARD CLASSIFICATION3	POTENTIAL HAZARDS ARE GROUND GASES, ASBESTOS, METALS AND HYDROCARBONS		

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Receptor	Sensitivity Value or 0 if not present	Pathway	Present (Y=1, N=0)	EPH & Solvents	PAHs	Metals	Asbestos	Biocides	Permanent Gases	Consequence (Hazard Classification x Sensitivity)	Probability/ Likelihood	Estimated Risk
Human Health - On-Site Current Users	0	Ingestion of fruit or vegetable leaf or roots	0	x	x	√	x	√	x	N/A	N/A	N/A
		Ingestion of contaminated drinking water	0	√	√	x	x	√	x	N/A	N/A	N/A
		Ingestion of water / sediments when swimming	1	√	√	√	√	√	x	N/A	N/A	N/A
		Ingestion of soil/dust indoors	0	√	√	√	√	√	x	N/A	N/A	N/A
		Ingestion of soil/dust outdoors	1	√	√	√	√	√	x	N/A	N/A	N/A
		Inhalation of particles (dust / soil) indoor and outdoor	1	√	√	√	√	√	x	N/A	N/A	N/A
		Inhalation of vapours/gases – outdoor	1	√	x	x	x	x	√	N/A	N/A	N/A
		Inhalation of vapours/gases - indoor	0	√	x	x	x	x	√	N/A	N/A	N/A
		Dermal absorption via direct contact with soil	1	√	√	√	√	√	x	N/A	N/A	N/A
		Dermal absorption via waters (swimming / showering)	1	√	√	√	√	√	x	N/A	N/A	N/A
Human Health On-Site Future User	0	Ingestion of fruit or vegetable leaf or roots	0	x	x	√	x	√	x	N/A	N/A	N/A
		Ingestion of contaminated drinking water	0	√	√	x	x	√	x	N/A	N/A	N/A
		Ingestion of water / sediments when swimming	1	√	√	x	x	√	x	N/A	N/A	N/A
		Ingestion of soil/dust indoors	0	√	√	√	√	√	x	N/A	N/A	N/A
		Ingestion of soil/dust outdoors	1	√	√	√	√	√	x	N/A	N/A	N/A
		Inhalation of particles (dust / soil) indoor and outdoor	1	√	√	√	√	√	x	N/A	N/A	N/A
		Inhalation of vapours – outdoor	1	√	x	x	x	x	√	N/A	N/A	N/A
		Inhalation of vapours - indoor	0	√	x	x	x	x	√	N/A	N/A	N/A
		Dermal absorption via direct contact with soil	1	√	√	√	√	√	x	N/A	N/A	N/A
		Dermal absorption via waters (swimming / showering)	1	√	√	√	√	√	x	N/A	N/A	N/A
Human Health - Neighbours	5	Ingestion of fruit or vegetable leaf or roots	0	x	x	√	x	√	x	N/A	N/A	N/A
		Ingestion of contaminated drinking water	0	√	√	x	x	√	x	N/A	N/A	N/A
		Ingestion of water / sediments when swimming	1	√	√	x	x	√	x	Medium	Unlikely	Low
		Ingestion of soil/dust indoors	1	√	√	√	√	√	x	Medium	Low	Moderate
		Ingestion of soil/dust outdoors	1	√	√	√	√	√	x	Medium	Low	Moderate
		Inhalation of particles (dust / soil) indoor and outdoor	1	√	√	√	√	√	x	Medium	Low	Moderate
		Inhalation of vapours – outdoor	1	√	x	x	x	x	√	Medium	Low	Moderate
		Inhalation of vapours - indoor	1	√	x	x	x	x	√	Medium	Low	Moderate
		Dermal absorption via direct contact with soil	0	√	√	√	√	√	x	N/A	N/A	N/A
		Dermal absorption via waters (swimming / showering)	1	√	√	√	√	√	x	Medium	Unlikely	Low
Human Health - Construction/ Maintenance Workers*	4	Ingestion of soil/dust indoors	0	√	√	√	√	√	x	N/A	N/A	N/A
		Ingestion of soil/dust outdoors	1	√	√	√	√	√	x	Medium	Likely	Moderate
		Inhalation of particles (dust / soil) outdoor	1	√	√	√	√	√	x	Medium	Likely	Moderate
		Inhalation of vapours – outdoor	1	√	x	x	x	x	√	Medium	Likely	Moderate
		Inhalation of vapours - indoor	0	√	x	x	x	x	√	N/A	N/A	N/A
		Dermal absorption via direct contact with soil	1	√	√	√	√	√	x	Medium	Likely	Moderate
Groundwater (Shallow)	3	Leaching	1	√	√	√	√	√	x	Mild	High	Moderate
		Migration via natural or anthropogenic	1	√	√	√	√	√	√	Mild	High	Moderate
Groundwater (Deep)	5	Leaching	1	√	√	√	√	√	x	Medium	High	High
		Migration via natural or anthropogenic	1	√	√	√	√	√	√	Medium	High	High
Surface Water	5	Direct runoff or discharges from pipes	1	√	√	√	√	√	x	Medium	High	High
		Indirect via recharge from groundwater (hydraulic flow)	1	√	√	√	√	√	x	Medium	High	High
		Deposition of wind blown dust	1	√	√	√	√	√	x	Medium	High	High
Property - Buildings	0	Direct contact	1	√	√	x	x	x	x	N/A	N/A	N/A
		Explosion due to gas migration via natural / anthropogenic	1	√	x	x	x	x	√	N/A	N/A	N/A
Ecological Systems	2	Direct deposition of particles / dust - wind blown or flood	1	√	√	√	√	√	x	Mild	Likely	Moderate
		Indirect - through watering	1	√	√	√	x	x	x	Mild	Unlikely	Very Low
		Inhalation of gases/vapours or particulates/dust by animals	1	√	√	√	x	x	√	Mild	Low	Low
		Ingestion of of vegetation / water / soil by animals	1	√	√	√	√	√	x	Mild	Low	Low
Property - Animal/Crop	0	Direct (including deposition via wind or flood)	1	√	√	√	√	√	x	N/A	N/A	N/A
		Indirect (through watering)	1	√	√	√	x	x	x	N/A	N/A	N/A
		Inhalation of gas / vapour / particulates / dust by animals	1	√	x	x	x	x	√	N/A	N/A	N/A
		Ingestion of vegetation / water / soil by animals	1	√	√	√	√	√	x	N/A	N/A	N/A

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	Client 	TABLE SUMMARISING POLLUTANT LINKAGES AND RISK ESTIMATION - CONSTRUCTION PHASE										Date 26/06/2017
Caversham Bridge House, Waterman Place, Reading, RG1 8DN		MRT, EAST READING SCHEME										A3 Scale nts
Tel 0118 950 0761 Fax 0118 959 7499		HAZARD CLASSIFICATION 3	POTENTIAL HAZARDS ARE GROUND GASES, ASBESTOS, METALS AND HYDROCARBONS								Drawn	
											Checked	
											Table Appendix 11.5	