

Havant Thicket Reservoir Project

Environmental Statement Volume 4 - Appendices

Appendix A10 Ground Conditions

A10.1 Definitions of Probability and Consequence

Portsmouth Water Ltd.

21/08/20

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Document history

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Client signoff

Client	Portsmouth Water Ltd.
Project	Havant Thicket Reservoir Project
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Table 1 - Risk estimation - classification of probability¹

Classification	Definition of the probability of harm / pollution occurring
High likelihood	The contaminant linkage exists and it is very likely to result in harm / pollution in the short term, and/or will almost inevitably result in harm / pollution in the long term, and/or there is current evidence of harm/pollution. Likelihood is defined as more likely than not and meets the definition of 'significant possibility' within Part 2a Contaminated Land Statutory Guidance.
Likely	The source, pathway and receptor exist for the contaminant linkage and it is probable that harm / pollution will occur. Circumstances are such that harm / pollution is not inevitable, but possible in the short term and likely over the long term. Likelihood is defined as reasonably possible and meets the definition of 'significant possibility' within Part 2a Contaminated Land Statutory Guidance.
Low likelihood	The source, pathway and receptor exist and it is possible that harm / pollution could occur. Circumstances are such that harm/pollution is by no means certain in the long term and less likely in the short term.
Unlikely	The source, pathway and receptor exist for the contaminant linkage but it is improbable that harm / pollution will occur even in the long term.

¹ National House-Building Council & Environment Agency, Guidance on the Safe Development of Housing on Land Affected by Contamination (R&D66),2008.

Table 2 - Risk estimation - classification of consequence¹

Classification	Definition of consequence
Human health receptors – Site end user or other sensitive receptor	
Severe	Acute damage to human health based on the effects on the critical human receptor. Concentrations of contaminants above appropriate site specific assessment criteria. Harm meets definition of 'significant harm' within Part 2a Contaminated Land Statutory Guidance.
Medium	Chronic damage to human health based on the effects on the critical human receptor. Concentrations of contaminants above appropriate site specific assessment criteria. Harm meets definition of 'significant harm' within Part 2a Contaminated Land Statutory Guidance.
Mild	No appreciable impact on human health based on the potential effects on the critical human receptor. Concentrations of contaminants above generic assessment criteria but below appropriate site specific assessment criteria.
Minor	No appreciable impact on human health based on the effects on the critical human receptor. Concentrations of contaminants below appropriate generic assessment criteria.
Human health receptors – Site construction workers	
Severe	Exposure to hazardous substances resulting in a reportable death, major injury, 3-day injury or illness/disease under RIDDOR.
Medium	Exposure to hazardous substances resulting in a dangerous occurrence reportable under RIDDOR. Exposure to hazardous substances resulting in exceedance of a workplace exposure limit.
Mild	Exposure to hazardous substances resulting in limited effects such as headache, dizziness, nausea. Exposures below the workplace exposure limits. Not reportable under RIDDOR.
Minor	Minor exposure to hazardous substance resulting in no appreciable ill health effects.
Controlled water receptors	
Severe	Pollution of a Principal Aquifer within a source protection zone or potable supply characterised by a breach of drinking water standards. Pollution of a surface water course characterised by a breach of an Environmental Quality Standard (EQS) at a statutory monitoring location or resulting in a change in General Quality Assessment (GQA) grade of river reach. Discharge of a List I or List II substance to groundwater. Pollution meets Part 2a Contaminated Land Statutory Guidance definition.
Medium	Pollution of a Principal Aquifer outside a source protection zone or a Secondary A Aquifer characterised by a breach of drinking water standards. Pollution of an industrial groundwater abstraction or irrigation supply that impairs its function. Substantial pollution but insufficient to result in a change in the GQA grade of river reach. Pollution meets Part 2a Contaminated Land Statutory Guidance definition.
Mild	Low levels of pollution of a Principal Aquifer outside a source protection zone or an industrial abstraction, or pollution of a Secondary Aquifer. Low levels of pollution insufficient to result in a change in the GQA grade of river reach, pollution of a surface water course without a quality classification.
Minor	No appreciable pollution, or pollution of a low sensitivity receptor such as a non-aquifer or a surface water course without a quality classification
Property receptors – Buildings, foundations and services	

Classification	Definition of consequence
Severe	Catastrophic damage to buildings, such as explosion. Catastrophic failure of foundations and services. Substantial damage to a Scheduled Monument significantly impairing the by reason of which the monument is scheduled. Harm meets definition of 'significant harm' within Part 2a Contaminated Land Statutory Guidance.
Medium	Substantial damage to buildings and foundations rendering the structures unsafe. Substantial damage to services impairing their function. Significant damage to a Scheduled Monument significantly impairing the reason of which the monument is scheduled. Harm meets definition of 'significant harm' within Part 2a Contaminated Land Statutory Guidance.
Mild	Significant damage to buildings and foundations but not resulting in them being unsafe for occupation. Damage to services but not sufficient to impair their function. Damage to a Scheduled Monument but no significant impairment to the reason of which the monument is scheduled.
Minor	Easily repairable damage to buildings, foundations and services.
Property receptors – Crops and livestock and ecological receptors	
Severe	Substantial loss in the value of crops or domestically-grown produce. Death to livestock, domesticated animals or wild animals subject to shooting or fishing rights. A short-term risk to a particular ecosystem or organism forming part of such ecosystem. Harm meets definition of 'significant harm' within the Part 2A Contaminated Land Statutory Guidance.
Medium	Substantial diminution in yield (over 20% reduction) of crops or domestically-grown produce. Serious disease or other serious physical damage to livestock, domesticated animals or wild animals subject to shooting or fishing rights. A significant change in a particular ecosystem, or organism forming part of such ecosystem. Harm meets definition of 'significant harm' within the Part 2A Contaminated Land Statutory Guidance.
Mild	Harm to crops but not resulting in a substantial loss in value or diminution in yield (less than 20% reduction). Limited harm in terms of disease or other physical damage to ecosystems, livestock, domesticated animals or wild animals subject to shooting or fishing rights.
Minor	No appreciable harm, or harm to a low sensitivity receptor.

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