APPENDIX 16.3
CRITERIA FOR DETERMINING SENSITIVITY OF RECEPTORS, MAGNITUDE OF IMPACT AND SIGNIFICANCE OF EFFECTS

Soils and Groundwater - Criteria for classifying the value and / or sensitivity of environmental resources/receptors

Value / Sensitivity	Criteria	Examples
High	Attribute possesses key characteristics which contribute significantly to the distinctiveness, rarity and character of the Site/receptor. Attribute has a very low capacity to accommodate the proposed change.	Principal aquifer providing potable water to a large population, within an inner or outer groundwater source protection zone (Source Protection Zone (SPZ) 1 or SPZ 2). WFD high status water body (surface water) providing potable water to a small population. Sensitive human receptors, e.g. young children. Buildings, including services and foundations but of high historic value or other sensitivity e.g. Statutory designations, schools, residential dwellings. Ecological statutory designations with high sensitivity e.g. SSSI, Local Nature Reserve, Special Protection Area, Ramsar etc. Statutory geological sites e.g. Geological SSSIs. Regionally important mineral resource. Major topographic, ground stability, soil compaction or erosion hazards present at the Site.
Moderate	Attribute possesses key characteristics which contribute significantly to the distinctiveness, rarity and character of the Site/receptor. Attribute has a low capacity to accommodate the proposed change	Principal aquifer beyond a SPZ, or secondary aquifer. Secondary aquifer providing abstraction water for agricultural or industrial use or Secondary aquifer without abstraction. WFD good status water body (surface water). Buildings, including services and foundations. Moderately economically viable mineral resource. Moderate topographic, ground stability, soil compaction or erosion hazards present at the Site.
Low	Attribute only possesses characteristics which are locally significant. Attribute has some tolerance to accommodate the proposed change.	Unproductive strata. WFD moderate - poor status (surface water). Infrastructure (roads, bridges, railways). Non-statutory designated sites of regional importance that are not highly sensitive to damage from change. No economically viable minerals. No topographic, ground stability, soil compaction or erosion hazards present at the Site.

Soils and Groundwater - Classification of Significance of Effects

Classification of Significance	Effect
Major adverse	Complete loss of destruction of an important geological site. Significant sterilisation of mineral resources. Complete permanent change in topography which impacts the local community. Significant soil erosion, soil compaction or ground instability that is permanent in nature. An increase in contamination risk from the existing baseline conditions of 4 or 5 risk levels in the risk matrix, e.g. land that has a very low contamination risk in the baseline becomes a high or very high risk. Land that does not meet the statutory definition of Contaminated Land in the existing baseline becomes capable of being determined under Part 2A. The generation of significant volumes of hazardous waste requiring off-site disposal to appropriate landfill.
Moderate adverse	Moderate damage of an important geological site. Moderate sterilisation of a mineral resource. Partial long term (> 10 years) change in topography which impacts the local community. Moderate soil erosion, soil compaction, or ground instability that is either permanent or long term in nature. An increase in contamination risk from the existing baseline conditions of 2 or 3 risk levels in the risk matrix, e.g. land that has a low contamination risk in the baseline becomes a moderate or high risk. Land that does not meet the statutory definition of Contaminated Land in the existing baseline becomes capable of being determined under Part 2A. The generation of a moderate volume of waste requiring offsite disposal.
Minor adverse	Minor damage of an important geological site. Minor sterilisation of a mineral resource. Limited medium term (5 to 10 years) change in topography which impacts the local community. Limited medium term soil erosion, soil compaction, or ground instability. An increase in contamination risk from the existing baseline conditions of 1 risk level in the risk matrix, e.g. land that has a low contamination risk in the baseline becomes a moderate/low risk. The generation of a minor amount of waste.
Neutral	No change to geological receptors. No measurable impact on topography, soil erosion, soil compaction, or ground instability or impacts that are only temporary in nature (< 5 years). Negligible change in contamination risks. No generation of waste arisings as part of the development, materials are used sustainably.
Minor beneficial	Minor improvement of an important geological site. Minor improvement in access to a mineral resource. Limited medium term (5 to 10 years) change in topography which has a positive impact on the local community. Limited medium term reduction in existing soil erosion, soil compaction, or ground instability issues. A reduction in contamination risk from the existing baseline conditions of 1 risk level in the risk matrix, e.g. land that has a moderate/low contamination risk in the baseline becomes a low risk. A minor amount of materials reuse as part of the development limiting the offsite disposal of waste.
Moderate beneficial	Moderate improvement of an important geological site. Moderate improvement in access to a mineral resource.

Classification of Significance	Effect
	Partial long term (> 10 years) change in topography which has a positive impact on the local community. Moderate permanent or long term reduction in existing soil erosion, soil compaction, or ground instability issues. A reduction in contamination risk from the existing baseline conditions of 2 or 3 risk levels in the risk matrix, e.g. land that has a high contamination risk in the baseline becomes a moderate/low or low risk. Land that meets the statutory definition of Contaminated Land in the existing baseline is no longer capable of being determined under Part 2A. A moderate amount of materials re-use as part of the development limiting the offsite disposal of waste.
Major beneficial	Major improvement of an important geological site. Major improvement in access to a mineral resource. Complete permanent change in topography which has a positive impact on the local community. Significant permanent reduction in existing soil erosion, soil compaction or ground instability issues. A reduction in contamination risk from the existing baseline conditions of 4 or 5 risk levels in the risk matrix, e.g. land that has a very high contamination risk in the baseline becomes a low or very low risk. Land that meets the statutory definition of Contaminated Land in the existing baseline is no longer capable of being determined under Part 2A. Sustainable use of material including recycling/reusing on site material. No offsite disposal of wastes to landfill.