Appendix 3 – Bespoke risk assessment schedule

Data and information				Judgement				Action (by permitting)	
Receptor	**Source**	**Harm**	**Pathway**	**Probability of exposure**	**Consequence**	**Magnitude of risk**	**Justification for magnitude**	**Risk management**	**Residual risk**
What is at risk? What do I wish to protect?	**What is the agent or process with potential to cause harm?**	**What are the harmful consequences if things go wrong?**	**How might the receptor come into contact with the source?**	**How likely is this contact?**	**How severe will the consequences be if this occurs?**	**What is the overall magnitude of the risk?**	**On what did I base my judgement?**	**How can I best manage the risk to reduce the magnitude?**	**What is the magnitude of the risk after management? (This residual risk will be controlled by Compliance Assessment).**
Priority Habitat Inventory – Deciduous Woodland	Releases of particulate matter (dusts) and micro-organisms (bioaerosols). Contaminated surface water and/or groundwater. Surface water/groundwater level changes/ derogation. Direct contact of site plant with trees.	Habitat health affected through dust exposure, surface water/groundwater level changes or surface water/groundwater contamination. Direct tree damage/death through contact with site plant.	Air transport then deposition. Transport of contaminants by surface water/groundwater. Direct contact with site plant.	Low	Low	**Low**	Permitted waste types are inert and have very low contamination potential. The closest designated area is adjacent to the south of the current site boundary. The western extension area extends to the south (the prevailing wind direction is from the southwest) and therefore there is the potential for the designation to be affected by dust associated with the deposit for recovery activity in this new area unless appropriate mitigation and management measures are implemented. The potential for impact from dust will be minimised and managed in accordance with the mitigation measures set out in the Dust Emissions Management Plan (Appendix N of Environmental Permit application). The Quantitative Hydrogeological Risk Assessment completed as part of the Hydrogeological Risk Assessment (see Hydrogeological Risk Assessment Report (Appendix Hiv of Environmental Permit application)) demonstrates that there will be no detrimental impact on the local hydrogeological or hydrological environment resulting from the activity. There is a standoff from the site boundary to the working area, i.e. no operation of site plant beyond the site boundary. There is no increased risk of damage to the designated woodland resulting from the operation of site plant as it is located adjacent to the current working boundary.	Implementation of Site Operation, Waste Acceptance Criteria (see Appendix Hiii of Environmental Permit application), Accident, Incident and Emergency and Oil / Spill procedures in accordance with Environmental Management System (see Appendix G of Environmental Permit application) and Dust Emissions Management Plan (see Appendix N of Environmental Permit application). A basal and side slope Artificial Geological Barrier will be constructed on a phased basis within the western extension area, as is currently undertaken within the currently permitted site area, in order to provide protection to soil, groundwater and surface water at least equivalent to that resulting from an attenuation barrier/liner with a minimum thickness of 1.0m and a maximum permeability of 1 x 10^{-7}m/sec.	Very Low

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Data and information				Judgement				Action (by permitting)	
Receptor	**Source**	**Harm**	**Pathway**	**Probability of exposure**	**Consequence**	**Magnitude of risk**	**Justification for magnitude**	**Risk management**	**Residual risk**
What is at risk? What do I wish to protect?	**What is the agent or process with potential to cause harm?**	**What are the harmful consequences if things go wrong?**	**How might the receptor come into contact with the source?**	**How likely is this contact?**	**How severe will the consequences be if this occurs?**	**What is the overall magnitude of the risk?**	**On what did I base my judgement?**	**How can I best manage the risk to reduce the magnitude?**	**What is the magnitude of the risk after management? (This residual risk will be controlled by Compliance Assessment).**
Priority Habitat Inventory – Traditional Orchards	Releases of particulate matter (dusts) and micro-organisms (bioaerosols). Contaminated surface water and/or groundwater. Surface water/groundwater level changes/ derogation.	Habitat health affected through dust exposure, surface water/groundwater level changes or surface water/groundwater contamination.	Air transport then deposition. Transport of contaminants by surface water/groundwater.	Low	Very Low	**Low**	Permitted waste types are inert and have very low contamination potential. The closest designation is located *c.* 750m to the east of the currently permitted site area and is therefore unlikely to be affected by dust generated from the deposit for recovery activity within the western extension area, although there is potential for activities to produce dust from movement of vehicles and tipping operations especially in dry and also windy weather. The potential for impact from dust will be minimised and managed in accordance with the mitigation measures set out in the Dust Emissions Management Plan (Appendix N of Environmental Permit application). The Quantitative Hydrogeological Risk Assessment completed as part of the Hydrogeological Risk Assessment (see Hydrogeological Risk Assessment Report (Appendix Hiv of Environmental Permit application)) demonstrates that there will be no detrimental impact on the local hydrogeological or hydrological environment resulting from the activity.	Implementation of Site Operation, Waste Acceptance Criteria (see Appendix Hiii of Environmental Permit application), Accident, Incident and Emergency and Oil / Spill procedures in accordance with Environmental Management System (see Appendix G of Environmental Permit application) and Dust Emissions Management Plan (see Appendix N of Environmental Permit application). A basal and side slope Artificial Geological Barrier will be constructed on a phased basis within the western extension area, as is currently undertaken within the current site area, in order to provide protection to soil, groundwater and surface water at least equivalent to that resulting from an attenuation barrier/liner with a minimum thickness of 1.0m and a maximum permeability of 1 x 10^{-7}m/sec.	Very Low

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Data and information				Judgement				Action (by permitting)	
Receptor	**Source**	**Harm**	**Pathway**	**Probability of exposure**	**Consequence**	**Magnitude of risk**	**Justification for magnitude**	**Risk management**	**Residual risk**
What is at risk? What do I wish to protect?	**What is the agent or process with potential to cause harm?**	**What are the harmful consequences if things go wrong?**	**How might the receptor come into contact with the source?**	**How likely is this contact?**	**How severe will the consequences be if this occurs?**	**What is the overall magnitude of the risk?**	**On what did I base my judgement?**	**How can I best manage the risk to reduce the magnitude?**	**What is the magnitude of the risk after management? (This residual risk will be controlled by Compliance Assessment).**
Ancient and Semi-Natural Woodland	Releases of particulate matter (dusts) and micro-organisms (bioaerosols). Contaminated surface water and/or groundwater. Surface water/groundwater level changes/ derogation.	Habitat health affected through dust exposure, surface water/groundwater level changes or surface water/groundwater contamination.	Air transport then deposition. Transport of contaminants by surface water/groundwater.	Low	Very Low	**Low**	Permitted waste types are inert and have very low contamination potential. The closest designation is located *c.* 215m to the west of the western extension area (the prevailing wind direction is from the southwest) and is therefore unlikely to be affected by dust generated from site activities, although there is potential for activities to produce dust from movement of vehicles and tipping operations especially in dry and also windy weather. There are no downwind designated areas of Ancient Woodland within 1km of the site. The potential for impact from dust will be minimised and managed in accordance with the mitigation measures set out in the Dust Emissions Management Plan (Appendix N of Environmental Permit application). The Quantitative Hydrogeological Risk Assessment completed as part of the Hydrogeological Risk Assessment (see Hydrogeological Risk Assessment Report (Appendix Hiv of Environmental Permit application)) demonstrates that there will be no detrimental impact on the local hydrogeological or hydrological environment resulting from the activity.	Implementation of Site Operation, Waste Acceptance Criteria (see Appendix Hiii of Environmental Permit application), Accident, Incident and Emergency and Oil / Spill procedures in accordance with Environmental Management System (see Appendix G of Environmental Permit application) and Dust Emissions Management Plan (see Appendix N of Environmental Permit application). A basal and side slope Artificial Geological Barrier will be constructed on a phased basis within the western extension area, as is currently undertaken within the current site area, in order to provide protection to soil, groundwater and surface water at least equivalent to that resulting from an attenuation barrier/liner with a minimum thickness of 1.0m and a maximum permeability of 1 x 10^{-7}m/sec.	Very Low

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Data and information				Judgement				Action (by permitting)	
Receptor	**Source**	**Harm**	**Pathway**	**Probability of exposure**	**Consequence**	**Magnitude of risk**	**Justification for magnitude**	**Risk management**	**Residual risk**
What is at risk? What do I wish to protect?	**What is the agent or process with potential to cause harm?**	**What are the harmful consequences if things go wrong?**	**How might the receptor come into contact with the source?**	**How likely is this contact?**	**How severe will the consequences be if this occurs?**	**What is the overall magnitude of the risk?**	**On what did I base my judgement?**	**How can I best manage the risk to reduce the magnitude?**	**What is the magnitude of the risk after management? (This residual risk will be controlled by Compliance Assessment).**
Chaslins Copse Local Wildlife Site (LWS)	Releases of particulate matter (dusts) and micro-organisms (bioaerosols). Contaminated surface water and/or groundwater. Surface water/groundwater level changes/ derogation.	Habitat health affected through dust exposure, surface water/groundwater level changes or surface water/groundwater contamination.	Air transport then deposition. Transport of contaminants by surface water/groundwater.	Low	Very Low	**Low**	Permitted waste types are inert and have very low contamination potential. The Chaslins Copse LWS is located *c.* 600m to the west of the western extension area (the prevailing wind direction is from the southwest) and is therefore unlikely to be affected by dust generated from site activities, although there is potential for activities to produce dust from movement of vehicles and tipping operations especially in dry and also windy weather. The potential for impact from dust will be minimised and managed in accordance with the mitigation measures set out in the Dust Emissions Management Plan (Appendix N of Environmental Permit application). The Quantitative Hydrogeological Risk Assessment completed as part of the Hydrogeological Risk Assessment (see Hydrogeological Risk Assessment Report (Appendix Hiv of Environmental Permit application)) demonstrates that there will be no detrimental impact on the local hydrogeological or hydrological environment resulting from the activity.	Implementation of Site Operation, Waste Acceptance Criteria (see Appendix Hiii of Environmental Permit application), Accident, Incident and Emergency and Oil / Spill procedures in accordance with Environmental Management System (see Appendix G of Environmental Permit application) and Dust Emissions Management Plan (see Appendix N of Environmental Permit application). A basal and side slope Artificial Geological Barrier will be constructed on a phased basis within the western extension area, as is currently undertaken within the current site area, in order to provide protection to soil, groundwater and surface water at least equivalent to that resulting from an attenuation barrier/liner with a minimum thickness of 1.0m and a maximum permeability of 1 x 10^{-7}m/sec.	Very Low

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Receptor	**Source**	**Harm**	**Pathway**	**Probability of exposure**	**Consequence**	**Magnitude of risk**	**Justification for magnitude**	**Risk management**	**Residual risk**
What is at risk? What do I wish to protect?	**What is the agent or process with potential to cause harm?**	**What are the harmful consequences if things go wrong?**	**How might the receptor come into contact with the source?**	**How likely is this contact?**	**How severe will the consequences be if this occurs?**	**What is the overall magnitude of the risk?**	**On what did I base my judgement?**	**How can I best manage the risk to reduce the magnitude?**	**What is the magnitude of the risk after management? (This residual risk will be controlled by Compliance Assessment).**
Shellingford Crossroads Quarry Site of Special Scientific Interest (SSSI)	Spillage of liquids, contaminated rainwater run-off from waste e.g. containing suspended solids, contaminated surface water and/or groundwater. Surface water/groundwater level changes/ derogation. Releases of particulate matter (dusts) and micro-organisms (bioaerosols).	Habitat health affected through dust exposure, surface water/groundwater level changes or surface water/groundwater contamination. Harm to protected species through surface water/groundwater contamination, nutrient enrichment, smothering, disturbance etc. Acute effects: oxygen depletion, fish kill and algal blooms.	Surface water run-off from site to SSSI, via surface water drains, ditches etc. Groundwater contamination plume via Corallian Group aquifer between site and SSSI. Transport of contaminants by surface water/groundwater. Air transport then deposition.	Low	Low	**Low**	Permitted waste types are inert and have very low contamination potential. The SSSI is designated based on its geological setting, described as *'an outstanding extensive section in Corrallian rocks of Oxfordian age spanning the Highworth Grit, Third Trigonia Bed, Urchin Marls and Coral Rag'*. The currently permitted activities have not had any detrimental impact on the SSSI and the addition of the deposit for recovery activity within the western extension area will not cause any greater risk. The SSSI is located to the north of the site (the prevailing wind direction is from the southwest) and therefore there is the potential for the designation to be affected by dust from the permitted activities unless appropriate mitigation and management measures are implemented. The potential for impact from dust will be minimised and managed in accordance with the mitigation measures set out in the Dust Emissions Management Plan (Appendix N of Environmental Permit application). The waterbody within the footprint of the SSSI area is not groundwater-fed and Google Earth aerial images show that the waterbody has largely dried out since 2012. The SSSI designation is not hydrologically based and the Quantitative Hydrogeological Risk Assessment completed as part of the Hydrogeological Risk Assessment (see Hydrogeological Risk Assessment Report (Appendix Hiv of Environmental Permit application)) demonstrates that	Implementation of Site Operation, Waste Acceptance Criteria (see Appendix Hiii of Environmental Permit application), Accident, Incident and Emergency and Oil / Spill procedures in accordance with Environmental Management System (see Appendix G of Environmental Permit application) and Dust Emissions Management Plan (see Appendix N of Environmental Permit application). A basal and side slope Artificial Geological Barrier will be constructed on a phased basis within the western extension area, as is currently undertaken within the current site area, in order to provide protection to soil, groundwater and surface water at least equivalent to that resulting from an attenuation barrier/liner with a minimum thickness of 1.0m and a maximum permeability of 1 x 10^{-7}m/sec.	Very Low

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Receptor	**Source**	**Harm**	**Pathway**	**Probability of exposure**	**Consequence**	**Magnitude of risk**	**Justification for magnitude**	**Risk management**	**Residual risk**
What is at risk? What do I wish to protect?	**What is the agent or process with potential to cause harm?**	**What are the harmful consequences if things go wrong?**	**How might the receptor come into contact with the source?**	**How likely is this contact?**	**How severe will the consequences be if this occurs?**	**What is the overall magnitude of the risk?**	**On what did I base my judgement?**	**How can I best manage the risk to reduce the magnitude?**	**What is the magnitude of the risk after management? (This residual risk will be controlled by Compliance Assessment).**
							there will be no detrimental impact on the local hydrogeological or hydrological environment resulting from the activity.		
Protected species – Great Crested Newts (Class Survey Licence Return) – Code 2 from EA Screening Report	Releases of particulate matter (dusts) and micro-organisms (bioaerosols). Spillage of liquids, contaminated rainwater run-off from waste e.g. containing suspended solids, contaminated surface water.	Habitat/species health affected through dust exposure. Harm to protected species through surface water contamination, nutrient enrichment, smothering, disturbance etc.	Air transport then deposition. Transport of contaminants by surface water.	Very Low	Low	**Low**	Permitted waste types are inert and have very low contamination potential. The Great Crested Newt Class Survey Licence Return point and 'Code 2' protected species area is located *c.* 340m to the southeast of the site, within the centre of the newly built River Meadow housing estate, situated between the existing extent of Stanford in the Vale village and the White Horse Business Park. It is considered that there will be no increased risk posed to the protected species record by the development. This is because: • There will be a significant distance between the additional site activity and the protected species record. The variation to current permitted activities being applied for involves the deposit for recovery activity in the western extension area of the site, therefore the existing permitted inert landfill will be between the western extension	Implementation of Site Operation, Waste Acceptance Criteria (see Appendix Hiii of Environmental Permit application), Accident, Incident and Emergency and Oil / Spill procedures in accordance with Environmental Management System (see Appendix G of Environmental Permit application) and Dust Emissions Management Plan (see Appendix N of Environmental Permit application). A basal and side slope Artificial Geological Barrier will be constructed on a phased basis within the western extension area, as is currently undertaken within the current site area, in order to provide protection to soil, groundwater and surface water at least equivalent to that resulting from an attenuation barrier/liner with a minimum thickness of 1.0m and a maximum permeability of 1 x 10^{-7}m/sec.	Very Low

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Receptor	**Source**	**Harm**	**Pathway**	**Probability of exposure**	**Consequence**	**Magnitude of risk**	**Justification for magnitude**	**Risk management**	**Residual risk**
What is at risk? What do I wish to protect?	**What is the agent or process with potential to cause harm?**	**What are the harmful consequences if things go wrong?**	**How might the receptor come into contact with the source?**	**How likely is this contact?**	**How severe will the consequences be if this occurs?**	**What is the overall magnitude of the risk?**	**On what did I base my judgement?**	**How can I best manage the risk to reduce the magnitude?**	**What is the magnitude of the risk after management? (This residual risk will be controlled by Compliance Assessment).**
							area and the protected species record; and • The protected species record is within the centre of the new River Meadow housing estate and so it is likely that the development at Shellingford Quarry will pose less disturbance than the construction and presence of the new housing estate. The presence of the new properties may mean the protected species record is no longer applicable. The potential for impact from dust will be minimised and managed in accordance with the mitigation measures set out in the Dust Emissions Management Plan (Appendix N of Environmental Permit application). The Hydrogeological Risk Assessment (see Hydrogeological Risk Assessment Report (Appendix Hiv of Environmental Permit application)) demonstrates that there will be no detrimental impact on the local hydrogeological or hydrological environment resulting from the activity.		