



**RETFORD CIRCULAR ECONOMY PROJECT
TECHNICAL APPENDIX 3.2 HEALTH MATRIX**

FEBRUARY 2023

Appendix 3.2: Checklist for Planning and Health

Nottinghamshire Rapid Health Impact Assessment Matrix

Assessment criteria	Relevant?	Details/evidence	Potential health impact?	Recommended amendments or enhancement actions to the proposal under consideration
1. Housing quality and design				
<p>1. Does the proposal seek to address the housing needs of the wider community by requiring provision of variation of house type that will meet the needs of older or disabled people?</p> <p>[For example, does it meet all Lifetime Homes Standards, Building for Life etc?]</p>	<input type="checkbox"/> Yes <input type="checkbox"/> Partial <input checked="" type="checkbox"/> No		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
<p>2. Does the proposal promote development that will reduce energy requirements and living costs and ensure that homes are warm and dry in winter and cool in summer</p>	<input type="checkbox"/> Yes <input type="checkbox"/> Partial <input checked="" type="checkbox"/> No		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
2. Access to healthcare services and other social infrastructure				

Assessment criteria	Relevant?	Details/evidence	Potential health impact?	Recommended amendments or enhancement actions to the proposal under consideration
3. Does the proposal seek to retain, replace or provide health and social care related infrastructure?	<input type="checkbox"/> Yes <input type="checkbox"/> Partial <input checked="" type="checkbox"/> No		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
4. Does the proposal address the proposed growth/ assess the impact on healthcare services?	<input type="checkbox"/> Yes <input type="checkbox"/> Partial <input checked="" type="checkbox"/> No		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
5. Does the proposal explore/allow for opportunities for shared community use and co-location of services?	<input type="checkbox"/> Yes <input type="checkbox"/> Partial <input checked="" type="checkbox"/> No		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
3. Access to open space and nature				
6. Does the proposal seek to retain and enhance existing and provide new open and natural spaces to support healthy living and physical activity?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> Partial <input type="checkbox"/> No	The proposal retains existing Public Rights of Way crossing the Site, allowing continued use by the public throughout the operational phase. Once restoration has been completed, new open spaces with improved biodiversity would be created, enhancing mental well-being for those using these footpaths.	<input checked="" type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
7. Does the proposal promote links between open and natural spaces and areas of residence, employment and commerce?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> Partial <input type="checkbox"/> No <input type="checkbox"/>	The proposal retains existing Public Rights of Way crossing the Site, allowing continued use through the operational phase. These connect the villages Lound and Sutton-cum-Lound to the Sutton & Lound SSSI, Local Wildlife Site and idle Valley Nature Reserve.	<input checked="" type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	

Assessment criteria	Relevant?	Details/evidence	Potential health impact?	Recommended amendments or enhancement actions to the proposal under consideration
8. Does the proposal seek to ensure that open and natural spaces are welcoming, safe and accessible to all?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> Partial <input type="checkbox"/> No	The proposal does not limit access to the Idle Valley Nature Reserve, and retains Public Rights of Way crossing the Site. This allows open and natural spaces to remain accessible throughout the operation of the Proposed Development.	<input checked="" type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
9. Does the proposal seek to provide a range of play spaces for children and young people (e.g. play pitches, play areas etc.) including provision for those that are disabled?	<input type="checkbox"/> Yes <input type="checkbox"/> Partial <input checked="" type="checkbox"/> No		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
4. Air quality, noise and neighbourhood amenity				
10. Does the proposal seek to minimise construction impacts such as dust, noise, vibration and odours?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> Partial <input type="checkbox"/> No	<p>An assessment of fugitive dust emissions was undertaken for the Proposed Development.</p> <p>Effects have been mitigated by a number of methods, including:</p> <ul style="list-style-type: none"> • Siting processing areas away from residential properties; • Using screens on the conveyor route; • Using hard paved areas that can be swept and effectively watered; • Having no stockpiles of PFA left at the end of each working day; • Having an enclosed material storage building, kept under negative pressure and with an extraction system; • Keeping processing plant fully enclosed, and the exhaust from dryers passing 	<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input checked="" type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	

<p>through filters prior to release; and</p> <ul style="list-style-type: none">• Transferring PFA in fully enclosed conveyors or pipes. <p>These mitigation measures are fully detailed in the Dust Management Plan included as Technical Appendix 13.7, and will be used in tandem with best practice measures detailed in the Outline Construction Environment Management Plan (OCEMP) included as Technical Appendix 5.3.</p> <p>A noise and vibration assessment has also been undertaken for the Proposed Development which has taken into consideration noise sensitive receptors within 500 m of construction activities. Mitigation measures for noise impacts are detailed in the OCEMP (TA5.3), and will be utilized to minimize any adverse effects on existing noise sensitive receptors. These mitigation measures include:</p> <ul style="list-style-type: none">• Fitting all vehicles and mechanical plant with effective exhaust silencers;• Shutting down or throttling down machines during intervening periods between use;• Placing ancillary plant in areas to cause minimum noise disturbance, and providing acoustic enclosures where necessary;• Limiting use of noisy plant to core daytime periods where practicable; and• Establishing channels of communication between the contractor/developer, NCC, and residents. <p>Given the embedded and proposed mitigation measures, the proposal would not likely have significant impacts in terms of noise, dust, vibration, and odour during construction, and if</p>

		it does, the impacts would be short-term and temporary.	
11. Does the proposal seek to minimise air pollution caused by traffic and employment/ commercial facilities?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> Partial <input type="checkbox"/> No	<p>An assessment of traffic emissions caused by the Proposed Development was undertaken.</p> <p>The air pollutant concentration modelling has identified that there would be negligible increases in nitrogen dioxide and particulate matter concentrations at ecological and existing sensitive receptors as a result of the traffic from the extraction site. There are no sensitive ecological or human receptor locations which would exceed the AQO.</p> <p>Traffic will access and leave the site utilising the A638 and not minor roads.</p> <p>A Dust Management Plan (DMP) has been produced to support the Environmental Permit application to reduce or avoid the potential effects of dust emissions on environmental and ecological receptors. This includes mitigation measures such as ensuring machines in intermittent use would be shut down in the intervening periods between use or throttled down to a minimum.</p>	<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input checked="" type="checkbox"/> Neutral <input type="checkbox"/> Uncertain
12. Does the proposal seek to minimise noise pollution caused by traffic and employment/ commercial facilities?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> Partial <input type="checkbox"/> No	<p>The assessment operational traffic on the existing local road network has indicated that there would be a negligible increase in road traffic noise for existing noise sensitive receptors during all phases.</p> <p>Embedded mitigation for noise impacts include having sandstone bunds around the extraction area, offering noise shielding between the site activities and sensitive receptors. The CHP plant and drying modules (operational at night) would also be located in noise enclosure buildings and constructed with a noise</p>	<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input checked="" type="checkbox"/> Neutral <input type="checkbox"/> Uncertain

insulating cladding. Further mitigation measures are included in the OCEMP (TA5.3).

Potential significant impacts have been identified at two residential properties within the vicinity of the Site, but these impacts are associated with the removal of the embankments during restoration, and would therefore be temporary, short-term, and reversible.

Assessment criteria	Relevant?	Details/evidence	Potential health impact?	Recommended amendments or enhancement actions to the proposal under consideration
5. Accessibility and active transport				
13. Does the proposal prioritise and encourage walking (such as through shared spaces) connecting to local walking networks?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> Partial <input type="checkbox"/> No	The proposal retains existing Public Rights of Way that cross the Site, which will remain open during the operation of the Proposed Development. This will ensure local walking networks remain intact and accessible.	<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input checked="" type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
14. Does the proposal prioritise and encourage cycling (for example by providing secure cycle parking, showers and cycle lanes) connecting to local and strategic cycle networks?	<input type="checkbox"/> Yes <input type="checkbox"/> Partial <input checked="" type="checkbox"/> No		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
15. Does the proposal support traffic management and calming measures to help reduce and minimise road injuries?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> Partial <input type="checkbox"/> No	<p>It is anticipated that traffic movements would be controlled during the construction phase to minimise potential impacts on the surrounding road network. A range of best practice measures during the construction phase to minimise traffic impacts upon local highways would be applied through the implementation of a Construction Traffic Management Plan (CTMP), to be secured by a suitable planning condition.</p> <p>The following avoidance measures would be considered in relation to the traffic forecasts and impacts during operation for the lifetime of the Proposed Development:</p> <ul style="list-style-type: none"> Operational Traffic Management Plan (OTMP), to mitigate the impact of the operational phase and associated traffic. 	<input checked="" type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	

		<ul style="list-style-type: none"> Staff Travel Plan to reduce the number of employees travelling to the Site by single occupancy car. 		
16. Does the proposal promote accessible buildings and places to enable access to people with mobility problems or a disability?	<input type="checkbox"/> Yes <input type="checkbox"/> Partial <input checked="" type="checkbox"/> No		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	

Assessment criteria	Relevant?	Details/evidence	Potential health impact?	Recommended amendments or enhancement actions to the proposal under consideration
6. Crime reduction and community safety				
17. Does the proposal create environments & buildings that make people feel safe, secure and free from crime?	<input type="checkbox"/> Yes <input type="checkbox"/> Partial <input checked="" type="checkbox"/> No	Not applicable as the Proposed Development will not be accessible to the general public other than along the Footpath 1 alignment.	<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
7. Access to healthy food				
18. Does the proposal support the retention and creation of food growing areas, allotments and community gardens in order to support a healthy diet and physical activity?	<input type="checkbox"/> Yes <input type="checkbox"/> Partial <input checked="" type="checkbox"/> No		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
19. Does the proposal seek to restrict the development of hot food takeaways (A5) in specific areas?	<input type="checkbox"/> Yes <input type="checkbox"/> Partial <input checked="" type="checkbox"/> No		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	

Assessment criteria	Relevant?	Details/evidence	Potential health impact?	Recommended amendments or enhancement actions to the proposal under consideration
8. Access to work and training				
20. Does the proposal seek to provide new employment opportunities and encourage local employment and training?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> Partial <input type="checkbox"/> No	It is estimated that around 20 direct jobs would be created including site processing and handling staff, admin & welfare, construction machine operators, landscape construction and forestry workers, Also, a number of the direct jobs would be skilled jobs such as project managers and engineers. There would also be indirect job creation, including in the local supply chain and haulage contracts.	<input checked="" type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
9. Social cohesion and lifetime neighbourhoods				
21. Does the proposal connect with existing communities where the layout and movement avoids physical barriers and severance and encourages social interaction? [For example, does it address the components of Lifetime Neighbourhoods?]	<input type="checkbox"/> Yes <input type="checkbox"/> Partial <input checked="" type="checkbox"/> No		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	

10. Minimising the use of resources

<p>22. Does the proposal seek to incorporate sustainable design and construction techniques?</p>	<p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> Partial <input type="checkbox"/> No</p>	<p>Reusing PFA in the concrete and cement industries presents an important example of the circular economy where the waste output of one process can be used as a material component to another; reducing the need to extract primary resources. Additionally, unless stockpiled PFA deposits, like those derived from the Proposed Development are utilised, manufacturers who currently use PFA would have to revert to Portland cement or import PFA from abroad.</p> <p>The use of PFA from the Proposed Development would contribute overall to the development of sustainable development through its application as a cement substitute. Also, the Proposed Development as demonstrated in the previous sections of this report would provide an overall beneficial significance in terms of GHG emissions.</p>	<p><input checked="" type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain</p>	
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Assessment criteria	Relevant?	Details/evidence	Potential health impact?	Recommended amendments or enhancement actions to the proposal under consideration
11. Climate change				
23. Does the proposal incorporate renewable energy and ensure that buildings and public spaces are designed to respond to winter and summer temperatures, i.e. ventilation, shading and landscaping?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> Partial <input type="checkbox"/> No	<p>A qualitative assessment of the climate resilience of the Proposed Development to climate change was undertaken. The climate resilience measures identified and adopted by the design seek to minimise climate risks due to future climate change. These include, but are not limited to: design standards to meet higher ambient temperatures; active surface water management measures in place; planting chosen to be resilient to drought; and roofs and facades designed to withstand storm damage.</p> <p>The assessment has found that the Proposed Development is resilient to likely climatic changes within its lifetime and the effects are not significant.</p>	<input checked="" type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
24. Does the proposal maintain or enhance biodiversity	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> Partial <input type="checkbox"/> No	<p>Through the implementation of mitigation measures (Outline Monitoring and Mitigation Plan, A Restoration Scheme, an Outline Construction Environment Management Plan, avoiding high value boundary habitats, best practice mitigation, A Dust Management Plan) potential residual effects of the Project are assessed as being of low to negligible magnitude and thus not significant in terms of the EIA regulations.</p> <p>The restoration scheme for the Proposed Development is biodiversity led. Over the proposed 25-year period, with the exception of Stage I (the extraction of PFA) the land would be gradually restored following extraction in each phase; reinstating some of the existing</p>	<input checked="" type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	

	<p>farming activities, including grazing of the Site and habitat management using sheep. The proposed habitats include wet grassland, species-rich grassland, reed beds, woodland, and water bodies to buffer and compliment the adjacent Sutton and Lound Gravel Pits SSSI. There would be positive effects at the local level in respect of habitats, birds, bats, amphibians and reptiles.</p> <p>The Applicant is committed to a 10% net gain in biodiversity, and it is anticipated that there would be a significant improvement on the current habitats at the Site. This 10% net gain is demonstrably achievable as the outline calculation suggests the Proposed Development will have a biodiversity net gain of 12.66%.</p> <p>Details of this are provided and would be implemented through the through the compensatory habitat and implementation of the Outline Restoration Strategy and associated BNG assessment.</p>		
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12. Health inequalities

<p>25. Does the proposal consider health inequalities and encourage engagement by underserved communities?</p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> Partial <input checked="" type="checkbox"/> No</p>		<p><input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain</p>	
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Any other comments

N/A

Name of assessor and organisation	Arcus Consultancy Services Limited on behalf of Lound Hive Limited.
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Date of assessment	February 2023
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