

**UDCSL 4 - Ultimate Demolition and Construction Service Limited - The Old Bottle Yard, Great Northern Terrace, Lincoln, LN5 8HN - EAWML 120515 - EPRWE3418AB**

## **Environmental Risk Assessment**

As part of an application for an environmental permit Operators must assess the risk to the environment and human health from the activities they seek to permit.

This Environmental Risk Assessment has been undertaken in accordance with the online Environment Agency Guidance for undertaking environmental risk assessments.

Environmental risks relevant to the proposed activities are:

- Emissions to Air;
- Emissions to Water;
- Emissions to Land;
- Odour;
- Noise;
- Litter;
- Pests;
- Vandalism;
- Fire; and
- Incompatible Feedstock.

For each of the above environmental criteria the approach to the assessment has followed the following four stage process:

- Identify the risks;
- Assess the risks (assuming those control measures proposed are in place);
- Choose appropriate further measures to control these (if required); and
- Present the assessment.

Hazard	Receptor	Pathway	Consequences	Judgement of risk	Managing the risk	Overall Risk (following mitigation)
<b>Release of particulate matter (dust) and micro-organisms (bioaerosols)</b>	Local Population	Air	<p>Dust and bioaerosols travel through the air and can be:</p> <ul style="list-style-type: none"> <li>-inhaled or ingested</li> <li>-deposited on garden fruit and vegetables and then ingested</li> </ul> <p>There is a risk of dust and bioaerosols causing:</p> <ul style="list-style-type: none"> <li>-respiratory irritation and illness</li> <li>-gastro-intestinal illness</li> </ul>	<ul style="list-style-type: none"> <li>-permitted waste types include soils and other wastes which are likely to result in particulates when transferred and treated</li> <li>-there is a low potential to produce bioaerosols</li> <li>-there is potential for exposure to anyone living or working close to the site (excluding operator and employees)</li> <li>-there is potential for increased dust generation from permitted activities during prolonged dry periods for example summer months</li> </ul> <p>likelihood of the hazard affecting the receptor as <b>Low</b></p>	<ul style="list-style-type: none"> <li>-Permitted activities shall not be carried out in an Air Quality Management Area designated for PM<sub>10</sub>.</li> <li>-The permit requires emissions of substances not controlled by emission limits (excluding odour) shall not cause pollution.</li> </ul> <p>The following actions also need taking:</p> <ul style="list-style-type: none"> <li>-all appropriate measures shall be followed as documented in the management system</li> <li>-if required, an emissions management plan must be submitted and a risk assessment review done</li> </ul> <p>-the emissions management plan is implemented if one is required</p>	Taking these actions will control the risk and rate it as ' <b>low</b> '
<b>Waste, litter and mud on local roads</b>	Local Population	Vehicles	<ul style="list-style-type: none"> <li>-nuisance</li> <li>-loss of amenity</li> <li>-road traffic accidents</li> </ul>	<ul style="list-style-type: none"> <li>-likelihood of the hazard affecting the receptor as <b>Low</b></li> <li>-overall severity of potential consequences as medium</li> <li>-overall risk rating as medium</li> </ul> <p>The reasons for giving the activity this rating are because:</p> <ul style="list-style-type: none"> <li>-there is a risk of creating unsafe road surfaces in wet weather</li> <li>-local residents are often sensitive to mud on roads</li> </ul>	<p>The permit requires emissions of substances not controlled by emission limits (excluding odour) shall not cause pollution.</p> <ul style="list-style-type: none"> <li>-appropriate measures are required to prevent and minimise emissions, including mud tracking from site are documented in the management system</li> <li>-if required, an emissions management plan must be submitted and a risk assessment review done</li> </ul> <p>-the emissions management plan is implemented if one is required</p>	Taking these actions will control the risk and rate it as ' <b>low</b> '

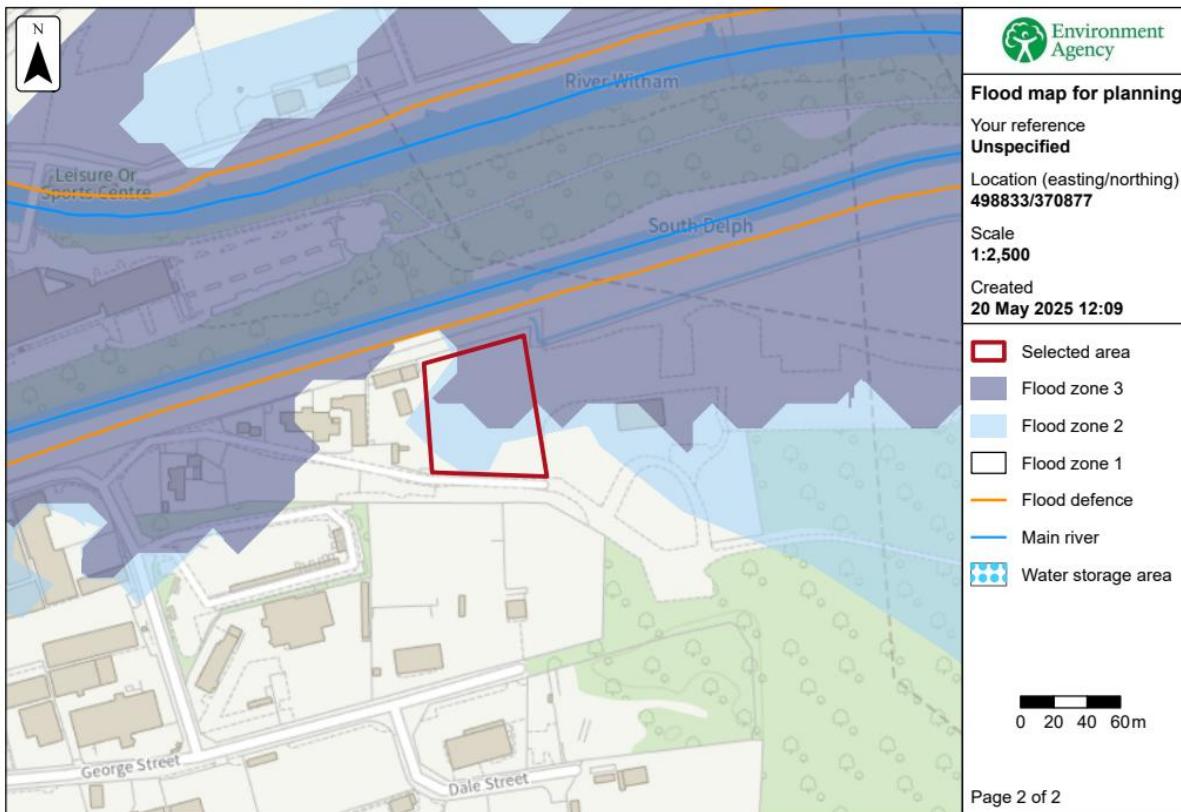
Hazard	Receptor	Pathway	Consequences	Judgement of risk	Managing the risk	Overall Risk (following mitigation)
Odour	Local Population	Airbourne	nuisance loss of amenity	-likelihood of the hazard affecting the receptor as <b>low</b> -overall severity of potential consequences as <b>low</b>  -overall risk rating as <b>low</b>  -The reason for giving the activity this rating is because the waste types accepted in accordance with this permit are unlikely to be odorous.	To manage the risk it requires:  -none of the waste streams accepted at the site are odorous.  -emissions are free from odour at levels likely to cause pollution  -an odour management plan should be produced and implemented if required	Taking these actions will control the risk and rate it as ' <b>low</b> '
Noise and vibration	Local Population	Noise travels through the air and vibration through the ground	nuisance  -loss of amenity for local residents and workplaces  -loss of sleep	We have judged the:  -likelihood of the hazard affecting the receptor as <b>medium</b>  -overall severity of potential consequences as <b>medium</b>  -overall risk rating as <b>medium</b>  -The reason for giving the activity this rating is because local residents are often sensitive to noise and vibration and the permit allows crushing and screening activities	To manage the risk it requires:  -emissions are free from noise and vibration at levels likely to cause pollution  -a noise and vibration management plan to be implemented if required  -the existing permitted activity (since January 2022) has never been subject to a noise complaint.  -there will be change to permitted activities on site.	Taking these actions will control the risk and rate it as ' <b>low</b> '
Scavenging animals and birds	Local Population	Animals and birds travel over land and through the air.	nuisance  -loss of amenity  -harm to human health from waste carried off-site and from faeces	We have judged the:  -likelihood of the hazard affecting the receptor as <b>low</b>  -overall severity of potential consequences as <b>low</b>  -overall risk rating as <b>low</b>  -The reason for giving the activity this rating is because the permitted wastes are unlikely to attract scavenging animals and birds.	To manage the risk it requires:  -allows only waste types that pose a low risk of attracting scavenging animals or birds  -can require changes to the management system to control pests  -waste streams accepted do not contain food items for birds to scavenge.	Taking these actions will control the risk and rate it as ' <b>low</b> '

Hazard	Receptor	Pathway	Consequences	Judgement of risk	Managing the risk	Overall Risk (following mitigation)
Pests such as flies	Local Population	Pests, such as flies can travel through the air or over land	nuisance -loss of amenity -harm to human health	We have judged the:  -likelihood of the hazard affecting the receptor as <b>low</b>  -overall severity of potential consequences as low  overall risk rating as low  The reason for giving the activity this rating is because the permitted wastes are unlikely to attract pests, such as flies.	To manage the risk it requires:  -allows only waste types that pose a low risk of attracting pests or flies  -can require changes to the management system to control pests and flies  waste streams accepted do not contain food items for flies to feed on.	Taking these actions will control the risk and rate it as ' <b>low</b> '
Surface water Flooding of the site	off-site contaminating buildings, gardens and natural habitats downstream.	Land and water	Water can flood the site during heavy or persistent rainfall events. There is a risk of waste washed off-site contaminating buildings, gardens and natural habitats downstream.	We have judged the:  -likelihood of the hazard affecting the receptor as <b>low</b>  -overall severity of potential consequences as <b>medium</b>  -overall risk rating as <b>low</b>  The reason for giving the activity this rating is because the permitted waste types are non-hazardous and therefore the risk of contamination is not high.	To manage the risk the standard rules permit requires:  -compliance with the sensitive location exclusions  -a written management system that identifies and documents the process controls to minimise the risk of pollution includes those arising from operations, maintenance, accidents, incidents and non-conformances The accident management section of the management system covers:  -assessing the risk of flooding and measures to prevent or reduce the risk  -contingency plans for diversion of waste, if required  -emergency procedures that are clearly communicated to all site operatives	Taking these actions will control the risk and rate it as ' <b>low</b> '
Fire risk	respiratory irritation, illness and nuisance to the local population  injury to staff, firefighters or arsonists and vandals  air, water or land pollution	Airborne	-Risk of smoke to local receptors  -Infrastructure closing or being damaged,  -Fire water run-off entering watercourses.	We have judged the:  -likelihood of the hazard affecting the receptor as <b>medium</b>  -overall severity of potential consequences as low  -overall risk rating as <b>low</b>  -There are no flammable waste types permitted at the site.	-a written management system that identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents, non-conformances - therefore includes measures to avoid fire outbreak and to control fires, including containment of fire waters  -a robust waste acceptance procedure  -no burning of wastes	Taking these actions will control the risk and rate it as ' <b>low</b> '

Hazard	Receptor	Pathway	Consequences	Judgement of risk	Managing the risk	Overall Risk (following mitigation)
Litter on surrounding land and in final material	Local population	Airbourne	<p>Litter can travel through the air and then be deposited on land. There is a risk of causing:</p> <ul style="list-style-type: none"> <li>-nuisance</li> <li>-loss of amenity</li> <li>-harm to animal health</li> <li>-reduction in land bank values due to contamination</li> </ul>	<p>To manage the risk the standard rules permit requires:</p> <ul style="list-style-type: none"> <li>-a management system with waste pre-acceptance and acceptance procedures that reduce the risk of accepting unpermitted waste</li> <li>-compliance with the 'emissions of substances not controlled by emission limits' rule, submitting an emissions management plan, if necessary</li> <li>-operators to follow appropriate measures guidance</li> </ul> <p>Taking this action will control the risk and rate it as 'low'.</p>	<p>We have judged the:</p> <ul style="list-style-type: none"> <li>-likelihood of the hazard affecting the receptor as low</li> <li>-overall severity of potential consequences as low</li> <li>-overall risk rating as low</li> </ul> <p>The reason for giving the activity this rating is because the waste types listed in this permit are not likely to produce litter.</p>	Taking these actions will control the risk and rate it as 'low'
Gaining unauthorised access to site	Humans and livestock	Land based	<p>There is a risk of direct physical contact with all on-site hazards such as wastes, machinery and vehicles. There is a risk of causing injury to humans or livestock.</p>	<p>To manage the risk the standard rules permit requires:</p> <ul style="list-style-type: none"> <li>-activities shall be managed and operated in accordance with all appropriate measures and a documented and implemented management system that stipulates all preventative measures and emergency responses should accidents occur (including site security measures to prevent unauthorised access)</li> <li>-emergency contact details shall be displayed at the site entrance</li> <li>-visitors should receive a health and safety induction when visiting and must follow the site operator's instructions</li> </ul>	<p>We have judged the:</p> <ul style="list-style-type: none"> <li>-likelihood of the hazard affecting the receptor as low</li> <li>-overall severity of potential consequences as low</li> <li>-overall risk rating as low</li> </ul> <p>The reasons for giving the activity this rating are because the:</p> <ul style="list-style-type: none"> <li>-permitted wastes are non-hazardous</li> <li>-management system includes procedures for worker and visitor safety</li> </ul>	Taking these actions will control the risk and rate it as 'low'
Risk of pollution causing acute effects	Humans and wildlife	Land and surface water	<p>There is a risk of direct physical contact with all on-site hazards such as wastes, machinery and vehicles. There is a risk of causing injury to humans or livestock.</p>	<p>To manage the risk the standard rules permit requires:</p> <ul style="list-style-type: none"> <li>-all operations shall be more than 10 metres from a watercourse and are excluded from taking place in an SPZ1</li> <li>-a written management system that identifies and documents the process controls to minimise the risk of pollution – includes those arising from operations, maintenance, accidents, incidents and non-conformances</li> </ul>	<p>We have judged the:</p> <ul style="list-style-type: none"> <li>-likelihood of the hazard affecting the receptor as low</li> <li>-overall severity of potential consequences as low</li> <li>-overall risk rating as low</li> </ul> <p>The reason for giving the activity this rating is because:</p> <ul style="list-style-type: none"> <li>-there is potential for contaminated rainwater run-off from waste operations, especially during heavy rain</li> <li>-leachate may contain suspended solids</li> </ul>	Taking these actions will control the risk and rate it as 'low'

Hazard	Receptor	Pathway	Consequences	Judgement of risk	Managing the risk	Overall Risk (following mitigation)
				<p>all liquids must be in containers with secondary containment</p> <p>-all secondary containment must meet CIRIA C736 guidance</p> <p>-storage and treatment of wastes in schedule 3 must take place on an impermeable surface with sealed drainage in an SP22</p> <p>-run-off is restricted by the 'emissions of substances not controlled by emissions limits' rule</p> <p>-appropriate measures guidance to be followed</p> <p>-emergency procedures and contingency plans to be clearly communicated to all site operatives</p> <p>Taking these actions will control the risk and rate it as 'low'.</p>	<p>-the permitted waste types are non-hazardous</p>	
Risk of pollution causing chronic effects	Humans and wildlife	Land, surface waters and groundwater	<p>There is a risk of pollution from:</p> <p>-liquid spills</p> <p>-leachate from waste</p> <p>-contaminated rainwater run-off from waste</p> <p>Contamination can travel by:</p> <p>-direct run-off from site over the land, through surface water drains and ditches</p> <p>-indirect run-off through soil</p> <p>We have assessed the chronic effect as deterioration to water quality.</p>	<p>We have judged the:</p> <p>-likelihood of the hazard affecting the receptor as low</p> <p>-overall severity of potential consequences as low</p> <p>-overall risk rating as low</p> <p>The reason for giving the activity this rating is because pollution is likely to be detected quickly and the effects are temporary and reversible.</p>	<p>To manage the risk, take the actions for risk 4.1 along with:</p> <p>-all liquids must be in containers with secondary containment</p> <p>-run-off is restricted by the 'emissions of substances not controlled by emission limits' rule</p> <p>-using drainage plans to separate clean and dirty water</p> <p>-considering this risk in an accident management plan</p> <p>Taking these actions will control the risk and rate it as 'low'.</p>	<p>Taking these actions will control the risk and rate it as 'low'</p>

Hazard	Receptor	Pathway	Consequences	Judgement of risk	Managing the risk	Overall Risk (following mitigation)
Risk to groundwater			<p>Groundwater is at risk from:</p> <ul style="list-style-type: none"> <li>-liquid spills</li> <li>-leachate from waste</li> <li>-contaminated rainwater run-off from waste</li> </ul> <p>There is a risk of contaminants travelling through soil and groundwater which can then be abstracted from a borehole. This could have a chronic effect resulting in the groundwater requiring treatment or causing closure of a borehole.</p>	<p>We have judged the:</p> <ul style="list-style-type: none"> <li>-likelihood of the hazard affecting the receptor as low</li> <li>-overall severity of potential consequences as low</li> <li>-overall risk rating as low</li> </ul> <p>We have given this rating because of the potential for contaminated rainwater run-off or leachate from waste operations, especially during heavy rain. The consequence is based on the possibility of pollution not being detected for a long time.</p>	<p>To manage the risk the following actions must be taken:</p> <ul style="list-style-type: none"> <li>-the activities shall not be carried out within a groundwater SPZ1</li> </ul>	<p>Taking these actions will control the risk and rate it as 'low'</p>



Receptors

Ref	Receptor	Description	Direction from site boundary (m)	Approximate distance from Site Boundary (m)
1	Dwelling	Single Dwelling Great Northern Terrace	165	E
2	Industrial Estate	Industrial Estate	15	SW
3	Watercourse	Sincil Dyke and protected species	10	N
4	Protected Habitat	Coastal and Floodplain Grazing Marsh	10	N / E
5	Local Wildlife Site	Deciduous Woodland	10	N
6	Ten Pin Bowling	Ten Pin Bowling	545	S
7	Crematorium	Crematorium	435	S
8	Traveller Settlement	Traveller Settlement	410	SW
9	Dwelling	Single Dwelling Washingborough Road	635	SW
10	Golf Course	Golf Course	635	SW
11	Dwellings	Dwellings Washingborough Road	871	SW
12	Dwellings	Dwellings Hall Road	945	S
13	Dwellings	Dwellings Washingborough Road	635	SW
14	Dwellings	Dwellings A4134	990	SW
15	Dwellings	Dwellings Welbeck Street	342	NW
16	Dwellings	Dwellings Tempest Street	390	N
17	Dwellings	Dwellings Devon Street	690	NE
18	Hospital	Lincoln County Hospital	765	NE
19	Sheltered Housing	Progress Living	985	NE
20	Arboretum	Arboretum	690	NW
21	Sports Centre	Leisure Centre	875	NW
22	Watercourse	River Witham protected species	110	N
23	Dwellings	Melville Street	995	NW

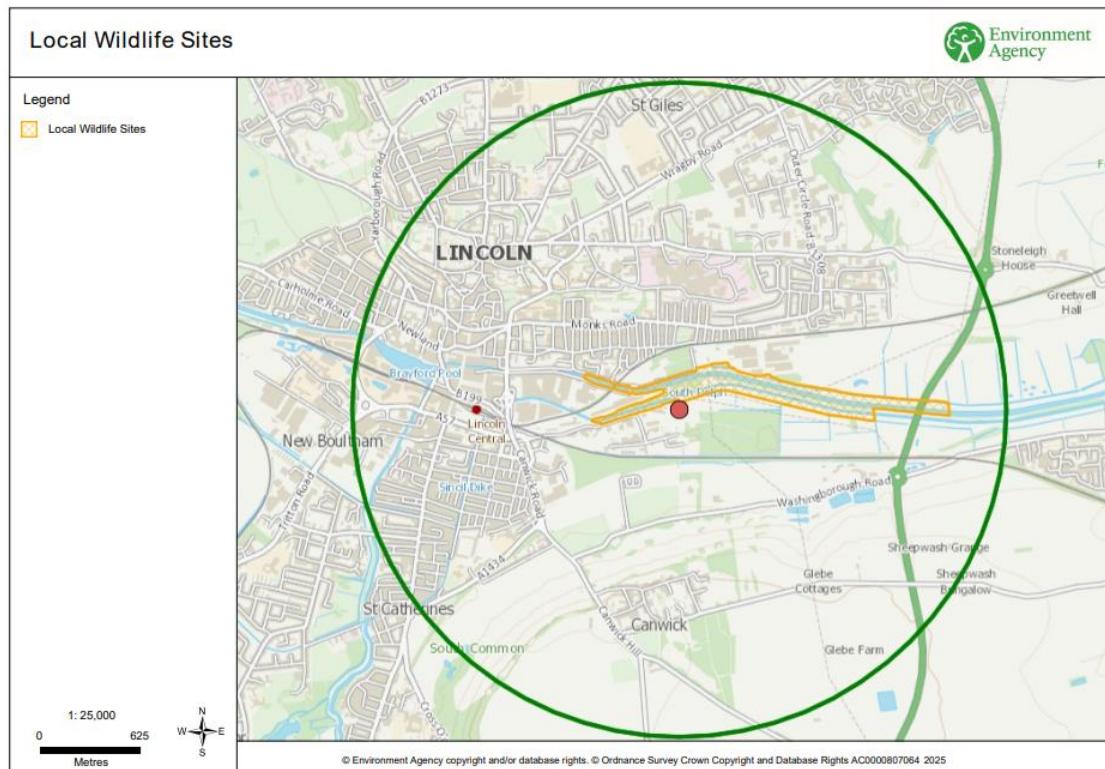


Hazard	Receptor	Pathway	Consequences	Judgement of risk	Managing the risk	Overall Risk (following mitigation)
Risk to Local Wildlife site	<p><b>Local Wildlife site – Witham Corridor, East of City Centre</b></p> <p><b>Protected species within the River Witham</b>            -European Eel            -Water Vole            -Spined Loach</p> <p><b>Protected habitats</b>            Coastal and Floodplain Grazing Marsh and Deciduous Woodland</p>	Air, water, land	Dust smothering vegetation	<p>at risk from any source and by any pathway.</p> <p>The risk of harm to protected sites includes (but are not limited to) the following:</p> <ul style="list-style-type: none"> <li>-contaminated surface water run off</li> <li>-smothering</li> <li>-disturbance</li> <li>-predation</li> <li>-Dust</li> </ul>	<p>Previously permitted under SR 2008 No1 and meeting location criteria. There will be no changed to the sites activities.</p> <p>Dust – Smothering plants</p> <p>(a) enclosures or hoods shall be installed on feed hoppers and conveyor outlet points to minimise dust;            (b) point-source water misting systems or water sprays shall be installed over the feed hoppers and outlet points;            (c) drop heights from equipment and conveyors shall be minimised or hoods installed on the outlet points to reduce dust;            (d) a combination of fixed and mobile dust suppression units shall be used to control point sources of dust;            (e) wind breaks shall be used to minimise wind whip and dust from stockpiles and the treatment area;            (f) plant shall be inspected daily and managed to ensure it is operating to minimise the generation of dust;            (g) plant and the areas around it and including access roads shall be cleaned to prevent dust generation.            (h) Dust netting will be in place along the boundary adjacent to the Local Wildlife site            (j) fixed water sprinklers will be in place to prevent dust leaving the site            (k) The site will operate an approved Dust Management Plan</p> <p>The company will operate in line with an approved dust management plan and associated infrastructure.</p> <p>Dusty processes will be controlled, and dust suppression sprays and cannons will be in use.</p> <p>A weather station will be used to ensure dust generating conditions are understood and waste processing will not take place in these conditions</p> <p>The operation will not change to the current one other than the addition of new dust barriers and suppression.</p> <p>There have been no complaints about dust throughout the site's operation. The new infrastructure will improve this further.</p> <p>Surface water</p> <p>The site is laid to hardstanding meaning there are no impermeable surfaces to generate run-off that may enter the watercourse.</p>	Low

				<p><b>Disturbance</b> The operation has been permitted since January 2021 with no deterioration of the Local Wildlife site</p> <p><b>Predation</b> None of the waste streams accepted at the site will attract vermin or birds.</p> <p>Due to the methods taken by the site and operations taking place in line with a DEMP the risk to nearby habitats and protected species is deemed low.</p>	
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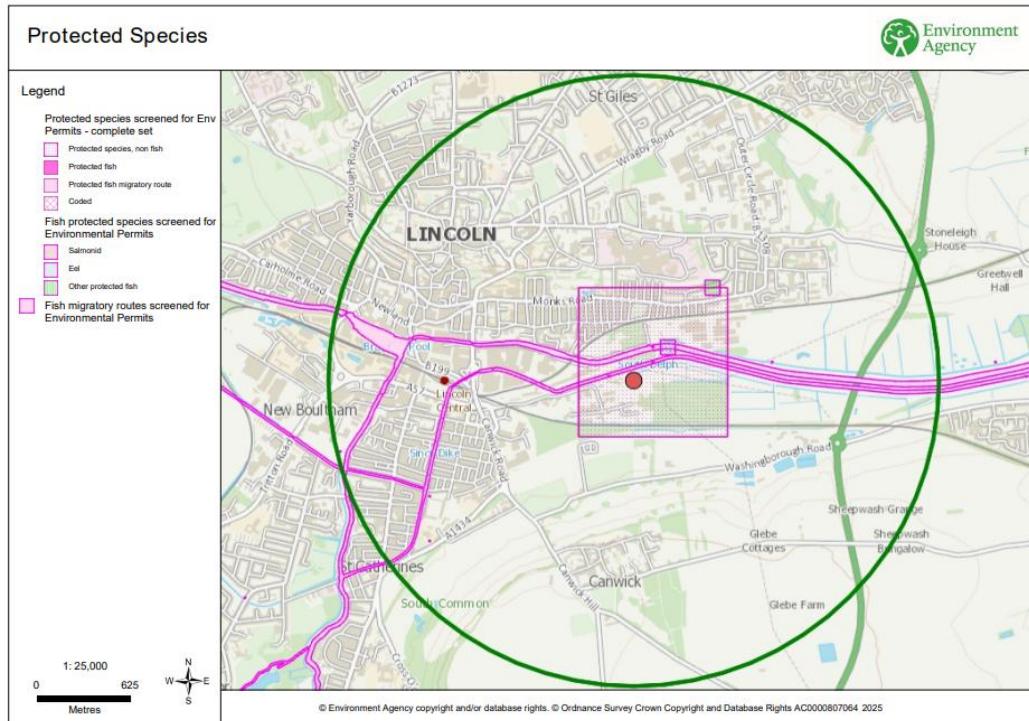
#### Local Wildlife Sites

- 50 metres of a National Nature Reserve, Local Nature Reserve, Local Wildlife Site, Ancient woodland or Scheduled Ancient Monument;



#### Protected Species

- 50 metres of a site that has species or habitats protected under the Biodiversity Action Plan that the Environment Agency considers at risk to this activity



#### Protected Habitats

- 50 metres of a site that has species or habitats protected under the Biodiversity Action Plan that the Environment Agency considers at risk to this activity

