

## Appendix 7e

### Assessment of Maelor Foods WWTP Overall Site Risk – 13<sup>th</sup> Feb 2023

#### Source Hazard

Maelor Foods is an EPR establishment - likely to be high / medium risk.  
For raw wastewater, watercourse could be affected by deoxygenation / ammonia toxicity to fish. Not persistent hazard and river would recover quickly.  
Biodegradable chemicals used mostly and no toxic / persistent hazards.  
Caustic spillage would be buffered in watercourse

#### MEDIUM

#### Pathway Hazard

River Dee is around 80 metres away  
Vegetation in between so spillages would filter / soak away on route  
Small tributary to river is closer but still same travel distance to river  
WWTP is not in floodplain of river  
WWTP area bunded / hard standings  
The stratum is considered to have a high to very high permeability with intergranular flow.  
The bedrock geology comprises the Kinnerton Sandstone Formation, which includes soils of high permeability with intergranular flow. Spillages onto unmade ground likely to reach aquifer below.

#### MEDIUM / HIGH

#### Receptor Hazard

Nationally designated sites (SSSIs / SACs / SPAs) and drinking water sources (source protection zones (SPZ)) are likely to be high.  
River Dee is a SAC and aquifer is a SPZ.

#### HIGH

#### Overall Site Hazard Rating - MODERATE / HIGH

#### Frequency of loss of containment

Risk of loss of containment	Annual probability of loss of containment
High	>1% (1 in 100)
Medium	1 in 100 to 1 in 1 million
Low	< 1 in million

#### Risk of loss of containment - MEDIUM

#### Overall Site Risk

The overall site risk is a combination of the site hazard rating and the frequency of loss of containment.

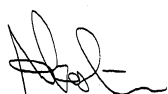
## **MODERATE / HIGH**

### **Recommendations**

Based on the overall site risk for the WWTP area being moderate to high, it is recommended to add new or improved existing containment systems – i.e., bunding around WWTP in accordance with CIRIA guidelines for a Class 2 bund and internal area hard standings / kerbing.

New bund should provide full containment of 110% of largest raw wastewater tank or 25% of all tanks, whichever is greater.

Areas where spillages could penetrate into the ground should be covered by impermeable hardstands or protected by kerbing / drainage.



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