

Flood Risk Assessment & Planning Policy Compliance

Site: Laurel Lodge Farm, Hurn Road, Holbeach Hurn

Proposal: Outdoor storage of materials, additional buildings/structures, and external generators (retrospective)

Prepared for: Midwest Polychem Ltd

1. Introduction

This FRA has been prepared alongside a detailed **Drainage Strategy (DART Engineers, July 2025)** to address flood risk and drainage requirements in support of the planning application. The strategy provides a site-specific design for both surface water and foul water disposal, ensuring compliance with the **NPPF**, the **Lincolnshire Minerals & Waste Local Plan (2016)**, and the **South East Lincolnshire Local Plan (2019)**.

2. Site Description

- Located on Hurn Road, adjacent to the A17, within an established plastics recycling facility
- Ground levels vary from **3.3m to 3.85m AOD**, averaging 3.6m
- Site lies entirely within **Flood Zone 3** (high probability).
- Proposed development comprises material storage bays, outdoor finished product storage, DAF plant, baler bay, safety office, and external generators.

3. Flood Risk Sources

- **Tidal/Fluvial:** Site classified “danger for some” in the 0.5% and 0.1% annual events
- **Surface Water:** Infiltration drainage ruled out; perched groundwater confirmed
- **Residual Risk:** Depths of 0.25m possible in extreme tidal breach; majority of site “low hazard” (<0.75

4. Flood Modelling & Drainage

4.1 Surface Water Drainage

The Drainage Strategy (drawing 25443-DR-C-0100 P1) confirms:

- **Impermeable Area:** 1,990–2,000 m²
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- **Runoff Restriction:** Limited to **2.3 l/s** via Hydrobrake (75mm orifice), minimising blockage risk
- **Attenuation Storage:**
 - Required: **145.3 m³** for 1 in 100 year + 45% CC storm
.
 - Provided: **20m x 10m x 0.8m deep attenuation crates** (~160m³)
- **Outfall:** Controlled discharge into existing watercourse (subject to IDB Byelaw 3 consent)
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4.2 Foul Water Drainage

- Connection to existing **private foul sewer** and treatment tank
- New foul connections provided at 150mm diameter with appropriate gradients (1:80).
- All foul water remains private, with maintenance responsibility resting with site operator
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4.3 Maintenance & Management

- The drainage system will remain under **private management**.
- Maintenance schedule includes Hydrobrake inspection, crate flushing, and regular monitoring of foul connections

5. Mitigation & Resilience

- **Storage Freeboard:** Materials stored at 3.60–3.85m AOD, at least **370mm above 100-year + CC flood levels**.
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- **Palletised Storage:** Finished products stored on raised pallets for resilience.
- **On-Site Storage:** Yard areas provide **500m³ floodwater storage** during extreme events
- **Non-Hazardous Waste:** Plastics are inert and pose no pollution risk if inundated
.
- **Plant Protection:** DAF plant and generators to be protected by bunding/raised plinths.

6. Planning Policy Compliance

National Planning Policy Framework (NPPF, Dec 2024)

- **Paras 162–169:** Flood risk minimised through restricted discharge, attenuation, and resilient storage
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- **Paras 170, 173–182:** Development in Flood Zone 3 made safe without increasing off-site risk.
- **Para 187:** Pollution prevented by inert waste, bunding, and sealed drainage.

Lincolnshire Minerals & Waste Local Plan (2016)

- **Policy DM15:** Site-specific FRA and drainage strategy demonstrate safe operation.
- **Policy DM16:** Foul and surface water managed without pollution
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- **Policy DM3/DM17:** No unacceptable cumulative flood or amenity impacts.

South East Lincolnshire Local Plan (2019)

- **Policy 4:** FRA and Drainage Strategy confirm resilience, mitigation, and safe operation
.
- **Policy 30:** Pollution risk addressed through non-hazardous storage and sealed drainage.

- **Policy 31:** Climate change resilience via 45% allowance in attenuation design.

7. Conclusions

- The Drainage Strategy (DART Engineers, 2025) addresses **refusal reason 2** by providing a detailed foul and surface water management plan with attenuation and Hydrobrake control.
- Together with the FRA, it demonstrates that:
 - The development can be operated safely in Flood Zone 3.
 - There is no increased flood risk on or off site.
 - Foul and surface water are adequately managed.
 - The scheme complies with NPPF, Lincolnshire MWLP, and SELLP policies.