

## Lidsey Drainage Impact Assessment

|                           |                                                                                                                                                                                                               |
|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Site Address:             | 45 Southdean Close, Middleton-On-Sea, PO22 7TH                                                                                                                                                                |
| Proposal:                 | Two storey front extension, first floor side extension, single storey side extension, two storey side extension, conversion of roofspace to habitable use with rear dormer and installation of 3 x balconies. |
| Applicant:                | Mr & Mrs D Holcombe                                                                                                                                                                                           |
| Agent:                    | JJR Designs Ltd                                                                                                                                                                                               |
| Local Planning Authority: | Arun District Council                                                                                                                                                                                         |
| Date:                     | 22 December 2025                                                                                                                                                                                              |

## **1. Purpose of This Statement**

This Lidsey Drainage Impact Assessment has been prepared in response to a validation request from Arun District Council. The site lies:

- Within the Lidsey Wastewater Treatment Works (WwTW) Catchment Area, and
- Within Flood Zone 3, as defined by the Environment Agency Flood Map for Planning

The purpose of this statement is to demonstrate that:

- Foul and surface water drainage will be managed responsibly
- The development will not exacerbate flood risk on or off site
- Additional pressure on the Lidsey WwTW catchment will be minimised
- The proposal aligns with national and local planning policy for development in Flood Zone 3

## **2. Site Description and Flood Risk Context**

The site comprises an existing single residential dwelling located within an established residential area of Middleton-On-Sea. The lawful residential use predates current flood risk policy and is therefore considered existing vulnerable development within Flood Zone 3.

Key flood risk considerations:

- The proposal involves extensions and alterations only
- No new dwellings or intensification of use are proposed
- The footprint increase is modest relative to plot size
- There is no loss of floodplain storage beyond the immediate domestic curtilage

The development is therefore classified as less vulnerable development associated with an existing dwelling, which is acceptable in Flood Zone 3 subject to appropriate mitigation.

## **3. Planning Policy and Technical Framework**

The drainage and flood risk strategy has been developed in accordance with:

- National Planning Policy Framework (NPPF) – Flood Risk and Drainage
- Planning Practice Guidance (Flood Risk and Coastal Change)
- Arun District Council Local Plan flood risk and infrastructure policies
- Building Regulations Approved Document Part H
- Guidance from Southern Water

The strategy prioritises risk reduction, resilience, and avoidance of sewer surcharge, particularly important within Flood Zone 3 and the Lidsey catchment.

## **4. Existing Drainage Arrangements**

### **4.1 Existing Foul Water**

- The property is connected to the public foul sewer.
- Drainage serves standard domestic facilities only.
- No on-site treatment systems are present.

There is no known history of foul sewer surcharge or internal flooding at the property.

### **4.2 Existing Surface Water**

- Surface water is managed through a combination of garden infiltration and existing surface water drainage typical of residential development.
- Surface water and foul water systems are separate.

This separation is critical in Flood Zone 3 to avoid combined sewer surcharge during high rainfall or flood events.

## **5. Proposed Foul Water Drainage Strategy**

### **5.1 Foul Water Disposal**

- All foul water from the extended dwelling will continue to discharge to the existing public foul sewer connection.
- No additional dwellings or independent units are proposed.
- No pumping stations or new sewer connections are required.

### **5.2 Measures to Reduce Foul Water Impact**

Given the sensitivity of the Lidsey WwTW catchment and the Flood Zone 3 location, the applicant will implement the following measures:

- Dual-flush WCs
- Low-flow taps and showers
- Water-efficient appliances
- Modern plumbing designed to minimise leakage

These measures reduce daily foul water volumes, limiting pressure on downstream wastewater infrastructure during storm and flood events.

### **5.3 Flood-Resilient Foul Drainage Design**

- Drainage will be designed to reduce the risk of backflow during flood conditions
- All pipework will comply with Building Regulations Part H
- Existing inspection chambers will be assessed and upgraded if required

This reduces the risk of foul water escape during flood events.

## **6. Proposed Surface Water Drainage Strategy**

### **6.1 Flood Zone 3 Drainage Principles**

In Flood Zone 3, uncontrolled surface water discharge can exacerbate flooding. The proposed strategy therefore prioritises:

- On-site management
- Attenuation at source
- No increase in run-off rates or volumes

### **6.2 Surface Water Disposal Hierarchy**

Surface water will be managed in accordance with the following hierarchy:

1. Infiltration to ground via soakaways (subject to ground conditions)
2. Controlled discharge to existing surface water systems
3. Discharge to sewer only as a last resort and avoided where possible

Surface water will not discharge to the foul sewer.

### **6.3 Surface Water Mitigation Measures**

- New roof areas will drain to on-site soakaways or attenuation features
- Run-off will be restricted to existing greenfield or pre-development rates
- Existing garden areas will be retained to allow infiltration
- No significant increase in impermeable area is proposed relative to plot size

This ensures the development does not increase flood risk elsewhere.

## **7. Impact on Flood Risk**

### **7.1 On-Site Flood Risk**

- Surface water is controlled and attenuated
- Drainage systems are designed to function during extreme rainfall events

### **7.2 Off-Site Flood Risk**

- No increase in surface water run-off rates
- No increase in foul water discharge during peak events
- No loss of functional floodplain beyond existing domestic curtilage

The development will therefore not increase flood risk to third parties.

## **8. Impact on Lidsey Wastewater Treatment Works Catchment**

When assessed cumulatively:

- The development remains a single household
- Foul water increases are modest and mitigated
- Surface water is excluded from the foul system
- Flood-resilient drainage design reduces surcharge risk

The proposal will not materially worsen conditions within the Lidsey WwTW catchment.

## **9. Construction Phase Drainage and Flood Management**

During construction:

- Existing drains will be protected from blockage
- Temporary drainage controls will be installed
- No construction run-off will enter foul sewers
- Materials will be stored above flood risk levels where practicable

This avoids short-term impacts during the build phase.

## **10. Conclusion**

This expanded Lidsey Drainage Impact Assessment demonstrates that the proposed development at 45 Southdean Close:

- Is appropriate for its Flood Zone 3 location
- Incorporates flood-resilient foul drainage design
- Manages surface water sustainably and on site
- Avoids increased pressure on the Lidsey WwTW
- Complies with Arun District Council validation requirements

With the proposed mitigation in place, the development is considered acceptable in both drainage and flood risk terms.