



Project Ref: 2608

Lidsey Drainage Impact Assessment

Site address	10 Central Drive, Middleton-on-Sea, PO22 7TT
Description of development	Demolition of existing access stair and porch to side elevation. Construction of rear two storey extension and part first floor extension. New chimney and roof lights; realignment of existing roof terrace with frameless glass balustrade and replacement of handrails. Alterations to ground floor fenestration.
Planning Portal ref.	PP-15133145
Applicant	Ms Rebecca Newman-Smith
Agent	Robert Benn, rba architects limited
Date	19 August 2026

1. Introduction

This Lidsey Drainage Impact Assessment has been prepared by rba architects limited on behalf of the applicant, Ms Rebecca Newman-Smith, in response to Arun District Council's letter of 18 August 2026, which confirms that the application site falls within the Lidsey Wastewater Treatment Works (WwTW) Catchment Area and requires a statement explaining how foul and surface water is to be drained from the site, and what measures are proposed to reduce the impact of that drainage within the catchment.

This Statement is prepared in accordance with Information Type 6 of Arun District Council's Householder Validation Requirements (2024), which requires a statement explaining how foul and surface water is to be drained from the application site, including the measures to be implemented to reduce the impact of foul and surface water drainage in the catchment area; confirmation that water quality will not be impacted by proposals that may directly or indirectly affect water bodies; and reference to the Lidsey Surface Water Management Plan (SWMP).



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2. The Lidsey WwTW Catchment and Surface Water Management Plan

The Lidsey WwTW catchment covers a number of communities across Arun District, including parts of Middleton-on-Sea, Barnham, Eastergate, Flansham, Fontwell, Norton, Aldingbourne, Slindon, Walberton, Westergate, Woodgate and Yapton. The catchment has a history of foul water flooding, principally as a result of (i) groundwater infiltration and surface water entering the foul sewerage network, which is not designed to accommodate these flows, and (ii) capacity constraints in the wider watercourse network, which can cause fluvial floodwater to back up into the foul system. This has historically resulted in property flooding and pollution of local watercourses.

The Lidsey Surface Water Management Plan (SWMP), prepared jointly by West Sussex County Council (as Lead Local Flood Authority), Southern Water, Arun District Council, the Environment Agency and local groups, identifies the causes of this historic flooding and recommends catchment-wide improvements, including the sealing of pipes and manholes to reduce groundwater infiltration and adherence to national standards for sustainable drainage systems (SuDS). This Statement has regard to the SWMP's findings and recommendations, and the measures proposed below are consistent with its recommended approach of managing surface water at source and reducing groundwater and surface water infiltration into the foul network. The Council accordingly requires all applications within the catchment to demonstrate how foul and surface water will be managed, and how impact on the catchment will be minimised.

3. The Proposal and Occupancy

The application proposes a two storey rear extension and part first floor extension to reconfigure and enlarge an existing single dwellinghouse, together with demolition of the existing side access stair and porch, a new chimney and roof lights, realignment of the existing roof terrace, and alterations to ground floor fenestration. As shown on the submitted existing and proposed drawings (2608:2.102 and 2608:2.103, Rev D1), the dwelling retains three bedrooms and two bathroom/en-suite facilities both before and after the works; the bedrooms currently at ground floor level are relocated to a reconfigured and enlarged first floor. No new dwelling, residential unit or annexe is created, and there is no increase in the number of bedrooms or bathrooms proposed.



The proposal therefore does not increase the occupancy of the dwelling and is not expected to materially increase the volume of foul flows generated at the site.

4. Foul Water Drainage

Foul drainage is to continue to discharge via the existing connection to the public (mains) foul sewer, as confirmed on the submitted application form; no new drainage connection is proposed. Given the extension does not increase the number of bedrooms, bathrooms or occupants, no material increase in foul flow to the public sewer – and therefore to the Lidsey WwTW catchment – is anticipated as a result of this development.

To further reduce the impact of the development on the catchment, the following measures are proposed:

- Water-efficient sanitaryware and fittings (dual-flush WCs and flow-restricted taps and showers) will be specified in the reconfigured bathroom, en-suite and kitchen areas, reducing per-capita water consumption and foul discharge relative to the facilities currently in place.
- No new or additional sanitary appliances are proposed beyond those needed to replace the existing, reconfigured bathroom and en-suite provision.
- The existing foul drainage run serving the property will be inspected during construction, and any defective, cracked or poorly-jointed pipework or manhole covers within the site that could permit groundwater infiltration into the foul system will be repaired or replaced – consistent with Southern Water's own catchment-wide programme of pipe and manhole sealing to reduce infiltration.

5. Surface Water Drainage

Surface water at the site is currently generated substantially by an area of impermeable concrete driveway paving to the front, side and rear of the property, part of which drains toward the highway. As part of the proposed works:



- The existing impermeable concrete paving is to be replaced with permeable gravel paving.
- A brick margin incorporating a slot drain is to be provided along the road frontage, intercepting any residual surface flow and preventing it from draining onto the highway.
- Surface water collected on site is to be directed to a soakaway within the curtilage, constructed in accordance with Building Regulations Approved Document H3 - Paragraphs 3.23 to 3.30 and in accordance with the drainage hierarchy set out in national Planning Practice Guidance, rather than to the combined or foul sewer network
- The submitted application form confirms that surface water is to be managed via a sustainable drainage system (SuDS), and no connection of surface water to the foul or combined sewer is proposed.

The net effect of these measures is a reduction in the extent of impermeable surfacing on the site, and in the volume and rate of surface water run-off leaving the site, when compared with the existing situation. This directly addresses the principal historic cause of foul flooding within the Lidsey catchment identified by the Council and Southern Water – namely surface water and groundwater entering a foul network not designed to accommodate it – by ensuring surface water is managed at source and does not enter the foul system.

6. Local Flood Risk Zone (LFRZ) Status

The SWMP designates 27 Local Flood Risk Zones (LFRZs) within the Lidsey catchment, each subject to its own detailed flood risk assessment (SWMP Section 7.4, Tables 7-1 to 7-55). The application site has been checked against the Council's planning validation requirements interactive map and the SWMP's LFRZ Location Plan (Figure 5.1). The site is not located within a mapped LFRZ; it lies immediately adjacent to LFRZ_013 (Elmer Sands, Middleton on Sea), the nearest designated zone, which lies to the south/south-east of Central Drive. As the site does not fall within a mapped LFRZ, the specific requirement to identify a zone reference, predicted flood impact table and preferred interventions does not strictly apply; however,



given the site's immediate proximity to LFRZ_013, its findings are addressed below for completeness.

LFRZ_013 (Elmer Sands, Middleton on Sea) is a large zone (40.0 ha, comprising 548 properties) and is rated a 'High' priority zone in the SWMP's LFRZ prioritisation (Table 7-57), with Average Annual Damages of £70,270 (SWMP Table 7-56). The SWMP's summary of local flood risk within LFRZ_013 (Table 7-27) identifies the flood mechanism as: hydraulic overload of the public foul sewer system; pluvial flooding during periods of high groundwater caused by ineffectual soakaways; and a probable risk of groundwater flooding at the lowest points in the zone, where the highway drainage system has been constructed at slack gradients. Fluvial flood risk within the zone is assessed as low.

This is directly relevant to the surface water strategy proposed for this application, which includes a new soakaway (Section 5 above). Considering the groundwater-related soakaway performance issues identified for the adjoining LFRZ_013, the applicant will ensure that:

- (i) percolation testing is carried out in accordance with BRE Digest 365 to confirm the soakaway is appropriately sized and sited, with an adequate base at least 1 metre above the seasonally highest water table; and
- (ii) should ground conditions or groundwater levels render infiltration drainage unviable at the time of detailed design, the surface water strategy will revert to attenuation with a restricted discharge, in accordance with the drainage hierarchy in national Planning Practice Guidance, rather than to the public sewer network.

On this basis, the proposed surface water strategy is considered appropriately cautious in light of the known local flood mechanisms and is not expected to exacerbate flood risk within the neighbouring LFRZ_013.

7. Flood Risk and Water Quality

The Environment Agency's Flood Map for Planning (checked 27 July 2026) confirms the site lies within Flood Zone 1, an area of low probability of river and sea flooding. The submitted application form confirms the site is not within 20 metres of a watercourse, and that the proposal will not increase flood risk elsewhere. Given the modest scale of the works, the disposal of



surface water via permeable paving and a soakaway, and the absence of any material increase in foul flows, the applicant is satisfied that the water quality of local watercourses and other water bodies draining the Lidsey catchment, whether directly or indirectly, will not be adversely affected by this development.

8. Conclusion

This assessment demonstrates that: (i) the proposal does not increase the number of bedrooms, bathrooms or occupants at the property, and will not materially increase foul flows to the public sewer; (ii) surface water management is improved through the introduction of permeable paving, a frontage slot drain and a soakaway, in place of the existing impermeable paving, consistent with the Lidsey Surface Water Management Plan's recommended approach; (iii) water efficiency measures and attention to the condition of the existing foul drainage run will further reduce the development's impact within the Lidsey WwTW catchment area; (iv) water quality in the catchment will not be adversely affected; and (v) although the site is confirmed as lying outside, but immediately adjacent to, LFRZ_013 (Elmer Sands, Middleton on Sea), the proposed soakaway will be verified by percolation testing and backed by a fallback attenuation strategy, having regard to the groundwater-related soakaway performance issues identified for that neighbouring zone. On this basis, the proposal is considered to satisfactorily address the Council's Lidsey Drainage Impact Assessment requirement.