

READING BOROUGH LOCAL PLAN

Adopted November 2019



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Reading
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4.2.96 Where the plant noise rating level does not meet this standard, the background noise will increase. When subsequent new plant is added it will be assessed against this higher background level which results in an increasing benchmark against which subsequent new plant is introduced. This leads to an incremental increase in the noise in an area each time new plant is introduced ('background creep'). This policy standard has been applied by Reading Borough Council for a number of years and experience has demonstrated it to be achievable in most cases. In addition, noise control technology is improving, therefore further increasing the achievability of this standard.

Flooding and Sustainable Drainage Systems

EN18: FLOODING AND SUSTAINABLE DRAINAGE SYSTEMS

Development will be directed to areas at lowest risk of flooding in the first instance, following the Sequential and Exceptions Test set out in the NPPF, and taking into account the effects of climate change. It will consider flooding from all sources, including fluvial, surface water, groundwater and sewer flooding. Where development in areas at risk of flooding is necessary, it will not reduce the capacity of the flood plain to store floodwater, impede the flow of floodwater or in any way increase the risks to life and property arising from flooding. Wherever possible, development should be designed to reduce flood risk, both on- and off-site.

All major developments⁶³ must incorporate sustainable drainage systems (SuDS) as appropriate and in line with the Government's Technical Standards⁶⁴. Smaller schemes are encouraged to incorporate SuDS, where possible. Runoff rates should aim to reflect greenfield conditions and, in any case, must be no greater than the existing conditions of the site. Schemes should ensure that the movement of water through vertical infiltration as well as horizontal run-off does not worsen contamination effects. Wherever possible, SuDS provision should maximise ecological benefits, link into the existing Green Network, incorporate tree planting and landscaping and avoid damage to existing significant trees, including through changes to the site hydrology. All new developments in areas of flood risk should give priority to SuDS.

4.2.97 A significant area of land within Reading is at risk of flooding, and this is expected to worsen with the effects of climate change. A Strategic Flood Risk Assessment (SFRA) has been undertaken for the Borough⁶⁵. This describes and analyses how the Borough is affected by flood risk and the nature of that risk. The flood plain plays an important role in protecting the built up area of Reading as it accommodates floodwater and reduces the risks of water levels rising and affecting properties in a wider area. This capacity shall not be reduced by development or the raising of land levels. The movement of water across the flood plain is also important, and obstructions to this will place a greater burden on other parts of the flood plain. Even away from the flood plain, inappropriate drainage schemes can exacerbate local flooding problems and increase the amount of water entering watercourses. This results in litter and contamination.

⁶³ 10 or more dwellings or equivalent non-residential or mixed developments

⁶⁴ Sustainable drainage systems non-statutory technical standards <https://www.gov.uk/government/publications/sustainable-drainage-systems-non-statutory-technical-standards>

⁶⁵ See www.reading.gov.uk/readingldf

4.2.98 The National Planning Policy Framework directs development away from areas that are liable to flood, and states that proposals for development in areas of a medium and high risk of flooding need to be assessed against a sequential test and, if appropriate, an exceptions test. This has already been carried out for those sites allocated within this plan⁶⁶, and there is no need for this to be repeated unless the proposed use and/or flood risk vulnerability classification would differ from the allocation. Development should therefore comply with the requirements of the NPPF alongside this policy. Development proposals on sites greater than 1 hectare or that are in Flood Risk Zones 2 or 3 will need to be supported by the following, and, in doing so, will need to take account of the latest guidance on allowances for climate change (see below):

- a) A flood risk assessment which demonstrates that the most appropriate layout of development on site in terms of flood risk has been applied;
- b) Demonstration that a sequential approach has been taken within the site, directing the most vulnerable uses to the areas of lowest flood risk;
- c) Demonstration that resilient and resistant construction methods for managing residual risk and delivering an overall reduction in flood risk have been assessed;
- d) The provision of space for flood water storage through the use of open space or areas above ground (where appropriate);
- e) The raising of floor levels above flood levels, taking account of all forms of flooding (where appropriate);
- f) Demonstration that flood risk is not increased elsewhere and where possible reduced;
- g) Demonstration of safe access and egress to the development; and
- h) Demonstration that all forms of flooding are taken into account including groundwater and surface water flooding.

4.2.99 The effects of flooding are expected to worsen with climate change, and this needs to be taken into account when considering development. The Environment Agency has produced guidance on the allowances for climate change to be taken into account for each river basin district. Reading falls within the Thames basin district⁶⁷. Depending on the vulnerability of development proposed, and the flood risk classification, different allowances should be taken into account. The SFRA models and maps allowances of 25%, 35% and 70%, which correspond to the upper end allowances for the Thames basin.

4.2.100 The SFRA also defines the extent of the functional floodplain within Reading. The 2017 SFRA, in describing how this has been approached, distinguishes between Flood Zone 3b 'Functional Floodplain' and Flood Zone 3b 'Developed'. For clarity, the final definition on the flood zone maps F4 in the SFRA incorporates both of these categories, and it is this combined area which should be considered as Flood Zone 3b for the purposes of applying policy.

4.2.101 The nature of Reading means that there are a significant number of sites in need of regeneration, generally containing vacant, derelict, low density or poor quality buildings, within areas of medium or high flood risk. Where the redevelopment of previously developed land at risk of flooding provides significant regeneration benefits, this will need to be considered in the context of the sequential and, if applicable, exceptions test.

4.2.102 Due to recent changes to the planning system, Reading Borough Council serves as a Lead Local Flood Authority and is responsible for approving SuDS schemes for new development. SuDS may

⁶⁶ Available on the Council's website

⁶⁷ <https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances>

be eligible for adoption by the Council, provided they are within public open space or serve more than one property and have been designed in accordance with the CIRIA SuDS manual⁶⁸.

4.2.103 Flood risk and other environmental damage can be mitigated by minimising changes in the volume and rate of surface runoff. Sustainable drainage systems can often be achieved at little to no additional cost and may actually decrease landscape maintenance expenses throughout the lifetime of a development. Virtually any new development should be able to deliver SuDS due to the wide variety of techniques available. SuDS can be very effective on brownfield sites, but care must be taken to reduce environmental damage from contaminated land. It is also possible to ‘retrofit’ SuDS for existing developments. SuDS provide opportunities to:

- Reduce the causes and impacts of flooding;
- Guard against the effects of climate change;
- Enhance biodiversity;
- Improve water quality by removing pollutants from runoff; and
- Achieve green space, amenity, recreation and wildlife benefits through water management.

4.2.104 Sustainable drainage systems aim to replicate natural drainage as closely as possible and minimise the impacts of development. In the first instance, schemes should consider the provision of SuDS through landscaping, with reference to Part D of the CIRIA SuDS manual, and in any case should consider the following:

- Integration with existing landscape;
- Tree planting provision fed by groundwater runoff that functions effectively in place of attenuation tanks;
- Additional capacity to cater for future development; and
- Techniques including, but not limited to, permeable pavements, swales, basins, rain gardens, green roofs, rainwater re-use, infiltration trenches, ponds and wetlands.

4.2.105 Schemes for SuDS need to be careful to avoid resulting in contamination of watercourses and groundwater. Soakaways in contaminated land will not be appropriate. Infiltration SuDS techniques should only dispose of clean roof water into clean, uncontaminated ground, should not be used for foul discharges or trade effluent, and may not be suitable within Source Protection Zone 1.

4.3.106 The SuDS elements of the policy apply to major development. Small-scale developments will be encouraged to adopt elements of SuDS wherever practicable, including the provision of permeable surfaces within the site, e.g. on front gardens or car parking areas.

⁶⁸ Construction Industry Research and Information Association, SuDS Manual http://www.ciria.org/Resources/Free_publications/SuDS_manual_C753.aspx