



**GALLAGHER ESTATES
FORMER COPYHOLD WORKS
A25 NUTFIELD ROAD, REDHILL**

**FLOOD RISK AND WATER QUALITY
TECHNICAL REPORT**

FEBRUARY 2018



the journey is the reward

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**Gallagher Estates
Former Copyhold Works
A25 Nutfield Road, Redhill**

**Flood Risk and Water Quality
Technical Report**

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1 Introduction

- 1.1 Mayer Brown has been appointed by Gallagher Estates to provide a review of flood risk, drainage and water quality matters in relation to proposed residential development at the former Copyhold Works, located to the north of A25 Nutfield Road on the east side of Redhill, Surrey.
- 1.2 This assessment is based on the proposed development of approximately 300 dwellings on the site.
- 1.3 The site is being promoted for allocation in Reigate and Banstead Borough Council's Development Management Plan. Details of the relevant policy are set out in Chapter 2.
- 1.4 This report sets out a summary of the key flood risk, drainage and water quality elements and considerations in relation to the site.

2 Planning policy

2.1 The development land forms part of site references ERM2 “Land west of Copyhold Works” and ERM3 “Former Copyhold Works” within Reigate and Banstead Borough Council’s Development Management Plan Regulation 19 Evidence Base. The two sites are considered together (ERM2/3) in some of the documentation.

DMP: Urban Extensions Technical Report

2.2 The Urban Extensions Technical Report (Annex 3) provides the following background information with regard to the two sites:

- Flood Risk – both sites are recorded to be wholly within Flood Zone 1
- For ERM2, a small area at north boundary and an isolated area on the eastern boundary are noted as ‘likely to be affected by’ 1 in 200year flood events.
- For ERM3, areas around the centre of the former works buildings are noted as ‘likely to be affected by’ 1 in 200year flood events.
- The Redhill Brook lies to the north of ERM2, is noted to be of ‘poor’ ecological quality.
- The potential is noted for the development to further degrade Redhill Brook and other waterways on the site boundary. A recommendation is provided that a 5m (minimum) buffer zone be provided between development areas and waterways.
- The steady fall in ground level across the site is noted; approximately 1:12 fall from south to north.

DMP: Sustainability Appraisal Report

2.3 The Sustainability Appraisal Report (October 2017) includes a review of the sites.

2.4 Objective 11 (- To reduce flood risk) has a rating of ‘++’ for both sites; indicating that “This is expected to have a very positive impact on achieving the sustainability objective”.

2.5 These ratings reflect the observation that development of the sites presents an opportunity to provide sustainable drainage measures (SUDS) to reduce surface water runoff.

2.6 Objective 12 (- To improve the water quality of rivers and groundwater, and maintain an adequate supply of water) receives a “-” rating for site ERM2, indicating that “This is

expected to have a negative impact on achieving the sustainability objective”. This rating is in recognition that Redhill Brook, which is already recorded as of poor water quality, will be the receiving waterway for the surface water runoff from the developed areas. The commentary of the Objective notes that the impact on waterways should be considered in the design of the development.

- 2.7 Objective 12 receives a “0” rating for site ERM3, indicating that “This is expected to have a neutral impact on achieving the sustainability objective”.

DMP: Infrastructure Delivery Plan

DMP: Sequential Test for Flood Risk

- 2.8 Reigate & Banstead Borough Council’s ‘Infrastructure Delivery Plan (November 2017)’ contains a section on Flood Resilience. This in turn advises that the council has undertaken Level 1 and Level 2 Strategic Flood Risk Assessment (SFRA) and a Sequential Test for Flood Risk.
- 2.9 The Level 1 SFRA indicates that there is no particular or general flood risk issue for the area of sites ERM2 and ERM3. The Level 2 SFRA concerns itself with an assessment of those sites which lie in (Rivers and Sea) Flood Zones 2 or 3, or which lie in Flood Zone 1 but also contain a watercourse or have a significant proportion of the site at risk of flooding from surface water. Sites ERM2 and ERM3 do not fit these criteria and are not considered in the Level 2 SFRA.
- 2.10 Reigate & Banstead Borough Council’s ‘Sequential Test for Flood Risk (January 2018)’ includes a review of the sites. Sites ERM2 and ERM3 are recorded as being wholly in Flood Zone 1 and as having passed the Sequential Test.

3 Commentary

3.1 The development proposals for the former Copyhold Works, sites ERM2 / ERM3, are for approximately 300 residential dwellings.

Flood Risk

3.2 Emerging planning policy for the site has been reviewed, which indicates that the sites present no difficulty with regard to flood risk. Both ERM2 and ERM3 are recorded as being in Flood Zone 1 (the lowest category of flood risk from rivers and sea) and therefore flood risk is not a barrier to development. Accordingly, both sites are recorded as having passed the Sequential Test for Flood Risk.

Water Quality

3.3 Both sites, ERM2 and ERM3, lie on a gradient, falling from south to north. Surface water drainage from both will be towards the Redhill Brook which lies a little to the north of site ERM2.

3.4 Redhill Brook is recorded as being of poor quality from an ecological point of view. Site ERM2 is flagged as having a potential negative effect on water quality (Objective 12), presumably because of the close proximity to Redhill Brook and of the change from open field to residential development.

3.5 Notwithstanding the above, the Objective 12 appraisal does recognise that it is possible to avoid impact on the water course by appropriate design of drainage features. The use of SUDS measures on the site can ensure that both runoff flows and the water quality of runoff can be properly controlled and improved.

3.6 It is to be expected that the use of SUDS measures will be a requirement sought at Planning Stage by the local authority and the local lead drainage authority. Hence, their use can be assured in the development design. For that reason, it can be argued that the Objective 12 rating for ERM2 is better placed at '0' (a neutral impact on achieving the sustainability objective).

3.7 Site ERM3 is flagged as having a potential neutral effect on water quality (Objective 12), presumably because of its distance from Redhill Brook.

3.8 Notwithstanding the above, it is apparent that this site previously contained the main Copyhold Works and is recorded as being contaminated land. It can be expected that

the development of the land will include remediation of any contamination along with the change from industrial use to residential use.

- 3.9 As for ERM2 as described at 3.6 above, it can be expected that the use of SUDS measures will be a planning requirement for development of site ERM3.
- 3.10 Taking account of 3.8 and 3.9 above, it can be argued that the Objective 12 rating for ERM3 might be better placed at '+' (a positive impact on achieving the sustainability objective).
- 3.11 For the development proposals of Gallagher Estates, ERM2 and ERM3 are combined as one site, ERM2/3. Taking account of paragraphs 3.6 and 3.10 above, it is considered that the whole development area ERM2/3 would provide a positive impact for Objective 12 and have a single area rating of '+'.

