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Flood Risk Assessment with reference to SuDS

Development site and location

The site:

Littlecott Mill

Enford

SN9 6AW



Flood Risk Assessment (Flood Zone 2 – Blue, Flood Zone 3 – Purple)

Current site use: Residential Mill House, Cottage and gardens

Located near the River Avon

Development proposals

The proposal is made up of two relevance elements

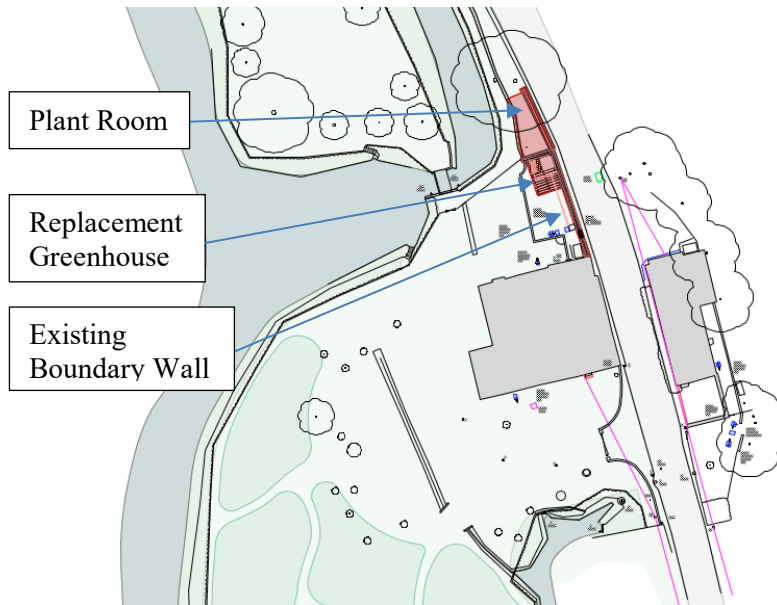
- Construction of new Plant Room including replacement Greenhouse
- Repair of existing boundary wall

Overall, this adds up to a minor total of 27sqm additional floor area (highlighted in red in the plan below).

The additional elements outlined in the block plan are positioned outside the flood plain and as such are not relevant in terms of floor risk as they are above the ground floor.

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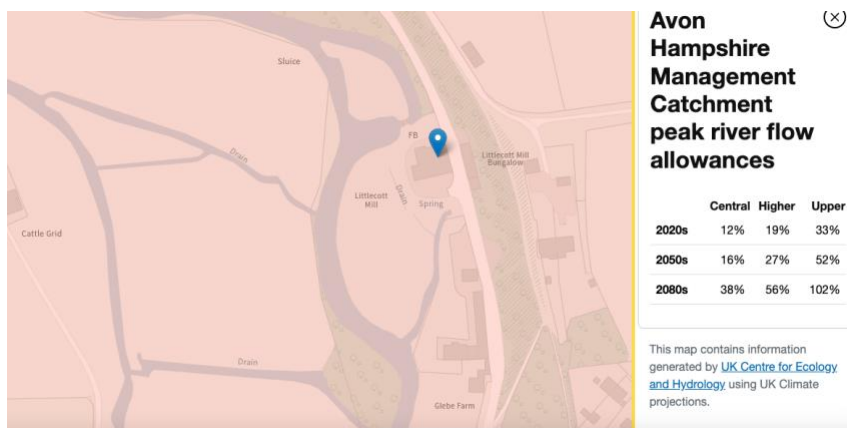
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Vulnerability classifications: More Vulnerable
Estimated lifetime: Assumed lifetime of 100 years or more

Climate Change

The impacts of climate change in flood risk assessment as shown in the map below.



Site-Specific Flood Risk

Whilst the site is partially located within Flood Zones 2 and 3, the existing drainage infrastructure has consistently performed effectively during previous flood events. Beneath the site lies a disused mill race, and within Mill House itself there are several sump pumps designed to collect and discharge excess water in a controlled and efficient manner.

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The proposed location of the plant room has been carefully selected as the only area within the site boundary that lies outside the identified flood zones. This position takes advantage of the site's existing topography, being situated on an existing retaining wall at a higher level than the surrounding land. Furthermore, the proposed raft foundation design allows for a shallow construction method, minimising ground disturbance, avoiding intrusion into the groundwater table, and reducing potential impacts on nearby trees and their root protection areas.

The principal source of flood risk is the adjacent River Avon. However, the site's existing drainage and flood management systems have demonstrated a proven track record of reliability, with no known history of failure during flood events. Given the effectiveness of these measures, together with the location of the proposed development outside the mapped flood zones, it is considered that the proposal will neither increase flood risk to the site nor exacerbate flood risk elsewhere.

Whilst some uncertainty remains, particularly in relation to climate change projections and extreme flood events such as the 1-in-100-year flood scenario, the available evidence suggests that the existing drainage infrastructure has sufficient capacity to accommodate modest increases in surface water runoff without compromising its performance.

Surface Water Management

Surface water management at the site is integrated with the wider floodwater management system associated with the River Avon. The existing drainage infrastructure has adequate capacity to manage both surface water and floodwater flows effectively, ensuring that the proposed development will not create any additional flood risk.

Occupants and Users of the Development

The proposed building will provide non-habitable ancillary accommodation serving the main Mill House. The use and occupancy of the principal dwelling will remain unchanged, and no additional residential accommodation is proposed. The design has been carefully developed to avoid any adverse impact on existing flood risk conditions and to ensure that the development remains compatible with the site's known flood constraints.

Residual Risk

Residual flood risk will be managed through the ongoing maintenance and inspection of the existing sump pump system associated with the mill race, together with the retention of the site's established landform, which directs surface water away from the property. These measures will help ensure the continued effectiveness and resilience of the site's drainage and flood management systems.

Flood Risk Assessment Credentials

This Flood Risk Assessment has been prepared by Fleming Architects and is based upon a review of the available site information, existing drainage infrastructure and known flood risk constraints. The assessment provides a professional and proportionate evaluation of the likely flood risk implications associated with the proposed development.