

Sabah Halli  
London Borough of Merton  
Policy & Information  
Merton Civic Centre London Road  
Morden  
Surrey  
SM4 5DX

**Our ref:** SL/2014/113771/01-L01  
**Your ref:** 14/P4361  
**Date:** 21 January 2015

Dear Sabah

**Proposed demolition of existing buildings and erection of a 20,000 seat football stadium (initially 11,000 seat) with hospitality and coach parking, pedestrian street, 1,273 sq m retail unit, 1,730 sq m squash and fitness club, 602 residential units with basement parking, refuse storage, 297 car parking spaces, cycle parking, and associated landscaping/open space and servicing.**

**Wimbledon Greyhound Stadium, Riverside Road, Wimbledon, London, SW17 0BL**

Thank you for consulting the Environment Agency. The site is in the highest risk flood zone and redevelopment of this site must be carefully designed and located.

We have reviewed the Environmental Statement Volume 2 – Appendices by Peter Brett Associates dated October 2014, ref 21533-008 and **object** to this application. We require additional information to demonstrate how the proposed development will not increase flood risk on site or to surrounding areas.

The proposal requires updating to demonstrate compliance with national planning policy, adequate flood plain compensation and a satisfactory surface water drainage strategy. Please find attached detailed advice and guidance:

### **Section 1 – Technical advice and guidance**

### **Section 2 – Planning policy**

We are keen to continue discussing flood risk management for the redevelopment of this key site. We hope our response is helpful, if you have any questions or require additional information please let me know. If you are minded to grant planning permission despite our objection please contact us to discuss this.

Yours sincerely

**Joe Martyn**  
**Planning Advisor – Sustainable Places**

Direct e-mail [planning.se@environment-agency.gov.uk](mailto:planning.se@environment-agency.gov.uk)



## **Section 1: Technical advice and guidance**

The proposal as submitted has failed to meet the requirements of the second part of the flood risk Exception Test and we recommend that planning permission be refused on this basis for the following reasons:

The Technical Guide to the National Planning Policy Framework (NPPF) requires the Exception Test to be applied in the circumstances shown in tables 1 and 3. Paragraph 102 of the NPPF makes clear that both elements of the Test must be passed for development to be permitted. Part 2 of the Test requires the applicant to demonstrate in a site specific flood risk assessment that the development will be safe, without increasing flood risk elsewhere, and, where possible will reduce flood risk overall.

The application site lies in within Flood Zones 3b and 3a defined by the NPPF as having a high probability of flooding. Development is only appropriate in these areas following application of the Sequential Test and where the Exception Test has been applied in full and has been passed. In this instance the submitted flood risk assessment (FRA) fails to:

1. demonstrate sufficient flood storage compensation is available
2. demonstrate surface water can be managed
3. demonstrate no increase flood risk in the surrounding area
4. address the opportunities presented by this development for reducing flood risk for example

As highlighted in our objection above the proposal has currently failed to demonstrate adequate flood plain compensation and a satisfactory surface water drainage strategy.

### **Flood Plain compensation**

The proposal intends to offset the flood storage volume lost due to development in voids below the units which is considered flood mitigation as opposed to compensation. The methodology for appropriately demonstrating suitable mitigation to ensure there is no increase in offsite flood risk was agreed in principle during pre-application discussions with the Merton Local Planning Authority and the Environment Agency due to the site specific nature of the site and its location away from the river's edge.

There is discrepancy with the figures in the compensation tables provided. It appears from these calculations that the entire stadium including existing floodable areas have been considered to be un-floodable. From previous liaison with the applicant's flood risk consultant it was agreed that the existing open area of the stadium were to be considered floodable within the flood compensation calculations. With this in mind the assumption within the flood compensation table would mean that the calculations need to be revised to reflect this. Once this has been done the applicant/consultant should also provide a plan drawing and at least two sections across the site showing the corresponding banding of compensation levels.

## **Voids**

The scheme intends to use voids in order to ensure that there is no loss in flood storage or affect to flood flow route. However the proposal does not intend to incorporate voids along the boundary of 46-78 Summerstown Road. Upon further consideration voids would be required along this boundary as the lack of voids is likely to increase the flooding on the adjacent site. This could lead to an alteration in the existing flood mechanism which allows for water to flow freely from the site into Summerstown Road through a third party land. With this in mind the incorporation of voids along this section of the site boundary would be necessary to ensure that flood levels on this site would not increase as the flood flow route would be impeded.

## **Surface water drainage**

The current proposed surface water drainage scheme contains a number of elements which we require further clarification on. As the Lead Local Flood Authority the London Borough of Merton have lead responsibility for managing the risk of flooding from surface water.

The Flood Risk Assessment by Peter Brett Associates sets out the drainage principles for the site. This has then been split into two drainage schemes, one for the stadium and another for the mixed use elements including the open space (Appendix E:SWDS & Drainage Survey). These have been undertaken by two different contractors. It is currently not clear from the level of information provided in the drainage schemes whether they would be able to meet the requirements set out within the FRA.

## **Residential and retail**

The residential and retail areas drainage scheme by Price and Myers (February 2014, REF 22445 Rev P3) aims to achieve a restricted runoff rate from all new blocks of 5l/s/ha per block with an unrestricted discharge rate from landscaped areas of 168l/s/ha.

It is stated that the runoff water from the blocks will be attenuated within the podium deck. However no information has been provided demonstrating how this will be achieved. The FRA refers to the Price and Myers Drawing No. 22445-D02-P3 contain within the drainage report. This simply shows the outline of the building and does not provide detail of the tanks/cellular storage. In order to demonstrate this we will require dimensions/calculations demonstrating the required volumes of storage in each block has been provided.

We also have concerns with the high unrestricted discharged rate to the new culvert. Currently no evidence has been provided to demonstrate how the system would function. This should be considered taking into account upstream flow.

In section 5.5.4 the FRA states that the proposed development will include permeable areas consisting of planting, permeable gravel and green roofs but states that these have been excluded from these drainage calculations simply stating that they are expected to provide additional attention. We recommend that the benefits of these features be investigated and added to the calculations.

## **Stadium Drainage**

The Stadium drainage scheme has been carried out by Momentum Structural Engineers (Drainage Strategy; AFC Wimbledon Foul and Surface Water Drainage Strategy, dated May, 2014, Ref: 1785).

The scheme contains limited information on how the site drainage will work, instead assuming that tanks and pumps (due to the site level) will be required. The proposal intends to use the following methods

- Gutters & Downpipes direct to attenuation tank.
- Pitch Drainage – attenuation provided within structure of pitch – crate system or granular layer or separate tank
- External areas & concourse etc.- conventional piped to attenuation tank

No details of existing attenuation/pumping have been seen at this stage. The subsequent proposal is therefore based on a totally assumed scenario. Although the proposal is for a discharge rate of 4.84 l/s/ha some assumption has been made regarding the drainage that impacts the retail and residential part of the site.

While this element of the scheme is seeking outline permission the level of information submitted is not considered sufficient as they have so far not demonstrated that the storage required to achieve the 4.84 l/s/h is possible. This could have an effect on wider scheme. We require further detail on the storage volume and location of the tanks in order to demonstrate the surface water drainage is acceptable.

## **Diverted Thames Water Sewer**

The allocation for this site states Thames Water have assessed the water/wastewater capacity locally and have identified that there may be insufficient water supply and/or wastewater capacity to service new development on this site. In accordance with Policy DM F2, applicants should discuss with Thames Water how capacity will be provided.

The proposal involves the diversion of the main Thames Water sewer. The new alignment contains a number of sharp bends which could affect the flow of water. Drawing 22445-D02 P3 shows a 90° bend which could result in a backwater effect as flow around the sharp corner slows down. Overall this will increase water levels in the pipe and have an effect on the drainage system upstream of the bend.

We are also concerned with the size of the proposed pipe of 1.0 metres in diameter when the existing culvert is 1.37 metre x 0.75metre. As has already been indicated within the FRA this area currently suffers from surface water flooding, we would therefore not expect the reduction of the sewer size and capacity.

Further to this we have had no confirmation that the diversion and size of pipe is acceptable from the sewage undertaker (Thames Water). Given the reduction in sewer capacity and the problems with surface water flooding in the area we recommend that you contact them to ascertain the acceptability of this approach.

### **Safe access and egress/ emergency plan.**

Section 4.2 of the FRA states that safe access and egress is not achievable and instead relies on advance warning measures and refuge. Section 4.3 states that the development proposals will be supported by a Flood Warning and Evacuation Plan and that this has been agreed in principle with the London Borough of Merton's emergency planners.

This is contained within the Environmental Statement Volume 2 – Appendices as Appendix F Evacuation Plan. The acceptability of this approach should be confirmed with the London Borough of Merton's emergency planners.

The Environment Agency does not normally comment on or approve the adequacy of flood emergency response procedures accompanying development proposals, as we do not carry out these roles during a flood. Our involvement with this development during an emergency will be limited to delivering flood warnings to occupants/users covered by our flood warning network.

We would wish to highlight that any occupants of the site should register with the Environment Agency's flood warning service, 'FloodLine', so that they may prepare themselves in case of a flood event. This can be done by calling 0345 988 1188 to register.

## **Section 2: Planning Policy**

The current proposal is contrary to Merton's local planning policy

### **Policy CS 16 - Flood Risk Management**

We will:

- a. Work with the Environment Agency, landowners and developers, based on the findings of the most recent Strategic Flood Risk Assessment and other plans, to manage and reduce flood risk from all sources of flooding;
- b. Apply the sequential and exception tests to avoid inappropriate development in relation to flood risk;
- c. Implement sustainable drainage systems (SUDs) across the borough and work towards effective management of surface water flooding;
- d. Fully engage in flood risk emergency planning including the pre, during and post phases of flooding event;
- e. Propose ensure the implementation of measures to mitigate flood risk across the borough that are effective, viable, attractive and enhance the public realm and ensure that any residual risk can be safely managed.

Merton Core Strategy – July 2011

### **Functional Flood Plain**

The site mostly falls with the 1 in 20 year flood extent which has been defined in Merton's Strategic Flood Risk Assessment (SFRA) as Functional Floodplain (Flood Zone 3b).

Table 1: Flood Zones of the National Planning Practice Guidance (NPPG) states that

*'Local planning authorities should identify in their Strategic Flood Risk Assessments areas of functional floodplain and its boundaries accordingly, in agreement with the Environment Agency.'*

Table 2: Flood Risk Vulnerability Classification of the NPPG sets out the vulnerability classification for different type of development. In this case residential development (more vulnerable) is considered to be the most vulnerable use on site.

Table 3: Flood risk vulnerability and flood zone 'compatibility' sets out appropriate uses within each flood zone. Water compatible and essential infrastructure (subject to the sequential test) is appropriate uses in flood zone 3b.

The new football stadium could be seen as a replacement unit within the existing use class, however the new residential, leisure and retail elements could be considered to be an increase in vulnerability. This was highlighted by the Environment Agency during the Sites and Policies consultation process as not being in line with national and local policy. The importance of the site for sports intensification and for the strategic delivery of housing within the borough was deemed to have wider benefits which outweighed the Flood Zone designation. The enabling development was deemed as an instrumental factor because without this the development of the site was not considered possible.

Merton Council acknowledged the site's location in the functional floodplain and set out the requirement for the development within the issues section of the allocation stating

*'The site and its surrounds are within the functional floodplain of the River Wandle (Flood Zone 3b). The majority of the site is within a critical drainage area for surface water flooding. Development proposals will need to incorporate suitable mitigation measures to address the issues associated with the functional floodplain and with the critical drainage area to minimise flood risk for future occupiers and the potential for water pollution from the site. A flood risk assessment should also consider the treatment of the non-main rivers that pass through the site and incorporate sustainable drainage systems into development proposals.'*

The site was allocated in Merton Sites and Policies Plan for the intensification of sporting activity (D2 Use Class) with supporting enabling development. The inspector acknowledged in his report on the examination into Merton Sites and Policies Local Plan that flooding is a constraint. The inspector did not consider the potential of residential use reason to find the allocation unsound and stated that the amount would be acceptable according to the design and layout of particular proposals.

We therefore do not consider it appropriate to object on inappropriate development in line with the NPPF given the enabling uses were considered and not found unsound by a planning inspector.

### **Sequential test**

The aim of the Sequential Test is to steer new development to areas with the lowest probability of flooding. Development should not be allocated or permitted if there are reasonably available sites appropriate for the proposed development in areas with a lower probability of flooding. The Strategic Flood Risk Assessment

will provide the basis for applying this test. A sequential approach should be used in areas known to be at risk from any form of flooding.

The sequential test was carried out as part of the site allocations process and no other suitable site for sporting intensification with enabling growth has been identified. The council therefore considers the site to have passed the sequential test.