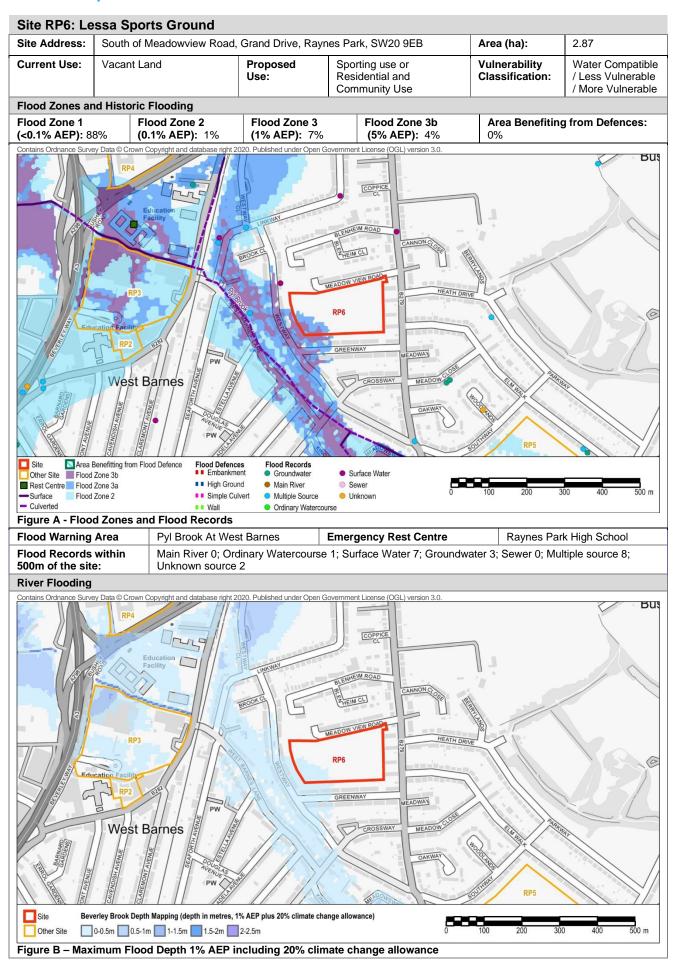
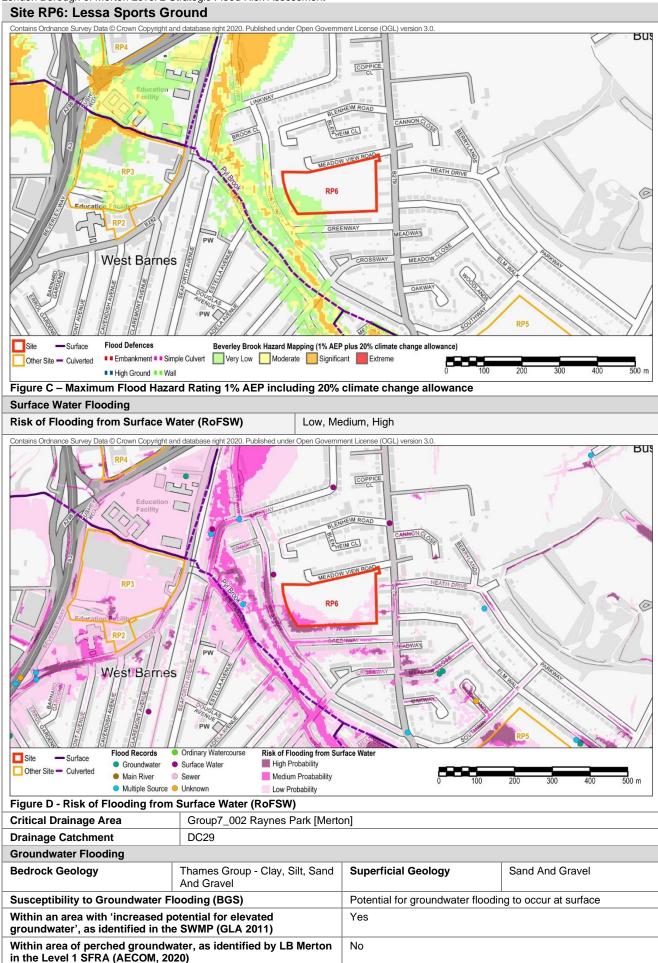
RP6 Lessa Sports Ground





Site RP6: Lessa Sports Ground

Other Sources	
Risk of flooding from reservoirs	Not shown to be at risk of flooding from reservoirs on the Long Term Flood Risk Map.

Summary

The Pyl Brook, a tributary of the Beverley Brook, flows northwards in culvert, approximately 150m to the west of the site. The south west part of the site is defined as Flood Zone 3a High probability of river flooding and Flood Zone 3b Functional Floodplain. There are records of flooding from surface water, ordinary watercourses and groundwater within 500m of the site.

Modelling outputs show that for the 1% AEP event including 20% increase in peak river flows as a result of climate change, flood depths on the site are approximately 0.5m, and the hazard rating is 'Moderate', meaning there is danger to some (includes children, the elderly). The Environment Agency are currently updating the modelling for the Beverley Brook including the Pyl Brook, and the revised modelling will include a 35% increase in peak river flow as a result of climate change allowance. Future development proposals for this site will need to refer to updated modelling including the latest climate change allowances.

The Risk of Flooding from Surface Water mapping identifies the potential for surface water to flow and pond across the southern part of the site. There are records of surface water flooding in proximity to the site and it is located within a Critical Drainage Area (CDA 2 Raynes Park).

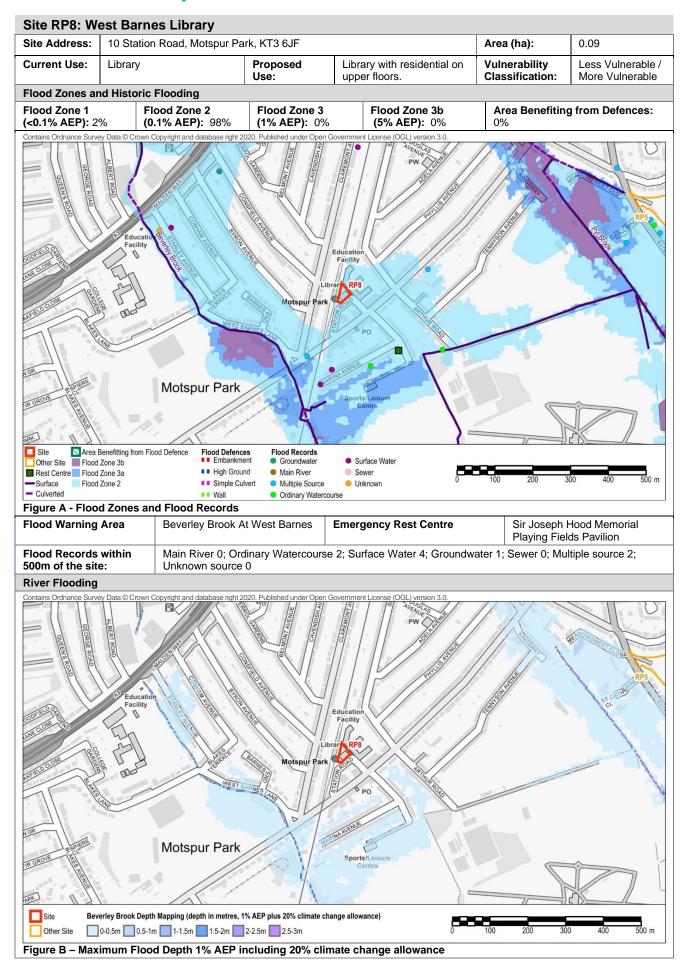
There are groundwater flooding records in this area, and broadscale mapping suggests that the local area may be susceptible to groundwater flooding at surface.

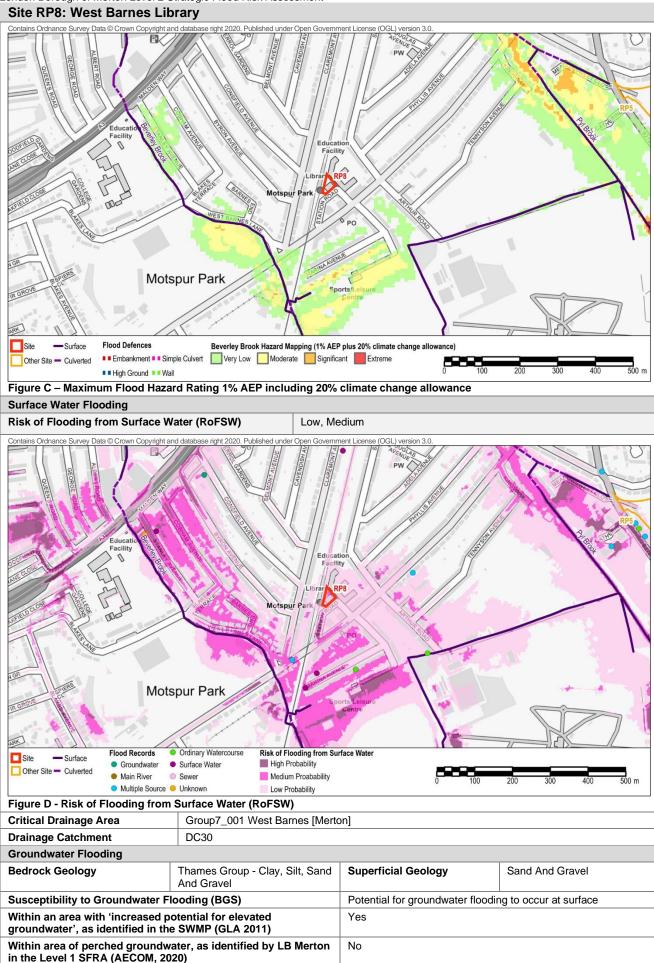
Site Specific Recommendations

The proposed use for the site includes residential uses which are defined as More Vulnerable. More Vulnerable development is only permitted on this site where it can be demonstrated that the Exception Test is satisfied i.e. (1) that the proposed development will provide wider sustainability benefits to the community that outweigh flood risk, and (2) that it will be safe for its lifetime, without increasing flood risk elsewhere and where possible reduce flood risk overall. In order to satisfy the requirements of the Exception Test, the following recommendations are made:

- A sequential approach should be applied within the site, locating development entirely within those areas in Flood Zone 1 and
 at lower risk of surface water flooding. Development is not permitted in areas of Flood Zone 3b Functional Floodplain in the
 south west part of the site, and development should be avoided in the modelled flood extent for the 1% AEP event including
 climate change. No ground raising should take place.
- Finished floor levels for More and Less Vulnerable development should be set 300mm above the 1% AEP flood level including 35% allowance for climate change. The Environment Agency are currently updating the modelling for the Beverley Brook, and the latest modelled flood levels including climate change should be used to inform the site design and finished floor levels.
- The site is located on the edge of the floodplain, and dry access/egress (i.e. above the modelled flood level for the 1% AEP event including 35% climate change allowance) should be achievable along Meadow View Road and the B279.
- The site is located within the Flood Warning Area for Pyl Brook at West Barnes. Occupants of the site should sign up to receive the Flood Warning Service.
- A Flood Warning and Evacuation Plan should be prepared by occupants of the site demonstrating what actions site users will take before, during and after a flood event to ensure their safety, and to demonstrate their development will not impact on the ability of the local authority and the emergency services to safeguard the current population.
- The natural surface water flow patterns on the site should be considered when preparing the surface water drainage strategy for the site to ensure that the risk to neighbouring areas is reduced. Development proposals for the site should seek to restrict surface water runoff rates to greenfield rates; demonstrate sustainable approaches to the management of surface water making use of SuDS including green roofs, rainwater harvesting and other innovative technologies; and incorporate soft landscaping, planting and impermeable surfacing.
- The risk of groundwater flooding and groundwater levels should be further assessed as part of a Site Investigation.

RP8 West Barnes Library





London Borough of Merton Level 2 Strategic Flood Risk Assessment

Site RP8: West Barnes Library

Other Sources		
Risk of flooding from reservoirs	Not shown to be at risk of flooding from reservoirs on the Long Term Flood Risk Map.	

Summary

The Beverley Book flows south west approximately 180m to the west of the site. The majority of the site (98%) is defined as Flood Zone 2, Medium probability of river flooding. There are records of flooding from a range of sources including ordinary watercourse, surface water, groundwater and unknown sources within 500m of the site. A rest centre is located to south approximately 200m from the site.

The site is not shown to be at risk of flooding from the Beverley Brook during the 1% AEP event including 20% allowance for climate change. The Environment Agency are currently updating the modelling for the Beverley Brook including the Pyl Brook, and the revised modelling will include a 35% increase in peak river flow as a result of climate change allowance.

The Risk of Flooding from Surface Water mapping identifies the potential for surface water flooding of low to medium risk within the site boundary. There are records of surface water flooding in proximity to the site and it is located within a Critical Drainage Area (CDA 1 West Barnes).

There are groundwater flooding records in this area, and broadscale mapping suggests that the local area may be susceptible to groundwater flooding at surface.

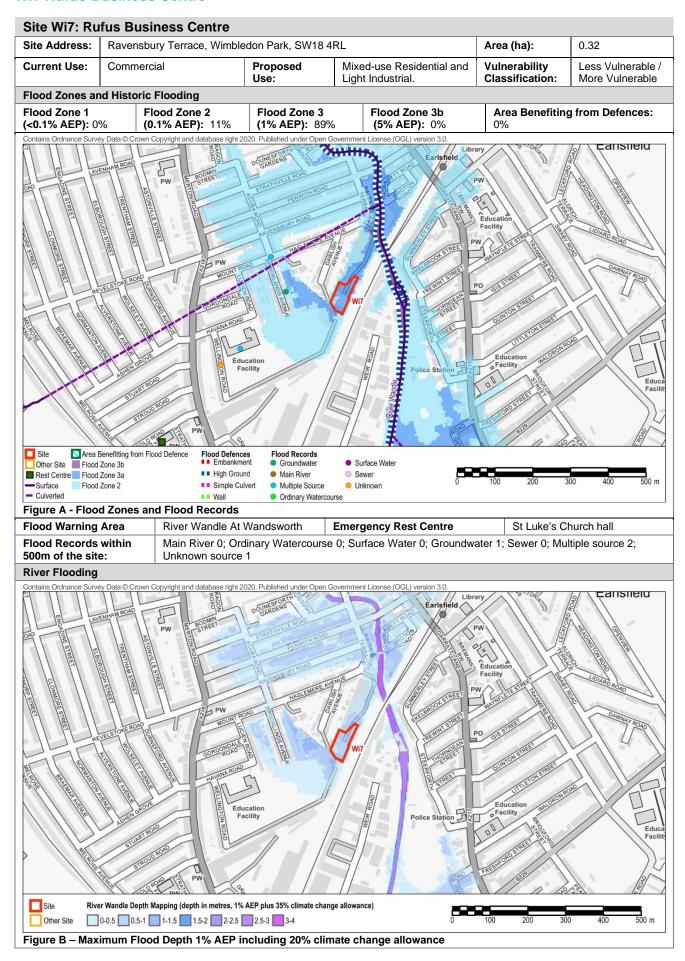
Site Specific Recommendations

The proposed use of the site is compatible with the flood zone. The Exception Test is not required.

The natural surface water flow patterns on the site should be considered when preparing the surface water drainage strategy for the site to ensure that the risk to neighbouring areas is reduced. Development proposals for the site should seek to restrict surface water runoff rates to greenfield rates; demonstrate sustainable approaches to the management of surface water making use of SuDS including green roofs, rainwater harvesting and other innovative technologies; and incorporate soft landscaping, planting and impermeable surfacing.

The risk of groundwater flooding and groundwater levels should be further assessed as part of a Site Investigation.

Wi7 Rufus Business Centre



Site Wi7: Rufus Business Centre

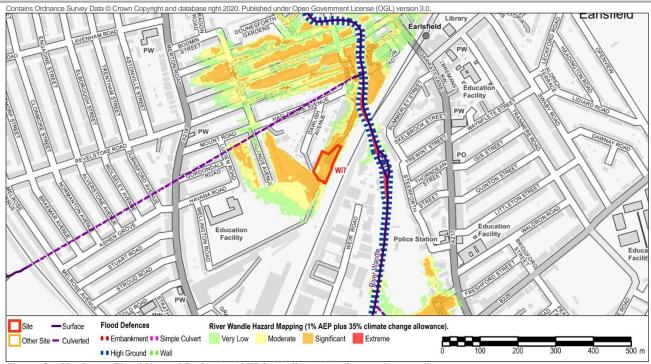


Figure C – Maximum Flood Hazard Rating 1% AEP including 20% climate change allowance

Surface water Flooding		
Risk of Flooding from Surface	١	

Water (RoFSW) Medium

Ordinary Watercourse Risk of Flooding from Surface Water Site High Probability Groundwater Surface Water Other Site - Culverted Medium Proabability Main River Sewer Multiple Source
 Unknown Low Probability

Figure D - Risk of Flooding from Surface Water (RoFSW)

Critical Drainage Area	None		
Drainage Catchment	DC16		
Groundwater Flooding			
Bedrock Geology	Thames Group - Clay, Silt, Sand And Gravel	Superficial Geology	Clay, Silt And Sand
Susceptibility to Groundwater Flooding (BGS)		Potential for groundwater flooding of property situated below ground level. Potential for groundwater flooding to occur at surface	
Within an area with 'increased potential for elevated groundwater', as identified in the SWMP (GLA 2011)		Yes	
Within area of perched groundwater, as identified by LB Merton in the Level 1 SFRA (AECOM, 2020)		No	

London Borough of Merton Level 2 Strategic Flood Risk Assessment

Site Wi7: Rufus Business Centre

Other Sources	
Risk of flooding from reservoirs	The Long Term Flood Risk Map shows that this site could be at risk of flooding, in the event of a breach of the Wimbledon Park Lake.

Summary

The River Wandle flows north to south approximately 160m to the north west of the site. The majority of the site is defined as Flood Zone 3a High probability of river flooding. The south west part of the site is defined as Flood Zone 2, Medium probability of river flooding.

Modelling outputs for the River Wandle show that for the 1% AEP event including 35% increase in peak river flows as a result of climate change, flood depths on the site are approximately 0.5m to 1m, and the hazard rating is 'Significant', meaning 'danger for most people'. There are records of groundwater flooding and flooding from unknown sources within 500m of the site.

The Risk of Flooding from Surface Water mapping identifies the potential for surface water to flow south through the site and pond on across the centre of the site. There are no records of surface water flooding in proximity to the site.

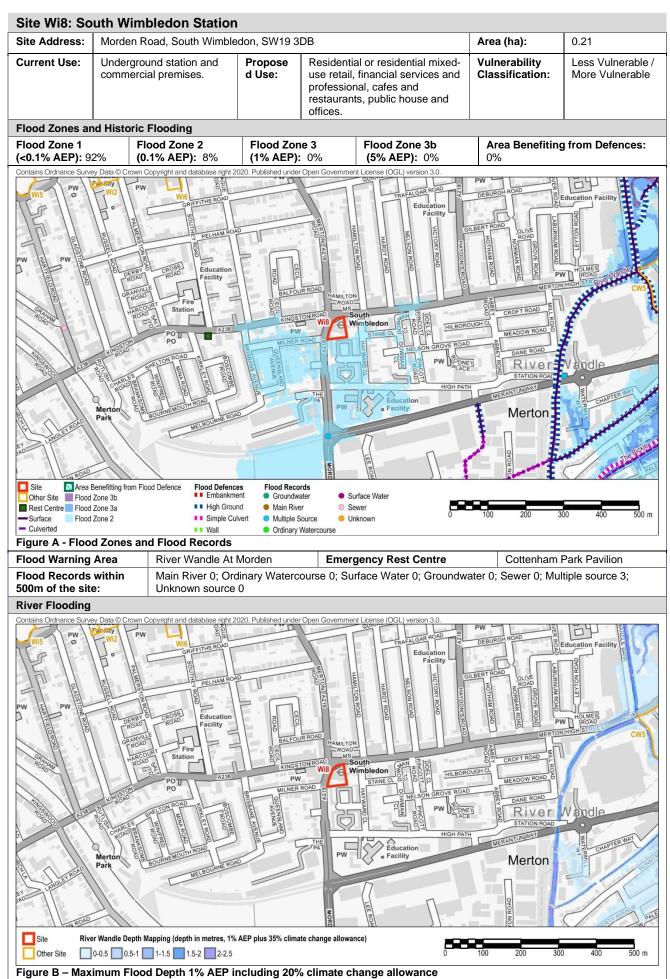
There are groundwater flooding records in this area, and broadscale mapping suggests that the local area may be susceptible to groundwater flooding at surface.

Site Specific Recommendations

The proposed use for the site includes residential uses which are defined as More Vulnerable. More Vulnerable development is only permitted on this site where it can be demonstrated that the Exception Test is satisfied i.e. (1) that the proposed development will provide wider sustainability benefits to the community that outweigh flood risk, and (2) that it will be safe for its lifetime, without increasing flood risk elsewhere and where possible reduce flood risk overall. In order to satisfy the requirements of the Exception Test, the following recommendations are made:

- A sequential approach should be applied within the site, steering development towards those areas at lower risk of fluvial and surface water flooding.
- Finished floor levels for all More and Less Vulnerable development should be set 300mm above the 1% AEP flood level including 35% allowance for climate change. Given flood depths of 0.5-1.0m on the site for the 1% AEP plus 35% event, this may be achieved through providing residential units with open areas (for example undercroft parking) beneath.
- Arrangements should be made for safe access and egress away from the site in the event of flooding from the River Wandle.
 Where possible this should be dry access/egress above the 1% AEP flood level including 35% climate change allowance. In
 this location, a dry route may only be possible along Dawlish Avenue to the west of the site. Given that access/egress along
 the main access to north of the site may not be dry, a place of safe refuge should be designed into the proposed
 development, above the 1% AEP flood level including an allowance for climate change.
- The majority of the site is located within the 1% AEP plus 35% flood extent, and therefore provision of floodplain
 compensation storage to mitigate any increase in building footprint will not be possible. The proposed development must not
 increase the building footprint, and resilience measures should be implemented where necessary to ensure that the current
 capacity of the floodplain is retained.
- The site is located within the Flood Warning Area for River Wandle at Wandsworth. Occupants of the site should sign up to receive the Flood Warning Service.
- A Flood Warning and Evacuation Plan should be prepared by occupants of the site demonstrating what actions site users will
 take before, during and after a flood event to ensure their safety, and to demonstrate the development will not impact on the
 ability of the local authority and the emergency services to safeguard the current population.
- · The risk of groundwater flooding and groundwater levels should be further assessed as part of a Site Investigation.
- Development of the site should consider the surface water flow paths in the area and ensure there is no increase in flood risk
 to neighbouring areas. Opportunities should be taken to reduce the risk of surface water flooding to the surrounding areas
 through the use of SuDS. Development proposals for the site should seek to restrict surface water runoff rates to greenfield
 rates; demonstrate sustainable approaches to the management of surface water making use of SuDS including green roofs,
 rainwater harvesting and other innovative technologies; and incorporate soft landscaping, planting and impermeable
 surfacing.

Wi8 South Wimbledon Station



Site Wi8: South Wimbledon Station

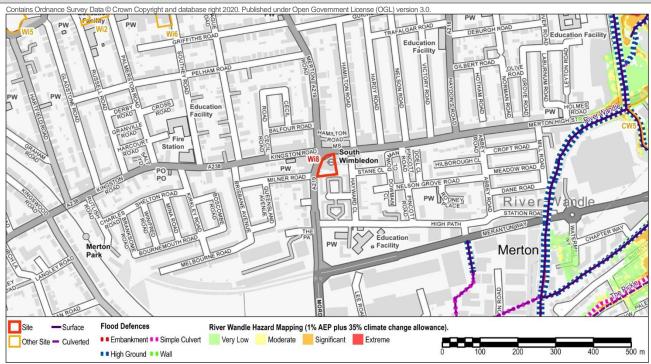


Figure C – Maximum Flood Hazard Rating 1% AEP including 20% climate change allowance

	Flooding

Risk of Flooding from Surface Water (RoFSW) Low River Merton Ordinary Watercourse Risk of Flooding from Surface Water Flood Records Site High Probability Groundwater Surface Water Other Site - Culverted Main River Sewer Medium Proabability Multiple Source
 Unknown Low Probability

Figure D - Risk of Flooding from Surface Water (RoFSW)

Critical Drainage Area	None		
Drainage Catchment	DC26		
Groundwater Flooding			
Bedrock Geology	Thames Group - Clay, Silt, Sand And Gravel	Superficial Geology	None
Susceptibility to Groundwater Flooding (BGS)		Potential for groundwater flooding to occur at surface	
Within an area with 'increased potential for elevated groundwater', as identified in the SWMP (GLA 2011)		Yes	
Within area of perched groundwater, as identified by LB Merton in the Level 1 SFRA (AECOM, 2020)		No	

London Borough of Merton Level 2 Strategic Flood Risk Assessment

Site Wi8: South Wimbledon Station

Other Sources	
Risk of flooding from reservoirs	Not shown to be at risk of flooding from reservoirs on the Long Term Flood Risk Map.

Summary

The majority of the site is in Flood Zone 1, Low probability of river flooding with a small part of the southern extent of the site is defined as Flood Zone 2, Medium probability of river flooding. The River Wandle is located approximately 600m east from the site. The site is not shown to be at risk of flooding from the River Wandle during the 1% AEP modelled event including 35% allowance for climate change.

The Risk of Flooding from Surface Water mapping identifies the potential for surface water to flow along the western edge of the site boundary adjacent to Morden Road. There are multiple records of flooding from surface water within 500m of the site.

There are groundwater flooding records in this area, and broadscale mapping suggests that the local area may be susceptible to groundwater flooding at surface.

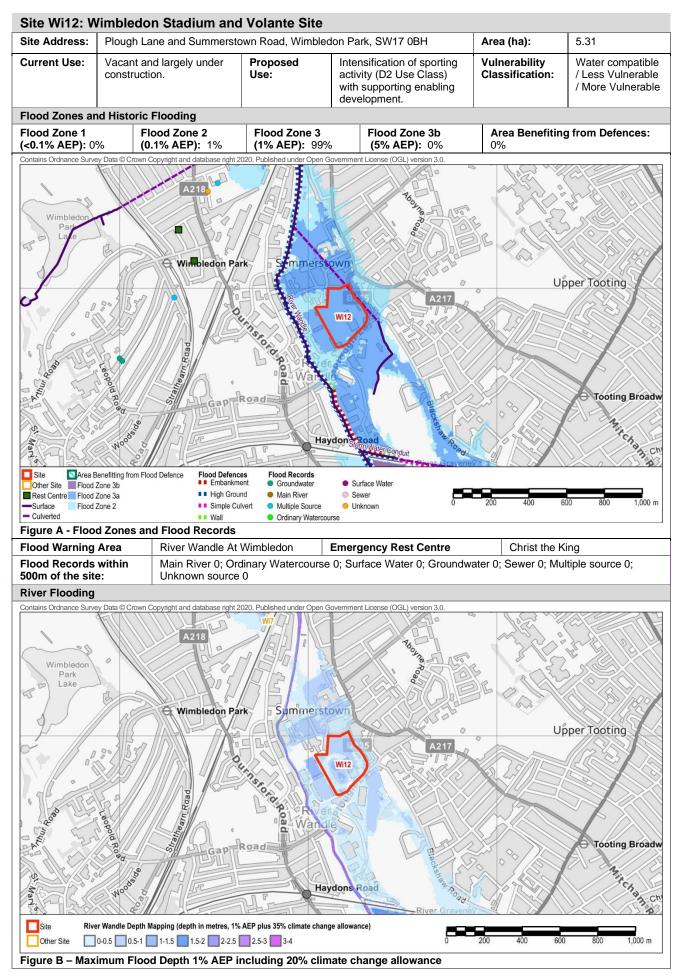
Site Specific Recommendations

The proposed use of the site is compatible with the flood zone. The Exception Test is not required.

Development of the site should consider the surface water flow paths in the area and ensure there is no increase in flood risk to neighbouring areas. Opportunities should be taken to reduce the risk of surface water flooding to the surrounding areas. Development proposals for the site should seek to restrict surface water runoff rates to greenfield rates; demonstrate sustainable approaches to the management of surface water making use of SuDS including green roofs, rainwater harvesting and other innovative technologies; and incorporate soft landscaping, planting and impermeable surfacing.

The risk of groundwater flooding and groundwater levels should be further assessed as part of a Site Investigation.

Wi12 Wimbledon Station and Volante Site



London Borough of Merton Level 2 Strategic Flood Risk Assessment Site Wi12: Wimbledon Stadium and Volante Site Wimbledon Park **Upper Tooting Tooting Broadw** River Wandle Hazard Mapping (1% AEP plus 35% climate change allowance). Other Site - Culverted - Embankment - Simple Culvert Very Low Moderate Significant Extreme ■ ■ High Ground ■ ■ Wall Figure C - Maximum Flood Hazard Rating 1% AEP including 20% climate change allowance **Surface Water Flooding** Risk of Flooding from Surface Water (RoFSW) Low, Medium, High Upper Tooting soting Broady Ordinary Watercourse Risk of Flooding from Surface Water Flood Records Site High Probability Groundwater Surface Water Other Site - Culverted Main River Sewer Medium Proabability Low Probability Figure D - Risk of Flooding from Surface Water (RoFSW) **Critical Drainage Area** Group7_018 Summerstown [Wandsworth] **Drainage Catchment** DC14 **Groundwater Flooding Bedrock Geology** Thames Group - Clay, Silt, Sand **Superficial Geology** Clay, Silt And Sand, Sand

Yes

No

And Gravel

Potential for groundwater flooding to occur at surface

And Gravel

Susceptibility to Groundwater Flooding (BGS) Within an area with 'increased potential for elevated

in the Level 1 SFRA (AECOM, 2020)

groundwater', as identified in the SWMP (GLA 2011)

Within area of perched groundwater, as identified by LB Merton

Site Wi12: Wimbledon Stadium and Volante Site

Other Sources	
Risk of flooding from reservoirs	Not shown to be at risk of flooding from reservoirs on the Long Term Flood Risk Map.
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Summary

The River Wandle flows in a north westerly direction approximately 140m to the west of the site. A culverted tributary of the River Wandle flows beneath the north eastern edge of the site. The site is defined as Flood Zone 3a, High probability of river flooding. Two rest centres are located approximately 800m north west of the site.

Modelling outputs for the River Wandle for the 1% AEP event including 35% increase in peak river flows as a result of climate change, indicates flood depths within the site boundary are approximately 1m. The hazard rating is 'Significant', meaning 'danger for most'.

The Risk of Flooding from Surface Water mapping identifies the potential for surface water to pond to the north of the site. There are records of surface water flooding in proximity to the site and it is located within a Critical Drainage Area (CDA 18 Summertown).

There are groundwater flooding records in this area, and broadscale mapping suggests that the local area may be susceptible to groundwater flooding at surface.

Site Specific Recommendations

Approximately two thirds of the site is currently a construction site associated with the delivery of planning permission reference 14/P4381 for a variety of uses including a football stadium for AFC Wimbledon, +600 homes and other facilities.

The site and buildings on the eastern boundary are in separate ownership fronting Summerstown road in Wandsworth with planning permission including residential development. (reference 15/P4798)

The site adjoins businesses along the northern and eastern boundary within the London Borough of Wandsworth. To the south of the site in Merton on the other side of Plough Lane is an industrial estate (Garrett Park) which is part of a Business Improvement District. Running along the western boundary of the site is a large operational electricity substation owned by National Grid.

Residential uses are defined as More Vulnerable. More Vulnerable development is only permitted in Flood Zone 3 where it can be demonstrated that the Exception Test is satisfied i.e. (1) that the proposed development will provide wider sustainability benefits to the community that outweigh flood risk, and (2) that it will be safe for its lifetime, without increasing flood risk elsewhere and where possible reduce flood risk overall. In order to satisfy the requirements of the Exception Test, the following recommendations are made:

- A sequential approach should be applied within the site where possible. Flood depths and hazard ratings on the current site
 are slightly lower in the south and east of the site, however this is likely to be influenced by the proposed development design.
- The proposed development must not reduce the ability of the floodplain to store water. This should be considered in relation to the 1% AEP modelled flood event including 35% allowance for climate change. Floodplain compensation storage must be provided on a level-for-level and volume-for-volume basis. Given the entire site is located within the 1% AEP including 35% flood extent, it will not be possible to provide compensation storage within the site itself. Further guidance on the provision of compensatory flood storage is provided in section A3.3.10 of the CIRIA document C624.
- Finished floor levels for More and Less Vulnerable development should be set 300mm above the 1% AEP flood level including 35% allowance for climate change. Given flood depths of 1.0m on the site for the 1% AEP plus 35% event, this may be achieved through providing residential units with open areas (for example undercroft parking) beneath.
- Arrangements should be made for safe access and egress away from the site in the event of flooding from the River Wandle.
 Where possible this should be dry access/egress above the 1% AEP flood level including 35% climate change allowance.
 Given the whole site is at risk of flooding during the 1% AEP event including 35% climate change, access/egress may not be dry. A place of safe refuge should be designed into the proposed development, above the 1% AEP flood level including an allowance for climate change.
- The site is located within the Flood Warning Area for the River Wandle At Wimbledon. Occupants of the site should sign up to receive the Flood Warning Service.
- A Flood Warning and Evacuation Plan should be prepared by occupants of the site demonstrating what actions site users will take before, during and after a flood event to ensure their safety, and to demonstrate the development will not impact on the ability of the local authority and the emergency services to safeguard the current population.
- The natural surface water flow patterns on the site should be considered when preparing the surface water drainage strategy
 for the site to ensure that the risk to neighbouring areas is reduced. Development proposals for the site should seek to restrict
 surface water runoff rates to greenfield rates; demonstrate sustainable approaches to the management of surface water
 making use of SuDS including green roofs, rainwater harvesting and other innovative technologies; and incorporate soft
 landscaping, planting and impermeable surfacing.
- The risk of groundwater flooding and groundwater levels should be further assessed as part of a Site Investigation.