

# Appendix A Worting Surface Water Flood Risk



Surface water flooding happens when rainwater does not drain away through the normal drainage systems or soak into the ground but lies on or flows over the ground instead.

The shading on the map shows the risk of flooding from surface water in this particular area.

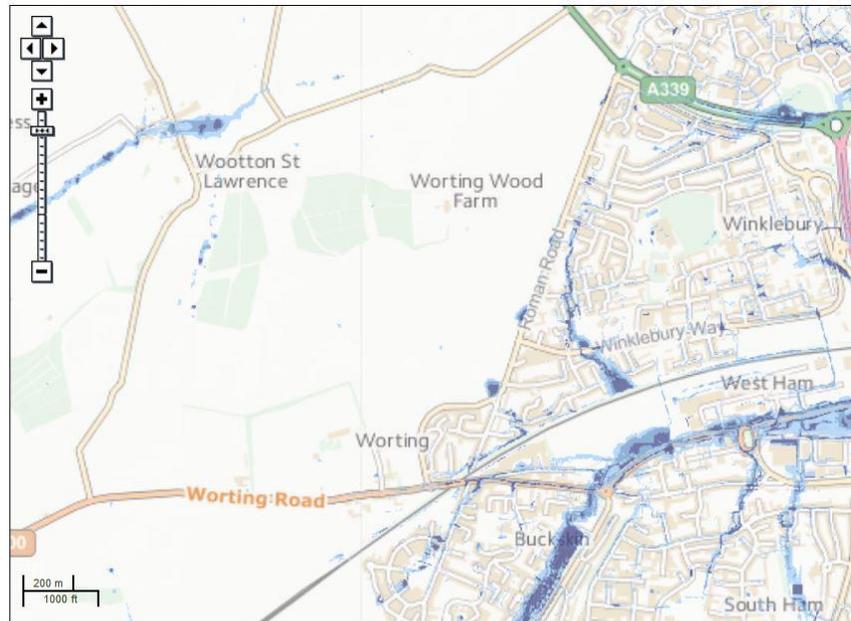
Click on the map for a more detailed explanation.

**Map legend**

- Risk of Flooding from Surface Water
  - High
  - Medium
  - Low
  - Very Low
- Other national environmental organisations
  - Natural Resources Wales Area of responsibility
  - Scottish Environment Protection Agency Area of responsibility

Map of Worting, Hampshire at scale 1:15,000

Data



Customers in Wales - From 1 April 2013 Natural Resources Wales (NRW) will take over the responsibilities of the Environment Agency in Wales. © Environment Agency copyright and database rights 2015. © Ordnance Survey Crown copyright. All rights reserved. Environment Agency, 101 Contains Royal Mail data © Royal Mail copyright and database right 2015

# B Kempshott Surface Water Flood Risk

## Risk of Flooding from Surface Water

Surface water flooding happens when rainwater does not drain away through the normal drainage systems or soak into the ground, but lies on or flows over the ground instead.

The shading on the map shows the risk of flooding from surface water in this particular area.

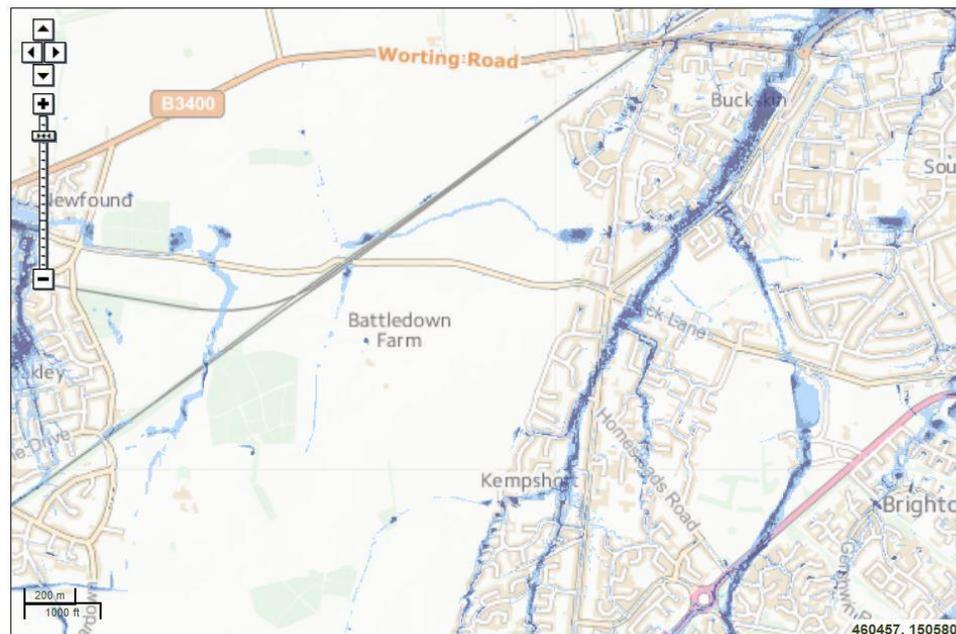
Click on the map for a more detailed explanation.

**Map legend**

- Risk of Flooding from Surface Water
  - High
  - Medium
  - Low
  - Very Low
- Other national environmental organisations
  - Natural Resources Wales Area of responsibility
  - Scottish Environment Protection Agency Area of responsibility

Map of Kempshott, Hampshire at scale 1:15,000

Data search



# Appendix C Golf Course Surface water flood risk



## Risk of Flooding from Surface Water

Surface water flooding happens when rainwater does not drain away through the normal drainage systems or soaks but lies on or flows over the ground instead.

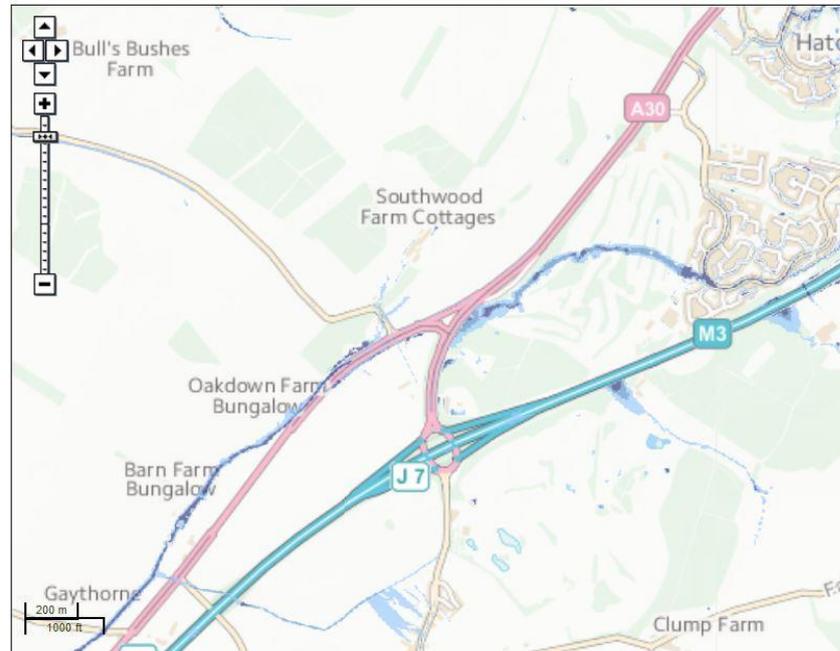
The shading on the map shows the risk of flooding from surface water in this particular area.

Click on the map for a more detailed explanation.

**Map legend**

- Risk of Flooding from Surface Water
  - High
  - Medium
  - Low
  - Very Low
- Other national environmental organisations
  - Natural Resources Wales Area of responsibility
  - Scottish Environment Protection Agency Area of responsibility

Map of X: 459,133; Y: 147,446 at scale 1:15,000



# Appendix D Thames Water strategy 2015-40

<http://www.thameswater.co.uk/tw/common/downloads/about%20us%20-%20corporate%20responsibility/About-us-Our-long-term-strategy-2015-2040.pdf>

# Appendix E Surface water management plan guidance 2010

[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/69342/pb13546-swmp-guidance-100319.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/69342/pb13546-swmp-guidance-100319.pdf)

Locations of proposed new development

5.11 SWMP studies should be informed by, and in turn should inform, the location and nature of new development or regeneration. There is a clear linkage between the SWMP process and the local development framework (LDF), and the two processes should be integrated as far as is possible. As part of the LDF, local planning authorities will identify

and allocate development sites to meet their growth requirements set out in Regional Spatial Strategies. The cumulative effect, on surface water flood risk, of numerous new development and redevelopment sites within an urban area should be examined through a SWMP study.



5.12 SWMP studies can be used to strategically co-ordinate and plan drainage provision in new developments, where piecemeal actions are inefficient and do not support consistent use of SuDS. Within a SWMP study, new development should be assessed within the context of existing surface water flooding, to maximise opportunities to reduce existing surface water flood risk downstream or to create capacity in the drainage system through reducing existing runoff.

5.13 The intermediate assessment should consider the location of future development or regeneration in order to: integrate the SWMP study with spatial planning;

- identify where proposed development sites may be vulnerable to surface water flooding;
- identify where new development drains to an area of existing surface water flood risk, and hence where new development offers the opportunity to address existing flood risk issues and;

Identify flood routes, routes for SuDS conveyance infrastructure and locations of regional SuDS facilities so that these can be planned into development layouts together with identifying the means by which the development can deliver the requisite SuDS infrastructure.

- scope out the requirements for the SWMP study to consider strategic provision of drainage within development sites.

- provide a strong base for the production of a surface water supplementary planning document

## Appendix F South East Water

Links to docs and copies of key issues

South East Water 2015-20

[http://www.southeastwater.co.uk/media/185542/SEW\\_BusinessSummary\\_5yearPlan\\_2015\\_2020.pdf](http://www.southeastwater.co.uk/media/185542/SEW_BusinessSummary_5yearPlan_2015_2020.pdf)

[http://www.southeastwater.co.uk/media/1114488/3\\_SupplyForecast\\_WRMP\\_0614a.pdf](http://www.southeastwater.co.uk/media/1114488/3_SupplyForecast_WRMP_0614a.pdf)

fig 3.4 water resource zone 4



4.5 WRZ4

WRZ4 is located in the Surrey/Hampshire/Berkshire areas with demand centres in Maidenhead, Wokingham, Bracknell, Farnborough-Camberley, Fleet, Aldershot and Basingstoke conurbations. It operates as an integrated zone with the principal flows moving in a north-south direction. The groundwater sources are: Cookham, College Avenue, RZ4 Gravels, Hurley, Greywell, Itchel, Boxalls Lane, Windmill, Lasham, Cliddesden, West Ham and Woodgarston, Surface Water treatment at an existing water treatment works facility.

The typical Distribution Input (ADD) into this zone is currently circa 185 MI/d.

An inter-company bulk supply of 36 MI/d is transferred into the zone from Veolia Central (TVW) via an existing WTW to Surrey Hills SR. Inter-zonal transfers, circa total 10MI/d import at peak demand, are available from WRZ5 at a number of locations on the zonal boundary between WRZ4 and WRZ5.

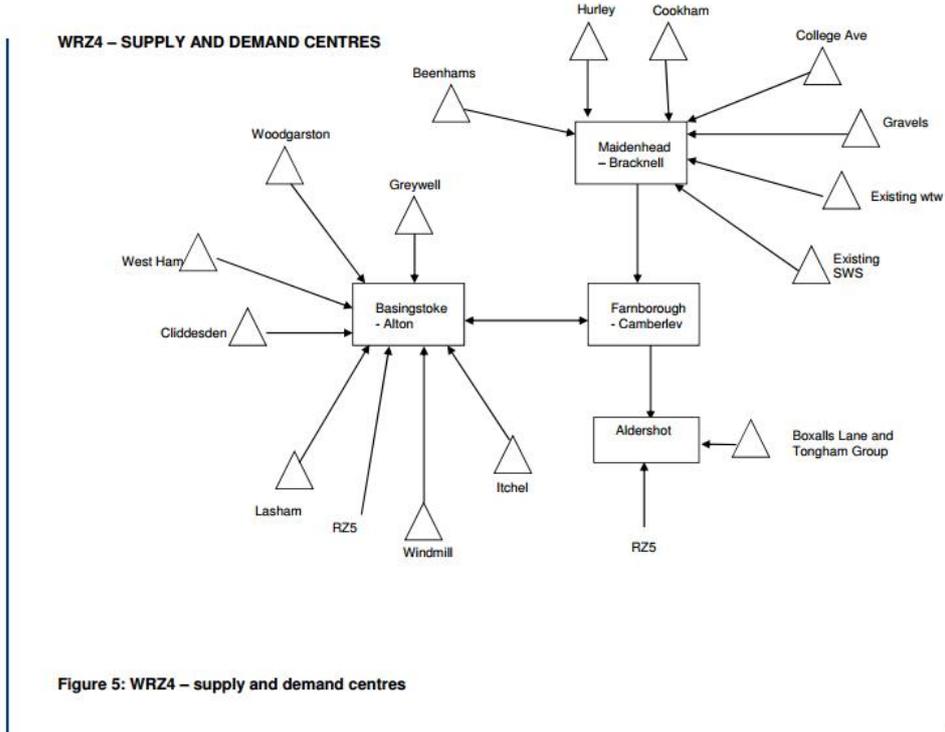
Net values of average and peak deployable outputs, including typical inter-zonal transfer volumes and bulk supplies are as follows:

ADO & inter-zonal transfers MI/d	PDO & inter-zonal transfers MI/d	Bulk Supply MI/d	ADO & inter-zonal transfers + Bulk Supply MI/d	PDO & inter-zonal transfers + Bulk Supply MI/d
194.33	206.0	36.0	230.33	242.0

Figure 5 below shows the schematic layout of WRZ4.

6.5 WRZ Integrity WRZ4 Resource Zone 4 has been assessed as an integrated zone with no sub zones. It is likely that without additional source development this zone will begin to experience a deficit in the WRMP planning period. Hydraulic analysis of the zone has indicated that delivery of the available DO from Cookham, College Avenue and Boxalls Lane WTWs are currently constrained. SEW has schemes within its AMP5 programme to reinforce the pumped delivery mains at Cookham and Boxalls Lane sites and a further remediation scheme, to address the issues associated with College Avenue WTW, is under consideration. The proposed schemes are outlined in the table in Appendix B.

RZ4 The flow into the Basingstoke area appears to be unidirectional, east to west. Should the Basingstoke area be considered as a distinct sub zone? Although the basic schematic shows a single mains supply to the Basingstoke area from the principal zonal area, this comprises a number of existing supply mains, ranging between 500mm to 100mm diameter, each with the capability of providing bi-directional flow support. The typical ADD combined flow into Basingstoke from the Farnborough area is circa 13 MI/d, which is a significant proportion of the overall demand of circa 40 MI/d. RZ4 is, therefore considered to be a well integrated zone. Previously identified constraints relating to the maximised output of Cookham, College Avenue and Boxalls Lane BH site DOs can be addressed by the construction of reinforcement mains. Schemes for Cookham and Boxalls Lane are currently included in the AMP5 programme, with College Avenue under review.



# Phase2 water cycle study report

<http://www.basingstoke.gov.uk/content/page/33413/Water%20Cycle%20Study%20Phase%202%20Report.pdf>

p112 for storage volumes