

Appendix E – Summary of flood risk in Wokingham Borough

The table below summarises the areas where there are notable flood risks within Wokingham Borough. For this summary the borough has been delineated into eight character areas, taking into account Parish boundaries, socioeconomic factors, and the characteristics of the area. Further information on the Wokingham Borough character areas can be found in Section 5.10 of the main report.

Character Area	Fluvial flood risk	Existing defences	Surface water flood risk	Susceptibility to Groundwater flood risk	Reservoir inundation risks	Historic, recorded flood events
Character Area 1: Remenham and Wargrave	This area is largely rural and located in the north of the Borough. The River Thames runs along the western and northern borders of the area. There is fluvial flood risk along the western and northern borders of the character area, following the route of the River Thames. Significant proportions of this are in Flood Zone 3a and 3b, including the west of Wargrave and around Aston and Remenham. This is confirmed by Thames model outputs, which in general, follow the extent of Flood Zone 3a. There is no fluvial flood risk shown for the eastern side of	The EA AIMS dataset shows a series of natural high ground defences along the western and northern borders of the area along the River Thames and its tributaries. Natural high ground also surrounds Wargrave Marsh to the west of the character area.	Surface water flood risk follows the topography of the area. In general, most surface water flow paths route water south-west across the character area from Knowl Hill on the eastern border. A major flow path from Knowl Hill flows westerly through the centre of Wargrave to the River Thames. Other areas at risk include Hare Hatch, which lies in another flow path off Knowl Hill, the Great Western railway line, and Star Works. There are fewer areas at risk from surface water in the north of the character area. Small flow paths route water downhill into the Thames on the northern border. There are also small, isolated areas of surface water ponding which may suggest localised flood risk.	The AStGWF dataset shows areas greater than 50% susceptibility along the western and northern borders of the character area following the route of the River Thames. The JBA groundwater emergence map mirrors this, with groundwater levels less than 0.5m below the surface along the western and northern borders. Based on the ROFSW dataset, it is likely any groundwater that emerges in Character Area 1 will flow south to north along the western border, then east along the northern border, following the route of the River Thames. This is a risk to urban centres such as Wargrave.	There are no reservoir flood extents which impact the area during the 'Dry Day' scenario. The following reservoirs impact the character area in the 'wet day' scenario. Farmoor (No.1 & No.2) - The flood extents follow the path of the River Thames in a northerly direction along the western border of the area and then across the northern border of the area.	Historic flood mapping, EA recorded flood outlines, and LLFA historic flood points suggest the following: <ul style="list-style-type: none"> • March 1947 – Fluvial flooding due to channel capacity exceedance of the River Thames along the western and northern borders of the area. • November 1974 - Fluvial flooding due to channel capacity exceedance of the River Thames along the western and northern borders of the area. • January 2003 – Fluvial flooding due to channel capacity exceedance of the River Thames along the western and northern borders of the area. • July 2007 - Fluvial flooding due to channel capacity exceedance of the River Thames along the western. • 2007 – Flooding due to surface water run-off in numerous locations within the character area • Winter 2013/14 - Fluvial flooding due to channel capacity exceedance of the River Thames along the western and northern borders of the area. • 2013 – Flooding due to surface water run-off in numerous locations within the character area • 2015 - Flooding due to surface water run-off in the north of the character area • The LLFA historic flood points also show other isolated incidents of surface water flooding in the character area.

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	the character area.					<ul style="list-style-type: none"> There are no recorded incidences of sewer flooding in this character area.
Character Area 2: Twyford, Charvil, and Ruscombe	<p>This area is in the north of the Borough. It is rural in most places, with a few large villages central to the character area. There is fluvial flood risk along the western border of the character area, following the route of the River Thames. Furthermore, the River Loddon, a large tributary of the River Thames, flows south to north through the centre of the character area between Charvil and Twyford. This is confirmed by model outputs of the River Loddon. Smaller tributaries of the Loddon also present fluvial flood risk to the south east.</p>	<p>The EA AIMS dataset shows high ground defences along the River Thames on the western border of the character area. An additional network of natural high ground defences, through the centre of the character area, follow the banks of Old River until it discharges into the River Thames.</p>	<p>Surface water flow paths follow the topography of the land, flowing south-west through Ruscombe and Twyford from Knowl Hill. The RoFSW map shows a network of footpaths and bridgeways in the east of the character area susceptible to surface water flooding, as do areas of Sonning Golf Club to the south. There are also a significant number of small, isolated, areas of surface water ponding, which may suggest localised flood risk.</p>	<p>The AStGWF dataset shows areas greater than 50% susceptibility through the west and centre of the character area, following the route of the River Loddon and surrounding its confluence with the River Thames. There is an additional area of >50% susceptibility to groundwater flooding to the east along Waltham Road. The JBA groundwater emergence map mirrors this, with groundwater levels less than 0.5m below the surface along the western border following the River Thames, and through the centre of the character area following the River Loddon. This is a risk to areas such as Charvil village and the north of Ruscombe. The ROFSW suggests that groundwater emergence along the Loddon is likely to flow along the route of the river, as well as north-east towards Hare Hatch. It also</p>	<p>The following reservoirs impact the character area in the 'dry day' scenario.</p> <ul style="list-style-type: none"> Bearwood Lake – This reservoir enters the character area from the south, inundating Loddon Nature Reserve. Southlake - The northern flow path of this reservoir enters the character area from the south, inundating Loddon Nature Reserve. Queen's Mere - The northern flow path of this reservoir enters the character area from the south inundating Loddon Nature Reserve. <p>The following reservoirs impact the character area in the 'wet day' scenario.</p> <ul style="list-style-type: none"> Farmoor No.1 and No.2 - The flood extents follow the path of the River Thames in a northerly direction along the western border and then across the northern border of the area. Bearwood Lake – Situated in Character area 7, the reservoirs' northern flow path flows north, entering the character area from the south, forking, and inundating Loddon Nature Reserve to the west, and rural land to the east. Southlake – The northern flow path of this reservoir enters the character area from the south, forking, and inundating Loddon Nature Reserve to the west, and rural land to the east. 	<p>Historic flood mapping, EA recorded flood outlines, and LLFA historic flood points suggest the following:</p> <ul style="list-style-type: none"> March 1947 – Fluvial flooding due to channel capacity exceedance of the River Thames along the western borders of the area. November 1974 - Fluvial flooding due to channel capacity exceedance of the River Thames along the western borders of the area, and the River Loddon through the centre of the character area and to the east. August 1977 - Fluvial flooding due to channel capacity exceedance of the River Thames along the western borders of the area. December 1981 - Fluvial flooding due to channel capacity exceedance of the River Loddon to the east of the character area. December 2000 - Fluvial flooding due to channel capacity exceedance of the River Thames along the western borders of the area, and the River Loddon through the centre of the character area and to the east 2000 – Flooding due to surface water in the south of the catchment area. January 2003 - Fluvial flooding due to channel capacity exceedance of the River Thames along the western borders of the area, and the River Loddon through the centre of the character area and to the east July 2007 - Fluvial flooding due to channel capacity exceedance of the River Thames along the western borders of the area, and the River

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				shows that emergence along Waltham Road is likely to flow south to the eastern border of the character area.	<ul style="list-style-type: none"> Maiden Erlegh Lake - The northern flow path of this reservoir enters the character area from the south, forking, and inundating Loddon Nature Reserve to the west, and rural land to the east. Queen's Mere - The northern flow path of this reservoir enters the character area from the south, forking, and inundating Loddon Nature Reserve to the west, and rural land to the east. 	<p>Loddon through the centre of the character area and to the east</p> <ul style="list-style-type: none"> 2007 – Flooding due to surface water run-off in numerous locations within the character area, mostly centred on the western side. Winter 2013/14 - Fluvial flooding due to channel capacity exceedance of the River Thames along the western borders of the area. 2013 – Flooding due to surface water run-off in numerous locations within the character area, mostly centred on the western side 2017 - Flooding due to surface water run-off in numerous locations in the south of the character area. The LLFA historic flood points also show other isolated incidents of surface water flooding in the character area. There are 182 recorded incidences of sewer flooding in this character area, mostly centred around the urban centre of Twyford.
Character Area 3: Woodley and Earley	Character area 3 is entirely urban, with Woodley to the north, and Earley and Lower Early to the south. The River Thames presents fluvial flood risk along the north-western border of the area. Moreover, the River Loddon, and tributaries such as Emm	The EA AIMS dataset shows natural high ground along the banks of the Loddon on the eastern border of the character area, as well as its associated tributaries.	Surface water flow paths the topography of the land, flowing east from the western border where there is an area of high elevation. The south-east of the character area suffers from flood risk around the River Loddon and the M4 motorway as it is particularly low lying land. Much of the road network in the residential area at this location is also	The AStGWF dataset shows areas greater than 50% susceptibility across the eastern side of the character area propagating out from the River Loddon. The north western corner of the character area, which borders the River Thames, is also greater than 50% susceptible to groundwater flooding. The JBA groundwater emergence map suggests that the majority of the left	<p>The following reservoirs impact the character area in the 'dry day' scenario.</p> <ul style="list-style-type: none"> Southlake – This reservoir is situated in the centre of the character area and flows east, before diverging to flow north and south along the eastern border. Maiden Erlegh Lake - This reservoir is situated in the south of the character area and flows east, before diverging to flow north and south along the eastern border. Bearwood Lake - Situated in Character area 7, the reservoirs' northern flow path flows north along the length of the eastern border of this character area. 	<p>Historic flood mapping, EA recorded flood outlines, and LLFA historic flood points suggest the following:</p> <ul style="list-style-type: none"> March 1947 – Fluvial flooding due to channel capacity exceedance of the River Thames along the northern borders of the area, and the River Loddon on the eastern border. November 1974 - Fluvial flooding due to channel capacity exceedance of the River Thames along the western borders of the area, and the River Loddon through the centre of the character area and to the east. August 1977 - Fluvial flooding due to channel capacity exceedance of the River Thames along the northern borders of the area.

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	<p>Brook, flow the length of the eastern border posing further flood risk to the area. Much of the immediate land on the left and right banks of the Loddon lie in Flood Zone 3a and 3b.</p>		<p>shown to be susceptible to surface water flooding, again because it is low lying. There are also small, isolated, areas of surface water ponding, which may suggest localised flood risk.</p>	<p>bank of the Loddon has groundwater emergence levels less than 0.5m from the surface. Much of this covers the urban centres of Woodley and Lower Early. The north western corner of the character area, around the River Thames, also has groundwater emergence within 0.5m of the surface. The ROFSW map shows that groundwater emerging in Woodley and Lower Early is likely to flow along the path of the River Loddon, north along the eastern border of the character area. In addition, groundwater emerging in the north western corner is likely to flow north east following the path of the River Thames.</p>	<ul style="list-style-type: none"> Longmoor Lake - The northern flow path of this reservoir flows along the western border of this character area. Black Swan Lake Dinton Pastures – The northern flow path of this reservoir flows along the western border of this character area. <p>The following reservoirs impact the character area in the 'wet day' scenario.</p> <ul style="list-style-type: none"> Farmoor No.1 and No.2 - The flood extents follow the path of the River Thames in a northerly direction along the western border of the area and then across the northern border of the area. Bearwood Lake – Situated in Character area 7, the reservoirs' northern flow path flows north along the length of the eastern border of this character area Southlake – This reservoir is situated in the centre of the character area and flows east, before diverging to flow north and south along the eastern border. Maiden Erleigh Lake - This reservoir is situated in the south of the character area and flows east, before diverging to flow north and south along the eastern border. Queen's Mere – The flow path from this reservoir splits prior to the eastern border of this character area and flows both north and south along the border. Tundry Pond – The flow path of this reservoir flows north-east along the length of the eastern border of the character area. White Knights Lake – This flood extent extends north into Reading, 	<ul style="list-style-type: none"> December 1981 - Fluvial flooding due to channel capacity exceedance of the River Loddon to the east of the character area. February 1991 – Fluvial flooding of the River Loddon along the eastern border due to channel capacity exceedance December 2000 - Fluvial flooding due to channel capacity exceedance of the River Thames along the northern borders of the area, and the River Loddon through the centre of the character area and to the east. January 2003 - Fluvial flooding due to channel capacity exceedance of the River Thames along the northern borders of the area, and the River Loddon along the eastern border of the character area. July 2007 - Fluvial flooding due to channel capacity exceedance of the River Thames along the northern of the area, and the River Loddon through the centre of the character area and to the east 2007 – Flooding due to surface water run-off in numerous locations within the character area, mostly centred on the western side. Winter 2013/14 - Fluvial flooding due to channel capacity exceedance of the River Thames along the northern borders of the area. 2009 – Isolated incidents of surface water flooding in Earley to the south-west of the area. 2013 – Flooding due to surface water run-off in numerous locations within the character area, mostly centred on the western side The LLFA historic flood points also show other isolated incidents of

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					<p>posing a risk to the north-west border of the character area.</p> <ul style="list-style-type: none"> Wellington Country Park Lake – The flood extent follows the eastern border of the character area. Longmoor Lake - The northern flow path of this reservoir flows along the western border of this character area. Bramshill House Pond – The flood extent follows the eastern border of the character area 	<p>surface water flooding in the character area.</p> <ul style="list-style-type: none"> There are 860 recorded incidences of sewer flooding in this character area, and are widely spread throughout the urban centres.
Character Area 4: Hurst	<p>This area is largely rural, with the small village of Hurst to the north. The River Loddon flows the length of the eastern and northern borders and presents a significant fluvial flood risk. Much of the route of the Loddon lies in Flood Zone 3a and 3b. A tributary of the Loddon, Emm Brook, flows through Dinton Pastures Country Park to the south east posing further flood risk.</p>	<p>The EA AIMS dataset shows natural high ground along the banks of the Loddon on the western border of the character area. Further high ground along Emm Brook borders Dinton Pastures Country Park, and a network of high ground follows a significant portion the field drainage network in the area.</p>	<p>Surface water flow paths follow the topography of the land, with a significant flow path flowing south-east to north, following the route of a small watercourse from areas of higher elevation. A further flow path from the south joins this main route, before flowing through the north of Hurst. There are also small, isolated, areas of surface water ponding, which may suggest localised flood risk.</p>	<p>The ASGWF shows the entire western side of character area 4 has a susceptibility to groundwater flooding of greater than 50%. The JBA groundwater emergence map shows that, again, the western side of the character area is particularly susceptible, with emergence levels below 0.5m from the surface. This impacts the village of Hurst. The ROFSW suggests than any surface water emerging from the areas detailed above is likely to flow north along the route of the River Loddon, or along Davis Street/Lodge Road in Hurst.</p>	<p>The following reservoirs impact the character area in the 'dry day' scenario.</p> <ul style="list-style-type: none"> Bearwood Lake - Situated in Character area 7, the reservoir's northern flow path flows north along the length of the western border of this character area. Queen's Mere – The flow path from this reservoir inundates Dinton Pastures Country Park in the south-west corner of the character area. Black Swan Lake Dinton Pastures – This reservoir is located in the west of the character area and flows both north and south, inundating Dinton Pastures Country Park <p>The following reservoirs impact the character area in the 'wet day' scenario.</p> <ul style="list-style-type: none"> Bearwood Lake – Situated in Character area 7, the reservoir's northern flow path flows north along the length of the western border of this character area. Southlake – The northern flow path of this reservoir flows along the length of the western border of this character area 	<p>Historic flood mapping, EA recorded flood outlines, and LLFA historic flood points suggest the following:</p> <ul style="list-style-type: none"> March 1947 – Fluvial flooding due to channel capacity exceedance of the River Loddon on the western border, and Emm Brook to the north-east of the character area. November 1974 - Fluvial flooding due to channel capacity exceedance of the River Loddon along the western border, and an inland watercourse to the north-east of the character area. December 1981 - Fluvial flooding due to channel capacity exceedance of the River Loddon to the west of the character area, and an inland watercourse to the north-east of the character area. February 1991 – Fluvial flooding of the River Loddon along the western border due to channel capacity exceedance, and Emm Brook to the north-east of the character area. January 2003 - Fluvial flooding due to channel capacity exceedance of the River Loddon to the west of the character area, and an inland watercourse to the north-east of the character area.

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					<ul style="list-style-type: none"> • Maiden Erlegh Lake - The northern flow path of this reservoir flows along the length of the western border of this character area • Queen's Mere - The northern flow path of this reservoir flows along the length of the western border of this character area • Tundry Pond - The flow path of this reservoir flows north-east along the length of the western border of the character area. • Bramshill House Pond - The flood extent follows the north-west border of the character area • Wellington Country Park Lake - The flood extent follows the north-west border of the character area 	<ul style="list-style-type: none"> • 2000 - Flooding due to surface water in the south of the catchment area. • 2007 - Flooding due to surface water run-off in numerous locations within the character area, mostly centred in the north. • July 2007 - Fluvial flooding due to channel capacity exceedance of the River Loddon to the west of the character area, and an inland watercourse to the north-east of the character area. • 2008 - Surface water flooding in the north and west of the character area. • 2013 - Flooding due to surface water run-off in numerous locations within the character area, mostly centred on the western side • The LLFA historic flood points also show other isolated incidents of surface water flooding in the character area. • There are 32 incidences of sewer flooding in this character area, mainly clustered around Hurst, but also along major highways.
Character Area 5: Wokingham, Emmbrook, and Winnersh	This area is largely urban, with the town of Wokingham located to the east, and Winnersh to the north-west. Fluvial flood risk originates from the River Loddon and associated drainage networks that run along the north west	The EA AIMS dataset shows high ground follows the River Loddon along the north-west border of the character area. Furthermore, a mixture of engineered and natural high ground defences on the banks of	Surface water flow paths follow the topography of the land, and primarily follows the route of Emm Brook and its tributaries. They flow through residential areas such as Emmbrook and Wokingham. Significant areas of Winnersh in the north-west of the character area are low lying, and also at	The ASGWF shows that the north western border of the character area has a greater than 50% susceptibility of groundwater flooding. This follows the River Loddon and impacts the north of Winnersh. The JBA groundwater emergence map suggests that this area of Winnersh also has emergence levels within 0.5m of the surface. In addition to	<p>The following reservoirs impact the character area in the 'dry day' scenario.</p> <ul style="list-style-type: none"> • Bearwood Lake - Situated in Character area 7, the reservoirs' northern flow path flows north along the length of the western border of this character area. • Queen's Mere - The primary flow path of the reservoir flows from the south-east border, north-west through the centre of Wokingham to the northern border. <p>The following reservoirs impact the character area in the 'wet day' scenario.</p>	<p>Historic flood mapping, EA recorded flood outlines, and LLFA historic flood points suggest the following:</p> <ul style="list-style-type: none"> • March 1947 - Fluvial flooding due to channel capacity exceedance of the River Loddon on the western border, and Emm Brook to the north-east of the character area. • November 1974 - Fluvial flooding due to channel capacity exceedance of the River Loddon along the western border, and Emm Brook to the north-east of the character area. • December 1981 - Fluvial flooding due to channel capacity exceedance of the River Loddon to the west of the character area, and Emm Brook

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	border of the character area. Much of the immediate land on the left and right banks of the Loddon lie in Flood Zone 3a and 3b. Emm Brook, another tributary of the Loddon flows south-east to north-west through Wokingham, and along the northern border.	Emm Brook split the character area from south to north.	risk of surface water flooding. There are also small, isolated, areas of surface water ponding, which may suggest localised flood risk.	this, parts of Wokingham and the southern and western borders of the character area also have emergence levels within 0.5m of the surface. The ROFSW suggests that any water emerging in this character area is likely to flow north west following Emm Brook, to its confluence with the River Loddon. At this confluence, it will then flow north.	<ul style="list-style-type: none"> Bearwood Lake – Situated in Character area 7, the reservoirs' northern flow path flows north-east along the length of the western border of this character area. Southlake – The southern flow path of this reservoir flows along the length of the western border of this character area. Maiden Erlegh Lake - The southern flow path of this reservoir flows along the length of the western border of this character area. Queen's Mere – The primary flow path of the reservoir flows from the south-east border, north-west through the centre of Wokingham to the northern border. Tundry Pond – The flow path of this reservoir flows north-east along the length of the western border of the character area. Bramshill House Pond – The flood extent follows the north-west border of the character area Wellington Country Park Lake – The flood extent follows the north-west border of the character area 	<p>to the north-east of the character area.</p> <ul style="list-style-type: none"> February 1991 – Fluvial flooding of the River Loddon along the western border due to channel capacity exceedance, and Emm Brook to the north-east of the character area. January 2003 - Fluvial flooding due to channel capacity exceedance of the River Loddon to the west of the character area, and Emm Brook to the north-east of the character area. 2000 – Flooding due to surface water in the south of the catchment area. 2007 – Flooding due to surface water run-off in numerous locations within the character area, mostly centred in the north. July 2007 - Fluvial flooding due to channel capacity exceedance of the River Loddon to the west of the character area, and Emm Brook to the north-east of the character area. 2008 – Surface water flooding in the north and west of the character area. 2013 – Flooding due to surface water run-off in numerous locations within the character area, mostly centred on the western side The LLFA historic flood points also show other isolated incidents of surface water flooding in the character area. There are 237 recorded incidences of sewer flooding in this character area, mostly clustered around the urban centre of Winnersh.
Character Area 6: Shinfield, Spencers Wood, and	This character area is largely rural, with a series of small settlements in the north.	The EA AIMS dataset shows natural high ground defences run either side of	Surface water flow paths the topography of the land, and primarily follows the route of the watercourses in the	The ASGWf suggests that all land surrounding the River Loddon on the north east border and through the centre of	<p>The following reservoirs impact the character area in the 'dry day' scenario.</p> <ul style="list-style-type: none"> Bearwood Lake - Situated in Character area 7, the reservoirs' 	<p>Historic flood mapping, EA recorded flood outlines, and LLFA historic flood points suggest the following:</p> <ul style="list-style-type: none"> September 1968 - Fluvial flooding of the River Loddon on the eastern border, and Blackwater River to the

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Swallowfield	<p>The north-western border is subject to fluvial flood risk from both Foudry Brook and the River Kennet. Foudry Brook flows south to north through the west of the area, discharging into the River Kennet outside of the Borough. Flood mapping shows that the River Whitewater and the River Blackwater, both tributaries of Broadwater Stream, present fluvial flood risk to south-east border of the area. Broadwater Stream then flows south to north through the character area where it discharges into the River Loddon near Swallowfield. The River Loddon presents further flood risk as it flows from</p>	<p>Foudry Brook in the west of the character area. The River Loddon also has natural high ground defences which run along the south western border, then west to east across the character area, and then along the north eastern border. Broadwater Stream, a tributary of the River Loddon, also has high ground defences.</p>	<p>area. This includes Foudry Brook through Grazeley, and the River Loddon. Small tributaries flow down the southern and western hillsides of Chill Hill to join the route of the River Blackwater, as well as down the sides of hills to the south-west of the character area. There are also small, isolated, areas of surface water ponding, which may suggest localised flood risk.</p>	<p>the character area to the southern border has greater than 50% susceptibility to groundwater flooding. In addition, the north west of the character area around Foudry Brook also has a greater than 50% susceptibility to groundwater flooding. The JBA groundwater emergence map reflects this, with groundwater levels within 0.5m of the surface along the River Loddon, impacting urban centres such as Spencers Wood and Shinfield. The map also suggests groundwater emergence within 0.5m of the surface around Foudry Brook, posing risk to Grazeley. Additional areas susceptible to groundwater emergence are along the south east border around Farley Hill. The ROFSW suggests that any groundwater emerging around the Loddon is likely to flow north east along the route of the River Loddon. Groundwater emerging at Farley Hill is likely to also follow</p>	<p>southern flow path flows across the north-east border.</p> <ul style="list-style-type: none"> Bramshill House Pond – The flood extent from the reservoir enters the character area on the southern border and flows north through Swallowfield before flowing north-east along the eastern border. Wellington Country Park Lake - The flood extent from the reservoir enters the character area on the southern border and flows north through Swallowfield before flowing north-east along the eastern border. <p>The following reservoirs impact the character area in the 'wet day' scenario.</p> <ul style="list-style-type: none"> Bearwood Lake – Situated in Character area 7, the southern flow path flows south-west, along the north-east border and into the character area. The path then splits, flowing south-west to the south-west border, and south east through Swallowfield. Tundry Pond – The flow path of this reservoir flows north-east along the length of the eastern border of the character area. Longmoor Lake – The southern flow path of this reservoir impacts the northern border of the character area. Decoy Pond – The flood extent of this reservoir enters the character area from the western border and extends north into Grazeley. Dogmersfield Park Lake – The flow extent enters the character area on the southern border, flowing east along the River Blackwater, and north following the River Loddon. 	<p>south-east due to channel capacity exceedance.</p> <ul style="list-style-type: none"> June 1971 – Fluvial flooding of Foudry Brook in the north-west due to channel capacity exceedance. November 1974 - Fluvial flooding of the River Loddon on the eastern border, and Blackwater River to the south-east due to channel capacity exceedance. February 1990 – Fluvial flooding of the River Loddon on the eastern border, and Blackwater River to the south-east due to channel capacity exceedance. February 1991 – Fluvial flooding of the River Loddon along the western border, and Blackwater River to the south-east due to channel capacity exceedance due to channel capacity exceedance. September 1992 – Fluvial flooding of Foudry Brook in the north-west due to channel capacity exceedance. 2000 – Flooding due to surface water in the north of the catchment area. January 2003 - Fluvial flooding of Foudry Brook in the north-west due to channel capacity exceedance. July 2007 - Fluvial flooding due to channel capacity exceedance of the River Loddon along the western border. 2007 – Flooding due to surface water run-off in numerous locations within the character area, mostly centred in the north. 2013 – Flooding due to surface water run-off in numerous locations within the character area, mostly centred on the north-west. The LLFA historic flood points also show other isolated incidents of

Character Area	Fluvial flood risk	Existing defences	Surface water flood risk	Susceptibility to Groundwater flood risk	Reservoir inundation risks	Historic, recorded flood events
	the south-east border, north, along the eastern border of the character area. Much of the immediate land on the left and right banks of the Loddon lie in Flood Zone 3a and 3b.			this flow path. Groundwater emerging in the north west of the area is likely to flow north along the route of Foudry Brook.	<ul style="list-style-type: none"> Bramshill House Pond – The flood extent from the reservoir enters the character area on the southern border and flows north through Swallowfield before flowing north-east along the eastern border. Wellington Country Park Lake - The flood extent from the reservoir enters the character area on the southern border and flows north through Swallowfield before flowing north-east along the eastern border. 	<p>surface water flooding in the character area.</p> <ul style="list-style-type: none"> There are 280 recorded incidences of sewer flooding in this character area, clustered around the urban centres of Shinfield, Spencers Wood, Three Mile Cross, Swallowfield, and Riseley.
Character Area 7: Arborfield, Arborfield Green, and Barkham	Largely rural, flood maps show that this area is subject to flood risk from the River Loddon along the length of the western border. Much of the immediate land on the left and right banks of the Loddon lie in Flood Zone 3a and 3b. A small tributary of the Loddon, Barkham Brook, flows south-east to north-west through the character area and also presents flood risk. The River Arborfield also extends through the centre of the character area, but modelled	The EA AIMS dataset shows that Barkham Brook, a tributary of the River Loddon, flows south-east to north-west through the character area with natural high ground defences. Moreover, it has a small embankment through Rounds Copse. Barkham Brook also has a small walled defence near Mole Road in the north of the character area. There are other natural	Surface water flow paths follow the topography of the land, and primarily follows the route of the watercourses in the area. Small inland watercourses flow north through Arborfield Green and south through Barkham on the western border, converging at Barkham Brook. The main surface water flow path in this character area follows this brook north-west until it discharges into the River Loddon on the northern border. A further flow path in the character area poses a risk around Moor Copse in the south-west of the character area, as water runs off the	The ASGWF shows the north western border of the character area as having a greater than 50% susceptibility to groundwater flooding, mainly along the route of the River Loddon. The JBA groundwater emergence map suggests that isolated areas along the north west border experience groundwater emergence within 0.5m of the surface. Additional areas with groundwater emergence below 0.5m of the surface include along the eastern border around Barkham and the east of Arborfield Green. A final area shown on the JBA emergence map extends from the southern border to Arborfield in the	<p>The following reservoirs impact the character area in the 'dry day' scenario.</p> <ul style="list-style-type: none"> Bearwood Lake – Situated in the north of the character area, the primary flow path from this reservoir flows north-west before diverging at the north-west border. A smaller flow path flows south around Gravelpit Hill. Longmoor Lake – the primary flow path of this reservoir flows from south-east to north-west through the centre of the character area, posing a risk to Arborfield Green. <p>The following reservoirs impact the character area in the 'wet day' scenario.</p> <ul style="list-style-type: none"> Bearwood Lake – Situated in the north of the character area, the primary flow path from this reservoir flows north-west before diverging at the north-west border. A smaller flow path flows south around Gravelpit Hill. Tundry Pond – The flow path of this reservoir flows north-east along the length of the western border of the character area. Longmoor Lake – the primary flow path of this reservoir flows from 	<p>Historic flood mapping, EA recorded flood outlines, and LLFA historic flood points suggest the following:</p> <ul style="list-style-type: none"> February 1990 – Fluvial flooding of the River Loddon on the western border. February 1991 – Fluvial flooding of the River Loddon on the western border. July 2007 - Fluvial flooding of the River Loddon on the western border. 2007 – Flooding due to surface water run-off in numerous locations within the character area, mostly centred around Arborfield. 2013 – Flooding due to surface water run-off in numerous locations within the character area, mostly centred around Arborfield. 2015 - – Flooding due to surface water run-off in numerous locations within the character area, mostly to the east of Arborfield. The LLFA historic flood points also show other isolated incidents of surface water flooding in the character area. There are 130 recorded incidences of sewer flooding in this character area, mostly clustered around the urban

Character Area	Fluvial flood risk	Existing defences	Surface water flood risk	Susceptibility to Groundwater flood risk	Reservoir inundation risks	Historic, recorded flood events
	flood extents do not place any urban centres within Flood Zones 3a or 3b.	high ground defences along small drainage ditches in the west of the character area.	hillside and into the River Loddon. There are also small, isolated, areas of surface water ponding, which may suggest localised flood risk.	centre of the character area. The ROFSW suggests that any emergence occurring in the west of the character area is likely to flow north along the route of the River Loddon. Furthermore, emergence in the east of the area is likely to follow the route of Barkham Brook, north west until it's confluence with the Loddon. Emergence around Arborfield however, could flow both east, to Barkham Brook, or west to the Loddon.	south-east to north-west through the centre of the character area, posing a risk to Arborfield Green. <ul style="list-style-type: none"> Bramshill House Pond – The flood extent follows the north-west border of the character area Wellington Country Park Lake – The flood extent follows the north-west border of the character area 	centres of Arborfield, Arborfield Green, and Barkham.
Character Area 8: Finchampstead and Crowthorne	This character area has a mixture of rural and urban landcover, with settlements to the north and east. The River Blackwater presents fluvial flood risk along the length of the southern border of the character area. Furthermore, Emm Brook, and one of its tributaries poses flood risk in the	THE EA AIMS dataset details natural high grounds along the southern border of the character area along the River Blackwater.	Surface water flow paths follow the topography of the land, with numerous flow paths down the northern, eastern, and western slopes of the hill on the south-eastern border. Many of these follow existing flow paths for small inland watercourses. Emm Brook is also a major flow route for surface water in the north of the character area. There are also small, isolated, areas of surface water ponding, which may	The ASGWf shows that only small areas on the southern border west of Finchampstead along the River Blackwater, and a small area on the eastern border are greater than 50% susceptible to groundwater flooding. The JBA groundwater emergence map, however, suggests that the majority of the character area experiences groundwater emergence levels of within 0.5m of the surface. This is a risk to urban centres such	The following reservoirs impact the character area in the 'dry day' scenario. <ul style="list-style-type: none"> Queen's Mere – Located in the north of the character area, the flow path of this reservoir flows north-west to the northern border near Wokingham. Longmoor Lake – Situated in the north-west of the character area, this lake flood extent flows north to the border. Sandhurst Lower - The flow path of these reservoirs flows east to west along the southern border of the character area. The following reservoirs impact the character area in the 'wet day' scenario. <ul style="list-style-type: none"> Queen's Mere – Located in the north of the character area, the flow path of this reservoir flows 	Historic flood mapping, EA recorded flood outlines, and LLFA historic flood points suggest the following: <ul style="list-style-type: none"> March 1947 – Fluvial flooding due to channel capacity exceedance of the River Blackwater along the southern border. September 1968 – Fluvial flooding due to channel capacity exceedance of the River Blackwater along the southern border. February 1990 - Fluvial flooding due to channel capacity exceedance of the River Blackwater along the southern border. 2000 – Flooding due to surface water in the east of the catchment area in Crowthorne. July 2007 - Fluvial flooding due to channel capacity exceedance of the River Blackwater along the southern border.



Character Area	Fluvial flood risk	Existing defences	Surface water flood risk	Susceptibility to Groundwater flood risk	Reservoir inundation risks	Historic, recorded flood events
	north-east of the character area.		suggest localised flood risk.	as Finchampstead and Crowthorne. The ROFSW suggests that areas of emergence along the River Blackwater will flow west along the route of the River Blackwater. Emergence in the wider character area is likely to flow towards either Barkham Brook or Emm Brook depending on the topography of the surrounding land.	north-west to the northern border near Wokingham. <ul style="list-style-type: none"> Longmoor Lake – Situated in the north-west of the character area, this lake flood extent flows north to the border. Hawley Lake – The flow path of this reservoir flows east to west along the southern border of the character area. Sandhurst (Upper & Lower) - The flow paths of these reservoirs flow east to west along the southern border of the character area. 	<ul style="list-style-type: none"> 2007 – Flooding due to surface water run-off in the west of the area, mostly centred around Crowthorne. 2013 – Flooding due to surface water run-off in the west of the area, mostly centred around Crowthorne. The LLFA historic flood points also show other isolated incidents of surface water flooding in the character area. There are 47 recorded incidences of sewer flooding in this character area, mostly clustered around the urban centres of Finchampstead and Buckler's Park.