

Appendix D4 – Summary of flood risk in Stafford Borough

A summary of the flood risk in Stafford Borough is shown in the table below. Due to its size, Stafford town has been split into its wards.

Settlement	Fluvial flood risk	Existing defences	Surface water flood risk	Susceptibility to Groundwater flood risk				Reservoir inundation risks	Historic, recorded flood events
				<25%	≥25% <50%	≥50% <75%	≥75%		
Eccleshall	Eccleshall lies on the right bank of the River Sow, which flows past the north of the town. While the floodplain of the River Sow is wide in places, it is not seen to affect much of Eccleshall, with Flood Zones 2 and 3 not affecting any properties in the town.	None	Surface water runoff follows topography from high ground in the south, to the lower ground of the floodplain in the north. Flow paths in all events exist along the A5013 and the A519. Gaol Butts and Southwell Estate are part of this flow path in the 100-year event, with a number of other roads forming overland flow routes in the 1,000-year event. There are large areas of ponding across all events to the west of Castle Street and where The Burgage and Badgers Croft meet the B5026. Eccleshall was identified in the 2010 SWMP as being at high-risk of surface water flooding.	✓		✓		None	21 properties with a history of sewer flooding.
Gnosall and Gnosall Heath	The Doley Brook flows from north-west to south-east between the two villages, with Gnosall on the left bank and Gnosall Heath on the right bank. The Hollies Brook flows towards the Doley Brook past the western edge of Gnosall, and an unnamed drain flows partially culverted through the centre of Gnosall. This unnamed drain is not included in the Flood Zones but could pose a fluvial flood risk to Gnosall, particularly if the culvert was to become blocked. The Flood Zones affect buildings on Station Road, Daffodil Drive and Forresters Lane in Gnosall.	None	Surface water follows the topography of the villages, flowing from higher ground towards the channel of the Doley Brook. Wharf Road in Gnosall Heath, and The Flashes, Audmore Road, High Street, Ashbrook Close, Sellman Street, Norbury Close, Brookhouse Road and Station Road are major overland flow routes in the 30-year event. Large areas of ponding are present on low-lying land around the Doley Brook and the drains, notably to the west of Gnosall. These areas of ponding and flow routes become larger in the 100-year and 1,000-year events. Gnosall was identified in the 2015 LFRMS as the rural area at the 2 nd highest risk of surface water flooding in Staffordshire, with 129 properties at risk.	✓	✓			None	1 property with a history of sewer flooding.
Great Haywood and Little Haywood	The River Trent and the Trent and Mersey Canal pass the villages on the western (Great Haywood) and southern (Little Haywood) sides. An unnamed watercourse flows past the north-western edge of Great Haywood and two unnamed watercourses flow past either side of Little Haywood. These watercourses have not been included in the Flood Zones due to their size, however, could still pose a fluvial flood risk to the village. Few properties and buildings in the villages are located in Flood Zone 3, with buildings on Mill Lane, just falling within the extent. Flood Zone 2 extends further, affecting properties on Wolseley Close, The Moorings, Meadow Lane, The Orchard and Trent Lane. The grounds of Shugborough Hall are within the Flood Zones, with Flood Zone 2 just encroaching on the Hall itself.	None	Back Lane, Coley Lane and The Orchard in Little Haywood, and Main Road and Trent Lane in Great Haywood form overland flow routes towards the canal in the 30-year event. There are other flow routes following the existing drains, which causes large areas of ponding where the unnamed watercourse crosses Mill Lane in Great Haywood and to the east of Kingfisher Drive in Little Haywood. These flow paths are extended in the 100-year and 1,000-year events, with larger, more frequent areas of ponding across both villages.	✓	✓	✓	✓	Great Haywood and Little Haywood are partially located within the inundation extents of Gailey Upper Pool, Tixall Park Pool and Belvide reservoirs.	
Hixon	Hixon is not located in the Flood Zones, however a small unnamed drain flows through the west of the village which could pose a fluvial flood risk. This watercourse is culverted through part of the village, which could provide a residual flood risk if it became blocked.	None	Surface water flooding in the 30-year event is mainly small, isolated pockets of ponding, notably around the industrial estate off New Road. An overland flow path is beginning to form in the 30-year event from the unnamed drain to the east of Church Lane, towards the unnamed drain in the south-west of Hixon. This flow path becomes more prominent in the 100-year and 1,000-year events, with a large area	✓	✓		✓	None	9 properties with a history of sewer flooding.

			of ponding also present in the fields to the west of Sycamore Drive and the school.						
Oulton	Oulton lies on the right bank of the Scotch Brook. The Flood Zones are well confined to the channel here and do not reach properties in the village, with the exception of any properties outside of the village along the A520.	None	Oulton is not affected by surface water flooding in the 30-year event with the exception of an area of ponding behind Oulton Road. In the 100-year event there are minor areas of ponding, with overland flow paths beginning to form along Oulton Road, Kibblestone Road, Church Lane and Vanity Lane. These flow routes are more established in the 1,000-year event.	✓				None	Summer 2009 – pluvial flooding.
Stafford			Stafford was identified in the 2015 LFRMS as the urban area at the 6 th highest risk of surface water flooding in Staffordshire, with 643 properties at risk. Stafford was also identified in the 2010 SWMP being at high risk of surface water flooding and was therefore taken forward for a Phase 2 SWMP assessment.						
Baswich ward	The River Penk flows through the west of Baswich Ward into the River Sow in the north of the ward. The Flood Zones are confined to the floodplains by the Staffordshire and Worcestershire Canal, therefore properties in the Baswich and Weeping Cross areas are not within the Flood Zones. In the west of the ward, properties in the Queensville area are at fluvial flood risk.	None	Overland flow routes are present in the Baswich and Weeping Cross areas of the ward as surface water runs from the high ground towards the river valleys. In the 30-year event, overland flow routes are present along the A513, Yelverton Avenue, Sidmouth Avenue, Danta Way, Bodmin Avenue, Sandringham Close and Osbourne Crescent. These are extended in the 100-year event and additional flow routes form along Mayfield Road and Farndown Road. In the 1,000-year event many more flow paths are present, and areas of ponding are significantly larger.				✓	Baswich ward is partially located within the inundation extents of Chillington Pool, Gailey Lower Pool, Gailey Upper Pool, Calf Heath and Belvide reservoirs.	Approximately 104 properties with a history of sewer flooding in Stafford.
Common ward	The Marston Brook and Sandyford Brook flow along the eastern edge of Common ward. Properties on Peel Terrace, Victoria Terrace, Carver Road, Wogan Street, Sandyford Road, Crooked Bridge Road, the B5066 and Albert Terrace are located in Flood Zone 3 with Flood Zone 2 further extending to additional properties. The Flood Zones of the River Sow extend into the south-west of the ward affecting Frank Foley Way, Grey Friars Way, Nursey Lane and Grey Friars Place		The 30-year surface water flood extent is mainly small, isolated pockets of ponding. Large areas of ponding in all events are prominent to the west of Common Road, around the Sandyford Brook. A minor flow path along Newland Avenue and North Avenue is present in the 100-year event, with many more flow routes in the 1,000-year event.	✓	✓	✓	✓	Common ward is partially located with the inundation extent of Gap Pool reservoir.	Approximately 104 properties with a history of sewer flooding in Stafford.
Coton ward	The Marston Brook and the Sandyford Brook flow southwards through the west of Coton ward. The Flood Zones extend to properties on Telford Drive, Tollgate Drive, the B5066, Freeman Street, Corporation Street, Sandyford Street and Crooked Bridge Road and St Georges Parkway.	None	The topography of the ward is all fairly low, therefore surface water extents in the 30-year and 100-year events are small, mainly isolated areas of ponding. Overland flow paths become present in the 1,000-year event. Large areas of ponding are prominent in the Beaconside area in the roads surrounding Elworthy Close, around Edison Road and between the Marston Brook and unnamed drain in the north of the ward.		✓	✓	✓	Coton ward is partially located within the inundation extents of Gap Pool and Belvide reservoirs.	Approximately 104 properties with a history of sewer flooding in Stafford.
Doxey and Castletown ward	The Doxey Brook flows north through the west of the ward, with the River Sow and a number of drains flowing through the north and east. The majority of the Doxey area of the ward is on higher ground and out of the Flood Zones, however some properties on the outskirts are at risk of fluvial flooding, including Doxey Fields, Greensome Cresecent, Fernleigh Gardens, Doxey Road (Flood Zone 3) and Lapwing Place, Sandpiper Drive, Valerian Drive, Champion Grove and Baxter Green (Flood Zone 2).	None	The surface water extents in the 30-year and 100-year events are mainly small isolated pockets of ponding with larger areas of ponding around the watercourses. Some minor flow paths are present in the 1,000-year event, along with larger, more frequent areas of ponding.		✓	✓	✓	Doxey and Castleton ward is partially located within the inundation extents of Gap Pool and Belvide reservoirs.	Approximately 104 properties with a history of sewer flooding in Stafford.
Forebridge ward	The River Sow, Lammascote Drain, Forebridge Drain, Dove Meadow Drain, Hough Drain and Spital Brook all flow through Forebridge ward. The Flood Zones cover	Wall on the right bank of the River Sow, from Moat House Bridge to Green Bridge	Surface water flooding in the 30-year event is mainly small, isolated pockets of ponding			✓	✓	Forebridge ward is partially located within	Approximately 104 properties with a history of sewer

	large areas of the ward, affecting properties and buildings in the town centre and to the north and east of Lichfield Road.		throughout Forebridge, with overland flow paths present in the 100-year and 1,000-year events.					the inundation extents of Chillington Pool, Gailey Lower Pool, Gailey Upper Pool, Calf Heath, Gap Pool and Belvide reservoirs.	flooding in Stafford.
Highfields and Western Downs ward	The Rising Brook flows along the south-eastern edge of the ward. The Flood Zones are fairly well confined and do not significantly reach any properties or buildings.	None	The majority of the ward is at high ground, with some lower ground to the north and south-east. There are therefore a number of overland flow routes which follow the topography. In the 30-year event, there are flow routes along Sundown Drive and the A518 and along Wordsworth Avenue and Masefield Drive, with small, isolated pockets of ponding elsewhere in the ward. These flow routes are extended, and more overland flow routes are present in the 100-year and 1,000-year events, including along Tennyson Road and West Way, Somerset Road and Barnes Road.	✓		✓		None	Approximately 104 properties with a history of sewer flooding in Stafford.
Holmcroft ward	The River Sow and multiple drains flow through the south-west of Holmcroft ward. The floodplains of these watercourses are wide; however, the urban area of the ward is at high elevation and therefore at a lower fluvial flood risk. The Flood Zones extend to just reach parts of properties on Betty Hatch Lane and Pulteney Drive.	None	Due to the topography of Holmcroft ward, there are a number of surface water overland flow paths including Hurlingham Road and Second Avenue in the 30-year event, Holmcroft Road and Redhill in the 100-year event with many more in the 1,000-year event. Large areas of ponding are present in the fields behind Second Avenue and the area behind Pitt Street.	✓	✓		✓	Holmcroft ward is partially located within the inundation extent of Gap Pool reservoir.	Approximately 104 properties with a history of sewer flooding in Stafford.
Littleworth ward	The River Sow, Lammascote Drain and Pearl Brook flow through the south of the ward, which pose a fluvial flood risk to Riverway. The Kingston Brook flows through the east of Littleworth ward. There are no properties within Flood Zone 3 of the Kingston Brook, however Flood Zone 2 extends to affect properties on Melbourne Crescent, Gladstone Way, Salisbury Road, Salisbury Drive, Canberra Drive, Darwin Close and Lymington Road.	None	Surface water flooding in the 30-year event is mainly isolated pocketes of ponding, with notable areas on Salisbury Road, Kingston Avenue, Kingston Pool Covert and around industrial sites on Tixall Road. Flow paths along Wolseley Road, Salisbury Road, Salisbury Drive, Corporation Street and Birkdale Drive are present in the 100-year event, with more flow paths present in the 1,000-year event and much larger areas of ponding throughout the ward.		✓		✓	Littleworth ward is partially located within the inundation extents of Chillington Pool, Gailey Lower Pool, Gailey Upper Pool, Calf Heath, Gap Pool and Belvide reservoirs.	Approximately 104 properties with a history of sewer flooding in Stafford.
Manor ward	The Rising Brook flows through along the western boundary of the ward and flows through the ward from the A449 to the railway line. Upstream of the A449, Flood Zone 3 of the Rising Brook is fairly well confined, however downstream of the A449 it extends to properties on Sherwood Avenue, Richmond Close, Brook Glen Road and Maple Grove. Flood Zone 2 extends further to properties on the A449, Park Avenue, West Way, Manor Square and Barnes Road. The southern border of the ward is located within the Flood Zones of the Pothooks Brook.	Flood wall behind Sherwood Avenue on the left bank of the Rising Brook.	The surface water flow paths follow the topography of the ward towards the Rising Brook and through other valleys towards the railway line, where surface water is seen to back up. A flow path along Churchill Way and Merrivale Road exists in the 30-year event and water backs up at the railway line behind Laurel Grove. Surface water also ponds between the railway line and the M6 around Ashbrook. There are also small areas of ponding in the 30-year event. More flow paths are present in the 100-year event, along Burton Manor Road, John Amery Drive and the A449. In the 1,000-year event many more flow paths are present, and areas of ponding are significantly larger.	✓		✓	✓	Manor ward is partially located within the inundation extent of Belvide reservoir.	Approximately 104 properties with a history of sewer flooding in Stafford.
Penkside ward	The River Penk flows along the eastern border of the ward, and a number of drains flow through the ward towards the River Penk, including the Silkmore Drain, Rickerscote Drain and Pen Pleck Drain. Not all of the	None	The 30-year and 100-year surface water flooding extents are mainly isolate areas of ponding with a few minor flow paths as the topography is fairly flat throughout the ward. The flow paths and areas of ponding are notably large in the 1,000-year event,			✓	✓	Penkside ward is partially located within the inundation extents of	Approximately 104 properties with a history of sewer flooding in Stafford.

	drains are included in the Flood Zones but could still pose a fluvial flood risk to the ward. Flood Zone 3 reaches properties on Rickerscote Hall Lane, Prospect Place, Meadow Way, Meadow Road, Exeter Street and Primrose Gardens while Flood Zone 2 further extends to Pioneer Way.		particularly where many smaller drains meet flow towards the Silkmore Drain.					Chillington Pool, Gailey Lower Pool, Gailey Upper Pool, Springslade Pool, Calf Heath and Belvide reservoirs.	
Rowley ward	The Doxey Drain flows through the north-east of the ward and poses a fluvial flood risk around the railway station, Martin Drive, Rose Hill, Carson Way, Barker Close, Castle Street, Castlefields, Brunswick Terrace, Newport Road and Horton Drive. The Flood Zones of the Rising Brook encroach into the south-east of Rowley Ward, affecting properties on Park Avenue and the A449.	None	In the 30-year surface water event there are isolated areas of ponding, with a minor flow path present along and behind the A518, towards the pond behind Castle Street. In the 100-year and 1,000-year events there are multiple flow paths from Stafford Castle Hill to the surrounding lower lying topography. There are large areas of ponding around the town centre and the railway station and at the northern border of the ward.	✓	✓	✓	✓	None	Approximately 104 properties with a history of sewer flooding in Stafford.
Weeping Cross and Wildwood ward	The River Penk and Rickerscote Drain flow through the western part of the ward with multiple smaller drains feeding into these watercourses. The Flood Zones do not extend east of the Staffordshire and Worcestershire Canal, and the east of the ward is at much higher ground than the floodplain, meaning that the Wildwood part of the ward is at low fluvial flood risk.	None	Due to the topography, the Wildwood part of the ward has multiple overland flow paths while the north-west of the ward has more isolated areas of ponding. In the 30-year event, Overhill Road, the A34, Wildwood Drive and The Downs are overland flow paths with Greenfield Road and Lansdowne Way and Barnfield Way towards The Downs also becoming flow routes in the 100-year event. Many more overland flow paths are present in the 1,000-year event.	✓		✓	✓	Weeping Cross and Wildwood ward is partially located within the inundation extents of Chillington Pool, Gailey Lower Pool, Gailey Upper Pool, Calf Heath and Belvide reservoirs.	Approximately 104 properties with a history of sewer flooding in Stafford.
Stone	Stone is split into two main areas by the River Trent and Trent and Mersey Canal which flow through the centre of the town. On the River Trent right bank (western) side of Stone, the Filly Brook flows through the north and in the south, a number of unnamed drains flow towards the River Trent. These unnamed drains are not included in the Flood Zones, however, could still pose a fluvial flood risk to the town. On the River Trent left bank (eastern) side of Stone, the Scotch Brook flows through the centre, and towards the south, the Aston Lodge Brook and a number of unnamed drains flow towards the Trent. Some of these unnamed drains are also not included in the Flood Zones but again, could pose a fluvial flood risk to the town. On the western side of Stone, a few roads are located in the Flood Zones of the River Trent, however no properties or buildings are affected. Properties on Woodlands Close, St Vincent Road, Woodlands Avenue and the A34 are within the Flood Zones of the Filly Brook. On the eastern side of Stone, a number of properties are within the Flood Zones, including on Trent Road, Meadowside, Chandlers Way, Trent Close, the A520 and Abbey Street. The floodplain of the Aston Chase and Aston Lodge Brooks are fairly well confined upstream of the railway line, however downstream the floodplain extends, and Flood Zone 3 affects properties on Thomas Avenue and Wesley Drive, with Flood Zone 2 also affecting Simeon Way, Hallahan Close, Saxifrage Drive, Telford Close and the B5027.	Online earth embankment dam upstream of Stone on the Aston Chase Brook	There are high elevations to the east of Stone and surface water follows this topography and runs off from the surrounding hills into the town giving rise to a number of overland flow routes. Surface water extents in the 30-year event are mainly isolated areas of ponding and flow paths along existing channels, with some minor overland flow paths beginning to form including along Opal Way, the B5026 and Arrow Place. Water is seen to begin to back up behind the railway line on the eastern side of Stone and this increases in the 100-year and 1,000-year event, as well as the number of overland flow routes and the size of ponded areas. Stone was identified in the 2010 SWMP as being at high-risk of surface water flooding.	✓	✓	✓	✓	Stone is partially located within the inundation extents of Trentham Gardens Lake and Black Lake reservoirs.	23 properties with a history of sewer flooding.

	The Scotch Brook is mainly rural though some properties and buildings in the town are within its Flood Zones.								
Tittensor	Tittensor lies on the right bank of the River Trent which flows past the east of the village and an unnamed watercourse flows towards the Trent to the south of the village. The Flood Zones of both watercourses do not reach properties in the village.	None	There is minimal surface water flood risk in the 30-year event, with a minor flow path forming on the A34. This increases in the 100-year event and a flow path forms along Copeland Avenue, Cranwood Road and Bracken Close which is extended in the 1,000-year event.			✓		None	5 properties with a history of sewer flooding.
Weston	Weston lies on the eastern side of the Trent and Mersey Canal, on the left bank of the River Trent. The Gayton Brook and an unnamed drain flow past the north of the village. The unnamed drain is not included in the Flood Zones due to its size, however, could still pose a fluvial flood risk to the village. St Andrew's Church, and properties/buildings on Boat Lane, the A518 and Green Road are located in Flood Zone 3, with Flood Zone 2 extending slightly further in these areas.	None	The 30-year flood extent is mainly small isolated areas of ponding, with a minor flow route along Green Road. Old School Road also becomes a flow route in the 100-year and Old Road and Ferrers Road become flow routes in the 1,000-year event. Weston was identified in the 2010 SWMP as being at high-risk of surface water flooding.			✓	✓	None	
Yarnfield	The Yarnfield Brook flows through the west of the village and flows into the Meece Brook outside the village. The Yarnfield Brook flows in and out of culvert through the village which could pose an increased fluvial flood risk should it become blocked. Properties along The Willows, High Lows Lane, Meadowview are within Flood Zone 3 up to Yarnfield Lane. Flood Zone 2 extends further downstream of Yarnfield Lane, but properties are not affected.	Embankment – deflector bank with land drain running in front of it, behind Fieldside in the north-west of the village.	Surface water flow paths in the 30-year event exist along Meadowview, High Lows Lane, The Willows and Greenside with isolated areas of ponding elsewhere, a large area of ponding is seen to back up behind the deflector dam defence in the north of Yarnfield. In the 1,000-year event, the overland flow path extends to other roads and there are larger areas of ponding. Yarnfield was identified in the 2010 SWMP as being at high-risk of surface water flooding.	✓	✓			None	