



CHESTERFIELD
BOROUGH COUNCIL

Chesterfield Borough Local Plan

**Proposed Site Allocations
Sequential Flood Risk
Assessments
January 2019**

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Chesterfield Borough Local Plan

Proposed Site Allocations – Sequential Flood Risk Assessments

1.0 Background

National Planning Guidance

- 1.1 In relation to planning and flood risk the NPPF advises that: *“Inappropriate development in areas at risk of flooding should be avoided by directing development away from areas at highest risk (whether existing or future). Where development is necessary in such areas, the development should be made safe for its lifetime without increasing flood risk elsewhere. (NPPF paragraph 155).*
- 1.2 It also states that *“strategic policies should be informed by a strategic flood risk assessment, and should manage flood risk from all sources. They should consider cumulative impacts in, or affecting, local areas susceptible to flooding, and take account of advice from the Environment Agency and other relevant flood risk management authorities, such as lead local flood authorities and internal drainage boards. (NPPF paragraph 156).*
- 1.3 The NPPF advises that *“All plans should apply a sequential, risk-based approach to the location of development taking into account the current and future impacts of climate change so as to avoid, where possible, flood risk to people and property. They should do this, and manage any residual risk, by:*
 - a) *applying the sequential test and then, if necessary, the exception test set out below;*
 - b) *safeguarding land from development that is required, or likely to be required, for current or future flood management;*
 - c) *using opportunities provided by new development to reduce the causes and impacts of flooding (where appropriate through the use of natural flood management techniques); and*
 - d) *where climate change is expected to increase flood risk so that some existing development may not be sustainable in the long-term, seeking opportunities to relocate development, including housing, to more sustainable locations. (NPPF paragraph 157).*
- 1.4 On the sequential test, the NPPF advises that *“The aim of the sequential test is to steer new development to areas with the lowest risk of flooding. Development should not be allocated or permitted if there are reasonably available sites appropriate for the proposed development in areas with a lower risk of flooding. The strategic flood risk assessment will provide the basis for applying this test. The sequential approach should be used in areas known to be at risk now or in the future from any form of flooding.” (NPPF paragraph 158).*

- 1.5 On the exception test, the NPPF advises that *“If it is not possible for development to be located in zones with a lower risk of flooding (taking into account wider sustainable development objectives), the exception test may have to be applied. The need for the exception test will depend on the potential vulnerability of the site and of the development proposed, in line with the Flood Risk Vulnerability Classification set out in national planning guidance.”* (NPPF paragraph 159).
- 1.6 *The application of the exception test should be informed by a strategic or site specific flood risk assessment, depending on whether it is being applied during plan production or at the application stage. For the exception test to be passed it should be demonstrated that:*
- a) *the development would provide wider sustainability benefits to the community that outweigh the flood risk; and*
 - b) *the development will be safe for its lifetime taking account of the vulnerability of its users, without increasing flood risk elsewhere, and, where possible, will reduce flood risk overall.*

Both elements of the exception test should be satisfied for development to be allocated or permitted.” (NPPF paragraphs 160 -161).

Strategic Flood Risk Assessment

- 1.7 A Strategic Flood Risk Assessment was commissioned by Chesterfield Borough Council in partnership with North East Derbyshire and Bolsover, covering all three districts. The final report was published in March 2009. It provided a picture of flood risk over the whole area and advice on planning policies to the three partner councils. The document can be viewed below.
- <https://www.chesterfield.gov.uk/planning-and-building-control/planning-policy-and-the-local-plan/evidence-base/strategic-flood-risk-assessment.aspx>
- 1.8 Since this time, the Borough Council has been working in partnership with the Environment Agency (EA) and Derbyshire County Council (DCC), as Local Lead Flood Authority on preparing updated evidence in support of the emerging Local Plan. In order to satisfy the requirements of national planning policy guidance, the Borough Council is required to draw on all available flood risk information which affects the Chesterfield Borough Council area.
- 1.9 The most recent evidence (as yet not finalised) comprises comprehensive flood modelling of the River Rother and its tributaries as part of an EA project called the Chesterfield Flood Risk Investigation, and a Derbyshire County Council project known as the [Chesterfield Integrated Model](#), which will bring together sewer

modelling from Yorkshire Water; surface water modelling held by Derbyshire County Council; and river modelling from the Chesterfield Flood Risk Investigation.

- 1.10 The Environment Agency confirmed to the Borough Council in October 2016 (Appendix A) that having had regard to the Planning Practice Guidance, the Chesterfield Flood Risk Investigation and the proposed Chesterfield Integrated Model would fulfill the requirements of a Level 2 Strategic Flood Risk Assessment and negate the need for Chesterfield Borough Council to carry out a separate Level 2 Strategic Flood Risk Assessment.

Local Plan Policy

- 1.11 Through the examination of the Core Strategy in 2013 it was agreed with the EA that due to the large areas of existing employment and industrial land within the borough that fall within areas of flood risk, a flexible approach is required in order to secure regeneration of those areas. The EA therefore supported the Core Strategy Policy (see Appendix B) allowing the redevelopment of previously developed land outside flood zone 1 where specific criteria can be met.
- 1.12 This policy approach was continued into the Draft Local Plan. Responding to the consultation in 2017, the EA agreed with the flood risk principles of the policy and recommended some amendments to improve the clarity of the policy (www.chesterfield.gov.uk/localplan). Policy LP14 Sustainable Management of the Water Cycle, in the publication draft Local Plan (January 2019), incorporates the recommended changes, and includes additional policy wording to ensure that any new developments situated in the flood zones have regard for new flood risk information, and demonstrate that the sites are safe and do not increase flood risk either to the site or to other sites.

2.0 Site Assessment Process

- 2.1 In accordance with Planning Policy Guidance, the approach taken through the Land Availability Assessment (LAA) and Local Plan site assessment process aims to locate uses of highest sensitivity, particularly residential development, in areas identified as having lowest flood risk. The methodology for site assessments is available here: <https://www.chesterfield.gov.uk/planning-and-building-control/planning-policy-and-the-local-plan/land-availability-assessment.aspx>.
- 2.2 The initial LAA assessment filters out sites in functional flood plain. The detailed stage of assessment recognises the agreed approach in terms of there being a need for some development in the Borough within the medium and high probability flood risk zones in preference to the low risk zone to achieve necessary regeneration, provided certain criteria

are met. Sites considered likely to meet the criteria in Local Plan policy CS7 based on available evidence were considered to be suitable.

- 2.3 As a result of the LAA process the following proposed site allocations fall within Flood Zone 2 and/or 3 and have been identified for sequential assessment:

Local Plan Ref	LAA ID	Site Name	Site Size	Proportion of Site in Flood Zone 3b (%)	Proportion of Site in Flood Zone 3a (%)	Proportion of Site in Flood Zone 2 (%)	Proportion of Site in Flood Zone 1 (%)	Site within Historic Flood Map
EMP	428	Whitting Valley Road C, Old Whittington	0.74		61.04	98.98	1.02	98.96
EMP	337	Wagon Works, Whittington Way	6.31		60.73	96.15	3.85	96.1
30	63	Walton Works (Former), Factory Street, Chesterfield	3.61		44.31	69.42	30.58	33.15
21	35	Staveley Canal Basin, Eckington Road, Staveley	2.99			65.32	34.68	65.31
31	326	Varley Park, Poolsbrook, Chesterfield	6.16			60.74	39.26	60.6
SS3		Chesterfield Waterside	23.25		32.47	51.46	48.54	29.24
SS5		Staveley Works	188.09	1.64	16.29	22.13	77.87	3.15
32	113	Bent Lane, Staveley	7.28	1.17	1.17	14.04	85.96	12.15
EMP	427	Whitting Valley Road B, Old Whittington	2.11			9.56	90.44	6.91
25	156	Boat Sales (Former), Sheffield Road, Unstone	1.29		5.46	8.19	91.81	2.57
EMP	433	Markham Vale North Plot 1	2.2		0.64	1.17	98.83	

2.4 In addition to these sites, as part of their representations to the Consultation Draft Local Plan (February 2017), the Environment Agency highlighted 5 potential site allocations in flood risk areas, noting that they had not yet gone through a rigorous flood risk sequential test process. The sites were:

- H15 (DLP); Calow Lane (Land to the South East of)
- H37 (DLP); KM Office Furniture (former) Pottery Lane West, Whittington Moor
- H08 (DLP); Land at Bent Lane, Staveley
- H48 (DLP); Old Road, (land adj. 302-330)
- H69 (DLP); White Bank Close (land at), Hasland

2.5 Sites H37 (DLP), H15 (DLP) and H48 (DLP) are not included as proposed allocations in the Local Plan (January 2019) and will therefore not be subject to a sequential assessment:

2.6 As well as fluvial flood risk, two proposed site allocations are also at risk of surface water flood risk (more than 20% of the site being at medium risk) – Varley Park Poolsbrook, and Walton Works. There are no additional sites with more than 20% of site area at medium/high risk of surface water flooding that are not already identified as being at risk of fluvial flood risk.

2.7 A number of sites are not being taken forward for sequential assessment either because the site has planning permission and/or because less than 20% of the site is at risk of flooding (Zones 2/3 and/or medium/high surface water flood risk) and development capacity assumptions have been reduced accordingly to allow to a sequential approach within the site itself.

Local Plan Reference	Site Address	Reason
31	Varley Park, Poolsbrook, Chesterfield	Site has full planning permission.
EMP	Whitting Valley Road B, Old Whittington	Less than 20% of site is within Flood Zone 2/3
25	Boat Sales (Former), Sheffield Road, Unstone	Less than 20% of site is within Flood Zone 2/3
EMP	Markham	Less than 20% of site is within Flood Zone 2/3

	Vale North Plot 1	
SS3	Waterside	Outline planning permission has been granted for a major mixed-use regeneration scheme proposed on a 16-hectare site, involving up to 1,500 homes, 30,000 square metres of office, business and industrial space, shops, restaurants and leisure uses. Waterside is a strategic allocation in the Local Plan (Policy PS3). Additional wording has been added to Policy PS3 to ensure that if there was any variation to the current planning permission, or a new planning permission was to be granted, that flood risk assessments for the whole site, or each phase of the site, would now have regard for the latest flood risk information.

3.0 Site Allocations – Sequential Assessments

- 3.1 The sequential test process needs to be carried out to justify any site allocations in flood risk areas. Ultimately, the National Planning Policy Framework (NPPF) identifies that it is for the local planning authority to determine whether or not there are other sites available at lower flood risk as required by the Sequential Test.
- 3.2 As part of this process, proposed site allocations currently situated in flood zones 2/3 and or in areas of medium/high surface water flood risk have been assessed against the latest flood risk information in line with the requirements for the sequential test and where required, the exception test.
- 3.3 Preliminary flood risk assessments are provided below. Where necessary and appropriate, site allocation boundaries have been drawn to exclude identified flood zones.
- 3.4 The Council will continue to work with the Environment Agency on the application of the flood risk sequential test, and the exception test (with respect to flood risk), throughout the remaining Local Plan preparation process, and its implementation.

Site Assessments:

Site name: H32; Land at Bent Lane, Staveley				
Grid Ref: E44111 N75178	Site Area: 5.27 ha		Greenfield	
Flood Zone coverage	FZ3b 1%	FZ3a 1%	FZ2 14%	FZ1 88%

Sources of Flood Risk:

A section of the northern part of the site is at risk from fluvial flooding from the River Doe Lea, which flows north to south to the east of the site. Hazard is mainly classed as moderate.

The Functional flood plain is shown on the map below

Exception Test Required?

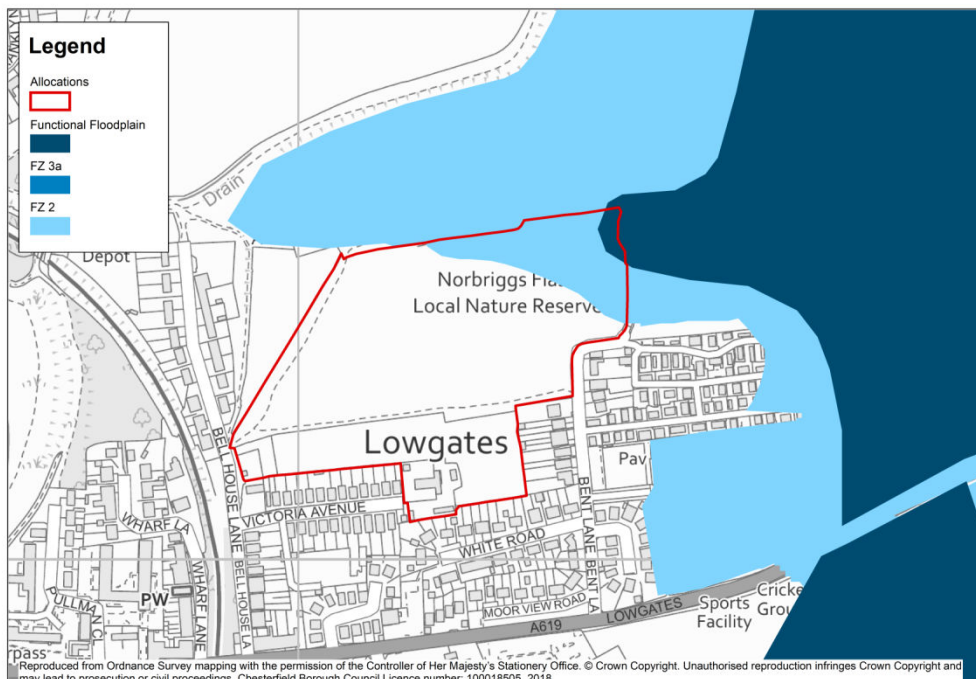
Unlikely, as the majority of the site is located within Flood Zone One.

Site area changed and potential housing capacity reduced (now 140) on basis of flood risk.

NPPF Guidance

The majority of the site is located within Flood Zone One, therefore by ensuring development is placed outside of Flood Zone 2 or the functional flood plain, the Exception test will not be required. However sites over one hectare will require a site specific flood risk assessment in which the vulnerability to flooding from other sources should be considered.

Flood Zone Map



Access and Egress

The main route to and from the site (Bent Lane) is unaffected by fluvial or surface water flooding.

Climate Change

- Increased storm intensities.
- Increased water levels in the River Doe Lea.

Flood Risk Implications for Development:

At the planning application stage, a site-specific flood risk assessment will be required for any development greater than 1ha in Flood Zone 1. Development should be located away from potential source of fluvial flooding. The peak flows on the River Doe Lea should be considered when considering drainage. Assessment for runoff should include allowance for climate change effects. New or re-development should adopt exemplar source control SuDS techniques to reduce the risk of frequent low impact flooding due to post-development runoff. Onsite attenuation schemes would need to be tested against the hydrograph of the River Doe Lea to ensure flows are not exacerbated downstream. Safe access and egress will need to be demonstrated. Green infrastructure should be considered within the mitigation measures for surface water runoff from potential development. New development must seek opportunities to reduce overall level of flood risk at the site, for example by reducing volume and rate of runoff.

Site name: H9; White Bank Close (land at), Hasland

Grid Ref: E 38918 N 70235	Site Area: 0.56 ha		Greenfield		
Flood Zone coverage	FZ3b 0%	FZ3a 0%	FZ2 0%	FZ1 100%	

Sources of Flood Risk:

A section of the northern part of the site is at risk from fluvial flooding from the River Rother, which flows south to north to the north of the site. Hazard is classed as low.

The Functional flood plain is shown on the map below

Exception Test Required?

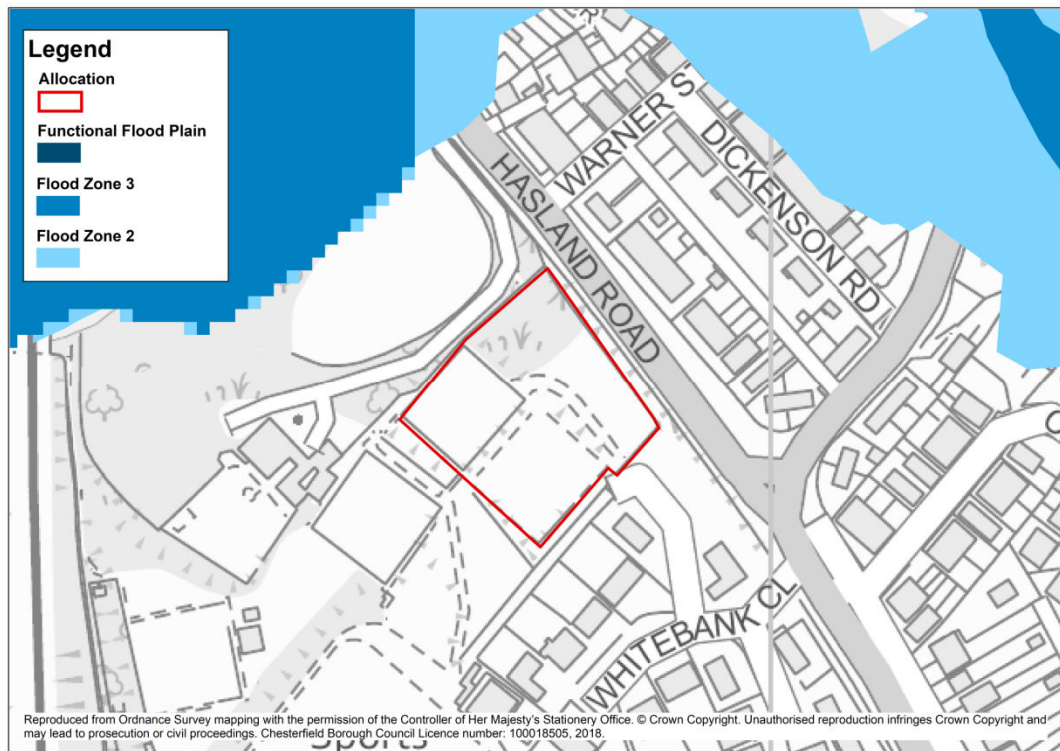
Not required- all developable area falls within Flood Zone 1.

NPPF Guidance

The whole of the developable site is located within Flood Zone 1, therefore by ensuring development is placed outside of Flood Zone 2 or the functional flood plain, the Exception test will not be required.

However sites over one hectare will require a site specific flood risk assessment in which the vulnerability to flooding from other sources should be considered.

Flood Zone Map



The main route to and from the site (Whitebank Close) is unaffected by fluvial or surface water flooding.

Climate Change

- Increased storm intensities.
- Increased water levels in the River Rother.

Flood Risk Implications for Development:

At the planning application stage, a site-specific flood risk assessment will be required for any development greater than 1ha in Flood Zone 1. (The proposed site allocation falls below this size threshold). Development should be located away from potential source of fluvial flooding. The peak flows on the River Rother should be considered when considering drainage. Assessment for runoff should include allowance for climate change effects. New or re-development should adopt exemplar source control SuDS techniques to reduce the risk of frequent low impact flooding due to post-development runoff. On-site attenuation schemes would need to be tested against the hydrograph of the River Rother to ensure flows are not exacerbated downstream. Safe access and egress will need to be demonstrated. Green infrastructure should be considered within the mitigation measures for surface water runoff from potential development. New development must seek opportunities to reduce overall level of flood risk at the site, for example by reducing volume and rate of runoff.

Site name: H21; Staveley Canal Basin, Eckington Road

Grid Ref: E 43992 N 75129	Site Area: 2.99 ha		Greenfield	
Flood Zone coverage	FZ3b 0%	FZ3a 0%	FZ2 65%	FZ1 35%

Sources of Flood Risk:

The site is mostly within Flood Zone 2. Whilst the sites flood zone would normally preclude residential development the sites canal works would reduce risk and the housing is necessary to enable regeneration benefits to be delivered. Housing numbers are cautious in line with the degree of flood risk. The currently modelled flood risk does not account for the recent construction of the Staveley Canal Basin and Lock and the Staveley Northern Loop Road, which are expected to have reduced flood risk significantly.

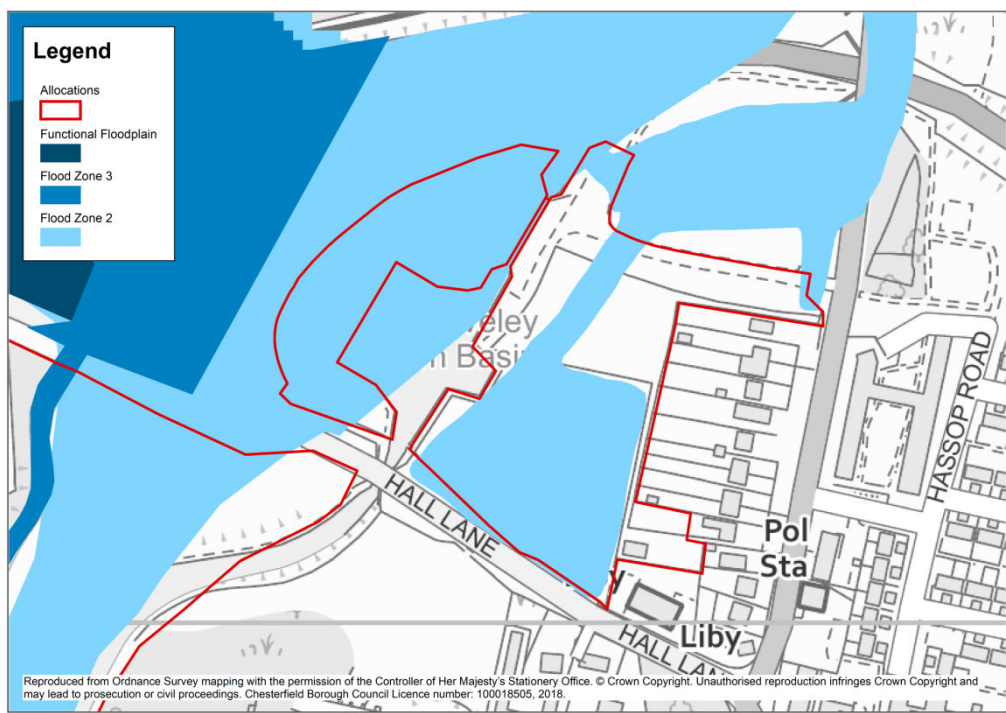
Exception Test Required?

As much of the developable area falls within Flood Zone 2 an exception test will be required. Potential sustainability and regeneration benefits (enhancements to strategic blue-green infrastructure, including facilities to serve and sustain the Chesterfield Canal) are likely to outweigh the risk of flooding particularly when measures to reduce risk are taken into consideration.

NPPF Guidance

The majority of the developable site is located within Flood Zone 2; therefore an Exception test will be required. As the site is over one hectare it will also require a site specific flood risk assessment in which the vulnerability to flooding from other sources should be considered.

Flood Zone Map



Access and Egress

The main routes to and from the site (Hall Lane and Eckington Road) are affected by fluvial and surface water flooding, although minimal in the case of Eckington Road.

Climate Change

- Increased storm intensities.
- Increased water levels in the River Rother.

Flood Risk Implications for Development:

At the planning application stage, an exception test will be required for any development greater than 1 Ha within Flood Zone 2. Development should be located away from potential source of fluvial flooding. The peak flows on the River Doe Lea should be considered when considering drainage. Assessment for runoff should include allowance for climate change effects. New or re-development should adopt exemplar source control SuDS techniques to reduce the risk of frequent low impact flooding due to post-development runoff. On-site attenuation schemes would need to be tested against the hydrograph of the Doe Lea to ensure flows are not exacerbated downstream. Safe access and egress will need to be demonstrated. Green infrastructure should be considered within the mitigation measures for surface water runoff from potential development. New development must seek opportunities to reduce overall level of flood risk at the site, for example by reducing volume and rate of runoff.

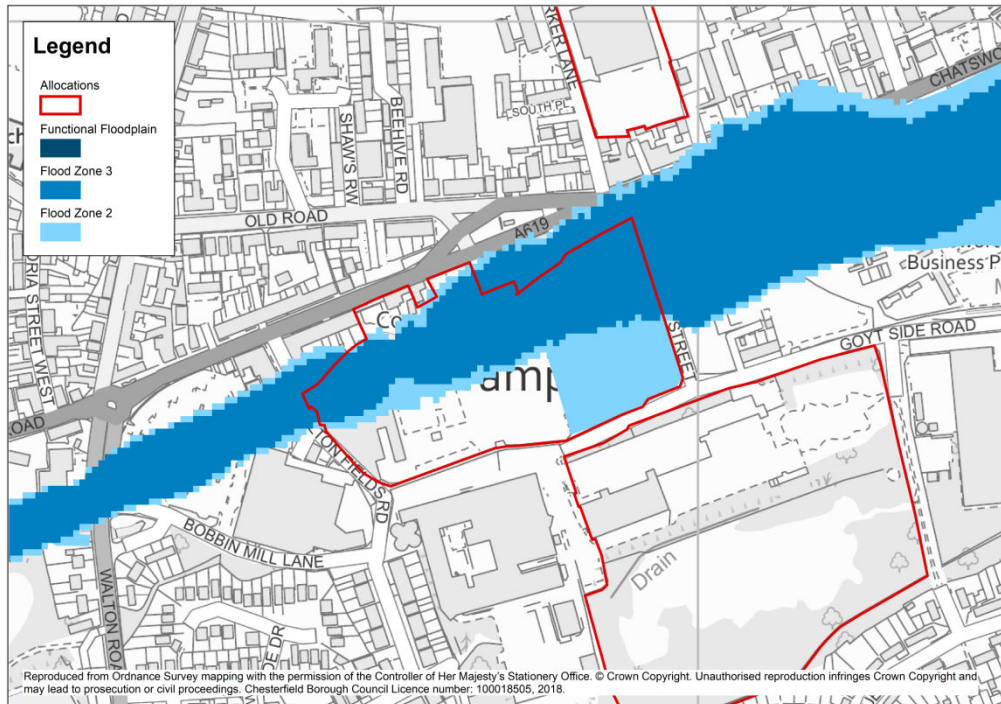
Due to the uncertainty over the accuracy of the modelled flood risk, an early FRA of this site will need to be procured.

Site name: H30; Walton Works, Factory Street					
Grid Ref: E 36792 N 70776	Site Area: 3.61 ha			Brownfield	
Flood Zone coverage	FZ3b	FZ3a	FZ2	FZ1	
	0%	44%	69%	31%	
Sources of Flood Risk:					
<p>The site is mostly within Flood Zone 2 with areas in Flood Zone 3a. Whilst the site's flood zone would normally preclude residential development the housing is considered necessary to enable regeneration and heritage benefits to be delivered.</p>					
Exception Test Required?					
<p>A resolution was grant planning permission subject to a S.106 agreement was made in January 2017. The scheme comprises the redevelopment of 10 ha of brownfield land for residential and retail use, involving the restoration & conversion of the grade II* listed Walton Works building to 4 ground floor retail units. The site includes industrial land (Walton Works, Goytside Mill and Boythorpe Works) to the south of the River Hipper and properties on Chatsworth Road to the north of the River Hipper.</p> <p>The Environment Agency flood map shows the eastern end of Walton Works to lie in Zone 2. Zone 3 extends beyond the banks of the River Hipper onto Walton Works and Chatsworth Road. The Council's Strategic Flood Risk Assessment further classifies this flood zone as 3a. In accordance with the NPPF, proposed residential development within Zone 3a should undergo Sequential and Exception Testing.</p> <p>Walton Works is identified in the Council's Land Availability Assessment (LAA) and proposed to be allocated for residential use in the publication draft Local Plan (2019). Allocated sites are deemed to have passed the Sequential Test and the first part of the Exception Test. The Flood Risk Assessment (FRA) report which accompanied the planning application comprises the second part of the Exception Test. It demonstrates that the land is safe from flooding and will not increase flood risk elsewhere. The remaining areas of the site lie within Zone 1 and are not at risk of flooding from any source and do not require sequential testing.</p> <p>The FRA also addressed surface water disposal in accordance with the drainage hierarchy in Building Regulations Part H and Planning Practice Guidance. It found that infiltration type SuDS such as soakaways are not be viable due to the presence of made ground, impermeable ground and shallow groundwater. Instead, surface water will discharge to the River Hipper or The Goit, with the discharge rate attenuated, and with surface water attenuation storage provided underground, sized for the 1 in 100 year plus climate change event.</p> <p>The Environment Agency's view is that the proposed development would meet the requirements of the NPPF if the certain specific measures as detailed in the submitted FRA are implemented and secured by planning condition. Required measures included specified finished floor levels of new buildings, provision of compensatory flood storage, and demonstration within the FRA that the improvement/protection and maintenance of existing flood defences will be provided.</p>					
NPPF Guidance					

The majority of the developable site is located within Flood Zone 2, with areas in Flood Zone 3a; therefore an Exception test will be required.

As the site is over one hectare it will also require a site specific flood risk assessment in which the vulnerability to flooding from other sources should be considered. An Adequate FRA undertaken for CHE/15/00832/FUL to demonstrate policy compliance.

Flood Zone Map



Access and Egress

The main route to and from the site (Chatsworth Road and Factory Street) is affected by fluvial and surface water flooding.

Climate Change

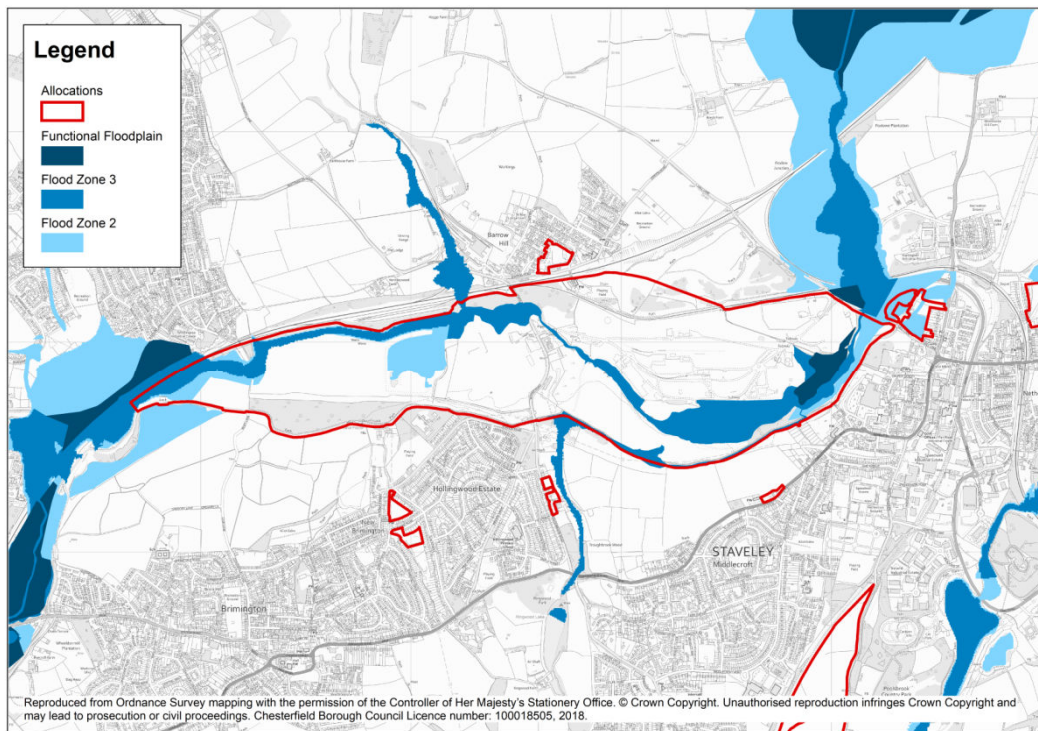
- Increased storm intensities.
- Increased water levels in the River Rother.

Flood Risk Implications for Development:

At the planning application stage, an exception test will be required for any development greater 1 Ha within Flood Zone 2. Development should be located away from potential source of fluvial flooding. The peak flows on the River Rother should be considered when considering drainage. Assessment for runoff should include allowance for climate change effects. New or re-development should adopt exemplar source control SuDS techniques to reduce the risk of frequent low impact flooding due to post-development runoff. On-site attenuation schemes would need to be tested against the hydrograph of the River Rother to ensure flows are not exacerbated downstream. Safe access and egress will need to be demonstrated. Green infrastructure should be considered within the mitigation measures for surface water runoff from potential development. New development must seek opportunities to reduce overall level of flood risk at the site, for example by reducing volume and rate of runoff.

Site name: SS5; Staveley Works					
Grid Ref: E 41910 N 74772	Site Area: 187 ha			Brownfield	
Flood Zone coverage	FZ3b	FZ3a	FZ2	FZ1	
	2%	16%	22%	78%	
Sources of Flood Risk:					
<p>The site is mostly within Flood Zone 1 with areas in Flood Zones 2 and 3a. Whilst the site's flood zone would normally preclude residential development the housing is considered to enable regeneration benefits to be delivered.</p>					
Exception Test Required?					
<p>An exception test is required as the site falls within all flood zones. Mitigation will be required as part of wider master planned redevelopment including a FRA. There are areas of high-low SWFR on site.</p> <p>The masterplan published within the Publication draft Local Plan (January 2019) shows proposed housing outside of flood zone areas. The masterplan and strategic allocation will be reviewed and reconfirmed against the new outputs from the new flood model when this is available. The supporting text to Policy PS5 also ensures that future applications use the latest flood risk information to inform their flood risk assessments.</p> <p>The Staveley regeneration area has been incorporated into the EA's Chesterfield Flood Risk Investigation as the Environment Agency recognises this is a key regeneration site for Chesterfield Borough Council.</p> <p>Potential regeneration benefits are likely to outweigh the risk of flooding.</p>					
NPPF Guidance					
<p>The majority of the developable site is located within Flood Zone 1, however there are areas within Flood Zone 3a and b; therefore an Exception test will be required.</p> <p>As the site is over one hectare it will also require a site specific flood risk assessment in which the vulnerability to flooding from other sources should be considered.</p>					

Flood Zone Map



Access and Egress

The main route to and from the site (Hall Lane and Works Road) are in the main unaffected by fluvial or surface water flooding. The site will require new access roads.

Climate Change

- Increased storm intensities.
- Increased water levels in the River Rother.

Flood Risk Implications for Development:

At the planning application stage, an exception test will be required for any development greater 1 Ha within Flood Zone 2. Development should be located away from potential source of fluvial flooding. The peak flows on the River Rother should be considered when considering drainage. Assessment for runoff should include allowance for climate change effects. New or re-development should adopt exemplar source control SuDS techniques to reduce the risk of frequent low impact flooding due to post-development runoff. On-site attenuation schemes would need to be tested against the hydrograph of the River Rother to ensure flows are not exacerbated downstream. Safe access and egress will need to be demonstrated. Green infrastructure should be considered within the mitigation measures for surface water runoff from potential development. New development must seek opportunities to reduce overall level of flood risk at the site, for example by reducing volume and rate of runoff.

PROPOSED EMPLOYMENT ALLOCATIONS:

Site name: EMP 337, Wagon Works, Whittington Way

Grid Ref: E 37931 N 74552	Site Area: 6.31 Ha		Brownfield	
Flood Zone coverage	FZ3b 0%	FZ3a 61%	FZ2 96%	FZ1 4%

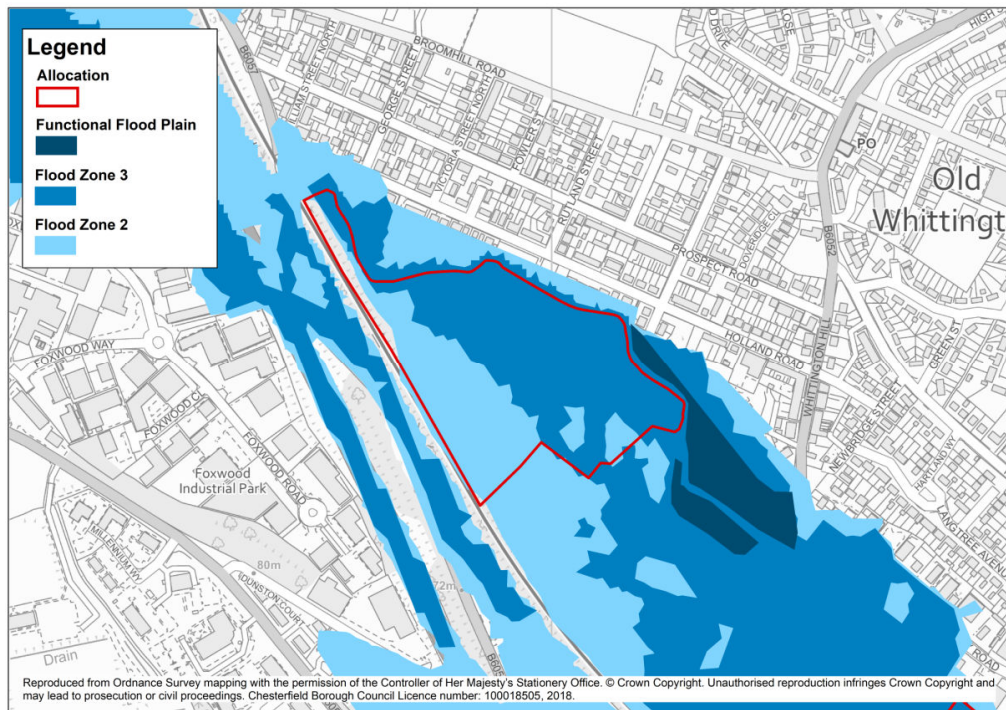
Sources of Flood Risk:
 Nearly all of the site is at risk from fluvial flooding from the River Rother.

 The Functional flood plain is shown on the map below

Exception Test Required?
 Employment sites (in general terms) are considered as 'Less vulnerable' uses (Table 2 of the NPPF Technical Guidance Note), and therefore the Exception Test is not necessary.

NPPF Guidance
 Employment sites (in general terms) are considered as 'Less vulnerable' uses (Table 2 of the NPPF Technical Guidance Note), and therefore the Exception Test is not necessary.

Flood Zone Map



Access and Egress
 The main route to and from the site (Whittington Way) is affected by fluvial and surface water flooding.

Climate Change

- Increased storm intensities.
- Increased water levels in the River Rother.

Flood Risk Implications for Development:

At the planning application stage, a site-specific flood risk assessment will be required for any development greater than 1ha in Flood Zone 1. Development should be located away from potential source of fluvial flooding. The peak flows on the River Rother should be considered when considering drainage. Assessment for runoff should include allowance for climate change effects. New or re-development should adopt exemplar source control SuDS techniques to reduce the risk of frequent low impact flooding due to post-development runoff. On-site attenuation schemes would need to be tested against the hydrograph of the River Rother to ensure flows are not exacerbated downstream. Safe access and egress will need to be demonstrated. Green infrastructure should be considered within the mitigation measures for surface water runoff from potential development. New development must seek opportunities to reduce overall level of flood risk at the site, for example by reducing volume and rate of runoff.

Site name: EMP 428 Whitting Valley Road C, Old Whittington

Grid Ref: E 38516 N 74082	Site Area: 0.74 Ha		Greenfield	
Flood Zone coverage	FZ3b 0%	FZ3a 61%	FZ2 99%	FZ1 1%

Sources of Flood Risk:

Virtually the whole site is at risk of fluvial flooding from the River Rother.

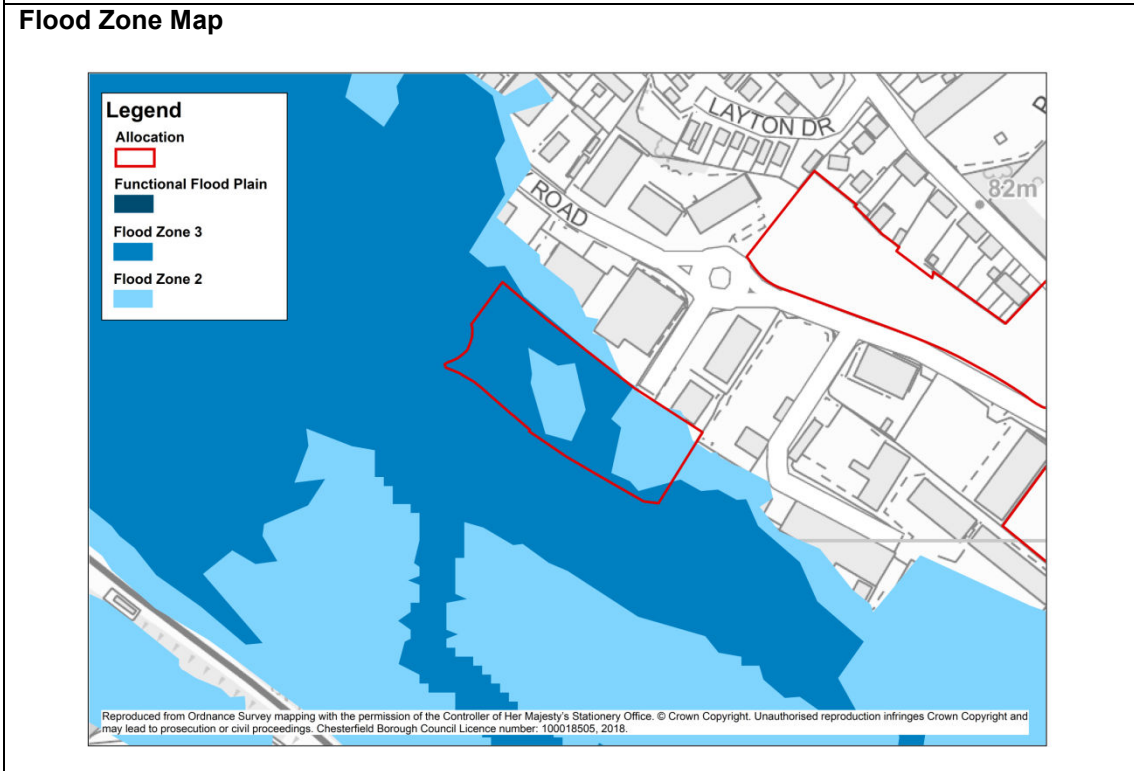
The Functional flood plain is shown on the map below

Exception Test Required?

Employment sites (in general terms) are considered as ‘Less vulnerable’ uses (Table 2 of the NPPF Technical Guidance Note), and therefore the Exception Test is not necessary.

NPPF Guidance

Employment sites (in general terms) are considered as ‘Less vulnerable’ uses (Table 2 of the NPPF Technical Guidance Note), and therefore the Exception Test is not necessary.



Access and Egress

The main route to and from the site (Whittington Valley Road) is affected by fluvial and

surface water flooding.

Climate Change

- **Increased storm intensities.**
- **Increased water levels in the River Rother.**

Flood Risk Implications for Development:

At the planning application stage, a site-specific flood risk assessment will be required for any development greater than 1ha in Flood Zone 1. Development should be located away from potential source of fluvial flooding. The peak flows on the River Rother should be considered when considering drainage. Assessment for runoff should include allowance for climate change effects. New or re-development should adopt exemplar source control SuDS techniques to reduce the risk of frequent low impact flooding due to post-development runoff. On-site attenuation schemes would need to be tested against the hydrograph of the River Rother to ensure flows are not exacerbated downstream. Safe access and egress will need to be demonstrated. Green infrastructure should be considered within the mitigation measures for surface water runoff from potential development. New development must seek opportunities to reduce overall level of flood risk at the site, for example by reducing volume and rate of runoff.

Appendix A – Letter from EA regarding SFRA evidence 2016

Mrs. Lauren Dempsey
Forward Planning
Chesterfield Borough Council
Town Hall
Rose Hill
Chesterfield
Derbyshire
S40 1LP

Our ref: LT/2006/000178/SF-01/IS1-L01

Sent Electronically

Date: 06 October 2016

Dear Mrs. Dempsey,

CHESTERFIELD LOCAL PLAN – STRATEGIC FLOOD RISK ASSESSMENT ENQUIRY

Thank you for your e-mail dated 28 September 2016 regarding the need to update the Strategic Flood Risk Assessment (SFRA) for Chesterfield.

The Environment Agency has commissioned Mott MacDonald to undertake comprehensive flood modelling of the River Rother and its tributaries as part of a project called the Chesterfield Flood Risk Investigation.

This modelling project will provide a suite of detailed flood mapping for a range of flood events and will take account of the new climate change guidance published in February 2016. As this is a 2d modelling project, it will provide information on flood depths and velocity which will be expressed through the preparation of flood hazard mapping.

Following discussions with Chesterfield Borough Council, the geographical extent of the flood modelling will be extended to incorporate the Staveley regeneration area. The Environment Agency recognises this is a key regeneration site for Chesterfield Borough Council.

On 30 September 2016, a meeting was held between the Environment Agency and representatives of the Staveley landowners (Chatsworth Settlement Trustees and St. Gobain / Strawsons) to discuss the sharing of topographical survey for Staveley, which will ensure the flood modelling being prepared for the Environment Agency uses the most up to date survey data.

When completed, the Chesterfield Flood Risk Investigation will provide the best available flooding information for Chesterfield and will test options for flood alleviation works to better protect the town from the devastating impacts of flooding.

We understand that Derbyshire County Council has secured funding for a project known as the [Chesterfield Integrated Model](#). Their intention is to bring together sewer modelling from Yorkshire Water; surface water modelling held by Derbyshire County Council; and river modelling from the Chesterfield Flood Risk Investigation. The aim is for the Chesterfield Integrated Model to provide sophisticated modelling for the main sources of flood risk.

According to the Planning Practice Guidance, a Level 2 Strategic Flood Risk Assessment should consider the detailed nature of the flood characteristics within a flood zone including flood probability; flood depth; flood velocity; rate of onset of flooding; and duration of flood. This information is necessary to enable application of the Exception Test. A Strategic Flood Risk Assessment is also expected to identify areas at risk from surface water flooding and drainage issues.

Having had regard to the Planning Practice Guidance, the Environment Agency considers the Chesterfield Flood Risk Investigation and Derbyshire County Council's proposed Chesterfield Integrated Model to fulfill the requirements of a Level 2 Strategic Flood Risk Assessment and negate the need for Chesterfield Borough Council to carry out a separate study.

Given the Council's intention to make a financial contribution to the Chesterfield Flood Risk Investigation, the Council will be entitled to access to the flood mapping and other project deliverables.

As preparation of the Local Plan progresses, there may be the need for some bespoke work to be commissioned by Chesterfield Borough Council to test the deliverability of sites if, following application of the Sequential Test, allocations are proposed in areas at high flood risk. The Environment Agency welcomes the opportunity to discuss this with you at the appropriate stage in the plan-making process.

I trust the above advice clearly sets out the Environment Agency's position on your query. As I will shortly be changing roles within the organisation, please can I ask you to send any follow-up correspondence to planning.trentside@environment-agency.gov.uk

Yours sincerely

Mrs. Naomi Doughty
Planning Specialist (Derbyshire)

Direct dial: 07880 055307

Direct e-mail: planning.trentside@environment-agency.gov.uk

Cc. Mr. Gary Cliff, Flood Risk Advisor, Partnerships & Strategic Overview

Team, EA.

Ms. Emma Hobbah, Chesterfield Flood Risk Investigation Project Manager, EA.

Mrs. Victoria Coombes, Senior Project Engineer, Flood Risk Management Team, DCC.

Appendix B – Evidence of support from EA for Core Strategy Policy 2013

Mr. Richard Bryant
Principal Planner
Forward Planning
Chesterfield Borough Council
Town Hall Rose Hill
Chesterfield
Derbyshire
S40 1LP

Our ref: LT/2006/000178/CS-03/SB1-L01

Your ref:

Date: 27 February 2013

Dear Mr. Bryant,

CONSULTATION ON PROPOSED MAIN MODIFICATIONS TO THE SUBMISSION CHESTERFIELD BOROUGH LOCAL PLAN; CORE STRATEGY

Thank you for your e-mail of 15 February 2013 consulting us on the proposed main modifications to the Submission Chesterfield Borough Local Plan; Core Strategy. We're satisfied that our representations have been taken into account and are reflected in the main modifications.

Yours sincerely

Mrs. Naomi Doughty
Planning Liaison Technical Specialist

Direct dial: 0115 846 2662

Direct e-mail: naomi.doughty@environment-agency.gov.uk

