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Burnley Borough Council Local Plan Potential Sites Assessment

Summary Report

January 2017



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Contents

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This report describes work commissioned by Mark Mullany, on behalf of Burnley Borough Council, by a letter dated 24 November 2016. Mike Williamson of JBA Consulting carried out this work.

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Purpose

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1 Local Plan Potential Development Sites Review

1.1 Introduction

In order to inform the Sequential Approach to the allocation of development through Burnley Borough Council's (BBC) upcoming Local Plan, this review entails a high level GIS screening exercise overlaying potential development site allocations against Flood Zones 1, 2, 3a and 3b and calculating the area of each site at risk. This screening assessment forms an addendum to the 2017 Level 1 Strategic Flood Risk Assessment (SFRA) report, produced by BBC Local Planning Authority (LPA).

Flood Zones 1, 2 and 3a are sourced from the Environment Agency's (EA) Flood Map for Planning (Rivers and Sea) and Flood Zone 3b (functional floodplain) was delineated as part of this assessment. Surface water risk to potential sites is assessed by way of the EA's Risk of Flooding from Surface Water (RoFSW) map, formally known as the updated Flood Map for Surface Water (uFMfSW).

The accompanying Development Site Assessment Excel spreadsheet provides a breakdown of each site and the area (in hectares) and percentage coverage of each fluvial flood zone and each surface water flood zone. Fluvial Flood Zones 3b, 3a, 2 and 1 are considered in isolation. Any area of a site within the higher risk Flood Zone 3b that is also within Flood Zone 3a is excluded from Flood Zone 3a and any area within Flood Zone 3a is excluded from Flood Zone 2. This allows for the sequential assessment of risk at each site by addressing those sites at higher risk first.

It is important to consider that each individual site will require further investigation, following this review, as local circumstances may dictate the outcome of the recommendation. Such local circumstances may include the following:

- Flood depths and hazards will differ locally to each at risk site therefore modelled depth, hazard and velocity data should be assessed for the relevant flood event outlines, including climate change (using the EA's February 2016 allowances), as part of a Level 2 SFRA or more detailed site-specific FRA.
- Current surface water drainage infrastructure and applicability of Sustainable Drainage Systems (SuDS) techniques are likely to differ at each site considered to be at risk from surface water flooding. Further investigation would therefore be required for any site at surface water flood risk.
- If sites have planning permission but construction has not started, the SFRA will only be able to influence the design of the development e.g. finished floor levels. New, more robust flood extents (from new models) cannot be used to reject development where planning permission has already been granted.
- It may be possible at some sites to develop around the flood risk. Planners are best placed to make this judgement i.e. will the site still be deliverable if part of it needs to be retained to make space for flood water.
- Surrounding infrastructure and land use may influence scope for layout redesign/removal of site footprints from risk.
- Current land use. A number of sites included in the assessment are likely to be brownfield, thus the existing development structure could be taken into account as further development may not lead to increased flood risk.
- Existing planning permissions may exist on some sites where the EA may already have passed comment and/or agreed to appropriate remedial works concerning flood risk. Previous flood risk investigations/FRAs may already have been carried out at some sites.
- Cumulative effects. New development may result in increased risk to other potential or existing sites. This could be assessed through a Level 2 SFRA or more detailed FRA.

1.2 Potential Development Sites

270 potential development sites were provided by the LPA for assessment. The sites assessed were sub-divided by their proposed uses, including:

- Housing - 175 sites

- Employment - 74 sites
- Residential and/or employment and/or town centre uses (Mixed Use) - 18 sites
- Gypsy and traveller - 2 sites
- Town centre uses - 1 site

Development viability is assessed, based on the flood risk vulnerability classification in Table 2 of the Flood Risk and Coastal Change Planning Practice Guidance¹ (FRCC-PPG), and subsequent strategic recommendations were made and are discussed in this report.

The following strategic recommendations may apply to a site, following application of the Sequential Test by the LPA:

- Strategic Recommendation A - consider withdrawing the site based on significant level of fluvial or surface water flood risk;
- Strategic Recommendation B - Exception Test required if site passes Sequential Test;
- Strategic Recommendation C - consider site layout and design around the identified flood risk if site passes Sequential Test;
- Strategic Recommendation D - site-specific FRA required; and
- Strategic Recommendation E - site permitted on flood risk grounds due to little perceived risk, subject to consultation with the LPA / LLFA.

Table 1-1 summarises the number of sites that each recommendation applies to.

Table 1-1: Number of sites per Strategic Recommendation

Site/Proposed use	Strategic Recommendation				
	A	B	C	D	E
Housing	13	1	16	117	28
Employment	0	0	13	41	20
Mixed Use	3	3	1	10	1
Gypsy and Traveller	0	0	0	1	1
Town Centre Uses	0	0	1	0	0
Total	16	4	31	169	50

¹ <http://planningguidance.communities.gov.uk/blog/guidance/flood-risk-and-coastal-change/>

2 Flood Risk to Potential Development Sites

The following strategic recommendations provide only a guide, based on the flood risk information available at the time. Information regarding local, site-specific information is beyond the scope of this assessment. It is BBC's responsibility to carry out sequential testing of each site using the information provided in this assessment, and more specifically using their local, site specific knowledge and advice from the EA. The following strategic recommendations should be read alongside the Development Site Assessment spreadsheet.

2.1 Strategic Recommendation A – Consider withdrawal of site

This strategic recommendation DOES NOT take account of local circumstances, only that part of a site area falls within a Flood Zone.

Strategic recommendation A applies to any site where the following criteria are true:

- 10% or greater of the site area is within Flood Zone 3b. The FRCC-PPG flood risk vulnerability classification states that only water-compatible uses and essential infrastructure should be permitted in Flood Zone 3b, though any essential infrastructure must pass the Exception Test. Land allocated for housing falls in to the more vulnerable category and employment sites are in the less vulnerable category, though waste management sites for hazardous materials fall with the more vulnerable category. Gypsy and traveller sites are within the highly vulnerable category. Mixed use sites should be placed into the higher of the relevant classes of flood risk sensitivity. Development should not be permitted for sites within the highly, more and less vulnerable categories that fall within Flood Zone 3b. If the developer is able to avoid the area of the site within 3b however, then part of the site could still be delivered
- 10% or greater of the area of any residential or mixed use site that is within the high risk (1 in 30 year) or medium risk (1 in 100 year) surface water flood outline

The 10% threshold is not included within any policy; it is merely considered that it is likely to be difficult for developers to deliver a site where 10% or more of the site area is considered as undevelopable. However, this 10% threshold does not account for local circumstances therefore it may be possible to deliver some of the sites included within Strategic Recommendation A following further, more detailed investigation through a Level 2 SFRA or site-specific FRA.

Strategic Recommendation A applies to 16 sites overall, 3 of which relate to fluvial risk from Flood Zone 3b. 13 of these sites are recommended for withdrawal based on significant surface water flood risk.

Table 2-1: Sites recommended for withdrawal

Site Reference	Proposed Use	FZ3b (%)	High Risk Surface Water (%)	Medium Risk Surface Water (%)
HEL/014	Housing	0.00	0.00	10.59
HEL/025	Housing	0.00	0.82	10.68
HEL/034	Housing	0.00	10.10	4.27
HEL/065	Housing	22.80	6.44	2.75
HEL/085	Housing	0.00	24.12	32.93
HEL/103	Housing	0.00	15.49	2.56
HEL/114	Housing	23.11	11.09	22.98
HEL/118	Housing	0.00	0.00	16.22
HEL/125	Mixed Use	0.00	11.39	21.34
HEL/132	Mixed Use	0.00	21.24	30.26
HEL/134	Housing	0.00	5.15	43.92

Site Reference	Proposed Use	FZ3b (%)	High Risk Surface Water (%)	Medium Risk Surface Water (%)
HEL/143	Housing	0.00	0.00	53.03
HEL/223	Mixed Use	0.00	0.69	36.51
HEL/236	Housing	0.00	0.94	13.45
HEL/240	Housing	11.43	0.35	0.09
HEL/249	Housing	0.00	20.94	10.12

2.2 Strategic Recommendation B – Exception Test

Strategic Recommendation B applies to sites where it is likely the Exception Test would be required if the Sequential Test is passed. This does not include any recommendation on the likelihood of a site passing the Exception Test. A more detailed assessment, such as a Level 2 SFRA, may be appropriate for such sites to inform on the likelihood of passing the Exception Test. However, the developer / LPA should attempt to avoid the risk area where possible.

This strategic recommendation DOES NOT take account of local circumstances, only that part of a site area falls within a Flood Zone.

Strategic recommendation B applies to sites where the following criterion is true:

- 10% or greater of any residential site, mixed use site entailing residential, or essential infrastructure site that is within Flood Zone 3a. Water-compatible and less vulnerable uses of land do not require the Exception Test if in Flood Zone 3a

All development proposals in Flood Zone 3a must be accompanied by a site-specific FRA

The 10% threshold is not included within any policy; it is merely considered that it could be difficult for developers to avoid Flood Zone 3a when 10% or more of a site area is within it. This 10% threshold does not account for local circumstances therefore it may be possible to avoid Flood Zone 3a altogether for some of the sites included within Strategic Recommendation B.

Strategic Recommendation B applies to 4 sites, none of which are at significant surface water risk.

Table 2-2: Sites recommended to have to pass the Exception Test

Site Reference	Proposed Use	FZ3a (%)	FZ3b (%)
HEL/011u	Mixed Use	63.12	1.17
HEL/051	Mixed Use	14.88	0.00
HEL/217	Mixed Use	12.22	0.00
HEL/259	Housing	31.58	0.00

2.3 Strategic Recommendation C – Consider site layout and design around flood risk

Strategic Recommendation C recommends a review of site layout and / or design at the development planning stage in order for development to proceed. A detailed Level 2 SFRA or site-specific FRA would be required to inform on site layout and design.

This strategic recommendation DOES NOT take account of local circumstances, only that part of a site area falls within a Flood Zone.

Recommendation C may apply to sites where the following criteria is true:

- <10% of the area of any site type is within Flood Zone 3b.
- <10% of any residential site is within Flood Zone 3a.
- <10% of any mixed use site entailing residential use is within Flood Zone 3a.
- Employment sites within Flood Zone 3a assuming the site use falls within the less vulnerable or water-compatible category of the flood risk vulnerability classification of the FRCC-PPG.
- <10% of any essential infrastructure site is within Flood Zone 3a.
- 10% or greater of the area of any site is within the high risk (1 in 30 year) or medium risk (1 in 100 year) surface water flood outline.
- 20% or greater of the area of any site type is within the low risk (1 in 1000 year) surface water flood outline.

The 10% and 20% thresholds are not included within any policy; it is merely considered that it may be possible for developers to avoid the risk area when less than 10% of the site area is at risk or less than 20% in the case of the low risk surface water flood zone. These thresholds do not account for any local circumstances.

Strategic Recommendation C applies to 31 sites where fluvial and / or surface water will be the main source of risk. For these 31 sites the developer should consider the site layout with a view to removing the site footprint from the flood zone(s) obstructing development. If this is not possible then the alternative would be to investigate the incorporation of on-site storage of floodwater into the site design. Depending on local circumstances, if it is not possible to adjust the site boundary to remove the site footprint to a lower risk zone then this part of the development should not be permitted (for any site in Flood Zone 3b or at significant surface water risk), or the Exception Test should be undertaken and passed as part of a site-specific FRA (for residential or mixed use sites in Flood Zone 3a).

Site layout and design should also take account of the requirement for the 8 metre easement buffer alongside watercourses where development is prohibited. This easement buffer is recommended by the Environment Agency to allow ease of access to watercourses for maintenance works. The site layout / design, where part of a flood zone is included within the site footprint, should allow water to flow naturally or be stored in times of flood through the installation of suitable SuDS.

The FRCC-PPG (Paragraph 050) states:

Local authorities and developers should seek opportunities to reduce the overall level of flood risk in the area and beyond. This can be achieved, for instance, through the layout and form of development, including green infrastructure and the appropriate application of sustainable drainage systems, through safeguarding land for flood risk management, or where appropriate, through designing off-site works required to protect and support development in ways that benefit the area more generally.

Table 2-3: Sites recommended for detailed layout and design considerations around flood risk

Site Reference	Proposed Use	FZ3a (%)	FZ3b (%)	High Risk Surface Water (%)	Medium Risk Surface Water (%)	Low Risk Surface Water (%)
HEL/004	Housing	0.21	0.37	0.44	0.60	4.96
HEL/006	Housing	5.42	5.68	0.69	0.41	6.09

Site Reference	Proposed Use	FZ3a (%)	FZ3b (%)	High Risk Surface Water (%)	Medium Risk Surface Water (%)	Low Risk Surface Water (%)
HEL/020	Housing	3.89	1.73	7.96	4.77	12.76
HEL/025u	Mixed Use	0.00	0.00	0.57	9.07	24.95
HEL/043	Housing	0.02	0.00	0.15	0.47	2.23
HEL/067	Housing	0.00	0.00	1.76	2.96	24.28
HEL/068	Housing	3.22	5.80	4.51	3.99	12.12
HEL/082	Housing	0.00	0.00	0.00	0.00	41.56
HEL/120	Housing	0.00	0.00	0.00	3.26	31.44
HEL/140	Housing	0.00	0.00	1.70	0.74	25.11
HEL/149	Employment	0.00	0.00	0.07	0.72	39.65
HEL/152	Housing	0.00	3.90	1.95	4.03	17.59
HEL/154	Employment	0.00	0.00	0.00	3.11	96.89
HEL/165	Employment	0.84	0.00	1.60	1.12	12.72
HEL/166	Employment	5.13	0.00	3.02	0.68	0.98
HEL/171	Employment	4.03	0.00	3.43	2.86	7.33
HEL/189	Employment	0.12	0.52	1.25	0.41	1.35
HEL/193	Employment	0.00	0.34	0.20	0.20	0.53
HEL/194	Employment	0.00	0.00	89.47	10.53	0.00
HEL/202	Employment	0.00	0.00	1.54	3.89	55.69
HEL/213	Employment	5.37	0.00	0.42	0.46	2.86
HEL/214	Employment	82.89	0.00	2.43	33.54	13.20
HEL/215	Employment	0.00	0.00	0.00	100.00	0.00
HEL/219	Employment	0.00	0.00	0.00	100.00	0.00
HEL/221	Housing	0.00	0.00	0.95	6.72	38.20
HEL/228	Housing	6.27	3.74	4.47	3.33	15.75
HEL/233	Housing	0.00	0.00	0.00	0.00	20.07
HEL/234	Housing	0.00	0.00	3.01	1.85	5.52
HEL/239	Housing	0.93	5.31	1.42	0.98	6.77
HEL/245	Housing	2.67	3.93	3.52	4.31	18.75
TC1/4	Town Centre	2.81	0.00	0.00	1.87	9.34

2.4 Strategic Recommendation D – Subject to FRA

Strategic Recommendation D suggests that development could be permitted, assuming a site-specific FRA shows that the site can be safe, and that the developer / LPA can demonstrate that the site is sequentially preferable. Any site within Flood Zones 2 or 3a or at surface water risk could still be rejected if the conclusions of the FRA decide development is unsafe or inappropriate.

This strategic recommendation DOES NOT take account of local circumstances, only that part of a site area falls within a Flood Zone.

Recommendation D applies to sites where the following criteria is true:

- Any site within Flood Zone 2 that does not have any part of its footprint within Flood Zone 3a, with the exception of highly vulnerable developments (such as gypsy and traveller sites) which would be subject to, and have to pass, the Exception Test.
- Any site 100% within Flood Zone 1 where surface water flood risk is apparent on site and therefore recommended for investigation through a site-specific FRA.
- Any site 100% within Flood Zone 1 that is greater than or equal to 1 hectare in area.

Strategic Recommendation D applies to 169 sites which equates to 63% of the 270 sites for which strategic recommendations have been made. 154 of the 169 sites require an FRA due to some level of surface water risk and should therefore be subject to drainage / SuDS based FRA.

According to the FRCC-PPG, all development proposals within Flood Zone 2 or Flood Zone 3a must be accompanied by a site-specific FRA and any sites 100% within Flood Zone 1 that are 1 hectare or greater in area must also be accompanied by a site-specific FRA to determine vulnerability to flooding from other sources as well as fluvial. The FRA should determine the potential of increased flood risk elsewhere as a result of the addition of hard surfaces on-site and the effect of new development on surface water runoff.

The FRCC-PPG (Paragraph 030) states:

A site-specific flood risk assessment is carried out by (or on behalf of) a developer to assess the flood risk to and from a development site. Where necessary (see footnote 5 in the National Planning Policy Framework), the assessment should accompany a planning application submitted to the local planning authority. The assessment should demonstrate to the decision-maker how flood risk will be managed now and over the development's lifetime, taking climate change into account, and with regard to the vulnerability of its users (see Table 2 – Flood Risk Vulnerability).

The objectives of a site-specific flood risk assessment are to establish:

- *whether a proposed development is likely to be affected by current or future flooding from any source;*
- *whether it will increase flood risk elsewhere;*
- *whether the measures proposed to deal with these effects and risks are appropriate;*
- *the evidence for the local planning authority to apply (if necessary) the Sequential Test, and;*
- *whether the development will be safe and pass the Exception Test, if applicable.*

2.5 Strategic Recommendation E - Permitted subject to consultation with the LPA / LLFA

Strategic Recommendation E recommends that development should be permitted, based on the flood risk evidence provided within this review. Further investigation may be required by the developer and the LPA / LLFA should be consulted as to whether a FRA may be required based on any further or new information that may not have been included within this review.

Recommendation E applies to any site with its area 100% within Flood Zone 1, less than 1 ha in area and with no surface water flood risk, according to the EA's Risk of Flooding from Surface Water map.

Strategic Recommendation E applies to 50 of the 265 sites assessed.

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