

## **Brentwood Borough Council Local Plan**

### **Interim Information Note.**

25 October 2018

#### **Strategic Flood Risk Assessment (SFRA) and Water Cycle Study (WCS)**

The Brentwood Borough Strategic Flood Risk Assessment report (SFRA) and the Brentwood Water Cycle Study (WCS) are in the process of being updated. The full reports will be available for the Brentwood draft Local Plan regulation 19 public consultation in November 2018.

#### **SFRA**

The update is incorporating new data for SFRA and updates to planning policy and guidance including the National Planning Policy Framework, the National Planning Practice guidance and from the Environment Agency on climate change allowances.

The SFRA informs decisions regarding development within the borough including policy related to flood risk management and the allocation of land for future development.

The SFRA provides a description of flood risk from all sources including: Flooding from rivers, and the identification of Flood Zones 1, 2 and 3; from surface water, and the risk/likelihood of occurrence; from groundwater and artificial sources; and as a result of climate change.

Flooding from rivers, fluvial flooding, is limited, with surface water, pluvial' flooding presenting the most significant risk of flooding intense rainfall events resulting in large volumes of runoff in urban areas where the potential for infiltration is reduced due to man-made surfaces. Runoff may then exceed the capacity of road drains and sewers to convey the water away, resulting in water ponding. Key flooding hotspots for this are Brentwood Town Centre, Ingatestone and West Horndon.

Recommendations to use Sustainable Drainage Systems to maintain Greenfield runoff rates, are given. With site specific drainage solutions needed for new development, in line with requirements from the Environment Agency.

Two “sites” are identified as requiring details site layout considerations regarding flood risk and these are Dunton Hills Garden Village and the Officers Meadow group of sites. This is being taken forward in site specific policy requirements.

### **SFRA Figures** (Maps and site list table).

In order to provide background information for policy drafting and for decision makers, the initial results from the SFRA have been mapped out and made available. These are summarised within this note.

Results available from the consultants include the following mapping which are attached to the end of this note:

- Table C1: HELAA Development Sites and Flood Risk. Summary Table produced by Wood PLC.
- Figure C1: Brentwood Borough Flood Zones and HELAA sites
- Figure C2: Risk of Flooding from Surface Water (October 2018) Produced by Wood PLC
- Figure C3: Brentwood Critical Drainage Areas (September 2018) Produced by Essex County Council and reproduced with permission by Wood PLC

### **Water Cycle Study**

The Water Cycle Study has a two-fold purpose: to undertake a Water Quality Assessment and a Water Resources Assessment. The Water Resources assessment is undertaken to assess pressures on water resource availability by reviewing water companies’ water resource management plans and the implications on these of future growth.

With two companies supplying water in Brentwood Borough– Affinity Water and Essex and Suffolk Water. Affinity Water’s water resource zone (WRZ) encompasses the north western quarter of the Brentwood Borough Council area. Essex and Suffolk Water’s WRZ covers the remaining area. Deficits to provision are being assessed.

The review of Affinity Water and Essex and Suffolk Water’s Water Resource Management Plans (WRMP) provided in this high level review of water resources suggests that both companies have the potential to provide enough capacity within each of the water resources zones to accommodate additional development,

The Water Quality Assessment (WQA) has been drafted for Brentwood Borough Council in order to assess whether housing growth would have significant impacts on the water environment, and specifically to produce a defensible, clear and concise evidence base that will help with the production of the Local Plans which will comply with the National Planning Policy Framework and also the Water Framework Directive (2000/60/EC).

The purpose of this WQA is to understand the environmental impact of proposed future housing growth on the water bodies which received discharges of treated

sewage effluent from Wastewater Treatment Works (WwTWs) associated with the growth areas. Any impacts were to be investigated in line with the Water Framework Directive objectives (WFD).

Initial results from the WQA has indicate that there should be no significant deterioration in water quality in discharge waters due to housing growth. The main issue identified is operational capacity of the WwTW and ability to receive sewage flows. Provisional recommendations state that both Brentwood and Ingatestone WwTWs review volumetric capacity to manage future DWF as a result of increased housing growth within their respective catchment areas. A diversion of flows to nearby WwTW could be considered or a combination of review of consent limits and water reduction measures.

The final reports are to be published prior to Regulation 19 consultation on the Brentwood Borough Draft Local Plan.

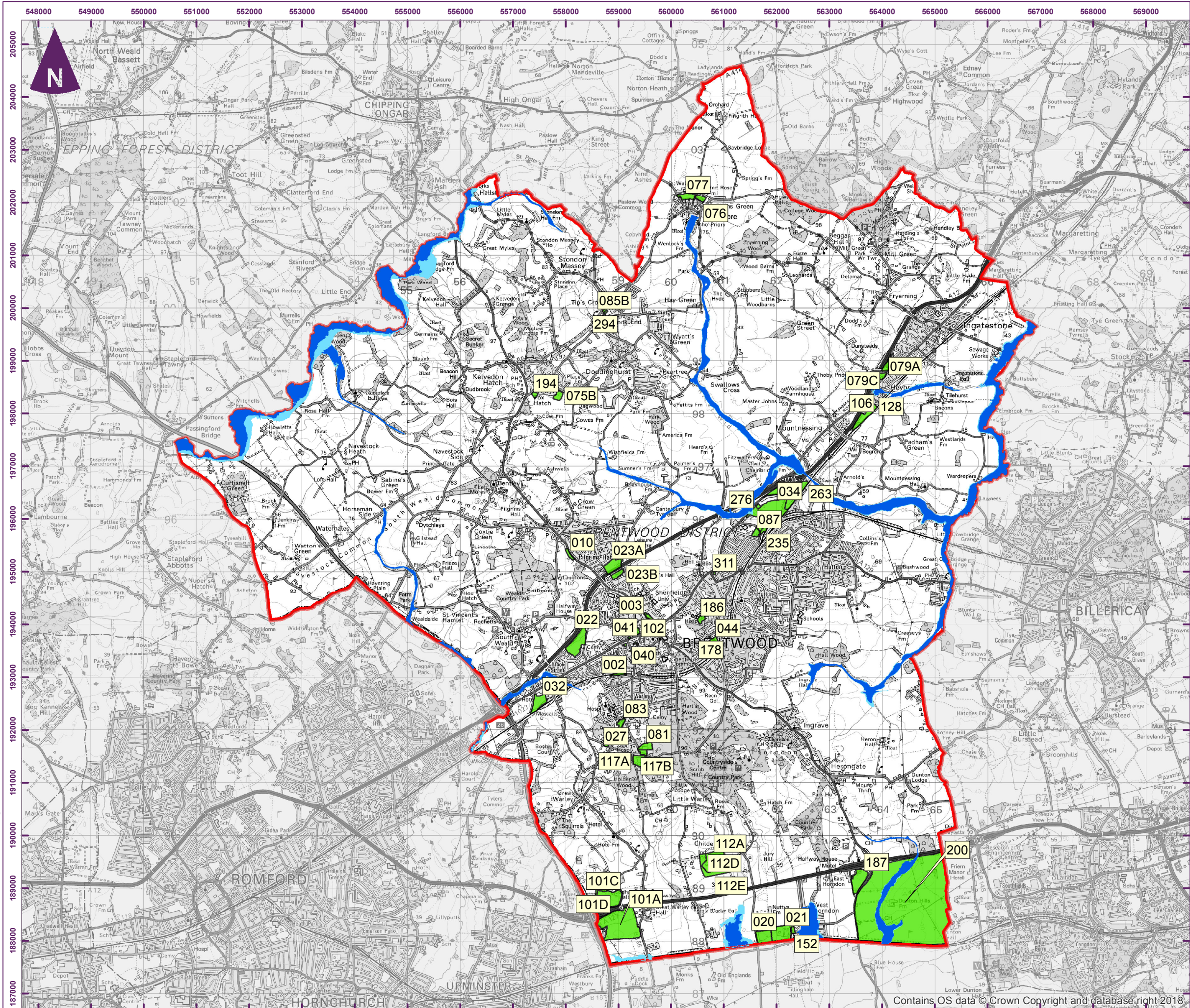
Table C.1 HELAA Development Sites and Flood Risk

Site	Site Name	Proposed Use	Total Site Area (ha)	Fluvial Flood Zone						Surface water risk			In Critical Drainage Area?	Development Viability
				Flood Zone 1		Flood Zone 2		Flood Zone 3		High Risk	Medium Risk	Low Risk		
				Area	% of site	Area	% of site	Area	% of site					
112A	Childerditch Industrial Estate	Employment Site	11.25	100.00	100.00	0.00	0.00	0.00	0.00	Yes	Yes	Yes	No	site specific FRA required
102	William Hunter Way car park, Brentwood	Mixed Use	1.2	100.00	100.00	0.00	0.00	0.00	0.00	No	Yes	Yes	No	site specific FRA required
087	Land at Alexander Lane, Shenfield	Housing Site	1.73	100.00	100.00	0.00	0.00	0.00	0.00	No	No	Yes	Yes	site specific FRA required - within CDA so should refer to the site specific recommendations in the SWMP
003	Wates Way Industrial Estate, Ongar Road, Brentwood	Mixed Use	0.99	100.00	100.00	0.00	0.00	0.00	0.00	Yes	Yes	Yes	No	permitted subject to LPA/LLFA consultation, requires Drainage Impact Assessment
21	Horndon Industrial Estate, Station Road, West Horndon	Mixed Use	10	100.00	100.00	0.00	0.00	0.00	0.00	Yes	Yes	Yes	Yes	site specific FRA required - within CDA so should refer to the site specific recommendations in the SWMP
39	Westbury Road Car Park, Westbury Road, Brentwood	Housing Site	0.27	100.00	100.00	0.00	0.00	0.00	0.00	No	No	No	No	permitted subject to LPA/LLFA consultation, requires Drainage Impact Assessment
40	Chatham Way/Crown Street Car Park, Brentwood	Housing Site	0.33	100.00	100.00	0.00	0.00	0.00	0.00	No	No	No	No	permitted subject to LPA/LLFA consultation, requires Drainage Impact Assessment
41	Land at Hunter House, Western Road, Brentwood	Housing Site	0.21	100.00	100.00	0.00	0.00	0.00	0.00	No	No	No	No	permitted subject to LPA/LLFA consultation, requires Drainage Impact Assessment
81	Council Depot, The Drive, Warley	Housing Site	3.2	100.00	100.00	0.00	0.00	0.00	0.00	Yes	Yes	Yes	No	site specific FRA required
83	Land west of Warley Hill, Pastoral Way, Warley	Housing Site	2.21	100.00	100.00	0.00	0.00	0.00	0.00	No	No	Yes	No	site specific FRA required
085B	Land adjacent to Tipps Cross Community Hall, Blackmore Road, Tipps Cross	Housing Site	0.33	100.00	100.00	0.00	0.00	0.00	0.00	No	No	No	No	permitted subject to LPA/LLFA consultation, requires Drainage Impact Assessment
2	Brentwood railway station car park	Housing Site	1.07	100.00	100.00	0.00	0.00	0.00	0.00	Yes	Yes	Yes	Yes	site specific FRA required - within CDA so should refer to the site specific recommendations in the SWMP
10	Sow & Grow Nursery, Ongar Road, Pilgrims Hatch	Housing Site	1.2	100.00	100.00	0.00	0.00	0.00	0.00	Yes	Yes	Yes	No	site specific FRA required
079A	Land adjacent to Ingatestone by-pass (part bounded by Roman Road, south of flyover)	Housing Site	1.39	100.00	100.00	0.00	0.00	0.00	0.00	No	Yes	Yes	Yes	site specific FRA required - within CDA so should refer to the site specific recommendations in the SWMP
77	Land south of Redrose Lane, north of Woollard Way, Blackmore	Housing Site	3.3	100.00	100.00	0.00	0.00	0.00	0.00	No	No	Yes	No	site specific FRA required
76	Land south of Redrose Lane, north of Orchard Piece, Blackmore	Housing Site	1.69	100.00	100.00	0.00	0.00	0.00	0.00	Yes	Yes	Yes	No	site specific FRA required
20	West Horndon Industrial Estate, Childerditch Lane, West Horndon	Mixed Use	6.45	100.00	100.00	0.00	0.00	0.00	0.00	Yes	Yes	Yes	Yes	site specific FRA required - within CDA so should refer to the site specific recommendations in the SWMP
22	Land at Honeypot Lane, Brentwood	Housing Site	10.93	100.00	100.00	0.00	0.00	0.00	0.00	Yes	Yes	Yes	No	site specific FRA required
023A	Land off Doddington Road, either side of A12, Brentwood	Housing Site	5.99	100.00	100.00	0.00	0.00	0.00	0.00	Yes	Yes	Yes	No	site specific FRA required
32	Land east of Nags Head Lane, Brentwood	Housing Site	5.88	100.00	100.00	0.00	0.00	0.00	0.00	No	Yes	Yes	No	site specific FRA required
34	Officer's Meadow, land off Alexander Lane, Shenfield	Housing Site	20.8	20.34	97.79	0.39	1.88	0.07	0.34	Yes	Yes	Yes	Yes	consider site layout and design around flood risk - within CDA so should refer to the site specific recommendations in the SWMP
44	Land at Priests Lane (west), Brentwood	Housing Site	4.51	100.00	100.00	0.00	0.00	0.00	0.00	No	Yes	Yes	Yes	site specific FRA required - within CDA so should refer to the site specific recommendations in the SWMP
27	Land adjacent to Carmel, Mascalls Lane, Warley	Housing Site	0.34	100.00	100.00	0.00	0.00	0.00	0.00	No	No	No	No	permitted subject to LPA/LLFA consultation, requires Drainage Impact Assessment
079C	Land adjacent to Ingatestone by-pass (part bounded by Roman Road)	Employment Site	2.06	100.00	100.00	0.00	0.00	0.00	0.00	No	Yes	Yes	Yes	site specific FRA required - within CDA so should refer to the site specific recommendations in the SWMP
128	Ingatestone Garden Centre, Roman Road, Ingatestone	Housing Site	3.45	100.00	100.00	0.00	0.00	0.00	0.00	No	Yes	Yes	No	site specific FRA required
152	Land East of Horndon Industrial Estate	Mixed Use	0.8	100.00	100.00	0.00	0.00	0.00	0.00	No	Yes	Yes	No	permitted subject to LPA/LLFA consultation, requires Drainage Impact Assessment
158	Land North of A1023 Chelmsford Road, Shenfield	Mixed Use	4.45	100.00	100.00	0.00	0.00	0.00	0.00	No	Yes	Yes	Yes	site specific FRA required - within CDA so should refer to the site specific recommendations in the SWMP
178	Land at Priests Lane (east) adjacent Bishops Walk, Brentwood	Housing Site	0.61	100.00	100.00	0.00	0.00	0.00	0.00	No	No	Yes	Yes	permitted subject to LPA/LLFA consultation, requires Drainage Impact Assessment
186	Land at Crescent Drive, Brentwood	Housing Site	1.54	100.00	100.00	0.00	0.00	0.00	0.00	No	Yes	Yes	Yes	site specific FRA required - within CDA so should refer to the site specific recommendations in the SWMP
187	Land south of East Horndon Hall	Employment Site	8.7	100.00	100.00	0.00	0.00	0.00	0.00	Yes	Yes	Yes	No	site specific FRA required
112D	Childerditch Industrial Estate	Employment Site	2.34	100.00	100.00	0.00	0.00	0.00	0.00	Yes	Yes	Yes	No	site specific FRA required



194	Brizes Corner Field, Blackmore Road, Kelvedon Hatch	Housing Site	0.87	100.00	100.00	0.00	0.00	0.00	0.00	No	No	Yes	No	permitted subject to LPA/LLFA consultation, requires Drainage Impact Assessment
106	Site adjacent to Ingatestone Garden Centre (former A12 works site)	Housing Site	4.65	100.00	100.00	0.00	0.00	0.00	0.00	No	Yes	Yes	No	site specific FRA required
235	Land to the north of Alexander Lane, Shenfield	Housing Site	1.36	100.00	100.00	0.00	0.00	0.00	0.00	No	Yes	Yes	Yes	site specific FRA required - within CDA so should refer to the site specific recommendations in the SWMP
263	Land east of Chelmsford Road, Shenfield	Housing Site	9.85	100.00	100.00	0.00	0.00	0.00	0.00	No	Yes	Yes	Yes	site specific FRA required - within CDA so should refer to the site specific recommendations in the SWMP
276	Oak Hurst, Chelmsford Road, Shenfield	Housing Site	0.55	100.00	100.00	0.00	0.00	0.00	0.00	No	No	No	No	permitted subject to LPA/LLFA consultation, requires Drainage Impact Assessment
294	Chestnut Field, Backmore Road, Hook End	Housing Site	0.33	100.00	100.00	0.00	0.00	0.00	0.00	No	No	No	No	permitted subject to LPA/LLFA consultation, requires Drainage Impact Assessment
311	The Eagle and Child Public House, Chelmsford Road, Shenfield	Housing Site	0.24	100.00	100.00	0.00	0.00	0.00	0.00	No	Yes	Yes	Yes	permitted subject to LPA/LLFA consultation, requires Drainage Impact Assessment
117B	Ford Warley - Northern Site	Housing Site	1.28	100.00	100.00	0.00	0.00	0.00	0.00	No	No	Yes	No	site specific FRA required
117A	Ford Warley - Southern Site	Housing Site	6.81	100.00	100.00	0.00	0.00	0.00	0.00	Yes	Yes	Yes	No	site specific FRA required
075B	Land off Stocks Lane, Kelvedon Hatch	Housing Site	2.15	100.00	100.00	0.00	0.00	0.00	0.00	No	No	Yes	No	site specific FRA required
112E	Childerditch Industrial Estate	Employment site	7.05	100.00	100.00	0.00	0.00	0.00	0.00	Yes	Yes	Yes	No	site specific FRA required
101A	Brentwood Enterprise Park (M25 Works Site at A127/M25 junction 29)	Employment site	35.47	100.00	100.00	0.00	0.00	0.00	0.00	Yes	Yes	Yes	No	site specific FRA required
023B	Land off Doddington Road, either side of A12, Brentwood	Housing Site	2.2	100.00	100.00	0.00	0.00	0.00	0.00	Yes	Yes	Yes	No	site specific FRA required
101C	Codham Hall Farm	Employment	9.62	100.00	100.00	0.00	0.00	0.00	0.00	Yes	Yes	Yes	No	site specific FRA required
101D	Codham Hall Farm	Landscaping Area	8.01	100.00	100.00	0.00	0.00	0.00	0.00	Yes	Yes	Yes	No	site specific FRA required
200	Dunton Hills Garden Village	Mixed Use	257	231.28	89.99	2.35	0.91	23.37	9.09	Yes	Yes	Yes	No	site specific FRA required, consider site layout and design around flood risk





- Key
- Flood Zone 2
  - Flood Zone 3
  - HELAA Sites
  - Brentwood Borough Council Boundary

0 0.5 1 1.5 2 2.5 km  
Scale at A3: 1:70,336

Brentwood Level 1  
SFRA



Figure C1  
Brentwood Borough Flood Zones  
and HELAA Sites

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