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Appendix C

C Local Plan sites assessment

This Appendix C provides a strategic assessment of the suitability, relative to flood risk, of the sites allocated in the Local Plan. It should be noted that the Climate Emergency Review of the Local Plan does not reassess the requirement for development or review or amend the allocation of sites.

The information and guidance provided in this chapter (also supported by the SFRA maps in Appendix A and the development site assessment spreadsheet in Appendix B) can be used by the LPA to inform its Climate Emergency Local Plan Polices and the sequential approach to the development management process.

The LPA has assessed each site and used Appendix B to recorded its decisions on how to take each site forward, based on the evidence and strategic recommendations provided in this Level 1 SFRA.

LCiC provided a GIS layer of its 37 sites already allocated within the Local Plan. Nine of these sites already have planning permission however have been included to assess any updated risk.

This screening exercise was therefore used to reassess the risk to these allocations based on updated modelling data, information, and guidance. This assessment entails a high-level GIS screening exercise overlaying the allocations against Flood Zones 1, 2, 3a and 3b and calculating the area of each site within each flood zone. Flood Zones 1, 2 and 3 are sourced from the EA's Flood Map for Planning (Rivers and Sea) released in February 2021. Flood Zone 3 is split into Flood Zone 3a and Flood Zone 3b (functional floodplain) as part of this Level 1 SFRA, as required by the National Planning Policy Framework (NPPF). The flood zones are displayed on the GeoPDF maps in Appendix A.

Surface water flood risk should be afforded the equivalent level of importance as fluvial and tidal risk. In the absence of any more detailed surface water flood risk data, surface water risk to the allocations is analysed by way of the EA's national Risk of Flooding from Surface Water (RoFSW) dataset. The EA states that this dataset is not suitable for identifying whether an individual property will flood. It is recommended that the RoFSW is not displayed on basemapping more detailed than 1:10,000 as the data is open to misinterpretation if used as a more detailed scale. Because of the way the RoFSW has been produced and the fact it is indicative, it is not appropriate to act as the sole evidence for any specific planning or regulatory decision or assessment of risk in relation to flooding at any scale without further supporting studies or evidence.

It is important to note that each allocation will require further investigation, additional to this screening assessment, as local circumstances may dictate the outcome of the assigned strategic recommendation. Such local circumstances are discussed in Section C.1.

The outcomes of the site assessments are presented in the Sites Assessment spreadsheet in Appendix B.

C.1 Screening of allocations

This section of the report draws together the results included in the sites assessment spreadsheet, produced from the GIS screening exercise. If sites cannot be directed to Flood Zone 1, or where wider strategic objectives require development in areas identified through this Level 1 SFRA to be at risk of flooding, then the LPA should consider the compatibility of site vulnerability classifications and flood zones to determine what further work will be required, including application of the Exception

Test where appropriate. Strategic recommendations are based on Tables 1, 2 and 3 of the flood risk and vulnerability tables¹ of the Flood Risk and Coastal Change Planning Practice Guidance (FRCC-PPG) (Paragraphs 065 - 067).

The Sites Assessment spreadsheet provides a breakdown of each site and the area (in hectares and percentages) of each fluvial, tidal and surface water flood zone within each site. 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. A similar approach applies to the surface water flood zones, though risk from these zones is assessed cumulatively. Table shows the number of sites within each fluvial and/or tidal flood zone and Table shows the number of sites within each surface water flood zone.

Proposed use	Number of sites within			
	Flood Zone 1*	Flood Zone 2	Flood Zone 3a	Flood Zone 3b
Residential	9	6	7	9
Employment	0	4	4	6
Mixed Use	1	5	1	4
Commercial	0	1	1	0
Residential / education	1	0	0	0
Employment / education	0	0	0	1
Recreation & environmental improvements	0	1	1	1
TOTAL	11	17	14	21

*Sites with 100% area within Flood Zone 1

Note: Sites may be in more than one flood zone. In reality, a site in Flood Zone 3a will also be in Flood Zone 2

Table 1: Number of sites within each fluvial and/or tidal flood zone

¹ https://www.gov.uk/guidance/flood-risk-and-coastal-change#flood-zone-and-flood-risk-tables

Proposed use	RoFSW flood zone			
	Low risk (0.1% AEP)	Medium risk (1% AEP)	High risk (3.3% AEP)	
Residential	14	9	7	
Employment	6	5	3	
Mixed Use	8	8	7 🧹	
Commercial	1	1	1	
Residential / education	1	1	0	
Employment / education	1	1	1	
Recreation & environmental improvements	1	1	1	
TOTAL	32	26	20	

Note: Sites may be in more than one flood zone. In reality, a site in the high risk zone will also be in the medium and low risk zones

Table 2: Number of sites within each surface water flood zone

The following strategic recommendations are intended to assist the LPA in carrying out the Sequential Test and to highlight those allocations at greatest flood risk.

Proposed use	Number of sites			
	Α	В	С	
Residential	6	4	1	
Employment	6	0	0	
Mixed Use	4	3	0	
Commercial	1	0	0	
Residential / education	0	1	0	
Employment / education	1	0	0	
Recreation & environmental improvements	1	0	0	
TOTAL	19	8	1	

Table shows the number of sites each strategic recommendation applies to:

- Strategic Recommendation A careful consideration of site layout and design around the identified flood risk which may be complex, i.e. direction of development away from areas at flood risk, and/or incorporation of risk through appropriate mitigation techniques. Development must avoid Flood Zone 3b;
- Strategic Recommendation B low risk therefore site can progress to sitespecific FRA stage which much accompany the planning application;

• Strategic Recommendation C – FRA not required for planning application based on existing risk assessed in this Level 1 SFRA.

Proposed use	Numb	er of sites	
	Α	В	С
Residential	6	4	1
Employment	6	0	0
Mixed Use	4	3	0
Commercial	1	0	0
Residential / education	0	1	0
Employment / education	1	0	0
Recreation & environmental improvements	1	0	0
TOTAL	19	8	1

Table 3: Number of sites per strategic recommendation

It is important to note that each individual site will require further investigation before development can be permitted, as local circumstances may dictate the outcome of the strategic recommendation. Consideration of the following points should be carried out when assessing each individual site:

- 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, including for climate change as part of a Level 2 SFRA or at the FRA stage.
- The RoFSW map is national scale and is not considered suitable for robustly identifying risk at the property level. For sites identified to be at significant risk

from surface water based on the RoFSW, more detailed surface water modelling may therefore reveal increased risk or less risk to the site. The LLFA should be consulted when considering development viability at such sites.

- Current surface water drainage infrastructure and applicability of 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. All planning applications must be accompanied by an appropriate drainage strategy, independent of the requirement for a sitespecific FRA.
- 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 extensive flood extents (from new or updated models) cannot be used to reject development where planning permission has already been granted. Previous flood risk investigations/FRAs may already have been carried out at some sites.
- 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 with reduced yields if part of it needs to be retained to make space for floodwater?
- Surrounding infrastructure may influence scope for layout redesign/removal of site footprints from risk.
- Safe pedestrian and vehicular access and egress must exist at all times during a flood event to enable effective emergency response and evacuation.
- Current land use. A number of sites at risk in the assessment are likely to be brownfield, thus the existing development structure and footprint should be taken into account as further development may lead to increased flood risk elsewhere.

C.1.1 Strategic Recommendation A – detailed FRA required to address significant flood risk

NOTE: This strategic recommendation DOES NOT consider site-specific circumstances, only that part of a site area falls within a flood zone.

Careful consideration of site layout and design around the identified flood risk which may be complex, i.e. direction of development away from areas at flood risk, and/or incorporation of risk through appropriate mitigation techniques. Development must avoid Flood Zone 3b. Depending on local circumstances, if it is not possible to adjust the development to remove the developable area from Flood Zone 3b to a lower risk zone then development should not be permitted.

Development planning should always be aware of the requirement to not develop within 8 metres of any watercourse, flood defence structure or culvert, or within 16 metres on a tidal river which is likely to be a regulated flood risk activity under Schedule 25 of the Environmental Permitting (England and Wales) Regulations 2016. The 8 metre no development buffer zone of watercourses, shown indicatively on the SFRA maps in Appendix A, is recommended by the EA to allow ease of access to watercourses for maintenance works.

Strategic Recommendation A applies to 19 sites, 17 of which have areas located within the functional floodplain. Four sites have potentially significant areas within the functional floodplain. Eight of the 19 sites also have significant areas within Flood Zone 3a. The 19 sites are listed below in **Error! Reference source not found.**4.

Any area within Flood Zone 3b must be left as open green space or the site boundary amended to remove the developable area from the risk area. For the smaller sites, this approach is unlikely to be achievable compared to larger sites where there may be enough space to limit the impact through effective SuDS.

It should be noted that the sites have previously passed a Sequential Test and Exception Test prior to allocation in the Local Plan. The Climate Emergency Review of the Local Plan does not reassess allocation sites. Development should therefore be located out of the areas at risk or where this is not possible on the smaller site, mitigation and resilience measures must be included.

Site ID	Site name	Proposed use	% area in FZ3a	% area in FZ3b
DOS5 (also H2)	Middleton Towers, Carr Lane	Residential	14.09	10.18
H1.1	Land at New Quay Road, Lancaster	Residential	56.16	43.84
H5 (also H1)	Land at Leisure Park/Auction Mart, Wyresdale Road	Residential	1.07	12.33
SG12	Expansion of Facilities for Port of Heysham (Land off Imperial Road)	Employment	0.89	99.10
DOS1	Land at Bulk Road and Lawson's Quay, Central Lancaster	Commercial	32.34	0.00
DOS2 (also H1)	Lune Industrial Estate, Luneside	Mixed Use	42.48	5.96
DOS8	Former Thomas Graveson Site, Warton Road, Carnforth	Recreation & Environmental Improvements	66.69	6.34
EC4 (also EC1.12)	White Lund Employment Area	Employment	14.36	2.41
EC5.3	Caton Road Gateway	Employment	60.45	0.71
SG12	Port of Heysham Industrial Estate	Employment	27.39	5.02
EC2.1	Middleton Road Employment Area	Employment	0.00	0.69
EC3 (also EC2)	Junction 33 Auction Market	Employment	0.00	0.82
H2.2	Lancaster Road, Overton	Residential	0.67	0.00
H4 (also H1)	Land at Grab Lane, East Lancaster	Residential	3.38	3.48
SG2 (also	Lancaster University Health	Employment/Education	0.00	2.56

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Site ID	Site name	Proposed use	% area in FZ3a	% area in FZ3b
EC2)	Innovation Campus			
SG7 (also H1)	East Lancaster Strategic Site	Mixed Use	0.00	3.63
SG7 (also H1)	East Lancaster Strategic Site - Wider Site	Mixed Use	0.00	3.52
SG9 (also EC2 & H1)	North Lancaster Strategic Site - Wider Site	Mixed Use	0.00	2.25
SG11 (also H1)	Lundsfield Quarry, South Carnforth	Residential	0.00	0.29

Table 4: Sites requiring detailed assessment through FRA

C.1.2 Strategic Recommendation B – FRA required to address low flood risk

NOTE: This strategic recommendation DOES NOT consider site-specific circumstances, only that part of a site area falls within a flood zone.

This recommendation applies to sites where risk is not deemed to require complex investigation and such sites can progress subject to an FRA. Note, a site within Flood Zone 2 could still be rejected if the conclusions of the FRA decide development is unsafe or inappropriate. Each site-specific FRA should investigate the risk and mitigate accordingly, including consideration of plans for safe site access and egress during a possible flood event. Each FRA should include its own emergency plan.

Strategic Recommendation B applies to eight sites, two of which are partially within Flood Zone 2; six are fully within Flood Zone 1; four are at nominal surface water risk; and two are at very low risk though are greater than 1 hectare in area, therefore requiring of a FRA.

Site ID	Site name	Proposed use	% area in FZ2	% area in medium surface water risk zone
DOS6	Morecambe Festival Market and Surrounding Area	Mixed Use	1.59	3.74
DOS7	Land at Former TDG Depot, Warton Road	Mixed Use	0.00	0.17
EC6 (also H3.3 & H1)	University of Cumbria Campus, Lancaster	Residential/Education	0.00	0.61
H2.10	Land South of Marsh Lane, Cockerham	Residential	0.00	0.00
H3.1 (also H1)	Former Ridge Lea Hospital, Lancaster	Residential	0.00	0.00
H3.2 (also H1)	Land at Stone Row Head Farm, East Lancaster	Residential	0.00	0.00
H3.3 (also H1 & EC6)	Land at University of Cumbria Campus, East Lancaster	Residential	0.00	0.00
SG5	Canal Quarter	Mixed Use	0.67	4.37

Table 5: Sites requiring FRA to address low risk

C.1.3 Strategic Recommendation C – FRA not required based on very low flood risk

NOTE: This strategic recommendation DOES NOT consider site-specific circumstances, only that part of a site area falls within a flood zone.

This recommendation applies to sites in Flood Zone 1 and outside of any surface water flood zone, therefore at very low risk. Sites also must be smaller than 1 hectare. If 5 or more dwellings or proposed, a FRA will be required.

Strategic Recommendation C applies to one site.

Site ID	Site name	Proposed use	Site area (ha)
H2.3	Yenham Lane, Overton	Residential	0.7

Table 6: Sites not requiring a FRA

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C.2 Assessment of climate change

As explained in the SFRA Main Report, a requirement of this SFRA was to model climate change using available existing EA fluvial and tidal models. Section 6.7 of the Main Report discusses the climate change allowances used in the modelling that were agreed with the EA. Table 7 is an extract from the Sites Assessment Spreadsheet and lists those allocations modelled to be at increased risk from climate change in the long term i.e. 2080s.

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Site ID	Site name	Modelled risk
DOS1	Land at Bulk Road and	High risk
	Lawson's Quay, Central Lancaster	Within Lune Tidal 0.5% AEP +CC70 and +CC95 outlines
		Within Lune SFRM 2011 5% +CC45, CC60, CC75 and 1% +CC45, CC60 and CC75 outlines
DOS2 (also	Lune Industrial Estate,	High risk
H1)	Luneside	Within Lune Tidal 0.5% AEP +CC70 and +CC95 outlines
		Within Lune SFRM 2011 1% +CC45, CC60 and CC75 outlines
DOS5 (also	Middleton Towers, Carr	High risk
H2)	Lane	Within Lune Tidal 0.5% AEP +CC70 and +CC95 outlines
DOS6	Morecambe Festival	High risk
	Market and Surrounding Area	Within Lune Tidal 0.5% AEP +CC70 and +CC95 outlines
DOS8	Former Thomas	High risk
	Graveson Site, Warton Road, Carnforth	Within Lune Tidal 0.5% AEP +CC70 and +CC95 outlines
EC4 (also	White Lund Employment	High risk
EC1.12)	Area	Within Lune Tidal 0.5% AEP +CC70 and +CC95 outlines
		Within Lune SFRM 2011 5% +CC45, CC60, CC75 and 1% +CC45, CC60 and CC75 outlines
EC5.3	Caton Road Gateway	High risk
		Within Lune Tidal 0.5% AEP +CC70 and +CC95 outlines
		Within Lune SFRM 2011 5% +CC45, CC60, CC75 and 1% +CC45, CC60 and CC75 outlines
H1.1	Land at New Quay Road,	High risk
	Lancaster	Within Lune Tidal 0.5% AEP +CC70 and +CC95 outlines
		Within Lune SFRM 2011 5% +CC45, CC60, CC75 and 1% +CC45, CC60 and CC75 outlines
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Site ID	Site name	Modelled risk
H2.2	Lancaster Road, Overton	High risk Within Lune Tidal 0.5% AEP +CC70 and +CC95 outlines
H2.6	Halton Mills, Halton	High risk Within Lune SFRM 2011 5% +CC45, CC60, CC75 and 1% +CC45, CC60 and CC75 outlines
H2.8	Land between Low Road and Forge Lane, Halton	High risk Within Lune SFRM 2011 5% +CC45, CC60, CC75 and 1% +CC45, CC60 and CC75 outlines
H4 (also H1)	Land at Grab Lane, East Lancaster	High risk Within Burrow Beck 2019 5% AEP +CC45, CC60, CC75 and 1% AEP +CC45, CC60, CC75 outlines
H5 (also H1)	Land at Leisure Park/Auction Mart, Wyresdale Road	High risk Within Burrow Beck 2019 5% AEP +CC45, CC60, CC75 and 1% AEP +CC45, CC60, CC75 outlines
SG5	Canal Quarter	High risk Within Lune Tidal 0.5% AEP +CC70 and +CC95 outlines Within Lune SFRM 2011 5% +CC75 and 1% +CC45, CC60 and CC75 outlines
SG7 (also H1)	East Lancaster Strategic Site	High risk Within Lune SFRM 2011 1% +CC75 outline
SG7 (also H1)	East Lancaster Strategic Site - Wider Site	High risk Within Lune SFRM 2011 1% +CC75 outline
SG11 (also H1)	Lundsfield Quarry, South Carnforth	High risk Within Back Lane 2020 1% AEP +CC45, CC60 and CC75 outlines
SG12	Port of Heysham Industrial Estate	High risk Within Lune Tidal 0.5% AEP +CC70 and +CC95 outlines
SG12	Expansion of Facilities for Port of Heysham (Land off Imperial Road)	High risk Within Lune Tidal 0.5% AEP +CC70 and +CC95 outlines

Table 7: Sites at increased risk from climate change

19 allocations are modelled to be at increased risk from climate change. The other 18 sites are at lower risk. 11 of the 18 sites are 100% within Flood Zone 1 and appear to be at very low risk of being at fluvial or tidal risk because of climate change. One site is within Flood Zone 2 but is not modelled to be at any increased risk from climate change.

The 19 allocations listed in Table 9 will all be subject to a site-specific FRA to accompany any planning application. This SFRA modelled the central, higher central and upper end allowances for the '2080s' for fluvial risk. For tidal risk, the higher central and upper end allowances for the 2096 to 2125 epoch plus the higher central and upper end allowances for cumulative sea level rise in the 2000 to 2125 epoch were modelled. Developers or planning applicants must consider the flood risk vulnerability classification of the development to decide which climate change allowance applies to the site. At the time of writing, the following EA guidance should be followed:

https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances

As discussed, in the Main Report, the climate change allowances are due to be updated in 2021. Developers and applicants may have to update the climate change modelling with these updated allowances through the site-specific FRA. Guidance should be sought from the EA.

C.3 Summary of sites assessment outcomes

There are several consequential development considerations which could come out of the site assessment process. Each outcome is discussed below. The LPA should refer to Section C.1 and Appendix B for details on the site assessments carried out for this SFRA.

C.3.1 Exception Test required

Applies to those sites that, according to the FRCC-PPG vulnerability tables, would require the Exception Test at application stage. Only water-compatible and less vulnerable land uses would not be required to pass the Exception Test in Flood Zone 3a. More vulnerable uses and essential infrastructure are only permitted if the Exception Test is passed and all development proposals in Flood Zone 3a must be accompanied by an FRA at the planning application stage.

C.3.2 Consideration of site layout and design around flood risk

Applies to sites where, based on the strategic assessment of risk, it may be possible to alter the site boundary to remove the risk from the site or to incorporate the risk within the site layout through careful design. Site layout and site design is important at the site planning stage where flood risk complexities exist. The site area would have to be large enough to enable any alteration of the developable area of the site to remove development from the functional floodplain, or to leave space for onsite storage of flood water. Careful layout and design at the site planning stage may apply to such sites where it is considered viable based on the level of risk. Surface water risk and opportunities for SuDS should also be assessed through a suitable drainage strategy.

Depending on local circumstances, if it is not possible to adjust the site boundary to remove the site footprint from the functional floodplain to a lower risk zone then development should not be permitted. If it is not possible to adjust the developable area from Flood Zone 3a to a lower risk zone or to incorporate onsite storage of water within site design, then the site could be rejected.

Any development within 8 metres of any flood defence structure or culvert on a Main River is likely to be regulated flood risk activity under Schedule 25 of the Environment Permitting (England and Wales) Regulations 2016. Any site design, where Flood Zone 3a is included within the site footprint, should allow water to flow naturally or be stored in times of flood through application of appropriate SuDS techniques (see main report). Similarly, any change or alteration to an ordinary watercourse within the site would need consent from the LLFA under the Land Drainage Act 1991².

² https://www.legislation.gov.uk/ukpga/1991/59/contents

C.3.3 Site-specific Flood Risk Assessment

A site-specific FRA is required for the majority of site planning applications. The FRA should assess whether a potential development is likely to be affected by current or future flooding (including effects of climate change) from any source. This should include referencing this SFRA to establish sources of flooding. Further analysis should be performed to improve the understanding of flood risk including agreement with the LPA and the EA on areas of functional floodplain that have not been specified within this SFRA. The LLFA should be consulted on risk from surface water and from ordinary watercourses. See Section 6.6 of the Main Report for advice on FRAs.

C.3.4 Sites passing the Sequential and Exception Tests

Development sites can be granted planning permission where the Sequential Test and the Exception Test (if required) are passed and agreement is reached between the LPA, the EA, the LLFA, UU and any ancillary stakeholders. In addition, a site is likely to be permitted without the need to assess flood risk where the indicative use is for open space. Assuming the site is not to include any development and is to be left open then the allocation is likely to be acceptable from a flood risk point of view. However, for sites where there is potential for flood storage, options should be explored as part of an FRA.

In terms of opportunities for reducing flood risk overall as a requirement of the Exception Test, the FRCC-PPG 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." (Paragraph 50).

C.3.5 Surface water risk to assessed sites

For sites at surface water flood risk the following should be considered:

- Redesign or relocation for those sites considered to be at significant risk, as identified through this SFRA. More detailed surface water modelling may reveal increased risk or less risk to a site. The LLFA should be consulted when considering development viability at such sites;
- Outline drainage strategy to ascertain natural flow paths and topographic depressions, particularly for the larger sites which may influence sites elsewhere;
- A detailed site-specific FRA incorporating surface water flood risk management;
- Full drainage strategy encompassing detailed surface water modelling of proposed site layouts, attenuation areas, diversion of flow routes;
- Ensuring the future maintenance of surface water and SuDS assets through s106 agreements;
- The size of development and the possibility of increased surface water flood risk caused by development on current greenfield land (where applicable), and cumulative impacts of this within specific areas;
- Management and reuse of surface water onsite, assuming the site is large enough to facilitate this and achieve effective mitigation. Effective surface water management should ensure risks on and off site are controlled;
- Larger sites could leave surface water flood-prone areas as open greenspace, incorporating social and environmental benefits;

- SuDS should be implemented where possible, following the principles of the SuDS Management Train. Appropriate SuDS may offer opportunities to control runoff to greenfield rates or better. Restrictions on surface water runoff from new development should be incorporated into the development planning stage. For brownfield sites, where current infrastructure may be staying in place, then runoff should attempt to mimic that of greenfield rates, unless it can be demonstrated that this is unachievable or hydraulically impractical. Developers should refer to the national 'non-statutory technical standards for sustainable drainage systems' and other guidance documents cited in the main report;
- Hydrogeological conditions, infiltration characteristics and possible groundwater pollution should be investigated before assessing SuDS options;
- Runoff up to and including the 1 in 100 AEP event (1%) should be managed onsite where possible;
- Measures of source control should be required for development sites;
- Developers should be required to set part of their site aside for surface water management, to contribute to flood risk management in the wider area and supplement green infrastructure networks;
- Developers should be required to maximise natural or semi-natural permeable surfaces;
- Flow routes on new development where the sewerage system surcharges as a consequence of exceedance of the 1 in 30 AEP design event should be retained; and
- It may then be beneficial to carry out a local SWMP or drainage strategy for targeted locations with any known critical drainage problems. Investigation into the capacity of existing sewer systems would be required to identify critical parts of the system i.e. pinch points. Drainage model outputs could be obtained from UU to confirm the critical parts of the drainage network and subsequent recommendations could then be made for future development i.e. strategic SuDS sites, parts of the drainage system where any new connections should be avoided, and parts of the system that may have any additional capacity and recommended runoff rates.