Flood risk source/ information source	Relevant sections of this SFRA	Result	Level of concern	Recommendations	Sequential and Exception Tests
Fluvial (Flood Zones)	5 - Understanding flood risk in the City of Birmingham	Significant proportion (e.g. greater than 50%) of site in Flood Zones (2 and 3)	High	Residential development on a site in this zone is unlikely to be appropriate unless the site is in an area benefitting from defence and can be made safe for the intended lifespan.	Sites in these categories should be explicitly addressed in a Sequential Test and may require preparation of further evidence to substantiate that the Exception Test can be satisfied. Evidence from a Level 2 SFRA is required to demonstrate that the principle of development is supported.
		A proportion (e.g. less than 50%) of site in Flood Zones (2 and 3)	Medium	Residential development may be appropriate, sequential approach should be applied to avoid developing in flood zones as far as reasonable. Parts of the site within flood zone 1 should also be reviewed against the criteria described below.	
		Site located in Flood Zone 1	Medium	Residential development is probably appropriate in this zone, however catchments <3km^2 in area are not covered by the Environment Agency Flood Zones and there may be a risk of flooding from small watercourses and/or other sources. These should be considered in conjunction with the DRN data and data on other sources of flooding. The surface water data in particular often highlights areas at risk of flooding from these smaller watercourses.	
Fluvial - Climate change	4 - Impacts of climate change 5 - Understanding flood risk in the City of Birmingham	Significant proportion (e.g. greater than 50%) of site at risk of flooding from the future 1% plus climate change AEP event	High	Residential development is unlikely to be appropriate unless the site is in an area benefitting from defence. Consideration should be given to the Standard of Protection of existing defences in relation to future climate change and any other measures necessary to provide appropriate standards of protection to proposed development.	Sites in these categories should be explicitly addressed in a Sequential Test and may require preparation of further evidence to substantiate that the Exception Test can be satisfied. Evidence from a Level 2 SFRA is required to demonstrate that the principle of development is supported.
		A proportion (e.g. less than 50%) of site at risk of flooding from the future 1% AEP plus climate change event	Medium	Residential development may be appropriate, sequential approach should be applied to avoid developing in the areas at risk of flooding as much as reasonable. Consideration should be given to the Standard of Protection of any defences in relation to future climate change and the commitment to deliver the required standards.	
		Site not at risk of flooding from the future 1% AEP plus climate change event	Medium	Residential development is probably appropriate in this risk area, however this will depend on the present-day fluvial risk - refer to fluvial flood zone recommendations	
Surface Water	5 - Understanding flood risk in the City of Birmingham	Significant proportion (e.g. >50%) of site is affected by surface water flooding (across all three surface water events)	High	Development on a site in this risk area is unlikely to be appropriate unless measures (including drainage) are in place to control overland flow.	Evidence may be required from a Level 2 SFRA to demonstrate that the principle of development is supported
		A proportion (e.g. <50%) of site is affected by surface water flooding (across all three surface water events)	Medium	Development may be appropriate and consultations should be held with the Lead Local Flood Authority.	

Flood risk source/ information source	Relevant sections of this SFRA	Result	Level of concern	Recommendations	Sequential and Exception Tests
		No risk of surface water flooding	Low	Development is likely to be appropriate based on this criterion.	
Surface Water - Climate change	4 - Impacts of climate change 5 - Understanding flood risk in the City of Birmingham	Significant proportion (e.g. greater than 50%) of site at risk of surface water flooding from the future 1% AEP plus climate change allowance event	High	Development on a site in this risk area is unlikely to be appropriate unless measures (including drainage) are in place to control overland flow.	This approach will require that sites where proposed development is located in a high risk surface water zone are assessed in more detail in the Level 2 SFRA.
		A proportion (e.g. less than 50%) of site at risk of surface water flooding from the future 1% AEP plus climate change allowance event	Medium	Development may be appropriate and consultations should be held with the Lead Local Flood Authority.	
		Site not at risk of surface water flooding from the future 1% AEP plus climate change allowance event	Low	Development may be appropriate in this risk area, however this will depend on the present-day flood risk - refer to surface water recommendations.	
Surface Water Flood Zones	5 - Understanding flood risk in the City of Birmingham	Surface water flood Zone A; Extents of the 1 in 30 year, 1 in 100 year and 1 in 100 year plus 25% climate change allowance	High	Development on a site in this risk area is unlikely to be appropriate in this "high risk" area or Flood Zone A	This approach will require that sites where proposed development is located in a high risk surface water zone are assessed in more detail in the Level 2 SFRA.
		Surface water flood zone B; Extents of the 1 in 100 year plus 40% climate change and 1 in 1000 year	Low	Development may be appropriate in this low risk area (or Flood Zone B), however this will depend on the present-day flood risk - refer to surface water recommendations.	
Groundwater	5 - Understanding flood risk in the City of Birmingham	JBA Groundwater emergence risk mapping	All sites assumed to be potentially susceptible to groundwater flooding.	Datasets potentially do not have the confidence or certainty required to provide mapping that enables a comparative assessment to be made of the risk of flooding of land from groundwater for the Sequential test assessment. Therefore, a precautionary approach should be taken and all potential allocation sites will be assessed for groundwater flood risk in the Level 2 SFRA and the implications for sequential selection of alternative locations considered at this stage.	N/A
Reservoir flood risk	5 - Understanding flood risk in the City of Birmingham	Reservoir Flood mapping (RFM); 'Dry Day' and 'Wet Day' extents. The RFM Wet Day Extent will be used to define zones: 1. Where reservoir flooding **is** predicted to make fluvial flooding worse. 2. Where reservoir flooding is **not** predicted to make fluvial flooding worse		Datasets potentially do not have the confidence or certainty required to provide mapping that enables a comparative assessment to be made of the risk of flooding of land from reservoirs. In addition, the reservoir flood map identifies the consequence of a reservoir breach rather than risk, so applying high, medium and low 'risk' is not possible using this dataset. Therefore, a precautionary approach should be taken and sites where reservoir flooding is predicted to make fluvial flooding worse for development or where development is proposed in a high hazard zone will be assessed in Level 2 SFRA and the implications for sequential selection of alternative locations considered at that stage.	Sites where reservoir flooding is predicted to make fluvial flooding worse for development in high hazard zone to be assessed in Level 2 SFRA.

Flood risk source/ information source	Relevant sections of this SFRA	Result	Level of concern	Recommendations	Sequential and Exception Tests
Sewer	5 - Understanding flood risk in the City of Birmingham	All sites assumed to be at high risk of sewer flooding.		Datasets potentially do not have the confidence or certainty required to provide mapping that enables a comparative assessment to be made of the risk of flooding of land from sewers. Therefore, a precautionary approach should be taken and all potential allocated sites will be assessed for sewer flood risk via the Level 2 SFRA where data is available and the implications for sequential selection of alternative locations considered at this stage.	N/A
Historic flood map	5 - Understanding flood risk in the City of Birmingham	Any part of site within historic flood extents	Medium	Sites located in areas that have historically flooded might be appropriate for development; however, further investigation will be required regarding the severity and frequency of the historic flooding and accuracy of the historic flood extent. This should be used alongside other information in the Level 1 SFRA to decide whether the site is appropriate for allocation. Technical work will be required to inform this at the site-specific FRA stage.	N/A
		No risk of historic flooding	Low	Development is likely to be appropriate based on this criterion.	N/A
Detailed River Network	Appendix A - Interactive Flood Risk Mapping	Any part of site within 8m of a watercourse (from the Detailed River Network dataset)	High	Sites located within 8m of the DRN line are unlikely to be appropriate for development as a buffer strip of 8m is required from any Main River. Any development in close proximity to a watercourse may be subject to additional constraints (such as consents or permits) which could change the suitability for certain development.	N/A
		Any part of site within 20m of a watercourse (from the Detailed River Network dataset)	Medium	Sites located within 20m of the DRN line might be appropriate for development. Where the DRN goes through or adjacent to a site, the Flood Zones and surface water map should also be considered to further determine the effect on development. Where the DRN is located away from a site and land slopes down towards the site, development may be less appropriate than a site where land slopes down towards the watercourse and away from the site. Any development in close proximity to a watercourse may be subject to additional constraints (such as consents or permits) which could change the suitability for certain development.	N/A
Detailed River Network	Appendix A - Interactive Flood Risk Mapping	Site not within 20m of a watercourse (from the Detailed River Network dataset)	Low / Medium	Development is likely to be appropriate in this risk area, however not all watercourses are mapped on the Detailed River Network dataset, smaller drains may not be mapped and may need to be considered along with flood risk from other sources.	N/A

Flood risk source/ information source	Relevant sections of this SFRA	Result	Level of concern	Recommendations	Sequential and Exception Tests
Areas benefiting from defence	6 - Flood alleviation schemes and assets	Any part of the site is within an area benefiting from defence	Advisory	Development in this risk area is normally appropriate in principle, however, the performance of formal defences and residual flood risk will need to be considered and consideration given to the commitment and contributions required to maintain the appropriate standard of protection.	Level 2 SFRA required to provide evidence that the principle of development is supported
		The site is not in an area benefiting from defence	Low	Development is likely to be appropriate in this risk area if there is no risk of flooding from other sources on the site. See other recommendations if there is any risk of flooding.	
Cumulative impacts	7 - Cumulative impact of development and strategic solutions Appendix F - Cumulative Impact Assessment	High - Any part of the site is within a High Cumulative Impact Zone	Medium	Development could be considered as appropriate, however, specific planning policy recommendations may need to be formulated. Drainage and flood risk reduction opportunities will probably need to be considered further within these catchments that may have financial and/or land take implications for the site and allay concerns of existing communities potentially at risk.	Level 2 SFRA may be required to provide evidence that the principle of development is supported
		Medium - Any part of the site is within a Medium Cumulative Impact Zone (unless the site is also within a High Zone)	Low / Medium	Development is likely to be appropriate in these risk areas, however if a Medium score has been identified based on a high amount of development then specific planning policy recommendations may need to be formulated. Drainage and flood risk reduction opportunities may need to be considered further within these catchments that may have financial and/or land take implications for the site.	
		Low - Any site not partially or fully within either High or Medium Cumulative Impact Zones	Low	Development is likely to be appropriate in this risk area.	