

Appendix A

- SFRA User Guide



This guide sets out how the data contained within this SFRA should be used to undertake the Sequential and Exception Tests. The different sources of flood risk are divided into three levels of concern: high, medium and low. Within, recommendations and advice for undertaking the Sequential and Exception Tests are provided as well as references to relevant sections of this SFRA.

Flood risk source / information source: sets out the different sources of flood risk and technical data used within study, including Flood Zones, surface water, groundwater, climate change, reservoir inundation, historic flood risk and proximity to watercourses.

Relevant sections of this SFRA: cross-references the flood risk and information sources with the relevant sections of this SFRA.

Result: divides the flood risk and information sources into categories based on the extent of impact to a site. The Level 1 Site Screening spreadsheet (Appendix J) can be used to cross-reference a site against these criteria.

Level of concern: Categorises the flood risk and information sources into three levels of concern (high, medium and low) based on the result column.

Recommendations: Provides recommendations in relation to development suitability, further investigations, additional site-specific FRA considerations and consideration of defences and SuDS, based on the level of concern.

Sequential and Exception Tests: Provides advice on applying the Sequential and Exception Tests, including under what circumstances a Level 2 SFRA may be required, based on the level of concern.

Sandwell Metropolitan District Council require that developments in areas at risk of surface water, groundwater or reservoir flooding will be expected to follow the same requirements as those laid out in Parts (a) and (b) of the NPPF's Exception Test.

Flood risk source/ information source	Relevant sections of this SFRA	Result	Level of concern	Recommendations	Sequential and Exception Tests
Fluvial (Flood Zones)	6 - Understanding flood risk in Sandwell Metropolitan Borough Council	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 Detailed River Network 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.	

Flood risk source/ information source	Relevant sections of this SFRA	Result	Level of concern	Recommendations	Sequential and Exception Tests
Fluvial - Climate change modelled results or proxy	5 - Impacts of climate change 6 - Understanding flood risk in Sandwell Metropolitan Borough Council	Significant proportion (e.g. greater than 50%) of site at risk of flooding from the 0.1% AEP event when used as a proxy for climate change	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 (including detailed modelling of the impact of climate change) 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 0.1% AEP event when used as a proxy for climate change	Medium	Residential development may be appropriate and a 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 0.1% AEP event when used as a proxy for climate change	Low	Residential development is likely to be appropriate based on this criterion.	

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Flood risk source/ information source	Relevant sections of this SFRA	Result	Level of concern	Recommendations	Sequential and Exception Tests
Surface Water	6 - Understanding flood risk in Sandwell Metropolitan Borough Council	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.	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. Sites will be expected to follow the same requirements as those laid out in Parts (a) and (b) of the NPPF's Exception Test. Evidence from a Level 2 SFRA is required 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.	
		No risk of surface water flooding	Low	Development is likely to be appropriate based on this criterion.	
Surface Water - Climate change modelled results	5 - Impacts of climate change 6 - Understanding flood risk in Sandwell Metropolitan Borough Council	Significant proportion (e.g. greater than 50%) of site at risk of surface water flooding from the future 1% AEP 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.	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. Sites will be expected to follow the same requirements as those laid out in Parts (a) and (b) of the NPPF's Exception Test. 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 surface water flooding from the future 1% AEP 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 event	Low	Development is likely to be appropriate in this risk area.	

Flood risk source/ information source	Relevant sections of this SFRA	Result	Level of concern	Recommendations	Sequential and Exception Tests
Groundwater	6- Understanding flood risk in Sandwell Metropolitan Borough Council	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. Additional information is required via the Level 2 SFRA or site specific Flood Risk Assessment where susceptibility is considered to be high (Groundwater levels between 0.025m and 0.5m below the ground surface).	
Reservoir inundation	6 - Understanding flood risk in Sandwell Metropolitan Borough Council	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 identified and assessed in a Level 2 SFRA or site specific Flood Risk Assessment. The implications for sequential selection of alternative locations should be considered at that stage.	Sites where reservoir flooding is predicted to make fluvial flooding worse or where development is proposed in a high hazard zone will be identified in a Level 2 SFRA or site specific Flood Risk Assessment.
Canal Flooding		Site within 100m of a Canal	Medium	Development might be appropriate in areas at risk of flooding from canals (unless the flood risk is fluvial and meets the criteria above). However, the risk should be considered by the developer at site-specific FRA stage and an emergency plan may be required. The Canal and Rivers Trust should be contacted to request information on overtopping and breach locations which could affect the site.	
		Site not within 100m of a Canal	Low	Development is likely to be appropriate based on this criterion.	

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Flood risk source/ information source	Relevant sections of this SFRA	Result	Level of concern	Recommendations	Sequential and Exception Tests
Historic flood map	6 - Understanding flood risk in Sandwell Metropolitan Borough Council	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.	
		No risk of historic flooding	Low	Development is likely to be appropriate based on this criterion.	
Sewer Flooding	6 - Understanding flood risk in Sandwell Metropolitan Borough Council	All sites assumed to be at high risk of sewer flooding.		Datasets available from Water Company Drainage Water Management Plan (DWMP) process potentially do not have the resolution, 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 sites where sewer flood risk identified to be high will be identified and assessed in a Level 2 SFRA or site specific Flood Risk Assessment.	
		Any part of site within 8m of a watercourse (from the Detailed River Network dataset)	High	Sites located within 8m of the Detailed River Network 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.	

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Detailed River Network	Flood Risk Mapping	Any part of site within 20m of a watercourse (from the Detailed River Network dataset)	Medium	<p>Sites located within 20m of the Detailed River Network line might be appropriate for development.</p> <p>Where the Detailed River Network 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.</p> <p>Where the Detailed River Network 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.</p> <p>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.</p>	
		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.	

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Reduction in Risk of Flooding from Rivers due to Defences	7 - Flood defences	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	12 - Cumulative impact of development and strategic solutions	Any part of the site is within a High or Medium Cumulative Impact Zone	Medium	Development may be considered as appropriate, however, specific planning policy in relation to cumulative impacts will need to be followed. Drainage and flood risk reduction opportunities will need to be considered further within these catchments. This may have financial and/or land take implications for the site.	Sites found to be within high or medium cumulative impact zones should be indentified within a Level 2 SFRA and site sheets may be required to provide evidence that the principle of development is supported.
		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.	