

Appendix C – Sequential Test Database

Risk of Flooding from Rivers and the Sea			Column in 'Site Assessments' tab
Proportion of Site within Flood Zone 1	Calculated from Flood Map for Planning dataset, obtained from Defra Data Services platform. Downloaded on 19/04/2024.	The proportion of land that is not within either Flood Zone 2 or 3	Proportion of Site within Flood Zone 1 (%)
Proportion of Site within Flood Zone 2	Calculated from Flood Map for Planning dataset, obtained from Defra Data Services platform. Downloaded on 19/04/2024.	Best estimate of the areas of land at risk of flooding, when the presence of flood defences are ignored and covers land between Flood Zone 3 and the extent of the flooding from rivers or the sea with a 1 in 1000 (0.1%) chance of flooding each year.	Proportion of Site within Flood Zone 2 (%)
Proportion of Site within Flood Zone 3a/3b	Calculated from Flood Map for Planning dataset, obtained from Defra Data Services platform. Downloaded on 19/04/2024.	Best estimate of the areas of land at risk of flooding, when the presence of flood defences are ignored and covers land with a 1 in 100 (1%) or greater chance of flooding each year from rivers; or with a 1 in 200 (0.5%) or greater chance of flooding each year from the sea. It has been agreed with Horsham District Council and the Environment Agency that Flood Zone 3a has been used to define Flood Zone 3b.	Proportion of Site within Flood Zone 3a/3b (%)
Proportion of Site within the Modelled Fluvial and Tidal Flood Extent	Combined outputs provided from the following: Fluvial extents: Upper Adur 1% AEP + 45%CC, Steyning 1% AEP + 45%CC, 2022 Adur Intertidal Fluvial Undefended 1% + 55%CC, SFRM Fluvial Undefended 1% AEP + 20%CC, Upper Arun 1% AEP + 45%CC, Horsham 1% AEP + 45%CC, Billingshurst 1% AEP + 45%CC. Tidal extents: 2022 Adur Intertidal Tidal Undefended 200 year Higher Central Environment Agency Flood Zone 2	This provides an indication of the future flood risk from rivers and sea	Proportion of Site within the Modelled Fluvial and Tidal Extents (%)
Name of Recorded Flood Outlines within 500m of the site	Obtained from Defra Data Services platform. Downloaded on 22/04/2024.	A GIS layer which shows all records of historic flooding from rivers, the sea, groundwater and surface water. Each individual Recorded Flood Outline contains a consistent list of information about the recorded flood. The absence of coverage by Recorded Flood Outlines for an area does not mean that the area has never flooded, only that they do not currently have records of flooding in this area. It is also possible that the pattern of flooding in this area has changed and that this area would now flood or not flood under different circumstances. The Recorded Flood Outlines take into account the presence of defences, structures, and other infrastructure where they existed at the time of flooding. It includes flood extents that may have been affected by overtopping, breaches or blockages. Any flood extents shown do not necessarily indicate that properties were flooded internally.	Recorded Flood Outline within 500m
Distance to Main River	Calculated from Statutory Main River dataset, obtained from Defra Data Services platform. Downloaded on 22/04/2024.	This provides the distance to the nearest main river.	Distance to Main River (m)
Distance to Ordinary watercourse	Calculated from the watercourse layer provided by Horsham District Council. Received on 30/05/2024.	This provides the distance to the nearest ordinary watercourse. Not all ordinary watercourses are included in this layer based on a review of the dataset against OS mapping.	Distance to Ordinary Watercourse (m)
Risk of Flooding from Surface Water and Groundwater Flooding			
ROFSW (Main Category)			
Proportion of site within Risk of Flooding from Surface Water (RoFSW) dataset 0.1% AEP (Low probability)	Calculated from Risk of Flooding from Surface Water (0.1% AEP) flood extent dataset, obtained from Defra Data Services platform (percentage overlap). Downloaded on 22/04/2024.	GIS layer showing the extent of flooding from surface water that could result from a flood with a 0.1% chance of happening in any given year. This dataset is not suitable for identifying whether an individual property will flood. It has been used within this screening study as a tool for identifying sites that may be susceptible to surface water flooding. Percentages have been calculated to enable a comparative assessment between sites, not to identify a specific proportion of the site is at risk or not at risk of surface water flooding. In the absence of modelling information specifically accounting for the impact of climate change, this dataset provides a proxy dataset to determine the future risk of flooding from surface water.	Proportion of Site within 1000 year RoFSW (%)
Proportion of site within Risk of Flooding from Surface Water (RoFSW) dataset 1% AEP (Medium probability)	Calculated from Risk of Flooding from Surface Water (1% AEP) flood extent dataset, obtained from Defra Data Services platform (percentage overlap). Downloaded on 22/04/2024.	GIS layer showing the extent of flooding from surface water that could result from a flood with a 1% chance of happening in any given year. This dataset is not suitable for identifying whether an individual property will flood. It has been used within this screening study as a tool for identifying sites that may be susceptible to surface water flooding. Percentages have been calculated to enable a comparative assessment between sites, not to identify a specific proportion of the site is at risk or not at risk of surface water flooding.	Proportion of Site within 100 year RoFSW (%)
Proportion of site within Risk of Flooding from Surface Water (RoFSW) dataset 3.3% AEP (High probability)	Calculated from Risk of Flooding from Surface Water (3.3% AEP) flood extent dataset, obtained from Defra Data Services platform (percentage overlap). Downloaded on 22/04/2024.	GIS layer showing the extent of flooding from surface water that could result from a flood with a 3.3% chance of happening in any given year. This dataset is not suitable for identifying whether an individual property will flood. It has been used within this screening study as a tool for identifying sites that may be susceptible to surface water flooding. Percentages have been calculated to enable a comparative assessment between sites, not to identify a specific proportion of the site is at risk or not at risk of surface water flooding.	Proportion of Site within 30 year RoFSW (%)
Proportion of site within GeoSmart Groundwater flooding dataset	Calculated from the Geosmart Groundwater Flood Risk Map dataset provided by Horsham District Council. Received on 17/07/2024. The dataset has four classes of groundwater flood risk: 1: High 2: Moderate 3: Low 4: Negligible	This dataset provides a preliminary indication of groundwater flood risk on a 5m grid resolution and was provided by Horsham District Council. This is a general purpose indicative screening tool, and is intended to provide a useful initial view for a wide variety of applications. However, it does not provide an alternative to a proper site-specific assessment, and a detailed risk assessment should be used for any site where the impact of groundwater flooding would have significant adverse consequences.	Proportion Overlap with Geosmart GW Class 1 - High (%) Class 2 - Moderate (%) Class 3 - Low (%) Class 4 - Negligible (%)
Reservoir Risk			
Percentage Overlap with Reservoir Flooding - Dry Day	Calculated from Risk of Flooding from Reservoirs dataset, obtained from Defra Data Services platform (percentage overlap). Downloaded on 22/04/2024.	This data shows the individual flood extents for all large raised reservoirs in the event that they were to fail and release the water held on a "dry day" when local rivers are at normal levels. It represents a prediction of a credible worst case scenario, however it's unlikely that any actual flood would be this large. The data gives no indication of the likelihood or probability of reservoir flooding. Flood extents are not included for smaller reservoirs or for reservoirs commissioned after the reservoir modelling programme began in October 2016.	Proportion of Site at risk from Reservoir Failure - Dry day (%)
Percentage Overlap with Reservoir Flooding - Wet Day	Calculated from Risk of Flooding from Reservoirs dataset, obtained from Defra Data Services platform (percentage overlap). Downloaded on 22/04/2024.	This data shows the individual flood extents for all large raised reservoirs in the event that they were to fail and release the water held on a "wet day" when local rivers had already overflowed their banks. It represents a prediction of a credible worst case scenario, however it's unlikely that any actual flood would be this large. The data gives no indication of likelihood or probability of reservoir flooding. Flood extents are not included for smaller reservoirs or for reservoirs commissioned after the reservoir modelling programme began in October 2016.	Proportion of Site at risk from Reservoir Failure - Wet day (%)

Reservoir Risk			
Flood Warning Area	Obtained from Defra Data Services platform. Downloaded on 22/04/2024.	The name of any Flood Warning Areas the site is included within. These are geographical areas flooding is expected to occur. They generally contain properties that are expected to flood from rivers or the sea and in some areas, from groundwater. Specifically, Flood Warning Areas define locations within the Flood Warning Service Limit that represent a discrete community at risk of flooding.	Flood Warning Area
Flood Alert Area	Obtained from Defra Data Services platform. Downloaded on 22/04/2024.	The name of any Flood Alert Areas the site is included within. Flood Alert Areas are geographical areas where it is possible for flooding of low-lying land and roads to occur from rivers, sea and in some locations groundwater, and may cover the floodplain within the Flood Warning Service Limit of multiple catchments of similar characteristics.	Flood Alert Area

Initial Example Ranking

The information in the Site Assessment tab should be used to sequentially test sites. An initial **example** ranking of the sites has been undertaken, based on the Flood Risk criteria below which take account of the risk posed to the site by all sources of flooding (fluvial, surface water, groundwater and reservoirs). The data should be interrogated to answer specific questions on sites most at risk both now and in the future. The Risk of Flooding from Surface Water and GeoSmart groundwater datasets have been used in the ranking to aid grouping of the sites. It is important to note that these datasets are high level and should not be used for site specific assessments and are only an indication of risk.

Score	Criteria
1	Over 1% of the site is within Flood Zone 3
2	Over 1% of the site is within Flood Zone 2 and/or the modelled fluvial and tidal flood extent
3	The site is defined as Flood Zone 1 and over 10% intersects an area at high risk of flooding from surface water and/or intersects an area in groundwater Class 1
4	The site is defined as Flood Zone 1 and over 10% intersects an area at medium risk of flooding from surface water and/or intersects an area in groundwater Class 2
5	The site is defined as Flood Zone 1 and over 10% intersects an area at low risk of flooding from surface water and/or intersects an area in groundwater Class 3
6	The site is defined as Flood Zone 1 and is at risk of reservoir flooding in the event of a failure or a breach on a wet or dry day.
7	The site is defined as Flood Zone 1 and is not shown to be susceptible to surface water or groundwater flooding.

Site Address	Site Name	Reference	Ranking	Proportion of Site within Flood Zone 1 (%)	Proportion of Site within Flood Zone 2 (%)	Proportion of Site within Flood Zone 3a/3b (%)	Proportion of Site within the Modelled Fluvial and Tidal Extents (%)	Recorded Flood Outline within 500m	Distance to Main River (m)	Name of Main River	Distance to Ordinary Watercourse (m)	Proportion of Site within 1000 year RoFSW (%)	Proportion of Site within 100 year RoFSW (%)	Proportion of Site within 30 year RoFSW (%)	Proportion Overlap with Geosmart GW Class 1 - High (%)	Proportion Overlap with Geosmart GW Class 2 - Moderate (%)	Proportion Overlap with Geosmart GW Class 3 - Low (%)	Proportion Overlap with Geosmart GW Class 4 - Negligible (%)	Proportion of Site at risk from Reservoir Failure - Dry day (%)	Proportion of Site at risk from Reservoir Failure - Wet day (%)	Flood Warning Area	Flood Alert Area	Seq No
Land east of Ghyll Manor, Rusper	SA745	UNALLOCATED	7	100.0	0.0	0.0			853.5	River Mole	536.6	7.7	1.5	0.9		1.3	0.3	98.4					136
Land at Graylands and Morris Farm	SA750	UNALLOCATED	7	100.0	0.0	0.0			709.6	Boldings Brook	535.1	7.8	2.0	1.1				100.0					138
Land at Huntley Farm Old Holbrook	SA751	UNALLOCATED	7	100.0	0.0	0.0			1157.3	Channels Brook	601.3	7.1	2.0	1.3				100.0					139
Land West of Greenacres Storrington	SA763	UNALLOCATED	7	100.0	0.0	0.0		STORRINGTON 1981	409.0	River Stor	409.0							100.0					145
Land North of A272 West of Wooddale Lane	SA770	UNALLOCATED	7	100.0	0.0	0.0		BILLINGSHURST 1981	1083.6	Par Brook	356.6	3.0	1.1	0.8				100.0					148
Land at Brookhill, Cowfold	SA782	UNALLOCATED	7	100.0	0.0	0.0			1480.3	Cowfold Stream	459.3							100.0					149
Land rear of Hawthorns	SA785	UNALLOCATED	7	100.0	0.0	0.0		HORSHAM 1968	403.7	River Arun	218.5	4.0						100.0					151
Land East of Eastlands Lane	SA791	UNALLOCATED	7	100.0	0.0	0.0			637.7	Cowfold Stream	320.3							100.0					153
Storrington Tennis Club	SA865	UNALLOCATED	7	100.0	0.0	0.0		STORRINGTON 1981	413.6	River Stor	413.6							100.0					155
Land West of Church Street Rudgwick	SA880	UNALLOCATED	7	100.0	0.0	0.0			1528.0	River Arun	1227.7	1.3						100.0					157
Land North of Hill Farm Lane, Codmore Hill	SA881	UNALLOCATED	7	100.0	0.0	0.0			1861.9	River Arun	1861.9							100.0					158
Land East of Pulborough	SA887	UNALLOCATED	7	100.0	0.0	0.0		Arun Valley 2013/14 Pulborough Brooks	434.1	River Stor	354.9					3.1	2.0	94.9					160
Land East of Southmill House	SA889	UNALLOCATED	7	100.0	0.0	0.0			1020.6	River Chilt	559.1							100.0					161