	Strategic Flood Risk Assessment **Detailed Site Summary Tables** **New Monks Farm**	

Site details	
Site Code	-
Address	New Monks Farm
Area	7.8ha
Current land use	Greenfield
Proposed land use	Commercial
Flood Risk Vulnerability	Less vulnerable
Sources of flood risk	
Location of the site within the administrative area	The site is situated between Lancing and Shoreham-by-Sea and is located adjacent to the Old Shoreham Road (A27) and the New Monks Farm Roundabout. This brownfield site lies to the north west of Shoreham Airport and was part of the New Monks Farm Development works. Main access to the site is via Brimstone Road to the south of the site.
Topography	The Environment Agency's 1m resolution 2022 Composite LiDAR is based on 2018/19 ground levels. Since then, ground levels have changed as a result of work done as part of the wider New Monks Farm development. It is presumed that the site has been levelled as part of the pre-development stage. *New Monks Farm – Topography*
Existing drainage features	Prior to construction works, two ordinary watercourses flowed north to the centre of the site, where they joined another ordinary watercourse which flowed east to the River Adur. Around the northern and western boundary of the site, there were also ditches which carried water towards the ordinary watercourses. As a result of the construction works, the ordinary watercourses have been infilled and the ditches to the west and north have been widened to divert the water around the site and to the River Adur.
Flood Map for Planning (Rivers and Sea)	**Available data and mapping:** Environment Agency Flood Map for Planning for Rivers and Sea. *New Monks Farm - FMfP* **Data analysis:** Details of the sites location within each Flood Zone are provided within the SFRA Site Screening Appendix. **Flood characteristics:** The majority of the site is located within Flood Zone 3 (75%), with a small area of Flood Zone 2 located within the south eastern areas of the site (7%). 18% of the site is located in Flood Zone 1, however these areas are surrounded by areas of Flood Zone 3. The primary source of flooding is sea. • Flood Zone 1 represents areas which have less than a 1 in 1000 (0.1%) chance of river or tidal flooding in a given year.

	• Flood Zone 2 represents areas which have less than 1 in 100 (1%) but greater than 1 in 1000 (0.1%) chance of river flooding or less than 1 in 200 (0.5%) but greater than 1 in 1000 (0.1%) chance of tidal flooding in a given year. • Flood Zone 3 representing an area greater than 1 in 100 (1%) chance of river flooding in a given year or greater than 1 in 200 (0.5%) chance of tidal flooding. Surface Water flooding should be considered. It is understood that additional Surface Water datasets will be published in 2025.
Tidal	**Available data and mapping:** 2025 2025 Arun-Adur modelling – defended scenario. *<u>Depth</u>* *New Monks Farm – Tidal – Present Day – 3.3%* *New Monks Farm – Tidal – Present Day – 0.5%* *New Monks Farm – Tidal – Present Day – 0.1%* *<u>Hazard</u>* *New Monks Farm – Tidal – Present Day – 3.3%* *New Monks Farm – Tidal – Present Day – 0.5%* *New Monks Farm – Tidal – Present Day – 0.1%* *<u>Velocity</u>* *New Monks Farm – Tidal – Present Day – 3.3%* *New Monks Farm – Tidal – Present Day – 0.5%* *New Monks Farm – Tidal – Present Day – 0.1%* **Data analysis:** Details of the site's location within the 2025 2025 Arun-Adur modelling are provided within the Level 2 SFRA Site Screening Appendix. **Flood characteristics:** The site has not been identified to be located within a risk of present-day tidal flooding.
Tidal with Climate Change	**Available data and mapping:** Arun-Adur modelling – defended. The Environment Agency guidance recommends that the Higher Central (55%) and Upper End (107%) allowance is considered. *<u>Depth – 70th percentile (higher central)</u>* *New Monks Farm – Tidal – Future – 3.3%* *New Monks Farm – Tidal – Future – 0.5%* *<u>Hazard - 70th percentile (higher central)</u>* *New Monks Farm – Tidal – Future – 3.3%* *New Monks Farm – Tidal – Future – 0.5%* *<u>Velocity -70th percentile (higher central)</u>* *New Monks Farm – Tidal – Future – 3.3%* *New Monks Farm – Tidal – Future – 0.5%* *<u>Depth – 95th percentile (upper end)</u>* *New Monks Farm – Tidal – Future – 3.3%* *New Monks Farm – Tidal – Future – 0.5%* *<u>Hazard - 95th percentile (upper end)</u>* *New Monks Farm – Tidal – Future – 3.3%* *New Monks Farm – Tidal – Future – 0.5%* *<u>Velocity -95th percentile (upper end)</u>* *New Monks Farm – Tidal – Future – 3.3%*

New Monks Farm – Tidal – Future – 0.5%

Data analysis: Details of the site's location within the 2025 2025 Arun-Adur modelling are provided within the SFRA Site Screening Appendix.

3.3% AEP (1 in 30 year) + Higher Central Climate Change event:

Proportion – 36%

Max Depth – 1.98m	Mean Depth – 0.76m
Max Velocity – 1.3m/s	Mean Velocity – 0.2m/s
Max Hazard – 2.5 - Danger for all	Mean Hazard – 1.41 - Danger for most

3.3% AEP (1 in 30 year) + Upper End Climate Change event:

Proportion – 41%

Max Depth – 1.54m	Mean Depth – 0.54m
Max Velocity – 1.39m/s	Mean Velocity – 0.18m/s
Max Hazard – 2.03 - Danger for all	Mean Hazard – 1.16 - Danger for some

0.5% AEP (1 in 200 year) + Higher Central Climate Change event:

Proportion – 39%

Max Depth – 2.18m	Mean Depth – 0.92m
Max Velocity – 1.14m/s	Mean Velocity – 0.24m/s
Max Hazard – 2.74 - Danger for all	Mean Hazard – 1.56 - Danger for most

0.5% AEP (1 in 200 year) + Upper End Climate Change event:

Proportion – 48%

Max Depth – 3.04m	Mean Depth – 1.49m
Max Velocity – 1.27m/s	Mean Velocity – 0.24m/s
Max Hazard – 3.19 - Danger for all	Mean Hazard – 1.82 - Danger for most

Flood characteristics: The site is shown to flood in all climate change events. During the events flooding splits into two flow paths around a section of higher ground and follow the original pre-development channels. It is assumed that the alterations to the site will have changed the flow paths, however, it is likely that mean depths, velocities and the hazard rating will be relatively consistent.
NAFRA2 data has a reduced extent of surface water flooding at the site. The flow paths presented are similar to the superseded dataset.

Surface Water

Available data and mapping: Environment Agency Risk of Surface Water flooding for the 3.3%, 1% and 0.1% AEP events. It should be noted that the data discussed below relates to the available surface water data prior to March 2025, as the newly released data does not include depth, hazard and velocity information. A comparison of the two surface water flooding datasets is discussed below and are detailed within the Site Screening document undertaken as part of the Level 2 SFRA**.**

New Monks Farm – Surface Water Depth – Present Day – 3.3%
New Monks Farm – Surface Water Depth – Present Day – 1%

New Monks Farm – Surface Water Depth – Present Day – 0.1%
New Monks Farm – Surface Water Hazard – Present Day – 3.3%
New Monks Farm – Surface Water Hazard – Present Day – 1%
New Monks Farm – Surface Water Hazard – Present Day – 0.1%
New Monks Farm – Surface Water Velocity – Present Day – 3.3%
New Monks Farm – Surface Water Velocity – Present Day – 1%
New Monks Farm – Surface Water Velocity – Present Day – 0.1%
New Monks Farm – Surface Water – Present Day – NAFRA2

Data analysis:

3.3% AEP (1 in 30 year) event:

Proportion – 10%

Max Depth – 0.93m	Mean Depth – 0.35m
Max Velocity – 1.2m/s	Mean Velocity – 0.21m/s
Max Hazard – 1.47 - Danger for most	Mean Hazard – 1.05 - Danger for some

1% AEP (1 in 100 year) event:

Proportion – 23%

Max Depth – 1.04m	Mean Depth – 0.4m
Max Velocity – 1.29m/s	Mean Velocity – 0.23m/s
Max Hazard – 1.54 Danger for most	Mean Hazard – 1.1 - Danger for some

0.1% AEP (1 in 1000 year) event:

Proportion – 36%

Max Depth – 1.35m	Mean Depth – 0.57m
Max Velocity – 2.03m/s	Mean Velocity – 0.36m/s
Max Hazard – 2.09 - Danger for all	Mean Hazard – 1.31 - Danger for most

NAFRA2 - 3% AEP (1 in 30 year) event:

Proportion – 5%

NAFRA2 - 1% AEP (1 in 100 year) event:

Proportion – 8%

NAFRA2 - 0.1% AEP (1 in 1000 year) event:

Proportion – 17%

Description of surface water flow paths:

The site is shown to be at risk during the 3.3%AEP, 1%AEP and 0.1%AEP. As with the tidal modelling, .it is assumed that the alterations to the site will have changed the flow paths.

Surface Water with Climate Change

Available data and mapping: Surface Water flooding for the 3.3%, 1% and 0.1% AEP events with climate change, using data available prior to March 2025. The Environment Agency guidance recommends that the Upper End allowance is considered for both the 3.3% and 1% AEPs for the 2070's epoch, unless the allowance for the 2050's epoch is higher, in which case this should be used. The recommended uplift on peak rainfall intensity for the 3.3% AEP is 40% and for the 1% AEP is 45%.

Depth

New Monks Farm – Surface Water – Future – 3.3%+20CC
New Monks Farm – Surface Water – Future – 3.3%+40CC

New Monks Farm – Surface Water – Future – 1%+25CC
New Monks Farm – Surface Water – Future – 1%+45CC
New Monks Farm – Surface Water – Future – 0.1%+25CC
New Monks Farm – Surface Water – Future – 0.1%+45CC
Hazard
New Monks Farm – Surface Water – Future – 3.3%+20CC
New Monks Farm – Surface Water – Future – 3.3%+40CC
New Monks Farm – Surface Water – Future – 1%+25CC
New Monks Farm – Surface Water – Future – 1%+45CC
New Monks Farm – Surface Water – Future – 0.1%+25CC
New Monks Farm – Surface Water – Future – 0.1%+45CC
Velocity
New Monks Farm – Surface Water – Future – 3.3%+20CC
New Monks Farm – Surface Water – Future – 3.3%+40CC
New Monks Farm – Surface Water – Future – 1%+25CC
New Monks Farm – Surface Water – Future – 1%+45CC
New Monks Farm – Surface Water – Future – 0.1%+25CC
New Monks Farm – Surface Water – Future – 0.1%+45CC

Data analysis:

3.3% AEP (1 in 30 year) + 20% Climate Change event:

Proportion – 15%

Max Depth – 0.98m	Mean Depth – 0.38m
Max Velocity – 1.08m/s	Mean Velocity – 0.19m/s
Max Hazard – 1.5 - Danger for most	Mean Hazard – 1.09 - Danger for some

3.3% AEP (1 in 30 year) + 40% Climate Change event:

Proportion – 22%

Max Depth – 1.01m	Mean Depth – 0.39m
Max Velocity – 1.22m/s	Mean Velocity – 0.19m/s
Max Hazard – 1.52 - Danger for most	Mean Hazard – 1.09 - Danger for some

1% AEP (1 in 100 year) + 25% Climate Change event:

Proportion – 36%

Max Depth – 1.35m	Mean Depth – 0.56m
Max Velocity – 1.99m/s	Mean Velocity – 0.35m/s
Max Hazard – 2.09 - Danger for all	Mean Hazard – 1.31 - Danger for most

1% AEP (1 in 100 year) + 45% Climate Change event:

Proportion – 39%

Max Depth – 1.42m	Mean Depth – 0.6m
Max Velocity – 2.07m/s	Mean Velocity – 0.39m/s
Max Hazard – 2.25 - Danger for all	Mean Hazard – 1.35 - Danger for most

0.1% AEP (1 in 1000 year) + 25% Climate Change event:

Proportion – 47%

Max Depth – 1.63m	Mean Depth – 0.71m
Max Velocity – 2.45m/s	Mean Velocity – 0.5m/s

	Max Hazard – 2.85 - Danger for all Mean Hazard – 1.51 - Danger for most **0.1% AEP (1 in 1000 year) + 45% Climate Change event:** Proportion – 49% Max Depth – 1.7m Mean Depth – 0.77m Max Velocity – 2.56m/s Mean Velocity – 0.54m/s Max Hazard – 3.07 - Danger for all Mean Hazard – 1.6 - Danger for most **Description of surface water flow paths:** Based on the pre-development ground levels, this site is shown to flood during all climate change events.
Tidally influenced Surface Water Risk Zone	**Available data and mapping:** JBA's Tidally influenced Surface Water Risk Zones derived using the RoFSW data, the Present day 1% AEP extreme tidal level, LiDAR data and the Environment Agency's climate change sea level uplift allowance for South East England. *New Monks Farm – Tidal Drainage Risk Zones* **Flood characteristics:** There are large areas of the site shown to be located in SW1 and SW2 of the Surface Water Risk Zone mapping due to the topography. However, there are flow paths throughout the site, covering approximately 20%, shown to be in SW3 and SW4. There are small areas shown to be located above future tidal level across the site. It should be noted that areas identified to be at higher risk are generally defined by a lower topography. • SW0 - Above the future tidal level. • SW1 - Not at risk of SW flooding and above the current tidal level but below the future tidal level. • SW2 - Not at risk of SW flooding but below the present-day tidal level OR at risk of SW flooding from climate change only and above the current day tidal level but below future tidal level. • SW3 - At risk of SW flooding from climate change only and below the present-day tidal level OR At risk of SW flooding without climate change and above current day tidal level but below future tidal level. • SW4 - At risk of SW flooding without climate change and below present-day tidal level.
Groundwater	**Available data and mapping:** The JBA Groundwater Flood Data Map (GW5) is provided as a 5m resolution grid. *New Monks Farm – Groundwater Flood Risk* **Flood characteristics:** During the 1% groundwater flood event, 95% of the site has a high risk to groundwater flooding with water levels either at or very near (within 0.025m of) the ground surface. The other 5%, located in the south east corner of the site has low risk to groundwater flooding.
Tidally influenced Groundwater Risk Zone	**Available data and mapping:** The JBA Groundwater Flood Data Map (GW5) is provided as a 5m resolution grid. *New Monks Farm – Groundwater Flood Risk*

	Strategic Flood Risk Assessment **Detailed Site Summary Tables** **New Monks Farm**	
	Flood characteristics: Approximately 50% of the site is located within GW4 of the Groundwater Risk Zone mapping, following areas of low ground throughout the site. There are areas across the site located within GW3. In the south eastern corner of the site there is an area within GW1. There are also areas shown to be above the future tidal level across the site. • GW0 - Above the future tidal level. • GW1 - Groundwater level more than 0.5m below the surface and region is above the current tidal level but below the future tidal level. • GW2 - Groundwater level more than 0.5m below the surface and region is below the present-day tidal level OR groundwater level between 0.025m and 0.5m below the surface and region is above the current tidal level but below the future tidal level. • GW3 - Groundwater level between 0.025m and 0.5m below the surface and region is below the present-day tidal level OR Groundwater level within 0.025m of the surface and region is above the current tidal level but below the future tidal level. • GW4 Groundwater level within 0.025m of the surface and region is below the present day tidal level	
Sewers	**Available data and mapping:** Drainage and Wastewater Management Plan (DWMP) Overview of the Adur and Ouse River Basin Catchment and Southern Water's Sewer Incident Report Form data (SIRF) at a five digit post code level. **Flood characteristics:** 59 reportable sewer incidents have occurred since 1990 within the five-digit postcode area of the proposed development site. Thes incidents have been attributed to hydraulic overload following rainfall.	
Flood history	**Available data and mapping:** The Environment Agency's Recorded Flood Outlines dataset and WSCC recorded flood incidents. *New Monks Farm – Historic Flooding* **Flood characteristics:** The site is not shown to be located within the Environment Agency's Recorded Flood Outlines extent or within 50m of a flood incident identified within the WSCC dataset.	
Flood risk management infrastructure		
Existing Defences	The Environment Agency's AIMS dataset shows there are no formal flood defences within the vicinity of the site.	
Residual risk	**Available data and mapping:** The 2025 2025 Arun-Adur breach modelling. *Depth* *New Monks Farm – Breach A–3.3%* *New Monks Farm – Breach A – 0.5%*	

New Monks Farm – Breach A – 0.1%
New Monks Farm – Breach B–3.3%
New Monks Farm – Breach B – 0.5%
New Monks Farm – Breach B – 0.1%
New Monks Farm – Breach C–3.3%
New Monks Farm – Breach C – 0.5%
New Monks Farm – Breach C – 0.1%
New Monks Farm – Breach D –3.3%
New Monks Farm – Breach D – 0.5%
New Monks Farm – Breach D – 0.1%
New Monks Farm – Breach E–3.3%
New Monks Farm – Breach E – 0.5%
New Monks Farm – Breach E – 0.1%
Hazard
New Monks Farm – Breach A–3.3%
New Monks Farm – Breach A – 0.5%
New Monks Farm – Breach A – 0.1%
New Monks Farm – Breach B–3.3%
New Monks Farm – Breach B – 0.5%
New Monks Farm – Breach B – 0.1%
New Monks Farm – Breach C–3.3%
New Monks Farm – Breach C – 0.5%
New Monks Farm – Breach C – 0.1%
New Monks Farm – Breach D –3.3%
New Monks Farm – Breach D – 0.5%
New Monks Farm – Breach D – 0.1%
New Monks Farm – Breach E–3.3%
New Monks Farm – Breach E – 0.5%
New Monks Farm – Breach E – 0.1%
Velocity
New Monks Farm – Breach A–3.3%
New Monks Farm – Breach A – 0.5%
New Monks Farm – Breach A – 0.1%
– Breach B–3.3%
New Monks Farm – Breach B – 0.5%
New Monks Farm – Breach B – 0.1%
New Monks Farm – Breach C–3.3%
New Monks Farm – Breach C – 0.5%
New Monks Farm – Breach C – 0.1%
New Monks Farm – Breach D –3.3%
New Monks Farm – Breach D – 0.5%
New Monks Farm – Breach D – 0.1%
New Monks Farm – Breach E–3.3%
New Monks Farm – Breach E – 0.5%
New Monks Farm – Breach E – 0.1%

Flood characteristics:
The site is not considered to be at risk in the breach scenarios tested.

Emergency planning

	Strategic Flood Risk Assessment **Detailed Site Summary Tables** **New Monks Farm**	
Flood warning	The site has been identified to be located within the Inland areas of Shoreham, Lancing and Southwick (065WAC409) Flood Alert Area and the Shoreham Town and Lancing (065FWC3002) Flood Warning Area. *New Monks Farm - Flood Warning* Future residents should be encouraged to sign up to the Environment Agency flood alerts and warnings.	
Access and egress	**Surface Water 1% AEP plus 45% climate change (upper end allowance)** Access and egress across the site is limited during the 1%AEP plus climate change scenario. Brimstone Road to the south of the site is intersected by surface water flow paths. The hazard rating is 'Danger to Most'. This modelling uses the pre-development topography. **Tidal 0.5% AEP plus 55% climate change (higher central allowance)** Access and egress across the site is unavailable during the 0.5%AEP plus climate change scenario. The detailed modelling indicates a hazard rating of 'Danger to all' intersecting Brimstone Road. Water depths of over 2m are present along the road. This modelling uses the pre-development topography. As a result of the affected access and egress and the severity of the hazard ratings throughout the design flood events it is necessary that a Flood Response Plan is developed in line with ADEPT Guidance.	
Requirements for drainage control and impact mitigation		
Broad-scale assessment of possible SuDS	**Geology & Soils** The geology consists of the Newhaven Chalk Formation comprised of Chalk. The whole site is underlain by superficial deposits of Alluvium (clay, silt, sand and peat). The soils are shown to be loamy and clayey soils of coastal flats with naturally high groundwater. This suggests that infiltration is unlikely across the majority of the catchment. The geology of the Adur District is complex; areas of chalk are often capped with small sections of clay. This can result in groundwater being trapped beneath the clay layer and surface water pooling at the surface unable to infiltrate. Groundwater may find a fissure in the clay and rise to the surface resulting in flooding that is difficult to predict in terms of location and scale. **SuDS** Implementation of SuDS at the site could provide opportunities to deliver multiple benefits including volume control, water quality, amenity and biodiversity. Evidence should be given where multiple benefits are not provided to show that this is not possible. Preference should be given to multi-functional sustainable drainage systems, and to solutions that allow surface water to be discharged according to the hierarchy of drainage options listed in the PPG Flood Risk and Coastal Change paragraph 056.	

The layout and function of drainage systems needs to be considered at the start of the design process for new development, as integration with road networks and other infrastructure can maximise the availability of developable land.

Suitability and considerations for sustainable drainage

In line with Defra's National Standards for Sustainable Drainage Systems, runoff from the development shall be discharged to the following final destinations, to the maximum extent practicable, in accordance with the below hierarchy:

- Priority 1: collected for non-potable use
- Priority 2: infiltrated to ground
- Priority 3: discharged to an above ground surface water body
- Priority 4: discharged to a surface water sewer, or another piped surface water drainage system
- Priority 5: discharged to a combined sewer

SuDS measures should also follow West Sussex County Council's discharge hierarchy, and if it is proposed to discharge runoff to a watercourse or sewer system, the condition and capacity of the receiving watercourse or asset should be confirmed through surveys and the discharge rate agreed with the asset owner based on the National Standards for SuDS.

Surface water discharge rates should not exceed pre-development discharge rates for the site and should be designed to be as close to greenfield runoff rates as reasonably practical in consultation with the LLFA. Discharge to a watercourse or surface water sewer must be restricted to the estimated mean greenfield runoff rate (Qbar) for all design storm events. The calculations must be based on the positively drained area, rather than the entire greenfield site area

It may be possible to reduce site runoff by maximising the permeable surfaces on site using a combination of permeable surfacing and soft landscaping techniques.

Although chalk is porous, the risk of high groundwater levels on site suggests that infiltration may be limited. For Brownfield sites, infiltration should be investigated as the first option, but where evidence can be provided that this is unviable offsite discharge may be required for surface water runoff. The infiltration potential of the site should be confirmed through infiltration testing, in line with BRE 365 or similar.

Groundwater levels are shown to be influenced by tide levels. The capacity for infiltration needs to take into account the impact of future sea levels. The influence of tide levels on groundwater levels should be investigated through groundwater monitoring.

The site is located within a Nitrate Vulnerable Zone. Therefore, early engagement with the LLFA and the EA is recommended to determine requirements for the site to manage the impact to surrounding watercourses. Consideration of water quality is likely to be of high

	importance and demonstrated through the use of the Simple Index Approach. The site has not been identified to be located within a historic landfill site or a groundwater Source Protection Zone.
Opportunities for wider sustainability benefits and integrated flood risk management	• Implementation of SuDS at the site could provide opportunities to deliver multiple benefits including volume control, water quality, amenity and biodiversity. This could also provide wider sustainability benefits to the site and surrounding area. Proposals to use SuDS techniques should be discussed with relevant stakeholders (LPA, LLFA and EA) at an early stage to understand possible constraints. • The design of the surface water management proposals should take into account the impacts of future climate change over the projected lifetime of the development. • Opportunities to incorporate source control techniques such as green roofs, permeable surfaces and rainwater harvesting must be considered in the design of the site. • SuDS are to be designed so that they are easy to maintain, and it should be set out who will maintain the system, how the maintenance will be funded and should be supported by an appropriately detailed maintenance and operation manual. • SuDS should be designed with a holistic approach, combining ecology, landscape and drainage requirements specific to the site, and incorporating Biodiversity Net Gain requirements. • Opportunities to incorporate filtration techniques such as filter strips, filter drains and bioretention areas must be considered. Consideration should be made to the existing condition of receiving waterbodies and their Water Framework Directive objectives for water quality. The use of multistage SuDS treatment will improve water quality of surface water runoff discharged from the site and reduce the impact on receiving water bodies. • The potential to utilise conveyance features such as swales to intercept and convey surface water runoff should be considered. Conveyance features should be located on common land or public open space to facilitate ease of access. • SuDS should be designed in line with the National Standards for Sustainable Drainage Systems.
NPPF and planning implications	
Exception Test requirements **(Local Authority considerations)**	The Local Authority will need to confirm that the Sequential Test has been carried out in line with national guidelines. In addition, once the sequential test has been passed, a sequential approach to development should still be undertaken. The NPPF classifies the usage as "Less Vulnerable", as a result the exception test is not required for this development.

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Requirements and guidance for site-specific Flood Risk Assessment **(Developer considerations)**	**Flood Risk Assessment:** The Level 1 SFRA has more guidance on this section and any relevant policies and information applicable to development within Adur and Worthing Council. • All sources of flooding should be included as part of the site specific FRA. • The most recent risk of Flooding from Surface Water dataset should be used. • Consultation with Adur and Worthing Councils, West Sussex County Council, and where relevant the Environment Agency and Southern Water should be undertaken at an early stage. • Development plans should consider the Level 1 and 2 SFRA for Adur, as well as the Local Flood Risk Management Strategies to identify cumulative flood risk issues. The Cumulative Impact Assessment (CIA) completed as part of the Level 1 SFRA, highlights that the West Adur catchment, is at a high risk of cumulative impacts. The risk of cumulative impacts of this development and others in the local area on flood risk should be considered within the site-specific flood risk assessment. It should also promote an integrated approach to water management. • Developers should consult with Adur and Worthing Council to ensure that the development aims to help achieve the targets of the Drainage and Wastewater Management Plan. Drainage should be designed and implemented in ways that promote multiple benefits. • Applicants are expected to provide fully detailed plans of the site's existing surface water drainage arrangements, including impermeable areas, gullies, outfalls, pipes & diameters, manholes, etc., to prove the extent of the existing positively drained areas and their associated points of discharge. **Guidance for site design and making development safe:** • The developer will need to show, through an FRA, that future users of the development will not be placed in danger from flood hazards throughout its lifetime. It is for the applicant to show that the development meets the objectives of the NPPF's policy on flood risk. For example, how the operation of any mitigation measures can be safeguarded and maintained effectively through the lifetime of the development. (Para 048 Flood Risk and Coastal Change PPG). • The risk from surface water flow routes should be quantified as part of a site-specific FRA, including a drainage strategy, so runoff magnitudes from the development are not increased by development across any ephemeral surface water flow routes (temporary/seasonal surface water flow paths). A drainage strategy should help inform site layout and design to ensure runoff rates do not exceed greenfield rates. • Development design should prioritise avoiding development within surface water flow paths, including off-site flow paths. Any loss in surface water flood storage will require on-site level for level compensatory storage, so that any displaced volumes of water do not increase surface water flood risk within the site or elsewhere.

- The site is located within a surface water risk zone and therefore surface water drainage systems are likely to be influenced by tide levels. The drainage strategy should consider the risk of tide locking.
- Consideration of the risk of groundwater flooding at the site is required. Monitoring and ground investigations should be undertaken to determine the risk and inform site management.
- A drainage strategy should be prepared to understand infiltration capacity at the site given the underlying chalk geology and risk of groundwater emergence.
- Arrangements for safe access and egress are unlikely to be possible due to the severity of flooding during a tidal climate change event and will need to be considered further within a site-specific FRA with an appropriate allowance for climate change, using the depth, velocity, and hazard outputs. A Flood Response Plan should therefore be developed and may consider opportunities to shelter in place alongside evacuation routes.
- The design and layout of development at the site will need to consider the impact of tidal flooding. A sequential approach o development should be undertaken with development located in the areas of lowest risk within the site boundary. The site layout should make space for water and seek to avoid obstructing offsite flow paths and avoid off site detriment.
- As outlined in the PPG, the Finished Floor Levels of the development should be raised to a minimum of whichever is higher of 600mm above the:
    - Average ground level of the site
    - Adjacent road level to the building
    - Estimated river or sea flood level
- It is suggested that flood resilient design is adopted in the construction of development. The PPG sets out that flood resistant material that have low permeability should be used to at least 600mm above the estimated flood level; flood resilient materials to at least 600mm above the estimated flood level and raising of electrical equipment at least 600mm above the estimated flood level.

Key messages

The Flood Map for Planning indicates the site is partially located in Flood Zone 3. According to the 2025 Arun-Adur modelling, 39% is at risk of tidal flooding in the design event (0.5% AEP plus 55% climate change allowance).

The site is at low risk of surface water flooding. 10% of the site is at risk of surface water flooding during the 3.3%AEP scenario. Land with this probability is considered high risk and development in these areas should not take place. 39% of the site is shown to flood during the surface water design event (1% AEP plus 45% climate change allowance).

Following work done as part of the wider New Monks Farm development ground level changes have occurred at the site impacting flow path. Further analysis is required to better understand the current and future risk all sources of flooding at the site.

Given the flood risk posed to the site now and in the future. Development will only be able to progress if:

- A site-specific FRA is undertaken to assess the risk of fluvial, tidal, surface water and groundwater flooding in relation to the proposed development, and the access and egress arrangements.
- Detailed tidal modelling is undertaken to understand the risk of flooding on site, the extent and the likely flow paths.
- Detailed surface water modelling is undertaken to understand the risk of flooding on site
- A sequential approach to development is undertaken. Layout and design should aim to avoid developing in the areas of greatest flood A Flood Response Plan is developed.
- Infiltration rates and ground levels are assessed on site as part of a drainage strategy.
- Consideration is given to the safe access and egress to the site during the design flood event. A Flood Response Plan should be prepared in line with ADEPT guidance.
- Finished floor levels are raised to a minimum of whichever is higher of 600mm above the average ground level of the site, the adjacent road level to the building or the estimated river or sea flood level. The flood level is for the design event (tidal flood level plus higher central climate change allowance, surface water flood level plus upper end)

Sources of information

National Planning Policy Framework (NPPF)

https://assets.publishing.service.gov.uk/media/67aafe8f3b41f783cca46251/NPPF_December_2024.pdf

Planning Practice Guidance (PPG), Flood Risk and Coastal Change

https://www.gov.uk/guidance/flood-risk-and-coastal-change

Flood Map for Planning (NaFRA2 2025)

https://www.data.gov.uk/dataset/104434b0-5263-4c90-9b1e-e43b1d57c750/flood-map-for-planning-flood-zones1

Long Term Flood Risk

Where do you want to check? - Check your long term flood risk - GOV.UK

British Geological Survey (BGS) Geology Viewer

https://geologyviewer.bgs.ac.uk/

Southern Water's Drainage and Wastewater Management Plan

https://www.southernwater.co.uk/about-us/our-plans/drainage-and-wastewater-management-plans/

National standards for sustainable drainage systems (SuDS)

https://www.gov.uk/government/publications/national-standards-for-sustainable-drainage-systems/national-standards-for-sustainable-drainage-systems-suds

Flood Warning sign up

https://www.gov.uk/sign-up-for-flood-warnings