



East Devon District Council Level 2 Strategic Flood Risk Assessment Detailed Site Summary Tables






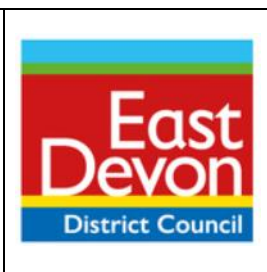
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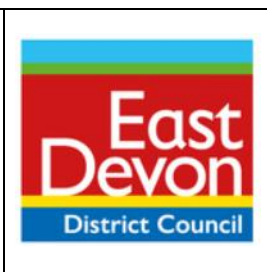







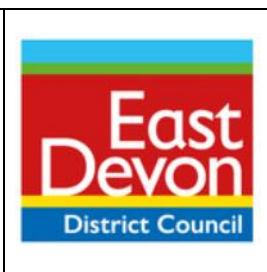
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Site Code	Clge_25a	
Address	Land adjoining Darts Farm	
	<p>Flood characteristics: Groundwater levels on site are shown to be between 0.025m and 0.5m below the grounds surface during a 1% AEP groundwater flood event. A small pixelized area is shown to be located either at or very near (within 0.025m of the grounds surface) to the northwest of the site.</p> <p>In these instances, where groundwater levels are close to the ground surface, there is a significant risk of groundwater emergence during a flood event. Subsurface development or development requiring deep foundations run the risk of interfering with groundwater levels by displacing water. There is a requirement for site-specific flood risk investigations to determine the groundwater risk at the site through ground investigations and to demonstrate that proposed development will not impact the risk posed within or surrounding the site. Site-specific FRAs should assess the suitability of Sustainable Drainage Systems (SuDS) within the areas at potential risk of groundwater emergence.</p>	
Sewers	<p>No evidence of sewer flooding has been identified at or near the development site.</p> <p>South West Water's sewer network shapefile does not identify a sewer network close to the site, however developers should refer to South West Water's guidance for information.</p>	
Flood history	<p>The site is not shown to be located within the Environment Agency's Recorded Flood Outlines extent.</p> <p>There are no flooding incidents within Devon County Council's dataset recorded within 100m of the site.</p>	
Policy zones		
Critical drainage areas	<p>The site has not been identified to be located within a critical drainage area.</p> <p>Mapping: Clge_25a - Critical Drainage Area</p>	
Coastal change management areas	<p>The site has not been identified to be located within a coastal change management area.</p>	
Flood risk management infrastructure		
Existing defences	<p>The Environment Agency's AIMS dataset shows there are no formal flood defences within the vicinity of the site.</p>	
Emergency planning		
Flood warning	<p>The site has not been identified to be located within an area of flood warning or alerts.</p> <p>Mapping: Clge_25a - Flood Warnings and Alerts</p>	
Access and egress	<p>Access and egress to Darts Farm is shown to be largely unaffected during all assessed events, with depths of up to 0.1m across the site entrance to the east of the Darts Farm car park during the 1% AEP plus climate change surface water modelling.</p>	

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	The maximum hazard rating identified on site within the 0.1% AEP plus 65% climate change surface water flooding extent is shown to be a 'Danger to all', however the mean hazard is shown to be a 'Danger to some'. The majority of the site is not shown to be at risk of flooding.	
Requirements for drainage control and impact mitigation		
Broad-scale assessment of possible SuDS	<p>Geology and Soils</p> <p>The geology consists of interbedded sandstone and conglomerate, with no identified superficial deposits. The soils are shown to freely draining slightly acid sandy soils. This suggests that infiltration may be a viable means of surface water disposal.</p> <p>SuDS</p> <p>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:</p> <ul style="list-style-type: none"> • 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 <ul style="list-style-type: none"> • The site is located within a Nitrate Vulnerable Zone. Therefore, early engagement with the LLFA and the Environment Agency 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. • Groundwater levels are shown to be between 0.025m and 0.5m below the grounds surface during a 1% AEP flood event, suggesting that infiltration may not be viable. The infiltration potential of the site should therefore be confirmed through infiltration testing, in line with BRE 365. • 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. 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. • SuDS measures should follow the 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. • Due to the topography, any surface water not intercepted via infiltration will drain via gravity to the western boundary. It is therefore recommended that the LLFA and the Environment Agency are consulted 	

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	about viable discharge locations for surface water from the site and their attenuation potential.	
Opportunities for wider sustainability benefits and integrated flood risk management	<ul style="list-style-type: none"> • 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 Environment Agency) 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 Devon County Councils SuDS Guidance. https://www.devon.gov.uk/floodriskmanagement/document/sustainable-drainage-system-guidance-for-devon-2023/#dcc-documents-cpt-contents 	
NPPF and planning implications		
Exception Test requirements (Local Authority considerations)	<p>The Local Authority will need to confirm that the Sequential Test has been carried out in line with national guidelines. The Sequential Test will need to be passed before the Exception Test is applied. The NPPF classifies the usage as "Less Vulnerable".</p> <p>Given the site is in Flood Zone 1, and the limited surface water extent in the 0.1% AEP event, provided development is proposed outside of the areas at risk, the Exception Test is not required for this site.</p>	

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	However, a site-specific flood risk assessment would still need to demonstrate that the development is safe for its lifetime without impacting on flood risk elsewhere.	
Requirements and guidance for site-specific Flood Risk Assessment (Developer considerations)	<p>Flood Risk Assessment:</p> <p>The Level 1 SFRA has more guidance on this section and any relevant policies and information applicable to development within East Devon District Council.</p> <ul style="list-style-type: none"> • Consultation with East Devon District Council, and where relevant South West Water, Devon County Council, and the Environment Agency should be undertaken at an early stage. • Developers should consult with South West Water to ensure that the development aims to help achieve the targets of the Drainage and Wastewater Management Plan. • Development plans should use the Level 1 and 2 SFRA for East Devon District Council, as well as the Local Flood Risk Management Strategies to identify cumulative flood risk issues. It should also promote an integrated approach to water management. • The site is located within a medium risk Cumulative Impact Assessment (CIA) catchment and therefore specific CIA policy documents are applicable to this site. <p>Guidance for site design and making development safe:</p> <ul style="list-style-type: none"> • 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). • 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: <ul style="list-style-type: none"> • 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. • 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. A drainage strategy should help inform site layout and design to ensure runoff rates do not exceed greenfield rates. • Arrangements for safe access and egress are likely to be possible, however these will need to be considered further within a site-specific 	



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	FRA for the surface water events with an appropriate allowance for climate change, using the depth, velocity, and hazard outputs.

Key messages

The site is generally identified to be at low risk due to its location within Flood Zone 1, with a limited surface water extent. Development is likely to progress if:

- Development is placed outside of the areas at risk from surface water flooding, and a site-specific FRA is undertaken to assess the risk of surface water flooding in relation to the proposed development, using detailed modelling.
- Infiltration rates are assessed on site as part of a drainage strategy.
- There is early engagement with the LLFA and the Environment Agency on the proposed SuDS measures and infiltration rate to discuss requirements on the site meeting relevant conditions due to the sites location within a Nitrate Vulnerable Zone.
- Cumulative Impact Assessment policy documents must be understood, and the cumulative impact of development should be considered.

The Environment Agency regularly reviews their flood risk mapping, and it is important that the Local Planning Authority, Lead Local Flood Authority and Environment Agency are approached to determine whether updated information is available prior to commencing a detailed Flood Risk Assessment.