# UPDATES TO THE STRATEGIC FLOOD RISK ASSESSMENT

FOR THE

## DRAFT CAVAN COUNTY DEVELOPMENT PLAN 2022-2028

INCORPORATING THE DRAFT CAVAN TOWN LOCAL AREA PLAN 2022-2028

## for: Cavan County Council

Courthouse Farnham Cavan Town



**Comhairle Contae an Chabháin** Cavan County Council

### by: CAAS Ltd.

1<sup>st</sup> Floor 24-26 Ormond Quay Upper Dublin



### FEBRUARY 2022

The table below identifies updates to be made to the Strategic Flood Risk Assessment (SFRA) report that was placed on public display alongside the Draft Cavan County Development Plan 2022-2028, including updates in response to submissions made as part of the consultation on the Draft Plan and associated documents.

No.	Updates to SFRA/Plan relating to SFRA report
1	In the final SFRA Report, to provide a finer granularity to the Justification Tests provided on Table 5 of the SFRA report, including identifying both the lands in question and the five points under Criterion no. 2.
2	To include the following description of historical groundwater flooding on SFRA report Table 2:
	Historic groundwater flood map: The historic groundwater flood map is a national-scale flood map presenting the maximum historic observed extent of karst groundwater flooding. The map is primarily based on the winter 2015/2016 flood event, which in most areas represented the largest groundwater flood event on record. The map was produced based on the SAR imagery of the 2015/2016 event as well as any available supplementary evidence. The floods were classified by flood type differentiating between floods dominated by groundwater (GW) and floods with significant contribution of groundwater and surface water (GWSW). In addition to the historic groundwater flood map, the flood mapping methodology was also adapted to produce a surface water flood map of the 2015/2016 flood event. This flood map
	encompasses fluvial and pluvial flooding in non-urban areas and has been developed as a separate product.
3	To include the following description of predictive groundwater flooding on SFRA report Table 3:
	Predictive groundwater flood map: The predictive groundwater flood map presents the probabilistic flood extents for locations of recurrent karst groundwater flooding. It consists of a series of stacked polygons at each site representing the flood extent for specific AEP's mapping floods that are expected to occur every 10, 100 and 1000 years (AEP of 0.1, 0.01, and 0.001 respectively). The map is focussed primarily (but not entirely) on flooding at seasonally inundated wetlands known as turloughs. Sites were chosen for inclusion in the predictive map based on existing turlough databases as well as manual interpretation of SAR imagery.
	The mapping process tied together the observed and SAR-derived hydrograph data, hydrological modelling, stochastic weather generation and extreme value analysis to generate predictive groundwater flood maps for over 400 qualifying sites. It should be noted that not all turloughs are included in the predictive map as some sites could not be successfully monitored with SAR and/or modelled.

No.	Updates to SFRA/Plan relating to SFRA report
4	To insert the following text into the SFRA report under a new subsection titled "Sustainable Urban Drainage Systems":
	As provided for by Foul Drainage and Wastewater Development Objective FDW 06, the Plan requires new developments to "Incorporate the requirement for Sustainable Urban Drainage Systems where appropriate in local authority projects and private development sites".
	SuDS are effective technologies, which aim to reduce flood risk, improve water quality and enhance biodiversity and amenity.
	The systems should aim to mimic the natural drainage of the application site to minimise the effect of a development on flooding and pollution of existing waterways. SuDS include devices such as swales, permeable pavements, filter drains, storage ponds, constructed wetlands, soakways and green roofs. The integration of nature based solutions, such as amenity areas, ecological corridors and attenuation ponds, into public and private development initiatives, is applicable within the provisions of the Plan and should be encouraged.
	In some exceptional cases, and at the discretion of the Council, where it is demonstrated that SuDS devices are not feasible, approval may be given to install underground attenuation tanks or enlarged pipes in conjunction with other devices to achieve the required water quality. Such alternative measures will only be considered as a last resort. Proposals for surface water attenuation systems should include maintenance proposals and procedures.
	Urban developments, both within developments and within the public realm, should seek to minimise and limit the extent of hard surfacing and paving and require the use of sustainable drainage techniques for new development or for extensions to existing developments, in order to reduce the potential impact of existing and predicted flood risk. Development proposals should be accompanied by a comprehensive SuDS assessment that addresses run-off rate, run-off quality and its impact on the existing habitat and water quality.
	For larger sites (i.e. multiple dwellings or commercial units) master planning should ensure that existing flow routes are maintained, through the use of green infrastructure. In addition, where multiple individual proposals are being made SUDS should be integrated where appropriate and relevant.
	All proposed development, should consider the impact of surface water flood risks on drainage design e.g. in the form of a section within the flood risk assessment (for sites in Flood Zone A or B) or part of a surface water management plan. Areas vulnerable to ponding are indicated on the OPW's PFRA Pluvial mapping. Particular attention should be given to development in low-lying areas which may act as natural ponds for collection of run-off. The drainage design should ensure no increase in flood risk to the site, or the downstream catchment. Where possible, and particularly in areas of new development, floor levels should at an appropriate height above adjacent roads and hard standing areas to reduce the consequences of any localised flooding. Where this is not possible, an alternative design appropriate to the location may be prepared.
	Further to the above, proposals for development should consider Greater Dublin Strategic Drainage Study documents in designing SUDS solutions, including the New Development Policy, the Final Strategy Report, the Code of Practice and "Irish SuDS: guidance on applying the GDSDS surface water drainage criteria".
5	<ul> <li>To remove reference to flood event extents on Table 2 of the SFRA report.</li> <li>To replace reference to <u>www.floodmaps.ie</u> with reference to <u>www.floodinfo.ie</u>.</li> </ul>
6	To update the SFRA report to include the correct wording and numbering for Policy Objectives, including those related to flood risk management and proposed to be amended in response to submissions on the Draft Plan and associated documents.
7	A number of Proposed Material Alterations were placed on public display that resulted in changes to settlement boundaries. The flood risk indicator and zone mapping (including the mapping of settlement boundaries) will be updated to take account of this on adoption of the Plan. Any zoning has been informed by mapping of Flood Risk Zones A and B where relevant. Proposed Material Alterations are found to be consistent with the Flood Risk Management Guidelines.