

# UPDATES TO THE STRATEGIC FLOOD RISK ASSESSMENT

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ON FOOT OF SUBMISSIONS MADE ON THE

## DRAFT TIPPERARY COUNTY DEVELOPMENT PLAN 2022-2028 AND ASSOCIATED DOCUMENTS

**for: Tipperary County Council**

Civic Offices  
Nenagh  
County Tipperary



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## Updates to SFRA report text, not involving Plan provisions

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 Tipperary County Development Plan 2022-2028. These updates have arisen from submissions that were made on the Draft Plan and associated documents while on public display. Updates to SFRA report text, not involving Plan provisions, are detailed on Table 1 below.

**Table 1 Updates to SFRA report text, not involving Plan provisions**

No.	Updates
1	<p>Section 2.1 "Introduction" - Table 4, insert new last paragraph:</p> <p><b>Key Towns and District Towns are not provided with land use zoning in the Draft Plan; however, they have been considered in this SFRA, as appropriate, including at:</b></p> <ul style="list-style-type: none"> <li>• <b>Table 3, which identifies CFRAMS Flood Risk Management measures for relevant settlements.</b></li> <li>• <b>Table 7, which identifies flood risk management provisions from the Draft Plan to apply to all development, as relevant; and</b></li> <li>• <b>Appendix II, which includes mapping of County-wide flood risk indicators.</b></li> </ul> <p><b>As the Draft Plan does not provide land use zoning for these settlements, the delineation of Flood Zones is not appropriate, and will be addressed at Local Area Plan preparation stage.</b></p> <p><b>Volume 5 Amendment 2</b></p>
2	<p>Section 2.4 "Flood Risk Indicators" - Table 4 - insert new, last row:</p> <p><b>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 and floods with significant contribution of groundwater and surface water.</b></p> <p><b>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.</b></p>
3	<p>Section 2.4 "Flood Risk Indicators" - Table 5 - update reference from <a href="http://www.cfram.ie">www.cfram.ie</a> to:</p> <p><b><a href="http://www.floodinfo.ie">www.floodinfo.ie</a></b></p>
4	<p>Section 2.4 "Flood Risk Indicators" - Table 5 - insert new, last row as follows:</p> <p><b>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 focused 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 radar imagery.</b></p> <p><b>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.</b></p>
5	<p>Insert new Section 1.7 "Sustainable Urban Drainage and Water Sensitive Urban Design"</p> <p><b>New developments should be adequately serviced with surface water drainage infrastructure and incorporate the use of SuDS and water sensitive urban design. Planning applications for new developments will be required to provide details of surface water drainage, and sustainable drainage systems proposals.</b></p> <p><b>The integration of nature-based solutions, such as amenity areas, ecological corridors and attenuation ponds, into public and private development initiatives should be encouraged. Where multiple individual proposals are being made, in larger settlements, for example, area based Sustainable Drainage Systems should be integrated where appropriate and relevant.</b></p> <p><b>The applicability of different water sensitive urban design/SuDS techniques is dependent on the site in question combined with the proposed development, the nature and design of which at Plan level is not known. 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 GSDS surface water drainage criteria".</b></p>

No.	Updates
6	<p>Section 4.3 "Land-use Zoning" - insert the following to clarify approach to Constrained Land-use:</p> <p><b>The Land Use Zoning Objectives for each settlement have excluded vulnerable uses to the effects of flooding on previously undeveloped areas that are at elevated risk of flooding. These areas have been identified as being at risk of flooding through the undertaking of a SFRA.</b></p> <p><b>The extent of the 'Constrained Land Uses' are shown with a hatching corresponding to the extent of Flood Zones A and B, which are overlain on the land use zoning objective underneath. Where such flood risk extents correspond with undeveloped lands, an appropriate land use zoning objective which would not facilitate the development of classes of development vulnerable to the effects of flooding, has been identified, such as 'Amenity'.</b></p> <p><b>The 'Constrained Land Use' designation extends to existing developed lands in a number of settlements, which could include lands in the centre of towns and villages. In other incidences, the actual buildings may be located outside of areas identified as being at risk of flooding, but the curtilage of the property to the rear may be located at a lower level falling towards a watercourse, and identified as being located within Flood Zone A and / or B. The 'Constrained Land Use' designation overlain on land use zoning objectives generally restricts new development vulnerable to the effects of flooding, while recognising that existing development uses may require small scale additional development which would contribute towards the compact, and sustainable urban development of the individual town / village.</b></p> <p><b>Where development proposals submitted to the Planning Authority relate to existing buildings, or developed areas, the sequential approach cannot be used to locate them in lower-risk areas, and the Justification Test will not therefore apply.</b></p> <p><b>Proposals seeking to change the use of existing buildings from a less vulnerable use, to a more vulnerable use to the effects of flooding, will not normally be considered acceptable to the Planning Authority, whilst some change-of-use proposals not increasing the vulnerability to the effects of flooding, or small-scale extensions to such buildings, will be considered on their individual merits, but are acceptable in principle.</b></p> <p><b>An existing dwelling or building that is not located within an area at risk of flooding, but has a large rear garden / curtilage that is located within Flood Zone A or B, would not be suitable for a more in-depth residential development proposal which would propose a residential use within a designated constrained land use area.</b></p> <p><b>Development proposals within the areas designated as 'Constrained Land Use' shall be accompanied by a detailed Flood Risk Assessment, carried out in accordance with 'The Planning System and Flood Risk Assessment Guidelines' and 'Circular PL 2/2014 (or as updated)', which shall assess the risks of flooding associated with the proposed development.</b></p> <p><b>Proposals shall only be considered favourably by the Planning Authority where it is demonstrated that they would not have adverse impacts or impede access to a watercourse, floodplain or flood protection and management facilities, or increase the risk of flooding to other locations. The nature and design of structural and non-structural flood risk management measures, required for development in such areas, will also be required to be demonstrated (see Volume 3, Appendix 6, Development Management Standard 2.2 Flooding), to ensure that flood hazard and risk will not be increased. Measures proposed shall follow best practice in the management of health and safety for users and residents of the development. Specifications for developments in flood vulnerable areas set out in this Plan shall be complied with as appropriate.</b></p> <p><b>Tables 1.4 &amp; 1.5 from the 'The Planning System and Flood Risk Assessment Guidelines' will guide the Planning Authority in the assessment of development proposals within areas designated as 'Constrained Land Uses'. These tables demonstrate the vulnerability of differing land uses in the three different flood risk zones, to demonstrate the appropriateness of development in each zone, and that which is required to meet the Justification Test. It has not been considered necessary to include this designation within the land use zoning objectives matrix as it is not considered a land use.</b></p> <p><b>Advice Note: Flood hazard mapping and flood risk information as set out in this Draft Plan may change in light of further analysis, and having consideration to the potential impacts of climate change. Therefore, all landowners, users and developers are advised by the Council to take all reasonable measures to assess the vulnerability to flooding of any development or property in a particular area at all times, and prior to submitting a planning application.</b></p>
7	<p>Section 4.5 "Justification Test":</p> <p><b>Delete</b> Table 8 as currently set out, and <b>Replace</b> with updated Table set out in Proposed Amendments document at Volume 5 Amendment 5.</p>
8	<p>Section 1.2 "Summary of Conclusion and Recommendations" - add the following text:</p> <p>The findings of the SFRA process have been integrated into the Plan throughout the process of preparing the Plan. This included informing both the Draft Plan and the Proposed Material Alterations. None of the Proposed Material Alterations were found to conflict with the Flood Risk Management Guidelines or to adversely affect efforts to appropriately manage flood risk. Submissions made on the Draft Plan and associated documents, including an earlier version of this SFRA report, while on public display, were taken into account and resulted in various updates being made to both this SFRA report and the Draft Plan.</p>

## Updates to SFRA report text, involving Plan provisions

Similarly, on foot of submissions, a number of material alterations are proposed to be made to Draft Plan provisions that relate to flood risk management. Subject to whether or not they are adopted as part of the Plan and whether or not they are subject to further modifications, these updated/new provisions will be added to the Strategic Flood Risk Assessment (SFRA) report that was placed on public display alongside the Draft Tipperary County Development Plan 2022-2028. Updates to SFRA report text, involving Plan provisions, are detailed on Table 2 below.

**Table 2 Updates to SFRA report text, involving Plan provisions**

No.	Updates
1	<p>Reproduce the following text in the SFRA once adopted as part of the Plan:</p> <p>Section 11.5.2, Assessing Flood Risk, first paragraph:  <b>'Constrained Land Use' approach was applied to land use zoning as set out within Volume 2 of this Draft Plan.</b></p>
2	<p>Reproduce the following text in the SFRA once adopted as part of the Plan:</p> <p>Section 11.5.2, Assessing Flood Risk, Insert footnote paragraph 1, first sentence last letter (Flooding*)  <b>Flood hazard mapping and flood risk information as set out in this Draft Plan may change in light of further analysis and having consideration to the potential impacts of climate change. Therefore, all landowners, users and developers are advised by the Council to take all reasonable measures to assess the vulnerability to flooding of any development or property in a particular area at all times, and prior to submitting a planning application.</b></p>
3	<p>Reproduce the following text in the SFRA once adopted as part of the Plan:</p> <p>11.5 Flood Risk Management Insert new section  <b>11.5.3 Climate Change and Flooding</b>  <b>'The Planning System and Flood Risk Management Guidelines for Planning Authorities and Technical Appendices, 2009' recommends that a 'precautionary approach' to climate change is adopted due to the level of uncertainty involved in potential effects. In contributing towards compliance with the Guidelines, climate change scenario mapping has been considered as part of the Plan SFRA. The Plan requires that SFRA mapping, and the most up to date Catchment Flood Risk Assessment and Management (CFRAM) Programme climate scenario mapping is consulted by prospective applicants for developments, and that it is made available to lower-tier Development Management processes in the Council.</b>  <b>Chapter 11.5.2 Assessing Flood Risk of this Plan requires that:</b></p> <ul style="list-style-type: none"> <li>• <b>Flood risk assessments submitted shall consider climate change impacts,</b></li> <li>• <b>CFRAM Programme climate scenario mapping should be consulted by prospective applicants for developments; and,</b></li> <li>• <b>SFRAs and site-specific flood risk assessment shall provide information on the implications of climate change with regard to flood risk in relevant locations.</b></li> </ul>
4	<p>Reproduce the following text in the SFRA once adopted as part of the Plan:</p> <p>11 - 9 New sub-section (e)  <b>Require applications for new development, or for an extension to an existing development on land zoned for 'Social and Public' or 'Amenity' use and where a potential flood risk is identified, and where the proposed use might be vulnerable, to be subject to site-specific flood risk assessment to the satisfaction of the Council.</b></p>
5	<p>Reproduce the following text in the SFRA once adopted as part of the Plan:</p> <p>11 - 10 New sub-sections (b) and (c)  <b>(a) Ensure that new developments proposed in Arterial Drainage Schemes and Drainage Districts do not result in a significant negative impact on the integrity, function and management of these areas.</b>  <b>(b) Consult with the OPW in relation to proposed developments in the vicinity of Flood Relief Schemes and drainage channels and rivers for which the OPW are responsible, and to retain a strip on either side of such channels, where required, to facilitate maintenance access thereto.</b>  <b>(c) Protect the integrity of any formal flood risk management infrastructure (see key flood risk infrastructure identified in Section 2.2 "Drainage, Key Flood Risk Infrastructure and Early Warning Systems" of the SFRA), thereby ensuring that any new development does not negatively impact any existing defence infrastructure or compromise any proposed new defence infrastructure.</b></p>

No.	Updates
6	Reproduce the following text in the SFRA once adopted as part of the Plan:  new <b>11 -0</b> <b>(a) Require flood risk assessments to incorporate consideration of climate change impacts and adaptation measures with regard to flood risk, and,</b> <b>(b) Require that flood risk management planning determines actions to embed and provide for effective climate change adaptation as set out in the OPW Climate Change Sectoral Adaptation Plan for Flood Risk Management applicable at the time.</b>
7	Reproduce the following text in the SFRA once adopted as part of the Plan:  new <b>12 - 8</b> <b>Ensure that in assessing new development, the capacity and efficiency of the national road network drainage regimes in County Tipperary will be safeguarded for national road drainage purposes.</b>
8	Reproduce the following text in the SFRA once adopted as part of the Plan:  Section 15.3 Sustainable Surface Water Management, amend text, third paragraph. The Council is responsible for the on-going maintenance and monitoring of sustainable drainage systems within our towns and villages, and will seek to maintain drainage having consideration <b>to Water Sensitive Urban Design and application of a SuDS approach.</b> The Council will require <b>all new development to provide a separate foul and surface water drainage system and to incorporate Water Sensitive Urban Design and a SuDS approach, where appropriate, in new development and the public realm. The provisions of Nature-Based Solutions to the Management of Rainwater and Surface Water Runoff in Urban Areas (water sensitive urban design) Best Practice Interim Guidance Document (DHLGH, 2001) and any review there off, will apply.</b> The Council will require the implementation of <b>SuDS water sensitive urban design</b> as an integral part of the design of new developments to reduce the generation of storm water run-off, and to ensure that all storm water generated is disposed of on-site or is attenuated and treated prior to discharge to an approved storm water system, with consideration to the following:...

## Updates to SFRA Mapping

Table 3 identifies updates to be made with regard to the mapping contained within the SFRA report.

**Table 3 Updates to SFRA Mapping**

No.	Updates
1	Scenarios Mapping will be updated to show the increase in the 1% AEP flood event
2	Final flood risk mapping will be prepared that will align with final Plan boundaries.