

Strategic Flood Risk Assessment for Proposed Variation No. 2

**of the Monaghan County Development
Plan 2025 - 2031**

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CONTENTS

INTRODUCTION.....	1
DISCLAIMER.....	1
PROPOSED VARIATION NO. 2 TO THE MONAGHAN COUNTY DEVELOPMENT PLAN 2025-2031	1
FLOOD RISK GUIDANCE.....	2
<i>Flood Zoning</i>	2
<i>Sequential Approach</i>	2
<i>Justification Test</i>	2
<i>Climate Change Adaptation</i>	3
FLOOD RISK INFORMATION.....	4
<i>Catchment Flood Risk Assessment and Management (CFRAM) Study</i>	4
<i>National Indicative Fluvial Mapping (NIFM)</i>	5
<i>OPW Arterial Drainage Schemes</i>	5
FLOOD RISK ASSESSMENT	5
<i>Monaghan Town</i>	6
<i>Carrickmacross</i>	11
<i>Castleblayney Town</i>	14
<i>Clones</i>	16
<i>Ballybay Town</i>	19
CONCLUSION	21

Introduction

McCloy Consulting were appointed by Monaghan County Council (MCC) to undertake a Strategic Flood Risk Assessment (SFRA) with respect to Variation No. 2 of the Monaghan County Development Plan (CDP) 2025-2031.

As stated in the European Union (Land Use Planning – Strategic Environmental Assessment) Regulations 2025 (S.I. No. 465 of 2025), a Strategic Environmental Assessment (SEA) must be prepared as part of any county development plan to assess the likely significant effects of the plan's implementation on the environment.

The Planning System and Flood Risk Management Guidelines for Planning Authorities 2009 (the OPW Guidelines) recommend that an SFRA be prepared to support the SEA of a development plan to ensure that flood risk, where identified, is considered as one of the key environmental criteria against which the plan is assessed. The SFRA should ultimately inform policy and land use decisions in areas that have been assessed as being at risk of flooding.

MCC is required to apply the SFRA criteria to the proposed variation land zonings. Therefore, the preparation of the proposed variation has undergone an appropriate level of SFRA and this document sets out the findings for the proposed variation. New development will be required to comply with the flood risk management provisions from the CDP and associated SFRA, as well as the information set out in this document.

Disclaimer

It is noted that this Variation SFRA is based on the approach and flood data outlined in the CDP SFRA, prepared in compliance with the requirements of the OPW Guidelines. As stated in the CDP SFRA, outputs from future studies and datasets may trigger a review and update of the SFRA during the lifetime of the 2025-2031 County Development Plan. Accordingly, all information in relation to flood risk is provided for general policy guidance only and may be updated in light of future data and analysis, or future flood events.

As a result, all landowners and developers are advised that Monaghan County Council and their agents can accept no responsibility for losses or damages arising due to assessments of the vulnerability to flooding of lands, uses and developments. Owners, users and developers are advised to take all reasonable measures to assess the vulnerability to flooding of lands and buildings in which they have an interest prior to making planning or development decisions.

Proposed Variation No. 2 to the Monaghan County Development Plan 2025-2031

Proposed Variation No. 2 has been primarily prepared to align the Monaghan CDP with The National Planning Framework (NPF) Implementation: Housing Growth Requirements – Guidelines for Planning Authorities (2025).

The proposed variation provides additional land use zonings and text changes to the written statement which will sufficiently accommodate the revised annual housing delivery target as set out within the ministerial guidelines.

The proposed changes to land use zoning within the county have been identified for assessment. This document should be read in conjunction with all other documentation associated with the proposed variation, which includes further background information and mapping.

Flood Risk Guidance

Comprehensive flood risk guidance is set out in the CDP SFRA. The following are considered to be the primary aspects relevant to assessment of flood risk as part of the proposed variation. It is noted that there have been no significant / relevant updates to flood risk planning policy in Ireland since the current CDP SFRA was published.

Flood Zoning

The approach to assessment of flood risk throughout Monaghan is set out in the CDP SFRA which presents flood mapping for the County. Flood mapping includes Flood Zone (FZ) maps which identify the three classifications outlined in the OPW Guidelines:

- Flood Zone A (FZA) – where the probability of flooding from rivers and the sea is highest (greater than 1% or 1 in 100 for river flooding or 0.5% or 1 in 200 for coastal flooding).
- Flood Zone B (FZB) – where the probability of flooding from rivers and the sea is moderate (between 0.1% or 1 in 1000 and 1% or 1 in 100 for river flooding and between 0.1% or 1 in 1000 year and 0.5% or 1 in 200 for coastal flooding).
- Flood Zone C (FZC) – where the probability of flooding from rivers and the sea is low (less than 0.1% or 1 in 1000 for both river and coastal flooding).

Sequential Approach

The OPW Guidelines recommend a sequential approach to planning to ensure the core objectives of the guidelines are implemented. It is of particular importance at the plan making stage but is also applicable in the layout and design of development at the development management stage.

In general, most types of development would be considered inappropriate in Flood Zone A. In Flood Zone B highly vulnerable development (e.g., hospitals, dwelling houses and primary infrastructure) would be considered inappropriate but less vulnerable development (e.g., retail, commercial and industrial uses) might be considered appropriate. Development within Flood Zone C is appropriate from a flood risk perspective.

However, this preferred Sequential Approach is not always possible as many urban centres are affected by Flood Zones and are targeted for key social and economic development. To reflect this, the OPW Guidelines outline the Justification Test to facilitate assessment of the balance between consideration of flood risk issues and the need for continued development in towns and cities.

Justification Test

The Justification Test is a mechanism within the OPW Guidelines relevant to highly vulnerable and less vulnerable proposals in Flood Zone A and Flood Zone B. The Justification Test is designed to rigorously assess the appropriateness, or otherwise, of particular developments that, for the reasons outlined above, are being considered in areas of moderate or high flood risk. The test is comprised of two processes:

- **Plan Making Justification Test (PM JT)** – used at the plan preparation and adoption stage where it is intended to zone or otherwise designate land which is at moderate or high risk of flooding.
- **Development Management Justification Test (DM JT)** – used at the planning application stage where it is intended to develop land at moderate or high risk of flooding for uses or development vulnerable to flooding that would generally be inappropriate for that land.

Table 1 is a matrix of receptor vulnerability versus Flood Zone to illustrate appropriate development and scenarios where development is required to meet the Justification Test.

Table 1: Vulnerability and Flood Zone Matrix for Justification Test

Development Vulnerability	Flood Zone A	Flood Zone B	Flood Zone C
Highly Vulnerable (including essential infrastructure)	Justification Test	Justification Test	Appropriate
Less Vulnerable	Justification Test	Appropriate	Appropriate
Water-compatible	Appropriate	Appropriate	Appropriate

Climate Change Adaptation

It is likely that climate change will have an impact on flood risk in Ireland as a result of rising sea levels and more frequent extreme rainfall events. Climate change is a dynamic process that requires a precautionary and flexible approach to ensure appropriate provision for or adaptation to its potential consequences.

Guidance on climate change objectives and actions is set out in the Climate Change Sectoral Adaptation Plan published by the OPW in 2025. The first Climate Change Sectoral Adaptation Plan was published in 2015 under the mandate of the National Climate Change Framework. An updated plan was prepared in 2019 with amendments to the previous plan made based on new information available on climate change and its potential impacts and developments in flood risk management since 2015, and was the standing document when the CDP and associated CDP SFRA were published.

An updated plan has since been published in 2025, and updates the 2019 Plan using newly available information on climate change and its potential impacts, developments in flood risk management since 2019 and the Guidelines for the preparation of the Sectoral Adaptation Plans (DECC, 2024).

The long-term goal adopted by the OPW on climate adaptation for flooding and flood risk management is “Enhance resilience against flood risk and reduce impacts of flooding now and into the future, by integrating climate adaptation strategies and measures that reduce vulnerability, protect communities, and promote sustainable flood risk management”, supporting the overarching vision of “A climate-resilient Ireland where flood risk is managed sustainably to protect communities, reduce vulnerability and secure the future”.

To deliver on this goal, the OPW has identified the following adaptation objectives:

- Objective 1: Enhancing our knowledge and understanding of the potential impacts and future risks of climate change for flooding and flood risk management through research and assessments.
- Objective 2: Strengthen capacity and awareness of the impacts of climate change, relating to flooding and flood risk management, within the OPW and across wider stakeholder groups including public bodies, professional sectors and the general public.
- Objective 3: Embed climate change adaptation into flood risk management practices undertaken by the OPW and other sectors.
- Objective 4: Increase the awareness and suitable application of Nature-based Solutions for Catchment Management to improve climate resilience.

A number of actions have been identified under each adaptation objective across the areas of activity in flood risk prevention, protection and preparedness and resilience, as well as in further research and capacity building. Flooding has the potential to affect all sectors and local authorities, and coordination is critical towards ensuring a coherent and whole of government approach to climate resilience in relation to flooding and flood risk management.

Based on the Sectoral Adaptation Plans, the OPW has adopted two indicative potential futures for flood risk assessment; the Mid-Range Future Scenario (MRFS) and the High-End Future Scenario (HEFS). These were

selected to reflect, based on information available at the time and remain valid per the updated document, a future in the latter part of the century that would be:

- typical or near to the general average of the future climate projections (MRFS).
- a more extreme future based on the upper end of the range of projections of future climatic conditions and the impacts such changes would have on the drivers of flood risk (HEFS).

The allowances, in flood risk terms, for both the MRFS and HEFS are set out in the CDP SFRA (see Table 4.3), along with climate change mapping as included in CDP SFRA Appendices C and D. The CDP SFRA further sets out the following:

Due to the uncertainty of the potential effects of climate change, the Monaghan SFRA sets out recommendations in line with the precautionary approach adopted by the Guidelines in terms of managing the effects of climate change. These include:

- Recognising that significant changes in the flood extent may result from an increase in rainfall or tide events and, accordingly, adopt a cautious approach to zoning land in transitional areas.
- Ensuring that the finished levels of structures are designed to protect against flooding such that flood defences, land raising, and ground floor levels are sufficient to cope with the effects of climate change over the lifetime of the development.
- Ensuring that both the structures designed to protect against flooding and the protected development are capable of adaptation to the effects of climate change when there is more certainty about the effects and when there is still time for such adaptation to be effective.

Further, the CDP SFRA sets out the following in regards to Flood Risk Mitigation, with freeboard and minimum design level requirements set out accordingly:

Climate change projections are to be applied depending on the receptor vulnerability as follows:

- HEFS is to be considered for 'highly vulnerable' development
- MRFS is to be considered for 'less vulnerable' development
- Climate change is generally not a critical consideration for 'water compatible' development but if required (e.g. to ascertain flood depths), the MRFS will apply.

Flood Risk Information

To ensure this SFRA for Proposed Variation No. 2 is based on the most up-to-date flood risk information, a comprehensive review of available flood data was undertaken and confirmed that no new relevant flood data has been published and / or made available since the CDP SFRA was published.

Therefore, the flood data / Flood Zones included in this SFRA report are considered the 'best' available to undertake the assessment.

As set out in the Monaghan CDP SFRA, no part of the county is at risk from coastal flooding so fluvial flooding is the only source of Flood Zone data. Sources of fluvial flood data that have been used to inform this assessment are outlined below. It is noted that while Monaghan CDP SFRA Flood Zone mapping is understood to include OPW CFRAM and NIFM data, this assessment has used currently available CFRAM and NIFM data to ensure any changes since the Monaghan CDP SFRA was published are taken into account.

Catchment Flood Risk Assessment and Management (CFRAM) Study

As part of the OPW's CFRAM programme, flood extent, depth, and risk maps (generally referred to as 'CFRAM maps') were published in 2015 / 2016 for areas identified by the Preliminary Flood Risk Assessment (PFRA) as being at potentially significant risk of flooding. One of the main purposes of the detailed CFRAM flood maps was to assist Local Authorities in planning and development management.

The CFRAM flood extent maps show the estimated extents, peak water levels, and peak flows associated with flooding from modelled river reaches, estuaries, and coastlines, taking account of flood defences. Flood maps were produced for a range of flood events (10%, 1%, and 0.1% AEP) for the present-day scenario and two future scenarios (the MRFS and HEFS). Flooding from other sources has typically not been considered as part of the CFRAM flood mapping.

National Indicative Fluvial Mapping (NIFM)

The National Indicative Fluvial Mapping (NIFM) was released by the OPW in 2021. It shows the extent of flooding from modelled river reaches for catchments greater than 5 km² in areas that were not previously mapped as part of the CFRAM programme. Flood mapping was prepared for a range of flood events (5%, 1%, and 0.1% AEP) for the present-day scenario and two future climate change scenarios (the MRFS and HEFS).

NIFM User Guidance Notes state that the maps only provide an indication of areas that may be prone to flooding. They are not necessarily locally accurate and should not be used as the sole basis for making decisions on planning applications. They are by definition of a national indicative quality.

NIFM flood data represents best available information for flooding from fluvial sources where no more detailed regional or local-quality data exists.

OPW Arterial Drainage Schemes

Arterial Drainage Schemes were carried out under the Arterial Drainage Act, 1945 to improve land for agriculture and to mitigate flooding. Rivers, lakes weirs and bridges were modified to enhance conveyance, embankments were built to control the movement of flood water and various other work was carried out under Part II of the Arterial Drainage Act, 1945.

The purpose of the schemes was to improve land for agriculture, to ensure that the 3-year flood was retained in bank this was achieved by lowering water levels during the growing season to reduce waterlogging on the land beside watercourses known as callows. Flood protection in the benefiting lands was increased as a result of the Arterial Drainage Schemes.

Two primary 'Arterial Drainage Schemes', that the OPW has a duty to maintain, are located within Monaghan:

- The Glyde and Dee Arterial Drainage Scheme, covering 26,300 benefiting acres over Counties Louth, Meath, Monaghan and Cavan, to the north of Monaghan Town
- The Monaghan Blackwater, covering 5,850 benefiting acres within Monaghan County, to the south of Carrickmacross

As part of the Proposed Material Alterations to Proposed Variation No. 2 to the Monaghan CDP 2025-2031, a new objective, MPO 10, is proposed for inclusion within Chapter 8 of the Monaghan County Development Plan 2025-2031 as follows:

"To have regard for OPW Arterial Drainage Schemes, including channels and benefitting lands. This may include the provision of a 10m maintenance buffer adjacent to arterial drainage channels to facilitate ongoing maintenance. Such buffer areas, where required by the Planning Authority, shall not normally be developed in a manner that would prevent access.

A site-specific Flood Risk Assessment of an appropriate stage will be required for any proposed development within Arterial Drainage Scheme Benefitting Lands, having regard for any indication of areas subject to flooding or poor drainage".

Flood Risk Assessment

The following sections of this report present the proposed variations overlain with the Monaghan CDP 2025-2031 SFRA Flood Zone mapping for each of the County Towns. The implication of the Flood Zoning on the nature of the variation (i.e. vulnerability classification) is assessed, particularly whether a Plan-Making Justification Test (PM JT) is required, as well as any relevant comment is presented in the following tables.

Please refer to Proposed Variation Site ID in the accompanying variation documentation and map booklet.

[Monaghan Town](#)
Table 2: Flood Risk Summary of Proposed Changes in Zoning of Lands in Monaghan Town

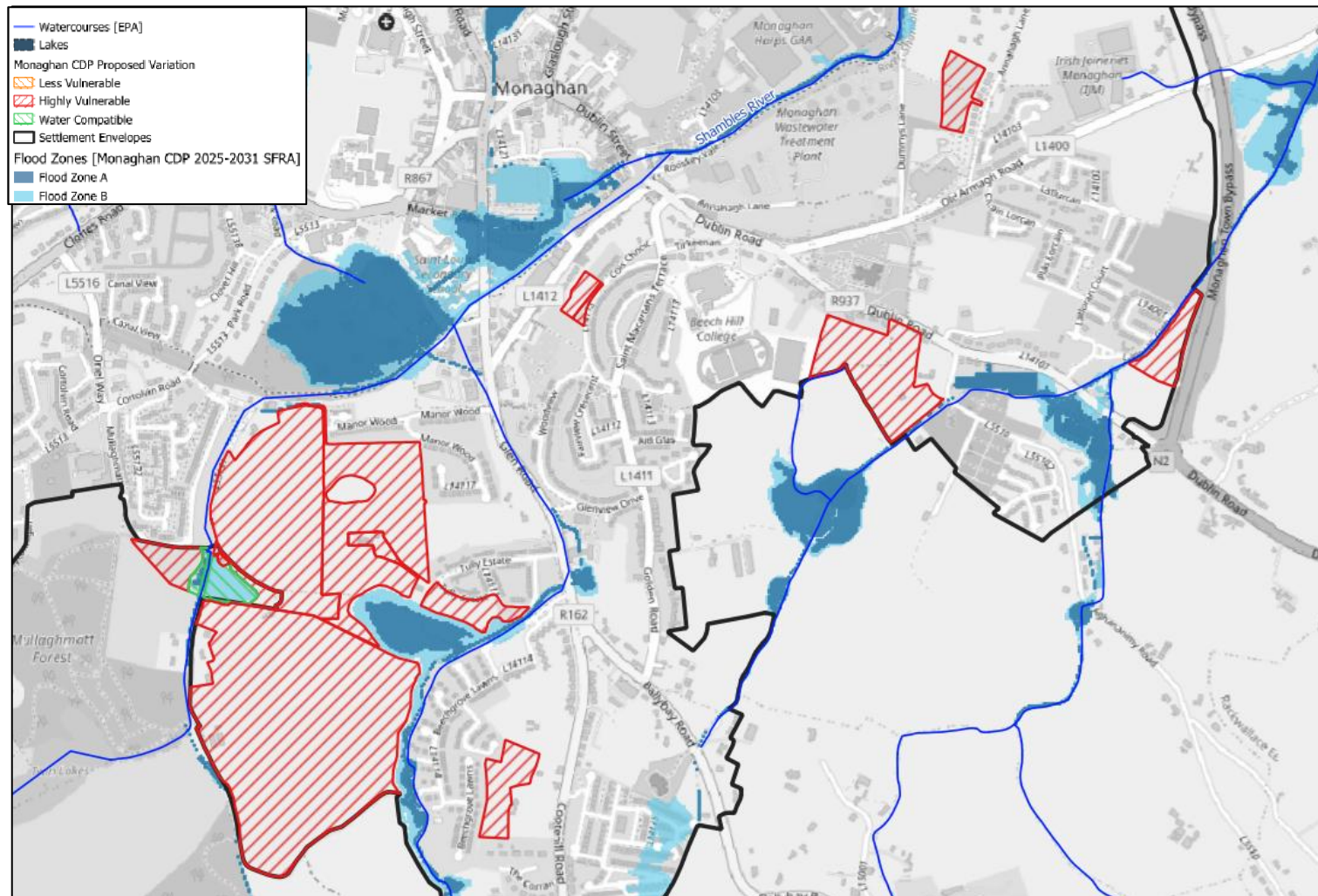
Proposed Variation Site ID	Proposed Variation Proposed Zoning	Flood Zone (FZ)	PM JT Required?	Comment
MT1022	Proposed Residential A	FZC	No	Adjacent watercourse is CFRAM modelled, as suitable for S2 analysis. The site is appropriately located in Flood Zone C. Available CFRAM flood mapping indicates that part of the lands along the eastern site bound may lie within the HEFS climate change flood extents. Site-specific flood risk assessment(s) shall include consideration of climate change and set out further requirements for the mitigation of the impact of climate change including, but not limited to, siting of development, freeboard and assessment of impact on flood risk elsewhere.
MT1023	Landscape Protection / Conservation	FZA	No	Proposed zoning is water compatible and appropriate in any flood zone Any proposal for development within Flood Zones A or B which involves changes in existing ground levels or provision of structures will require site specific flood risk assessment at planning application stage which demonstrates that the proposed development will not be at an unacceptable risk from flooding, and will not cause, contribute to, or exacerbate flooding elsewhere.
MT1024	Landscape Protection/ Conservation	FZB	No	Proposed zoning is water compatible and appropriate in any flood zone Any proposal for development within Flood Zones A or B which involves changes in existing ground levels or provision of structures will require site specific flood risk assessment at planning application stage which demonstrates that the proposed development will not be at an unacceptable risk from flooding, and will not cause, contribute to, or exacerbate flooding elsewhere.

Proposed Variation Site ID	Proposed Variation Proposed Zoning	Flood Zone (FZ)	PM JT Required?	Comment
MT1025	Existing Residential	FZC	No	Adjacent River Shambles is CFRAM modelled, as suitable for S2 analysis. The site is appropriately located in Flood Zone C. Available CFRAM flood mapping indicates a significant portion of the lands may lie within the HEFS climate change flood extents. Site-specific flood risk assessment(s) shall include consideration of climate change and set out further requirements for the mitigation of the impact of climate change including, but not limited to, siting of development, freeboard and assessment of impact on flood risk elsewhere. The proposed zoning reflects existing use, and proposed development will be limited to appropriate Minor Works and infill.
MT1026	Proposed Residential A	FZC	No	Adjacent watercourse is CFRAM modelled, as suitable for S2 analysis. The site is appropriately located in Flood Zone C. Available CFRAM flood mapping indicates that minor portions of the lands along the southern site bound may lie within the HEFS climate change flood extents. Site-specific flood risk assessment(s) shall include consideration of climate change and set out further requirements for the mitigation of the impact of climate change including, but not limited to, siting of development, freeboard and assessment of impact on flood risk elsewhere.
MT1027	Existing Residential	FZC	No	
MT1028	Proposed Residential A	FZC	No	
MT1029	Proposed Residential A	FZC	No	
MT209	Strategic Residential Reserve	FZC	No	Adjacent watercourses are CFRAM modelled, as suitable for S2 analysis. The site is appropriately located in Flood Zone C. Available CFRAM flood mapping indicates that marginal portions of the adjacent lands may lie within the HEFS climate change flood extents. Site-specific flood risk assessment(s) shall include consideration of climate change and set out further requirements for the mitigation of the impact of climate change including, but not limited to, siting of development, freeboard and assessment of impact on flood risk elsewhere.

Proposed Variation Site ID	Proposed Variation Proposed Zoning	Flood Zone (FZ)	PM JT Required?	Comment
MT219	Proposed Residential A	FZC	No	Adjacent watercourses are CFRAM modelled, as suitable for S2 analysis. The site is appropriately located in Flood Zone C. Available CFRAM flood mapping indicates that marginal portions of the adjacent lands may lie within the HEFS climate change flood extents. Site-specific flood risk assessment(s) shall include consideration of climate change and set out further requirements for the mitigation of the impact of climate change including, but not limited to, siting of development, freeboard and assessment of impact on flood risk elsewhere.
MT239	Proposed Residential A	FZC	No	Adjacent Shambles River is CFRAM modelled, as suitable for S2 analysis. The site is appropriately located in Flood Zone C. Available CFRAM flood mapping indicates that portions of the southern boundary may lie within the HEFS climate change flood extents. Site-specific flood risk assessment(s) shall include consideration of climate change and set out further requirements for the mitigation of the impact of climate change including, but not limited to, siting of development, freeboard and assessment of impact on flood risk elsewhere.
MT247	Proposed Residential A	FZC	No	
MT388	Proposed Residential A	FZC	No	Adjacent watercourse along western site bound is CFRAM modelled, as suitable for S2 analysis. The site is appropriately located in Flood Zone C. The adjacent watercourse is modelled to sufficient detail to proceed with zoning. The watercourse is an Arterial Drainage Scheme (ADS) Channel, and the site is located within benefitting lands of the ADS. Any proposed development at the site should have regard to objective MPO 10, including incorporation of a maintenance buffer to allow sufficient access for OPW statutory requirements for channel maintenance, and consideration of areas indicated as within benefitting lands for potential indicators of areas subject to flood risk or poor drainage. Available CFRAM flood mapping indicates that portions of the adjacent lands may lie within the HEFS climate change flood extents. Site-specific flood risk assessment(s) shall include consideration of climate change and set out further requirements for the mitigation of the impact of climate change including, but not limited to, siting of development, freeboard and assessment of impact on flood risk elsewhere.

Proposed Variation Site ID	Proposed Variation Proposed Zoning	Flood Zone (FZ)	PM JT Required?	Comment
MT928	Proposed Residential A	FZC	No	Adjacent watercourse is CFRAM modelled, as suitable for S2 analysis. The site is appropriately located in Flood Zone C. Available CFRAM flood mapping indicates that marginal portions of the adjacent lands may lie within the HEFS climate change flood extents. Site-specific flood risk assessment(s) shall include consideration of climate change and set out further requirements for the mitigation of the impact of climate change including, but not limited to, siting of development, freeboard and assessment of impact on flood risk elsewhere.
MT948	Proposed Residential A Strategic Residential Reserve	FZC	No	Proposed zoning reverted in Rev 02 per PMA, whereby the proposed rezoning is no longer intended to proceed as part of Proposed Variation No. 2. The site is located in Flood Zone C, based on delineated Flood Zones. Any development in line with the existing zoning will require a Stage 3 site-specific flood risk assessment(s) which shall include consideration of unmodelled watercourse, historic flooding, and climate change and set out further requirements for the mitigation of the impact of flood risk including, but not limited to, climate change impacts, siting of development, freeboard and assessment of impact on flood risk elsewhere.
MT958	Proposed Residential A	FZC	No	

Figure 1: Monaghan Town Land Use Zoning Map Amendments overlain with Flood Zone Sources

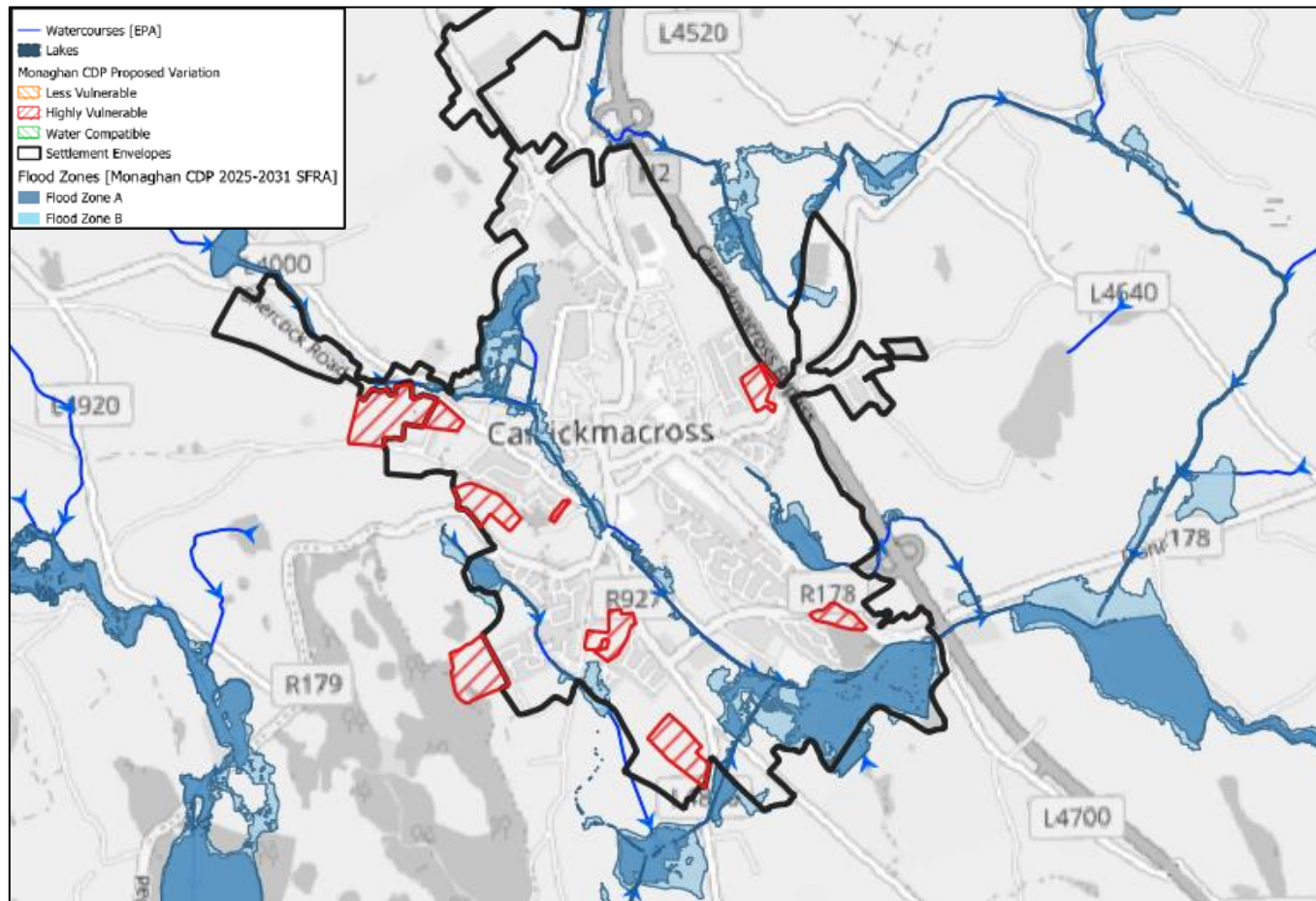


[Carrickmacross](#)
Table 3: Flood Risk Summary of Proposed Changes in Zoning of Lands in Carrickmacross

Proposed Variation Site ID	Proposed Variation Proposed Zoning	Flood Zone	PM JT Required?	Comment
CM1003	Proposed Residential A	FZC	No	River Proules runs along northern site boundary and is CFRAM modelled, as suitable for S2 analysis. The site is appropriately located in Flood Zone C.
CM1004	Proposed Residential A	FZC	No	
CM1005	Proposed Residential A	FZC	No	A turlough is recorded to the west of the site, associated with OPW records of recurring flooding. Any development proposal for the site should ensure there is no associated flood risk to the site, and any proposal will not increase flood risk elsewhere.
CM1006	Proposed Residential A	FZC	No	Site added in Rev 02 per PMA. The site is appropriately located in Flood Zone C. An isolated area of low-lying land is identified by MCC Flood Info maps. All nearby watercourses are appropriately CFRAM mapped, and this area is identified as a potential pluvial flood risk area. Any proposed development for the site should be accompanied by appropriate site-specific flood risk assessment(s) and drainage design.
CM1030	Proposed Residential A	FZC	No	
CM707	Strategic Residential Reserve	FZC	No	An emergency services report notes recorded flooding at a property to the north of the site (see CDP SFRA Table 4.3, Flood ID 16), associated with fluvial flooding of the River Proules. Any development proposal for the site should ensure there is no associated flood risk to the site, and any proposal will not increase flood risk elsewhere. The River Proules is CFRAM modelled, as suitable for S2 analysis. The site is appropriately located in Flood Zone C. Available CFRAM flood mapping indicates that a minor portion of the eastern site corner within the HEFS climate change flood extents. Site-specific flood risk assessment(s) shall include consideration of climate change and set out further requirements for the mitigation of the impact of climate change including, but not limited to, siting of development, freeboard and assessment of impact on flood risk elsewhere.
CM764	Proposed Residential A	FZC	No	

Proposed Variation Site ID	Proposed Variation Proposed Zoning	Flood Zone	PM JT Required?	Comment
CM768	Proposed Residential A	FZC	No	
CM783	Proposed Residential A Strategic Residential Reserve	FZC	No	Proposed zoning reverted to Strategic Residential Reserve in Rev 02 per PMA.
CM924	Proposed Residential A	FZC	No	

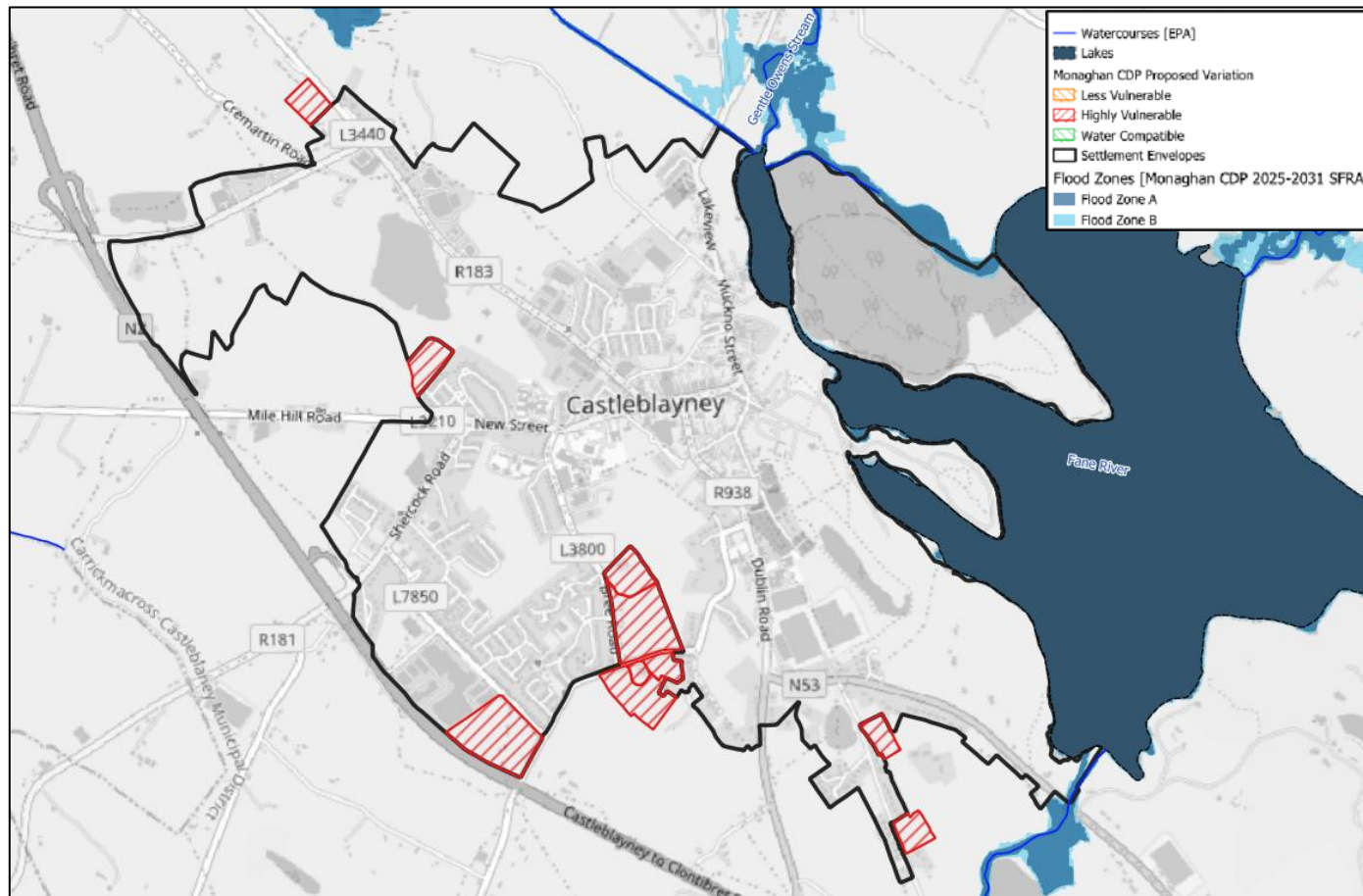
Figure 2: Carrickmacross Land Use Zoning Map Amendments overlain with Flood Zone Sources



[Castleblayney Town](#)
Table 4: Flood Risk Summary of Proposed Changes in Zoning of Lands in Castleblayney Town

Proposed Variation Site ID	Proposed Variation Proposed Zoning	Flood Zone	PM JT Required?	Comment
CY1012	Proposed Residential A-B	FZC	No	Proposed zoning revised to Proposed Residential B in Rev 02 per PMA.
CY1013	Proposed Residential A	FZC	No	
CY1014	Proposed Residential A	FZC	No	
CY1015	Strategic Residential Reserve	FZC	No	
CY1017	Proposed Residential A	FZC	No	
CY1016	Strategic Residential Reserve	FZC	No	
CY1018	Existing Residential	FZC	No	
CY1019	Strategic Residential Reserve	FZC	No	
CY1020	Proposed Residential A	FZC	No	Lough noted to the west of the site. Emergency services report record flooding in property to the north (see CDP SFRA Table 4.3, Flood ID 12). Any development proposal for the site should ensure there is no associated flood risk to the site, and any proposal will not increase flood risk elsewhere.
CY1021	Proposed Residential A	FZC	No	

Figure 3: Castleblayney Town Land Use Zoning Map Amendments overlain with Flood Zone Sources



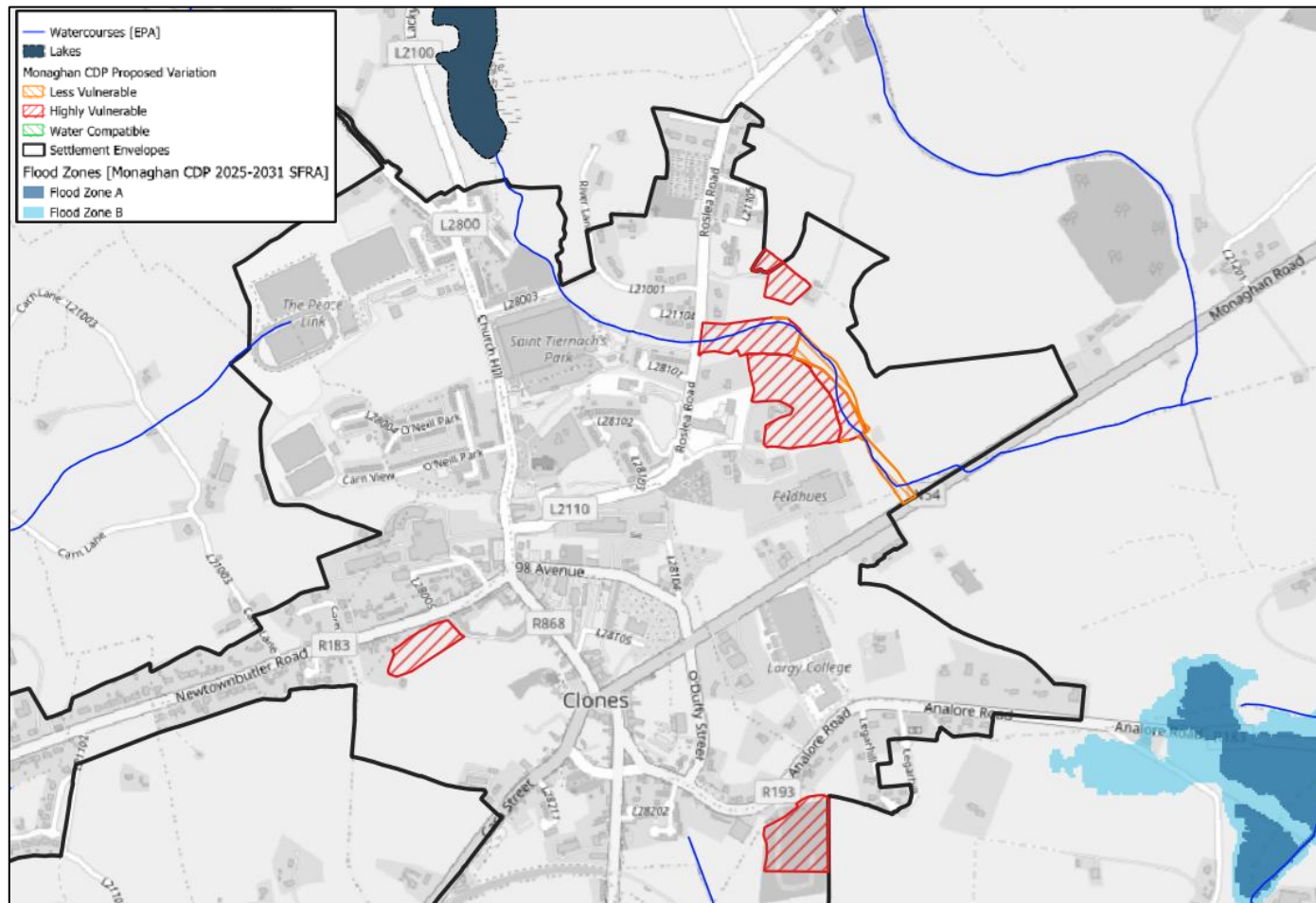
[Clones](#)

Table 5: Flood Risk Summary of Proposed Changes in Zoning of Lands in Clones

Proposed Variation Site ID	Proposed Variation Proposed Zoning	Flood Zone	PM JT Required?	Comment
CS1006	Proposed Residential A	FZC	No	
CS1007	Proposed Residential A	FZC	No	
CS1008	Proposed Residential A	FZC	No	
CS1009	Proposed Residential A	FZC	No	An unmodelled watercourse flows south through the lands. Recurring flooding is noted south of the N54, as captured by MCC Flood Info maps. As part of Proposed Variation No. 2, Objective CLSO 2 will be added setting out requirements for “the preparation and implementation of a Masterplan for the lands adjoining the indicative new road in Clones, extending from the Monaghan Road (N54) to the Roslea Road (LP2110). The Masterplan will guide sustainable residential and industrial development while safeguarding environmental and natural resources. <i>The masterplan shall include a transport assessment to identify how the site should be served, with a particular regard to sustainable transport modes.</i> No development shall be permitted to proceed until the following requirements are met:
CS101	Proposed Residential A	FZC	No	
CS1010	Industry / Enterprise / Employment	FZC	No	
CS1011	Industry / Enterprise / Employment	FZC	No	
CS107	Proposed Residential A	FZC	No	- The level of risk associated with the unmodelled watercourse is identified and classified. - Where flood risk is identified, highly vulnerable development will not be permitted within Flood Zones A or B and only water compatible uses will be permitted within Flood Zone A. - All proposals shall comply with The Planning System and Flood Risk Management Guidelines for Planning Authorities (2009) and any subsequent updates. - <i>The masterplan should also take account of the opportunities for nature-based solutions to reduce runoff and provide other benefits such as to water quality, biodiversity and the environment”.</i>

Proposed Variation Site ID	Proposed Variation Proposed Zoning	Flood Zone	PM JT Required?	Comment
CS25	Proposed Residential A	FZC	No	

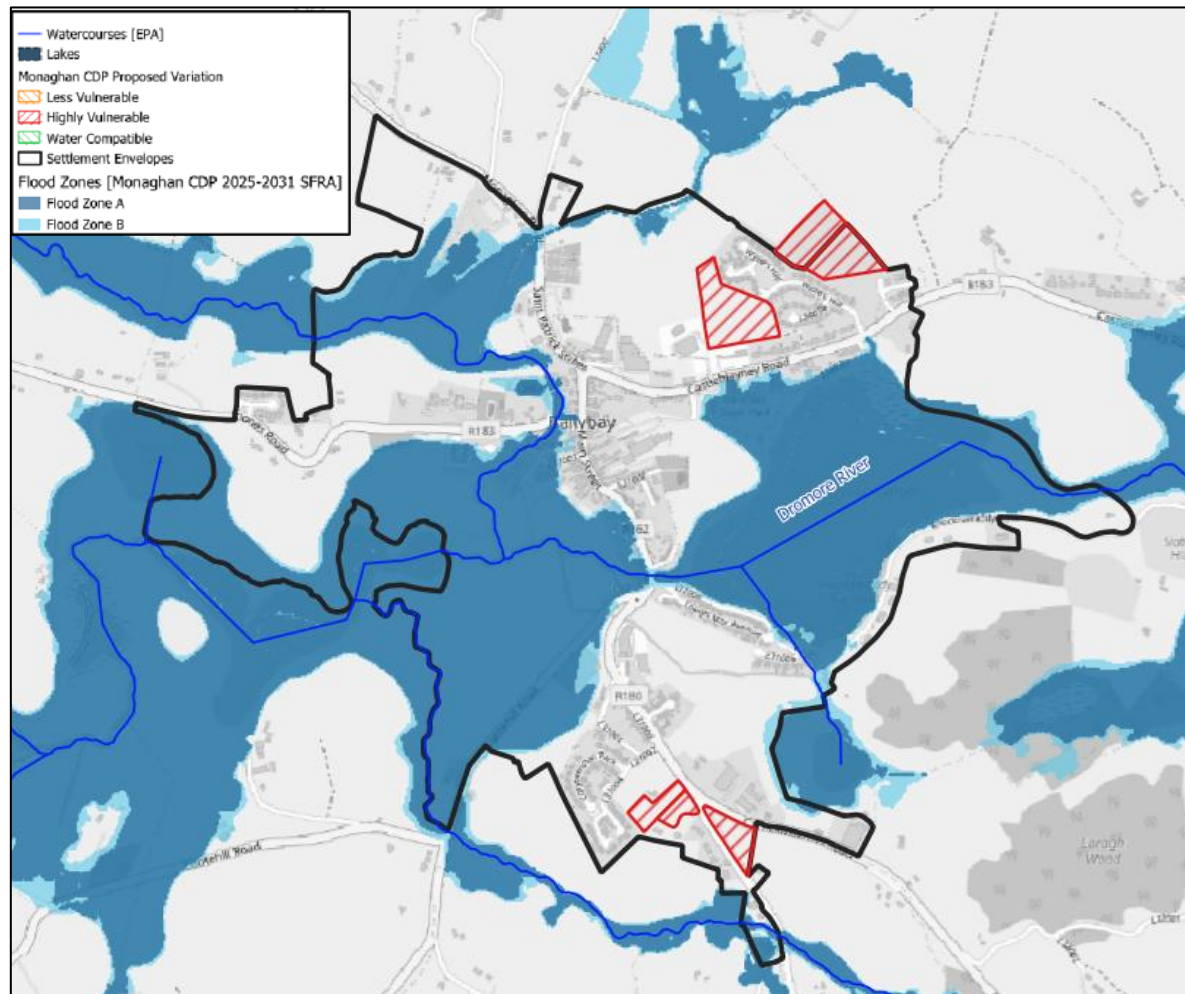
Figure 4: Clones Land Use Zoning Map Amendments overlain with Flood Zone Sources



[Ballybay Town](#)
Table 6: Flood Risk Summary of Proposed Changes in Zoning of Lands in Ballybay Town

Proposed Variation Site ID	Proposed Variation Proposed Zoning	Flood Zone	PM JT Required?	Comment
BB1002	Proposed Residential B	FZC	No	
BB445	Proposed Residential A	FZC	No	
BB455	Proposed Residential A	FZC	No	
BB457	Proposed Residential A	FZC	No	
BB468	Proposed Residential A	FZC	No	The site is appropriately located in Flood Zone C. Available CFRAM flood mapping indicates that a minor area within the eastern corner of the site may lie within the 0.1% HEFS climate change flood extents. This area is a spill from the CFRAM modelled Dromore River, across the adjacent Castleblayney Road, and is not an active floodway. Site-specific flood risk assessment(s) shall include consideration of climate change and set out further requirements for the mitigation of the impact of climate change including, but not limited to, siting of development, freeboard and assessment of impact on flood risk elsewhere.
BB901	Proposed Residential A	FZC	No	

Figure 5: Ballybay Town Land Use Zoning Map Amendments overlain with Flood Zone Sources



Conclusion

In achieving the objectives of the OPW Guidelines, MCC must:

- Adopt a sequential approach to flood risk management, which aims to (1) avoid flood risk where possible, (2) substitute less vulnerable uses where avoidance is not possible, and (3) mitigate and manage the risk where avoidance and substitution are not possible.
- Apply the Justification Test for development in flood risk areas.

A precautionary approach should also be applied to flood risk management to reflect uncertainties in available flood data, risk assessment techniques, climate change projections, and performance of existing flood defences.

In summary, all proposed zonings / rezonings and new / revised designations included in Proposed Variation No. 2 are considered 'appropriate' as per the OPW Guidelines and do not require the application of Plan-Making Justification Tests.

The Sequential Approach and guidance outlined in the OPW Guidelines and Monaghan CDP SFRA should be applied in any future development proposals relevant to the subject variation sites.