

DRAFT LETTERKENNY PLAN & LOCAL TRANSPORT PLAN 2023-2029, INCORPORATING PROPOSED MATERIAL ALTERATIONS

STRATEGIC FLOOD RISK ASSESSMENT



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Strategic Flood Risk
Assessment for Letterkenny
Local Area Plan
D05
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REPORT

Quality Management

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Appendix A: Letterkenny LAP Zoning and Flood Zones

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Appendix C: Consultation Responses

1 INTRODUCTION

1.1 REPORT OBJECTIVES

The objective of this report is to prepare a SFRA for the Letterkenny Local Area Plan. The Report was prepared in accordance with the requirements of The Planning System and Flood Risk Assessment Guidelines for Planning Authorities (2009) Circular PL02/2014 (August 2014) (referred to hereafter as ‘The Guidelines’). In line with Guidelines the SFRA must appraise the adequacy of the information available and scope the additional information, analysis and mapping to provide a full picture of flood risk. In this regard it will be required to undertake a full assessment of the existing information in relation to fluvial and coastal flood risk and appraise where this may need to be updated and/or additional detail added.

The SFRA provides an assessment of all types of flood risk within the Letterkenny and provides assistance to Donegal County Council (DCC) to make informed strategic land-use planning decisions and formulate flood risk policies. A Stage 1 Flood Risk Identification was undertaken to identify any flooding or surface water management issues related to Letterkenny that may warrant further investigation. As part of this stage the best available data at the time of preparation was acquired from the Office of Public Works (OPW) North Western Catchment Flood Risk Assessment Management (CFRAM) Study. The North Western CFRAM has generated flood zone mapping which has been deemed suitable as a Stage 2 Initial Flood Risk Assessment. The SFRA examines the Flood Zones A, B and C identified in the North Western/Neagh Bann CFRAMs study with respect to the management of flood risk for development in respect of the Letterkenny land use zoning map. This flood risk information has enabled DCC to apply ‘The Guidelines’ sequential approach, and where necessary the Justification Test, to appraise sites for suitable land zonings and identify how flood risk can be managed as part of the development plan. Appendix B outlines the approach undertaken by DCC in application of the sequential approach and details the Justification Tests where necessary.

1.2 DISCLAIMER

The SFRA has been prepared in compliance with the Guidelines but the SFRA remains a living document and is based on the best available data at the time of preparation. It is subject to change based on more up to date and relevant flood risk information becoming available during the lifetime of the Development Plan. All information in relation to flood risk is provided for general policy guidance only. All landowners and developers are instructed that Donegal County Council and their consultants can accept no responsibility for losses or damages arising due to assessments of the vulnerability to flooding of lands, uses and developments. Furthermore owners, users and developers are advised to take all reasonable measures to assess the vulnerability to flooding of lands in which they have an interest prior to making planning or development decisions.

It should be noted that the North Western CFRAM mapping used to define the flood zones for this SFRA is the most comprehensive flood zone mapping available for the county and is considered appropriate for use as a strategic overview of flood risk within Letterkenny. Further information on the North Western CFRAM study is available at <https://www.floodinfo.ie/>. The flood maps are ‘predictive’ flood maps, as they provide predicted flood extent and other information for a flood event that has an estimated probability of occurrence (the 1% AEP and 0.1% AEP events – see section 3.2.3 below), rather than information for floods that have occurred in the past.

Donegal County Council makes no representations, warranties or undertakings about any of the information provided on these maps including, without limitation, their accuracy, their completeness or their quality or fitness for any particular purpose. To the fullest extent permitted by applicable law, Donegal County Council nor any of its members, officers, associates, consultants, employees, affiliates, servants, agents or other representatives shall be liable for loss or damage arising out of, or in connection with, the use of, or the inability to use, the information provided on the draft flood maps including, but not limited to, indirect or consequential loss or damages, loss of data, income, profit, or opportunity, loss of, or damage to, property

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1.3 REPORT STRUCTURE

The Letterkenny Local Area Plan Study area and its primary watercourses are identified in Section 2. A summary of the Planning System and Flood Risk Management Guidelines and the procedure for undertaking a SFRA is presented in Section 3. Section 4 outlines a broad overview of the requirements of Flood Risk Assessments (FRA) which should accompany planning applications. The available flood risk information used to identify the flood risk zones is discussed in Section 5. Potential zoning areas at risk from flooding are examined and recommendations for Flood Risk Assessments are made in Section 7. Section 7 details the flood risk management policies, suitable land zonings and identify how flood risk can be managed as part of the development plan. Appendix B outlines the approach undertaken by DCC in application of the sequential approach and details the Justification Tests where necessary.

1.4 CONSULTATION

A consultation exercise was undertaken on the Draft Letterkenny Plan and Local Transport Plan 2023-2029. This consultation process resulted in the receipt of a number of observations and recommendations in relation to Flood Risk Management and the SFRA prepared in support of the Plan. These submissions were received from the Office of Public Works (OPW) and the Office of the Planning Regulator (OPR).

Appendix C includes the submissions from both organisations setting out the issues raised. These issues have been considered and amendments made to the SFRA and the Draft Letterkenny Plan and Local Transport Plan 2023-2029 incorporating proposed material alterations.

2 STUDY AREA

2.1 INTRODUCTION

Project Ireland 2040 National Planning Framework, published in July 2018, is the primary articulation of spatial, planning and land use policy within Ireland.

The framework recognises the importance of the Northern and Western Region and justifies a particular focus in the Framework. This was due to the lower level of urbanisation compared to other regions, proximity to the border and the risk posed by Brexit.

Specifically in relation to Donegal the Framework acknowledges that the region is spatially unique due to its extensive coastline but also the relationship to Northern Ireland. In addition to enhancing the connectivity for the regional area the framework supports the enabling of growth and competitiveness to support the strong links that existing between Letterkenny and environs and Northern Ireland.

The Letterkenny Local Area Plan administrative area is shown Figure 2.1. The LAP area has an extent of approximately 223 km². The Town has a population of 19,264 based on the latest census data (2016). The preferred strategic direction of the town includes a strategic growth proposition that would cater for Letterkenny to grow to a future city of +35,000 and be a regional economic driver in the North West City Region.

2.2 WATERCOURSES

The Letterkenny Area Further Assessment (AFA) in the North Western CFRAMs is located at the top of Lough Swilly and is made up of the lower reaches of the River Swilly and a number of tributaries that flow into River / Lough Swilly through the Letterkenny AFA including the Sprack and Coravaddy Burns and the Knocknamona watercourse. The Swilly River catchment is fairly mixed in land coverage with forested land (23%), pasture (38%), peat bog (35%) and urban area (4%) due to Letterkenny. The tributaries which enter the Swilly emanate from the hills surrounding Letterkenny to the north and south and some pick up a significant amount of urban drainage along the way to their discharge points into the Swilly.

The extents of the model developed for the Letterkenny AFA under the North Western CFRAM study extended upstream so as to include the New Mills gauging station (39001 - OPW) on the River Swilly upstream of Letterkenny. The modelled catchments are shown in Figure 2.2.

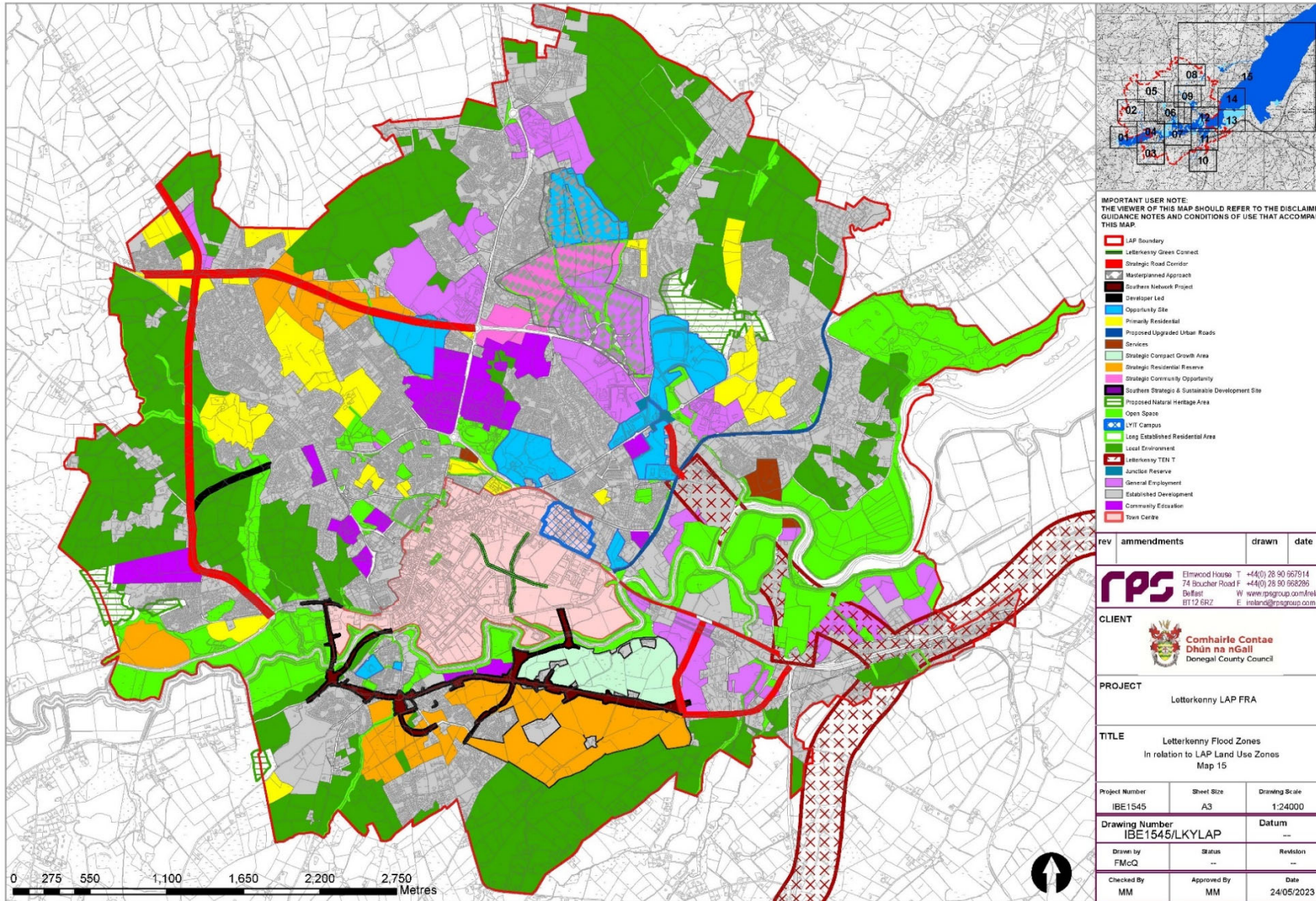


Figure 2.1: Land use zonings for Letterkenny as contained in the Draft Letterkenny Plan and Local Transport Plan 2023-2029 overlaid with Flood Zones A and B

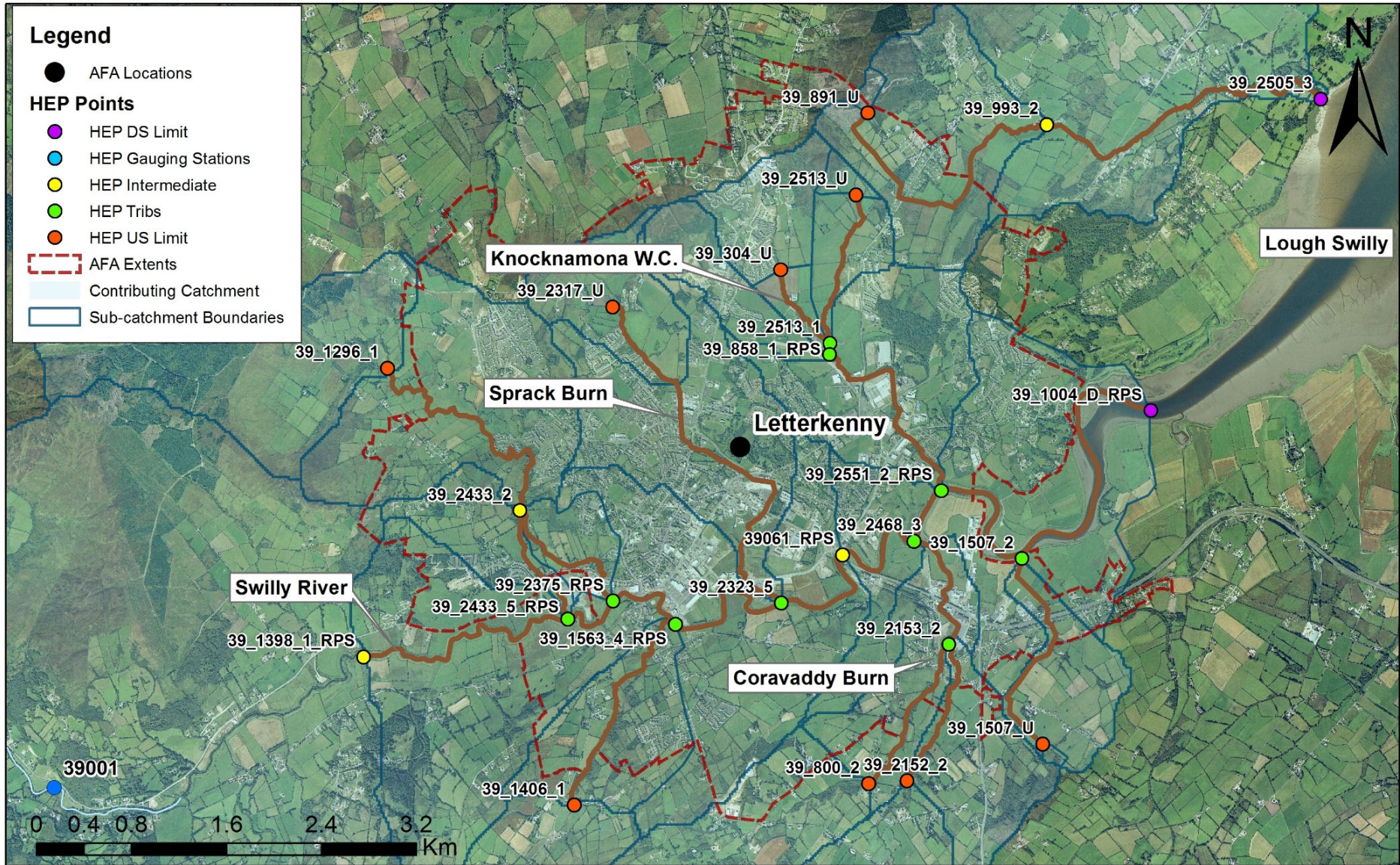


Figure 2.2: Water courses and CFRAM model extents

3 THE PLANNING SYSTEM AND FLOOD RISK MANAGEMENT GUIDELINES FOR PLANNING AUTHORITIES

3.1 INTRODUCTION

In 2009 the Department of Environment, Heritage and Local Government in conjunction with the Office of Public Works published The Planning System and Flood Risk Management: Guidelines for Planning Authorities. The purpose of the Guidelines is to ensure that flood risk is considered by all levels of government when preparing development plans and planning guidelines. They should also be used by developers when addressing flood risk in development proposals. The Guidelines should be implemented in conjunction with the relevant flooding and water quality EU Directives including the Water Framework Directive (River Basin Management Plans (RBMPs)) and the Floods Directive (Catchment Flood Risk Assessment and Management Studies (CFRAMS)).

The core objectives of the Guidelines are to:

- Avoid inappropriate development in areas at risk of flooding.
- Avoid new developments increasing flood risk elsewhere, including that which may arise from surface water run-off.
- Ensure effective management of residual risks for development permitted in floodplains.
- Avoid unnecessary restriction of national, regional or local economic and social growth.
- Improve the understanding of flood risk among relevant stakeholders; and
- Ensure that the requirements of EU and national law in relation to the natural environment and nature conservation are complied with at all stages of flood risk management.

The Guidelines recommend that Flood Risk Assessments (FRA) be carried out to identify the risk of flooding to land, property and people. FRAs should be carried out at different scales by government organisations, local authorities and for proposed developments appropriate to the level of information required to implement the core objectives of the Guidelines. The FRA scales are:

- **Regional Flood Risk Appraisal (RFRA)** – a broad overview of flood risk issues across a region to influence spatial allocations for growth in housing and employment as well as to identify where flood risk management measures may be required at a regional level to support the proposed growth. Currently being undertaken by the OPW through the CFRAMs process.
- **Strategic Flood Risk Assessment (SFRA)** – an assessment of all types of flood risk informing land use planning decisions. This will enable the Planning Authority to allocate appropriate sites for development, whilst identifying opportunities for reducing flood risk. This SFRA will revisit and develop the flood risk identification undertaken in the RFRA, and give consideration to a range of potential sources of flooding. An initial flood risk assessment, based on the identification of Flood Zones, will also be carried out for those areas, which will be zoned for development. Where the initial flood risk assessment highlights the potential for a significant level of flood risk, or there is conflict with the proposed vulnerability of development, then further assessment to an appropriate level of detail may be required, which may necessitate a more detailed flood risk assessment.
- **Site Specific Flood Risk Assessment (FRA)** – site or project specific flood risk assessment to consider all types of flood risk associated with the site and propose appropriate site management and mitigation measures to reduce flood risk.

3.2 FLOOD RISK ASSESSMENT

3.2.1 Flood Risk Assessment Approach

The Guidelines recommend that Flood Risk Assessments (FRA) be carried out to identify the risk of flooding to land, property and people. FRAs should use the Source-Pathway-Receptor (S-P-R) Model to identify the sources of flooding, the flow paths of the floodwaters and the people and assets impacted by the flooding. Figure 3.1 shows the SPR model that should be adopted in FRAs.

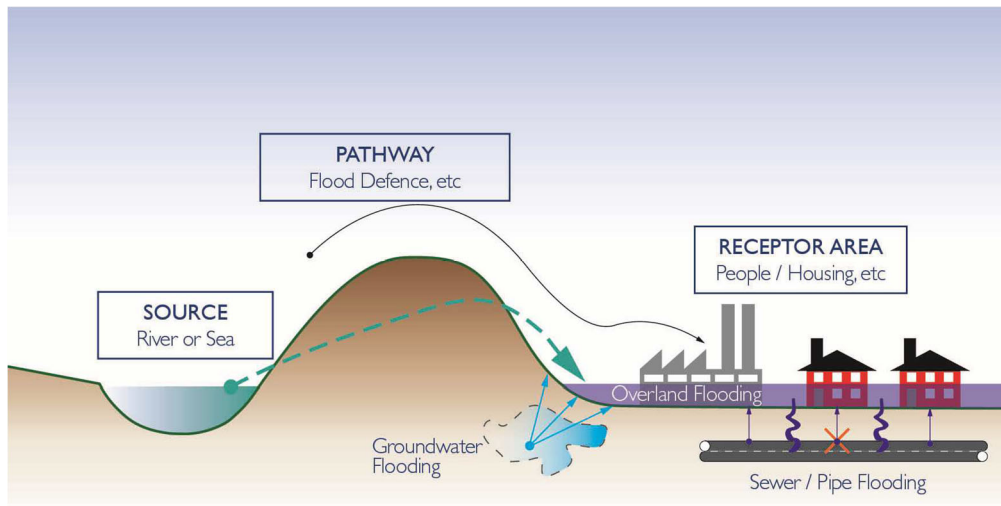


Figure 3.1: Flood Risk Assessment Source – Pathway – Receptor Model

FRAs should be carried out using the following staged approach;

- **Stage 1 Flood Risk Identification** – to identify whether there may be any flooding or surface water management issues related to either the area of regional planning guidelines, development plans and LAP's or a proposed development site that may warrant further investigation at the appropriate lower level plan or planning application levels.
- **Stage 2 Initial Flood Risk Assessment** – to confirm sources of flooding that may affect a plan area or proposed development site, to appraise the adequacy of existing information and to scope the extent of the risk of flooding which may involve preparing indicative flood zone maps. Where hydraulic models exist the potential impact of a development on flooding elsewhere and of the scope of possible mitigation measures can be assessed. In addition, the requirements of the detailed assessment should be scoped.
- **Stage 3 Detailed Flood Risk Assessment** – to assess flood risk issues in sufficient detail and to provide a quantitative appraisal of potential flood risk to a proposed or existing development or land to be zoned, of its potential impact on flood risk elsewhere and of the effectiveness of any proposed mitigation measures.

3.2.2 Types of Flooding

There are two main sources of flooding inland and coastal. Inland flooding is caused by prolonged and/or intense rainfall. This results in fluvial, pluvial, coastal or ground water flooding acting independently or in combination.

- Fluvial flooding occurs when a river overtops its banks due to a blockage in the channel or the channel capacity is exceeded. A combination of high flow in rivers and a high tide may prevent the river from discharging into the sea thus increasing water levels inland causing rivers to overtop their banks.

- Pluvial flooding occurs when overland flow cannot infiltrate into the ground, when drainage systems exceed their capacity or are blocked and when and when the water cannot discharge due to a high water level in the receiving watercourse.
- Groundwater flooding occurs when the level of water stored in the ground rises as a result of prolonged rainfall to meet the ground surface and flows out over it.
- Coastal flooding occurs when sea levels along the coast or in estuaries exceed neighbouring land levels, or overcome coastal defences where these exist, or when waves overtop the coastline or coastal defences.

3.2.3 Flood Risk

Guidelines state flood risk is a combination of the likelihood of flooding and the potential consequences arising. Flood risk is expressed as:

$\text{Flood risk} = \text{Likelihood of flooding} \times \text{Consequences of flooding}$
--

The Guidelines define the likelihood of flooding as the percentage probability of a flood of a given magnitude as occurring or being exceeded in any given year. A 1% probability indicates the severity of a flood that is expected to be exceeded on average once in 100 years, i.e. it has a 1 in 100 (1%) chance of occurring in any one year. Table 3.1 shows flood event probabilities used in flood risk management.

Table 3.1: Flood Event Probabilities

Annual Exceedance Probability (%)	Return Period (Years)
50	2
10	10
1	100
0.1	1000

The consequences of flooding depend on the hazards associated with the flooding (e.g. depth of water, speed of flow, rate of onset, duration, wave action effects, water quality), and the vulnerability of people, property and the environment potentially affected by a flood (e.g. the age profile of the population, the type of development, presence and reliability of mitigation measures etc.).

3.3 FLOOD ZONES

The Guidelines recommend identifying flood zones which show the extent of flooding for a range flood event probabilities. The Guidelines identify three levels of flood zones:

- Flood Zone A – 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 – 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 – 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). Flood Zone C covers all areas of the plan which are not in zones A or B.

The flood zones are generated without the inclusion of climate change factors. The flood zones only account for inland and coastal flooding. They should not be used to suggest that any areas are free from flood risk as they do not account for potential flooding from pluvial and groundwater flooding. Similarly flood defences should be ignored in determining flood zones as defended areas are still carry a residual risk of flooding from overtopping, failure of the defences and deterioration due to lack of maintenance. Figure 3.2 shows a typical flood zone map.

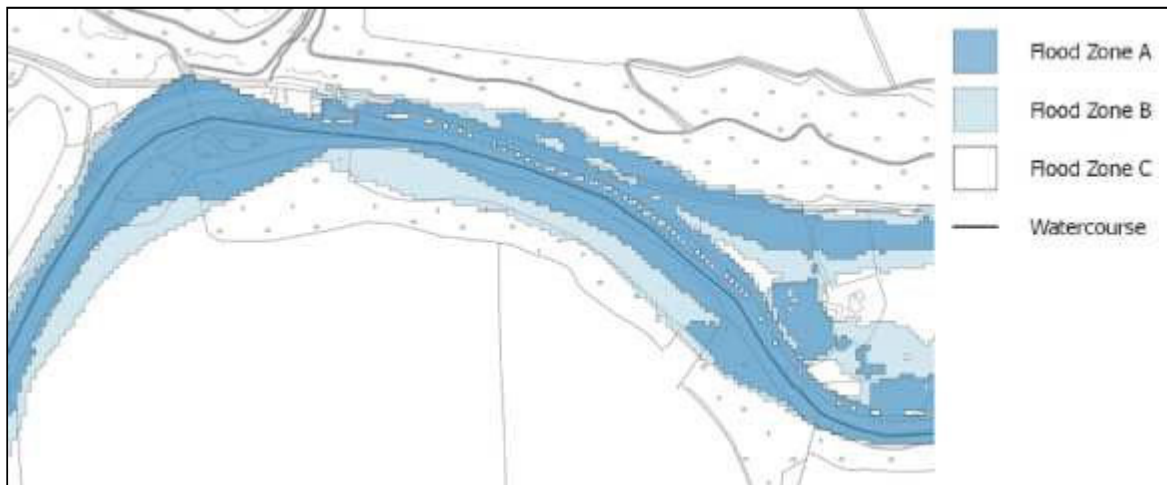


Figure 3.2: Typical Flood Zone Map

3.4 CLIMATE CHANGE

Climate Change is expected to increase flood risk. It could lead to more frequent flooding and increase the depth and extent of flooding. Due to the uncertainty surrounding the potential effects of climate change a precautionary approach is recommended in the Guidelines:

- Recognise 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 these potential transitional areas.
- Ensure that the levels of structures designed to protect against flooding, such as flood defences, land-raising or raised floor levels are sufficient to cope with the effects of climate change over the lifetime of the development they are designed to protect.
- Ensure that structures to protect against flooding and the development protected are capable of adaptation to the effects of climate change when there is more certainty about the effects and still time for such adaptation to be effective.

3.5 STRATEGIC FLOOD RISK ASSESSMENT (SFRA)

The purpose of this report is to carry out a SFRA at the Local Area Plan scale. The Guidelines recommend a series of outputs for a SFRA. These outputs in broad terms include:

- Identify principal rivers, sources of flooding and produce flood zone maps across the local authority area and in key development areas.
- An appraisal of the availability and adequacy of the existing information.
- Assess potential impacts of climate change to demonstrate the sensitivity of an area to increased flows or sea levels. Where mathematical models are not available climate change flood extents can be assessed by using the Flood Zone B outline as a surrogate for Flood Zone A with allowance for the possible impacts of climate change.
- Identify the location of any flood risk management infrastructure and the areas protected by it and the coverage of flood-warning systems.
- Consider, where additional development in Flood Zone A and B is planned within or adjacent to an existing community at risk, the implications of flood risk on critical infrastructure and services across a wider community-based area and how the emergency planning needs of existing and new development will be managed.
- Identify areas of natural floodplain, which could merit protection to maintain their flood risk management function as well as for reasons of amenity and biodiversity.
- Assess the current condition of flood-defence infrastructure and of likely future policy with regard to its maintenance and upgrade.
- Assess the probability and consequences of overtopping or failure of flood risk management infrastructure, including an appropriate allowance for climate change.
- Assess, in broad terms, the potential impact of additional development on flood risk elsewhere and how any loss of floodplain could be compensated for.
- Assess the risks to the proposed development and its occupants using a range of extreme flood or tidal events.
- Identify areas where site-specific FRA will be required for new development or redevelopment.
- Identify drainage catchments where surface water or pluvial flooding could be exacerbated by new development and develop strategies for its management in areas of significant change.
- Provide guidance on the likely applicability of different Sustainable Drainage Systems (SUDS) techniques for managing surface water run-off at key development sites as determined by surface water and drainage strategies developed within the SFRA.
- Identify where integrated and area based provision of SuDS and green infrastructure are appropriate in order to avoid reliance on individual site by site solutions; and,
- Provide guidance on appropriate development management criteria for zones and sites.

3.6 SEQUENTIAL APPROACH AND JUSTIFICATION TEST

The Guidelines recommend using a sequential approach to planning to ensure the core objectives (as described in Section 3.1) are implemented. Development should be avoided in areas at risk of flooding, where this is not possible, a land use that is less vulnerable to flooding should be considered. If the proposed land use cannot be avoided or substituted a Justification Test must be applied and appropriate sustainable flood risk management proposals should be incorporated into the development proposal. Figure 3.3 shows the sequential approach principles in flood risk management. Table 3.2 and Table 3.3 outline recommendations from the Guidelines for the types of development that would be appropriate to each flood zone and those that would be required to meet the Justification Test.

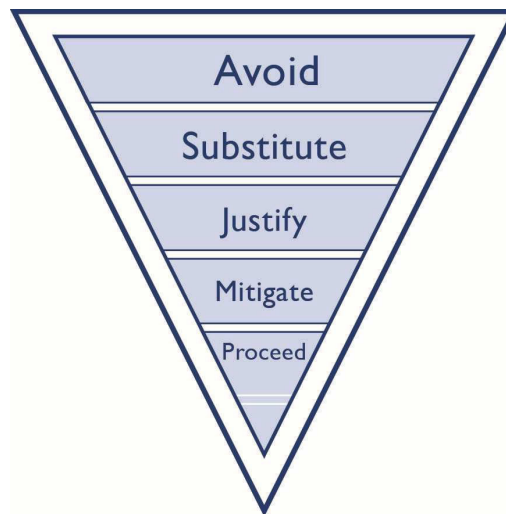


Figure 3.3: Sequential approach principles in flood risk management

Table 3.2: Matrix of vulnerability versus flood zone to illustrate appropriate development and that required to meet the Justification Test.

Development Type	Flood Zone A	Flood Zone B	Flood Zone C
Highly vulnerable development	Justification Test	Justification Test	Appropriate
Less vulnerable development	Justification Test	Appropriate	Appropriate
Water compatible development	Appropriate	Appropriate	Appropriate

The Justification Test is used to assess the appropriateness of developments in flood risk areas. The test is comprised of two processes. The first is the Plan-making Justification Test and is 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. The second is the Development Management Justification Test and is 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 3.3: Classification of vulnerability of different types of development

Vulnerability Class	Land uses and types of development which include*:
Highly vulnerable development (including essential infrastructure)	<ul style="list-style-type: none"> • Garda, ambulance and fire stations and command centres required to be operational during flooding; • Hospitals; • Emergency access and egress points; • Schools; • Dwelling houses, student halls of residence and hostels; • Residential institutions such as residential care homes, children’s homes and social services homes; • Caravans and mobile home parks; • Dwelling houses designed, constructed or adapted for the elderly or, other people with impaired mobility; and • Essential infrastructure, such as primary transport and utilities distribution, including electricity generating power stations and sub- stations, water and sewage treatment, and potential significant sources of pollution (SEVESO sites, IPPC sites, etc.) in the event of flooding
Less vulnerable development	<ul style="list-style-type: none"> • Buildings used for: retail, leisure, warehousing, commercial, industrial and non-residential institutions; • Land and buildings used for holiday or short-let caravans and camping, subject to specific warning and evacuation plans; • Land and buildings used for agriculture and forestry • Waste treatment (except landfill and hazardous waste); • Mineral working and processing; and • Local transport infrastructure.
Water-compatible development	<ul style="list-style-type: none"> • Flood control infrastructure; • Docks, marinas and wharves; • Navigation facilities; • Ship building, repairing and dismantling, dockside fish processing and refrigeration and compatible activities requiring a waterside location; • Water-based recreation and tourism (excluding sleeping accommodation); • Lifeguard and coastguard stations; • Amenity open space, outdoor sports and recreation and essential facilities such as changing rooms; and • Essential ancillary sleeping or residential accommodation for staff required by uses in this category (subject to a specific warning and evacuation plan).

*Uses not listed here should be considered on their own merit

3.7 DEVELOPMENT PLAN JUSTIFICATION TEST

The Development Plan Justification Test (or Plan-making Justification Test) should be carried out as part of the SFRA using mapped flood zones. It applies where land zonings have been reviewed with respect to the need for development of areas at a high or moderate risk of flooding for uses which are vulnerable to flooding and which would generally be inappropriate, as set out in Table 3.2, and where avoidance or substitution is not appropriate. Where land use zoning objectives are being retained, they must satisfy all of the following criteria as per Table 3.4.

Table 3.4: Justification Test for Development Plans

Justification Test for Development Plans
1. The urban settlement is targeted for growth under the National Spatial Strategy, regional planning guidelines, and statutory plans as defined above or under the Planning Guidelines or Planning Directives provisions of the Planning and Development Act, 2000, as amended.
2. The zoning or designation of the lands for the particular use or development type is required to achieve the proper planning and sustainable development of the urban settlement and, in particular: <ol style="list-style-type: none"> i. Is essential to facilitate regeneration and/or expansion of the centre of the urban settlement; ii. Comprises significant previously developed and/or under-utilised lands; iii. Is within or adjoining the core³ of an established or designated urban settlement; iv. Will be essential in achieving compact and sustainable urban growth; and v. There are no suitable alternative lands for the particular use or development type, in areas at lower risk of flooding within or adjoining the core of the urban settlement.
3. A flood risk assessment to an appropriate level of detail has been carried out as part of the Strategic Environmental Assessment as part of the development plan preparation process, which demonstrates that flood risk to the development can be adequately managed, and the use or development of the lands will not cause unacceptable adverse impacts elsewhere. N.B. The acceptability or otherwise of levels of any residual risk should be made with consideration for the proposed development and the local context and should be described in the relevant flood risk assessment.

In cases where existing zoned lands are discovered to be within flood zones, and the Development Plan Justification Test has been applied, and it is demonstrated that it cannot meet the specified requirements it is recommend that planning authorities reconsider the zoning by implementing the following:

- Remove the existing zoning for all types of development on the basis of the unacceptable high level of flood risk;
- Reduce the zoned area and change or add zoning categories to reflect the flood risk; and/or
- Replace the existing zoning with a zoning or a specific objective for less vulnerable uses;
- Prepare a local area plan informed by a detailed flood risk assessment to address zoning and development issues in more detail and prior to any development; and/or
- If the criteria of the Justification Test have been met, design of structural or non-structural flood risk management measures as prerequisites to development in specific areas, ensuring that flood hazard and risk to other locations will not be increased or, if practicable, will be reduced. The mitigation measures are required prior to development taking place.

The application of the sequential approach in the preparation of the Development Plan is shown in Appendix B. Land use zonings for Letterkenny as contained in the Draft Letterkenny Plan and Local Transport Plan 2023-2029 overlaid with Flood Zones A and B are shown in Appendix A in Maps 1 to 15 inclusive.

4 DEVELOPMENT MANAGEMENT AND FLOOD RISK

4.1 OVERVIEW

All development in flood risk areas should be supported by an appropriately detailed Flood Risk Assessment (FRA). The level of detail within the FRA will depend on the risks identified and the proposed land use. Applications should demonstrate the use of the sequential approach in terms of the site layout and design and, in satisfying the Justification Test (where required), the proposal will demonstrate that appropriate mitigation and management measures are put in place. For any development areas that meet the Development Plan Justification Test, a Development Management Justification Test must then be applied. Development must satisfy all of the criteria of the Development Management Justification Test as per Table 4.1 below. Development in flood risk areas can broadly be classified as:

- Existing, developed, zoned areas at risk of flooding
- Undeveloped lands at risk of flooding

This chapter provides a broad overview of the requirements of Flood Risk Assessments which should accompany planning applications. Section 5.10 outlines more specific requirements for areas identified at risk from flooding.

Justification Test for Development Management

Justification Test for Development Management

- The subject lands have been zoned or otherwise designated for the particular use or form of development in an operative development plan, which has been adopted or varied taking account of these Guidelines.
-
- The proposal has been subject to an appropriate flood risk assessment that demonstrates:
 - i. The development proposed will not increase flood risk elsewhere and, if practicable, will reduce overall flood risk;
 - ii. The development proposal includes measures to minimise flood risk to people, property, the economy and the environment as far as reasonably possible;
 - iii. The development proposed includes measures to ensure that residual risks to the area and/or development can be managed to an acceptable level as regards the adequacy of existing flood protection measures or the design, implementation and funding of any future flood risk management measures and provisions for emergency services access; and
 - iv. The development proposed addresses the above in a manner that is also compatible with the achievement of wider planning objectives in relation to development of good urban design and vibrant and active streetscapes.

The acceptability or otherwise of levels of residual risk should be made with consideration of the type and foreseen use of the development and the local development context.

4.3 SURFACE WATER AND DRAINAGE

All development proposals shall carry out a surface water and drainage assessment and shall ensure that drainage from the site is managed sustainably. The requirements below provide an overview of drainage requirements for development in DCC.

4.3.1 Drainage

The proposed development shall be drained on a completely separate system. Under Policy CAM-LK-P-6 all new developments must incorporate Sustainable Drainage Systems (SuDS) as part of a nature based approach. In the unlikely event of this not being feasible the Developer must provide alternative means of dealing with pollutants. Rainwater should be infiltrated to the ground and/or discharged via a SuDS system to a surface water drain or watercourse. Other effluent, including wastewater, shall discharge to the foul drainage systems.

- In general, watercourses are not to be culverted or piped. They should remain open in their natural valley, which should be incorporated into the public open space. Culverting should be confined to road crossings and should be sufficiently large to prevent blockage, allow runoff from a one in a hundred rain event and to allow for man entry for maintenance purposes. Permission must be obtained from the OPW (under a section 50 licence) to construct any culvert or bridge.
- All proposed structures must be set back from the edge of any watercourse to allow access for channel cleaning/maintenance. As the area covered by Arterial Drainage Schemes in Letterkenny is considerable, as illustrated in Figure 4.1, the requirement for access for maintenance is essential. A 15 meter wide riparian buffer strip each side of the watercourse is recommended. In dense urban areas the width of the riparian buffer strip is to be agreed with DCC.
- All new development must allow for climate change. The future climate change scenarios set out by the OPW, include the Mid-Range Future Scenario with increases flows and rainfall depths of 20%, and the High-End Future Scenario with increases in both of 30%. The assessment of climate change in relation to flood risk for proposed new development should consider the same scale of increases when considering climate change adaptation.
- Surface water outfalls to streams, rivers, etc. should be unobtrusive and not cause erosion of the bed and banks. A suitable non-return device should be fitted on the outfall pipeline. DCC must approve all design details.
- Further guidance on the use of SuDS is given in 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, 2021) and in the Design and Best Practice manuals produced by CIRIA in the UK.

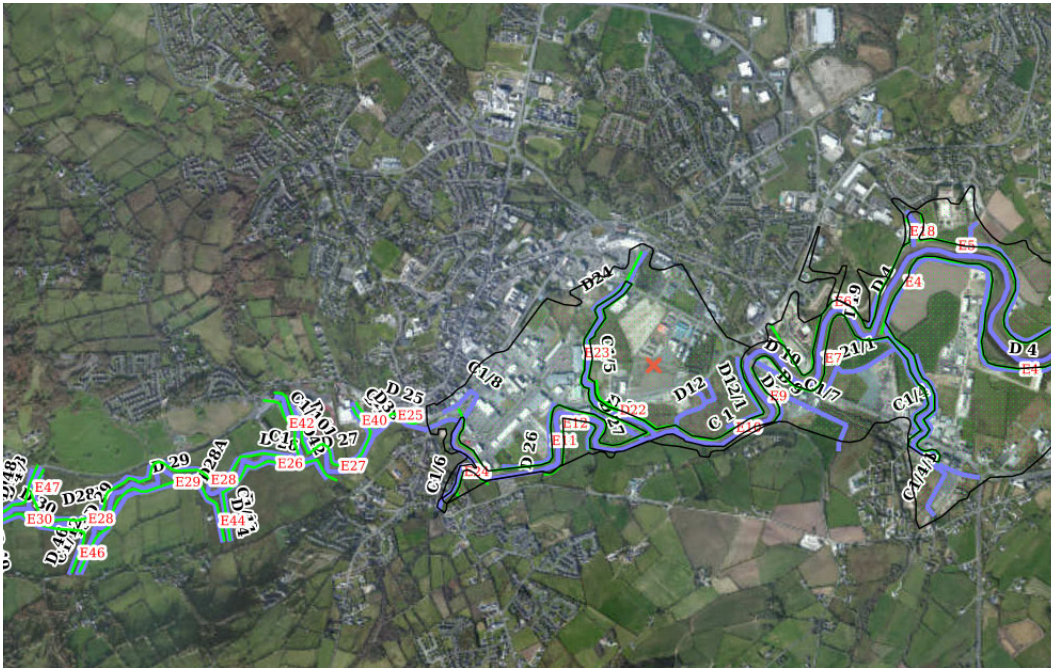


Figure 4.1: OPW Arterial Drainage Scheme (channel – purple, embankments – green) Source <https://www.floodinfo.ie/>

4.3.2 Storm water management

The maximum permitted surface water outflow from any new development is to be restricted to that of a Greenfield site before any development took place.

- All new development must allow for climate change as set out Section 5.8.
- In general, all new developments must incorporate Sustainable Drainage Systems (SuDS).
- Sustainable Drainage Systems include devices such as: Swales, Permeable Pavements, Filter Drains, Storage Ponds, Constructed Wetlands, Soakaways, etc. SuDS devices such as permeable paving or swales/ ponds etc. may require the approval of DCC.
- In some exceptional cases it may not be feasible to use the above devices and at the discretion of the DCC, approval may be given to install underground attenuation tanks or enlarged pipes in conjunction with other devices to achieve the required water quality. These should only be considered as a last resort where it can be shown that SuDS measures are not achievable
- Attenuation tanks shall normally be located in green areas; any other location requires the approval from DCC.
- Where a tank is to be constructed in a trafficked area, a standard minimum depth of cover from road level to top of the roof of the tank should be 1.2m.
- All enlarged pipes and associated manholes must comply with the GDSDS and the Code of Practice.
- In order to isolate and carry out maintenance of the flow control device a penstock valve (or similar approved) shall be installed within the outfall manhole, on the upstream end of the manhole.
- For gravity systems a Hydrobrake (or similar approved flow control device) shall be installed in the last manhole.
- The opening to be large enough to facilitate the extraction of the flow control device.
- An overflow from the flow control manhole to the public drainage network is not allowed.

The key design criteria for development are shown in Table 4.1 but readers are advised to consult the technical document, 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, 2021).

Table 4.1 Key Design Criteria for Storm Water Management for Development

Criteria	Sub-Criterion	Return Period (Years)	Design Objective
Criterion 1: River Water Quality Protection	1.1	< 1	Interception storage of at least 5mm, and preferably 10mm, of rainfall where runoff to the receiving water can be prevented.
	1.2	< 1	Where initial runoff from at least 5mm of rainfall cannot be intercepted, treatment of runoff (treatment volume) is required. Retention pond (if used) is to have minimum pool volume equivalent to 15mm rainfall.
Criterion 2: River Regime Protection	2.1	1	Discharge rate equal to 1-year greenfield site peak runoff rate or 2l/s/ha; whichever is the greater. Site critical duration storm to be used to assess attenuation storage volume.
	2.2	100	Discharge rate equal to 1 in 100 year greenfield site peak runoff rate. Site critical duration storm to be used to assess attenuation storage volume.
Criterion 3: Level of service (Flooding) for the site	3.1	30	No flooding on site except where specifically planned flooding is approved. Summer design storm of 15 or 30 minutes are normally critical.
	3.2	100	No internal property flooding. Planned flood routing and temporary flood storage accommodated on site for short high intensity storms. Site critical duration events.
	3.3	100	No internal property flooding. Floor levels at least 500mm above maximum river level and adjacent on-site storage retention.
	3.4	100	No flooding of adjacent urban areas. Overland flooding managed within the development
Criterion 4: River Flood Protection	4.1	100	“Long-term” floodwater accommodated on site for development runoff volume which is in excess of the greenfield runoff volume. Temporary flood storage drained by infiltration on a designated flooding area brought into operation by extreme events only. 100 year, 6 hour duration storm to be used for assessment of the additional volume of runoff.
	4.2	100	Infiltration storage provided equal in volume to “long- term” storage Usually designed to operate for all events. 100year, 6-hour duration storm to be used for assessment of the additional volume of runoff.
	4.3	100	Maximum discharge rate of QBAR or 2 l/s/ha, whichever is the greater, for all attenuation storage where “long-term” storage cannot be provided.

4.4 RESIDUAL RISK

As well as assessing the surface water management risk for a site, all development including that in Flood Zone C, should consider residual risk factors such as culvert / bridge blockages and the effects of climate change which may expand the extents of Flood Zones A and B. These residual risk factors should influence the potential mitigation measures for a site which could include setting the finished floor levels.

4.5 DEVELOPMENT PROPOSALS IN FLOOD ZONES

4.5.1 Overview

It is recommended that any planning applications in flood risk areas are accompanied by a supporting appropriately detailed flood risk assessment. This is to ensure a conservative approach and that consideration is given to new development within Flood Zones where mitigation measures may still be required to ensure an appropriate level of flood protection and/or resilience. The detailed assessment should include at a minimum Stage 1 - Identification of Flood Risk. Where flood risk is identified a Stage 2 - Initial FRA will be required, and depending on the scale and nature of the risk a Stage 3 - Detailed FRA may be required.

Detailed FRAs should be carried out in accordance with the Guidelines and should present in sufficient detail the potential flood risk to a proposed development, the potential increase in flood risk elsewhere, any proposed mitigation measures and proposals for sustainable surface water management. The FRA should also consider the impacts of climate change, residual risk associated with culvert blockages and freeboard in setting the finished floor levels (FFLs) of new development.

4.5.2 Assessment of Proposals for Minor Development

The Justification Test does not apply to applications for minor development to existing buildings in areas of flood risk such as small extensions and most changes of use. However, a flood risk assessment of appropriate detail should accompany such applications to demonstrate that they would not have adverse flood risk impacts e.g. affect existing watercourses, floodplains or flood relief works. These proposals should follow best practice in the management of health and safety for users and residents of the proposal.

4.5.3 Assessment of Proposals for Highly Vulnerable Development

Highly vulnerable development proposals should not be considered in flood risk areas. Any applications for Highly Vulnerable Development shall be supplemented by an appropriately detailed FRA and meets the criteria of the Development Management Justification Test. The following considerations should be addressed in applications for highly vulnerable development in flood risk areas:

1. The minimum finished floor level for highly vulnerable development should be above the Flood Zone B (0.1% AEP) level plus suitable freeboard. The recommended level of freeboard is 500 mm for fluvial flood levels.
2. Applications should outline the emergency procedures that will be applied in the event of a flood. Evacuation routes should be identified but if this is not possible then containment may be considered if it is considered safe and practical to do so. If either safe evacuation or containment is not possible, then the development proposal should be refused.
3. The site layout should follow the sequential approach to allocate land within a development based on the vulnerability class of the development i.e. more vulnerable development should be placed on higher ground while water compatible development e.g. car parking, greenfield space can be placed in the flood zones.
4. Compensatory storage for development that results in a loss of floodplain within Flood Zone A must be provided on a level for level basis, the lands should be in close proximity to the area that storage is being lost from, the land must be within the ownership of the developer and the land given to storage must be land which does not flood in the 1% AEP event. Also the compensatory storage area should be constructed before land is raised to facilitate development.

4.5.4 Assessment of Proposals for Less Vulnerable Development

Less vulnerable development proposals should not be considered in Flood Zone A area unless supplemented by an appropriately detailed FRA and meets the criteria of the Development Management Justification Test. The minimum finished floor level for less vulnerable development should be above the Flood Zone A (1% AEP) level plus suitable freeboard. The recommended level of freeboard is 500 mm for fluvial flood levels.

4.5.5 Extension of Duration in Flood Risk Areas

In areas where recent and more up to date flood risk information subsequently finds that a site has a flood risk, applications for extension of duration or new applications within the zoning will require appropriately detailed FRA at development management stage. If the permitted development is found not to conform with the Planning Guidelines then the application should be refused on flood risk grounds and a new application submitted, allowing for appropriate design and a FRA.

5 FLOOD RISK INFORMATION

5.1 INTRODUCTION

There are several sources of relevant flood risk information available for Letterkenny. The information reviewed for the completion of this report is summarised in this section. This information was used to generate the fluvial flood zone maps as shown in Appendix A. Figure 5.1 below shows an overview of the flood zones, whilst Figure 5.2 provides indicative pluvial flooding for the study area.

5.2 HISTORICAL FLOODING

A review of historical flood data was carried out for the North Western CFRAMs using information provided on <https://www.floodinfo.ie/> and in consultation with DCC. Where flood extents were provided they were validated and incorporated into the flood zone maps. This includes the significant flooding that occurred in Letterkenny in 2013 and 2014. The main sources of flooding in the county are fluvial and coastal. As illustrated in Figures 5.1 and 5.2 below.

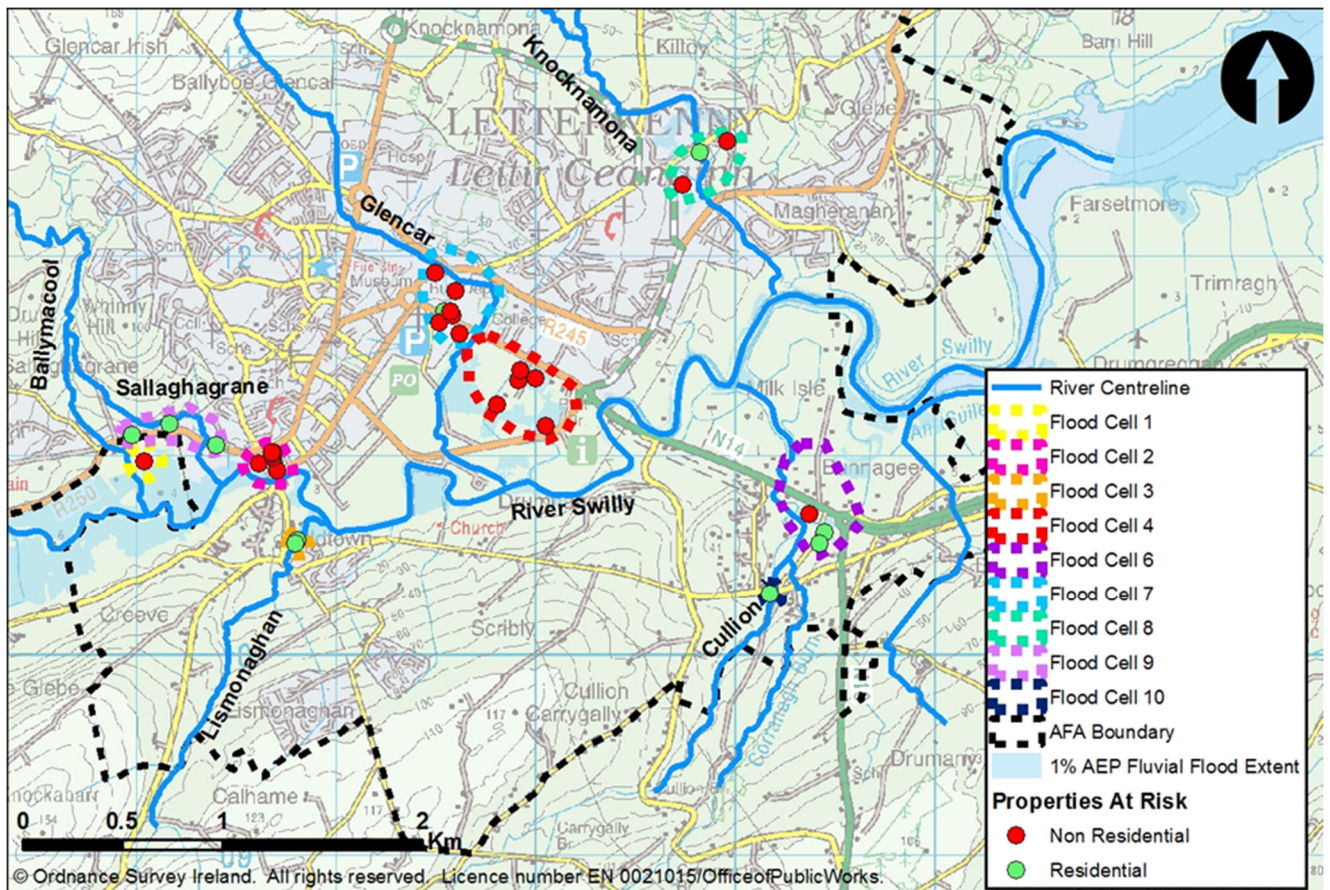


Figure 5.1: Fluvial Flood Risk

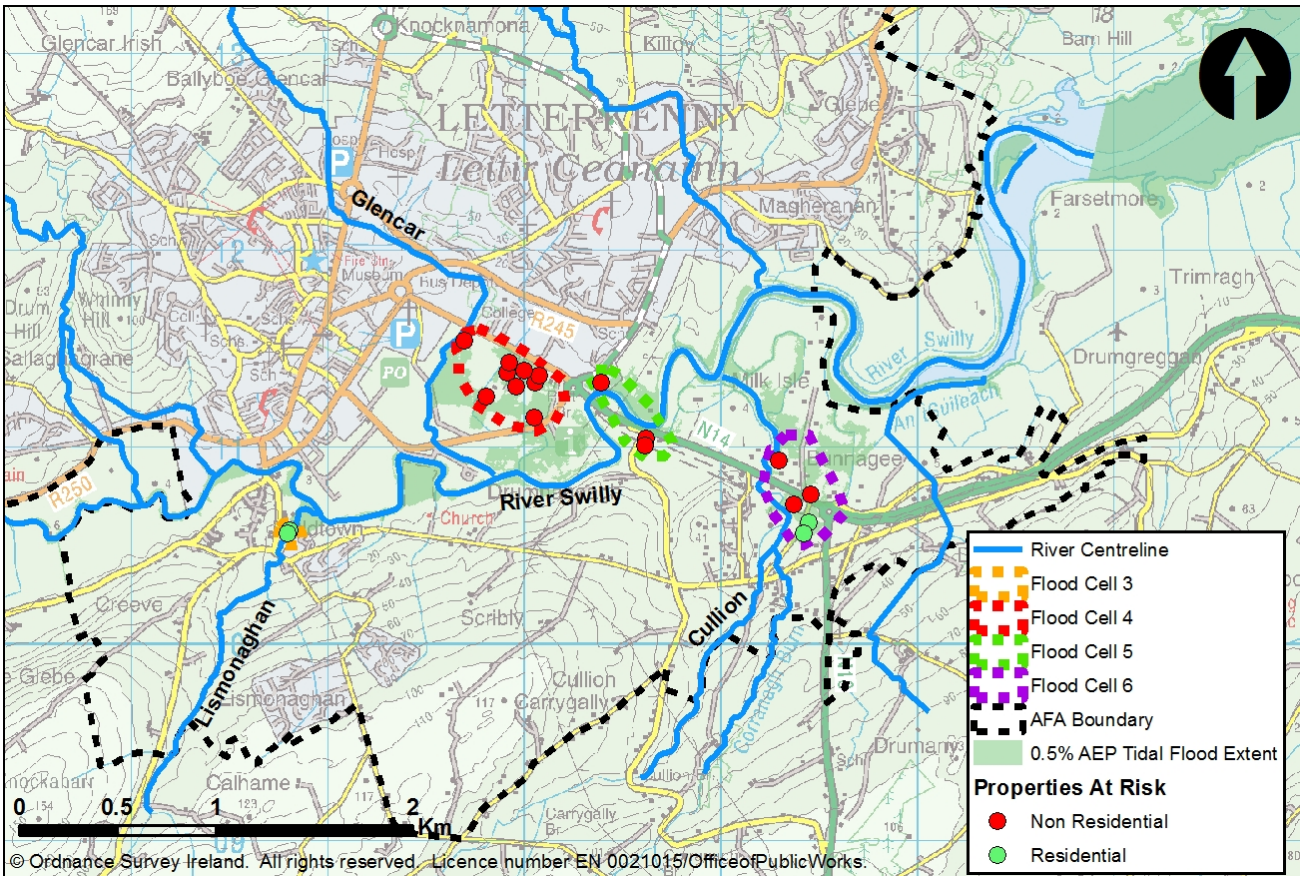


Figure 5.2: Coastal Flood Risk

5.3 CFRAM STUDIES

5.3.1 Background

The OPW led the development of Catchment Flood Risk Assessment and Management Studies (CFRAMS) for river basin districts in Ireland. The aim of these studies was to assess flood risk, through the identification of flood hazard areas and the associated impacts of flooding. The flood hazard areas have been identified as being potentially at risk from significant flooding, including areas that have experienced significant flooding in the past. They also take account of issues such as climate change, land use practices and future development. These studies have been developed to meet the requirements of the EU Directive on the assessment and management of flood risks (the Floods Directive). The Floods Directive was transposed into Irish law by SI 122 of 2010 “European Communities (Assessment and Management of Flood Risks) Regulations 2010”.

CFRAMS has resulted in the publication of long-term Flood Risk Management Plans (FRMP) to manage flood risk within the relevant river catchment. Flood maps are one of the main outputs of the studies. The maps indicate modelled flood extents for flood events of a range of annual exceedance probability (AEP).

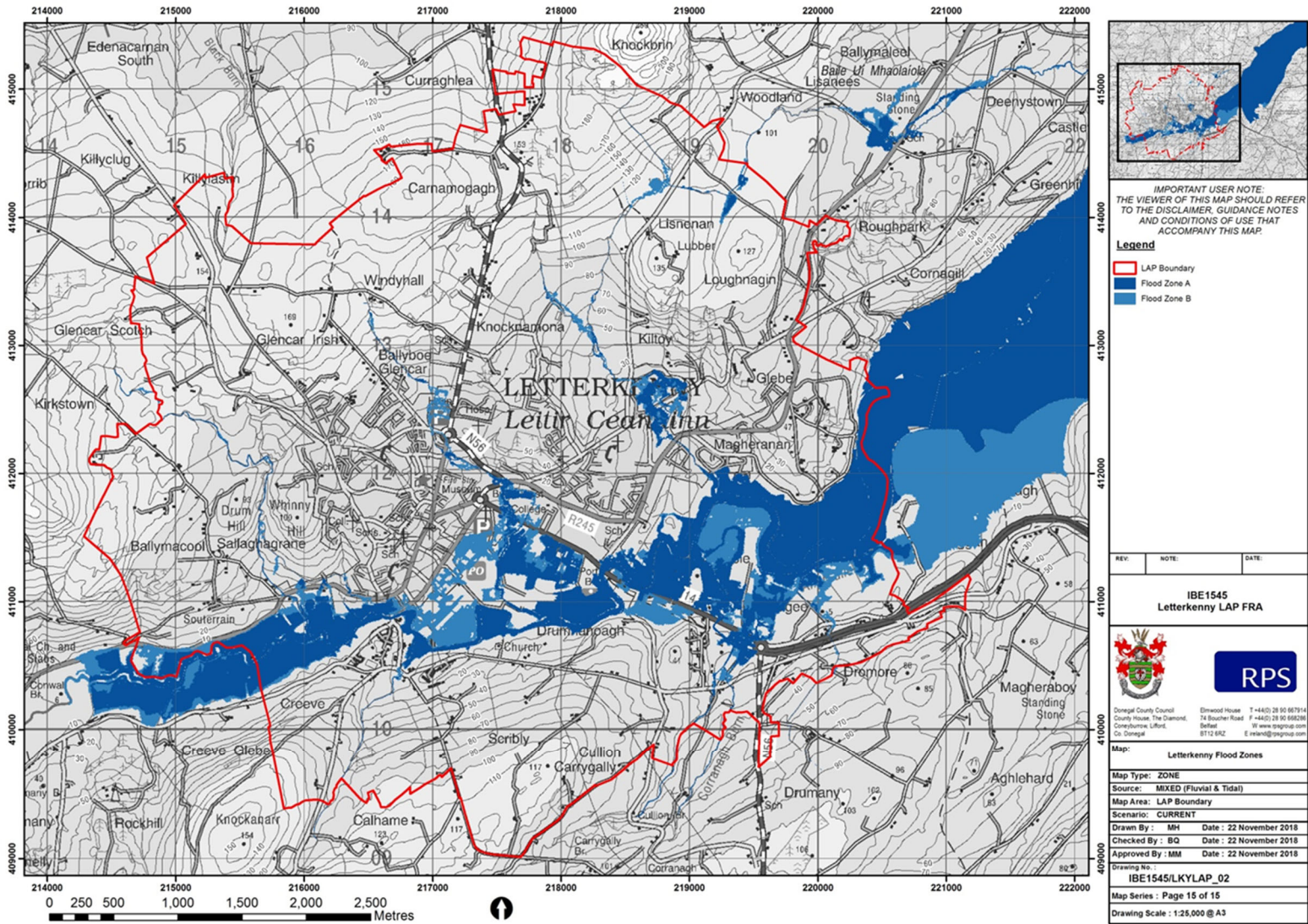


Figure 5.3: CFRAM Flood Zones in Letterkenny, Co Donegal

5.3.2 Flood Risk Management Plans

The North Western (UoM01) Flood Risk Management Plan (2017-2021), which includes the Letterkenny Area for further Assessment (AFA) is complete and its recommendations are discussed in Section 7.3.

5.3.3 CFRAM Flood Zone Mapping

All the principal watercourses and notable streams (as shown in Figure 2.1) are accounted for within The North Western (UoM01) Flood Risk Management Plan (2017-2021) and associated flood extent mapping has been produced. The mapping takes into account historical flood risk information (Section 5.2).

The CFRAM mapping is the most comprehensive flood zone mapping available for the county and is considered appropriate for use as a strategic overview of flood risk within the LAP.

5.4 FLOOD DEFENCE WORKS

5.4.1 Flood Zone Mapping for Flood Defence Schemes

The Guidelines state that the effect of formal flood defences should be ignored when determining flood zones as defended areas still carry a residual risk from overtopping and failure of the defences. Because this residual risk of flooding remains, the sequential approach and the Justification Test apply to such defended locations.

In the CFRAM Studies flood defences were defined as structures or features that were constructed to provide a formal flood defence function ('formal flood defences'), including those that may be in poor condition, and also those that may have been built for other purposes but that, in the opinion of a Consultant, would provide a flood defence function ('informal effective flood defences'). They do NOT include structures that were not constructed to provide a formal flood defence function and that, in the opinion a Consultant, would fail to provide a flood defence function due to structural weakness, porosity or other such reasons ('informal ineffective flood defences'), such as garden walls or embankments perforated by uncontrolled culverts.

The best available information regarding flood zones is the CFRAM flood mapping. The flood mapping has incorporated the effect of formal flood defences within the flood zones.

Letterkenny has existing defences which are part of the Lough Swilly embankments which extend for a distance of over 45 kms as identified in the North Western CFRAM. These assets are considered as non- Area Potential Significant Risk (APSR) defence assets as their primary function is not for formal flood defence.

5.5 SFRA FLUVIAL FLOOD ZONE MAPPING SUMMARY

The flood zones presented in this report are derived from the Final North Western CFRAM maps. These maps are the most comprehensive flood maps produced for Letterkenny since the introduction of the Guidelines and the Floods Directive. The flood extents for Letterkenny are incorporated into the CFRAMs mapping and therefore there was no need to supplement mapping from the earlier OPW Preliminary Flood Risk Assessment (PFRA) Report. The flood zones account for fluvial and coastal flooding.

5.6 OTHER SOURCES OF FLOODING

5.6.1 Overview

As outlined in section 5.5 above flood zones account for fluvial and coastal flooding. However they should not be used to suggest that any areas are free from flood risk as they do not account for potential flooding from other sources. Hence a review of other sources of flooding was carried out to identify potential areas of risk.

5.6.2 Ground Water Flooding

The OPW Preliminary Flood Risk Assessments Groundwater Flooding Report concludes that ground water flooding is largely confined to the West Coast of Ireland due to the hydrogeology of the area. Figure 5.4 below shows that ground water flooding is not a risk for the Letterkenny Plan Area.



Figure 5.4: OPW Preliminary Flood Risk Assessments Groundwater Flooding Hazard Map

5.6.3 Pluvial Flooding

5.6.3.1 Pluvial Modelling

The SFRA has considered pluvial flooding through the development of a pluvial model of the area. The pluvial modelling required definition of the flood risk to Letterkenny from rainfall, using the best available information and methodologies as far as is reasonably practicable.

5.6.3.2 Model Representation

The 2D model is comprised of a mesh zone created using the 2m DTM, with a minimum element area set to 5m² and a maximum triangle area set to 200m². Terrain-sensitive meshing was switched on to allow the model to calculate area as required depending on terrain therefore providing highly detailed outputs. Defined

urban and rural zones were incorporated into the model, created using national Corine datasets, with manual updates made to reflect recent developments and boundaries were simplified in GIS to aid model effectiveness. These urban and rural zones were used to generate rainfall boundaries and the boundaries defined two separate zones for the application of separate rainfall profiles. An infiltration zone was applied to the rural area, with a value of 0.9 for 10% infiltration, to represent permeable ground materials. Figure 5.5 below shows a representation of the ICM model set-up.

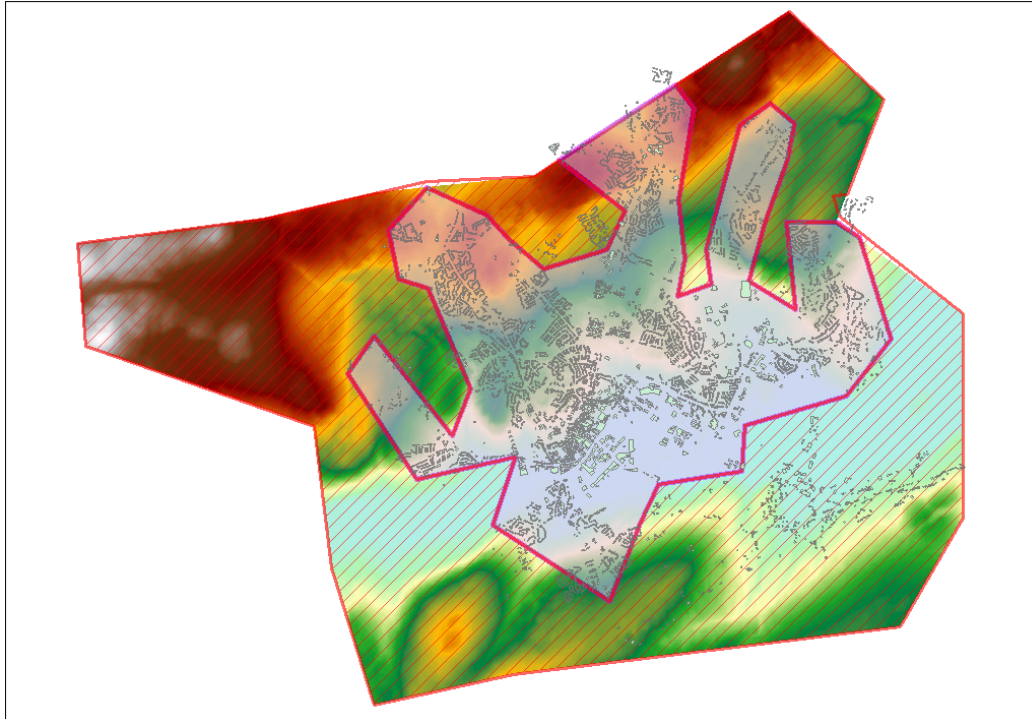
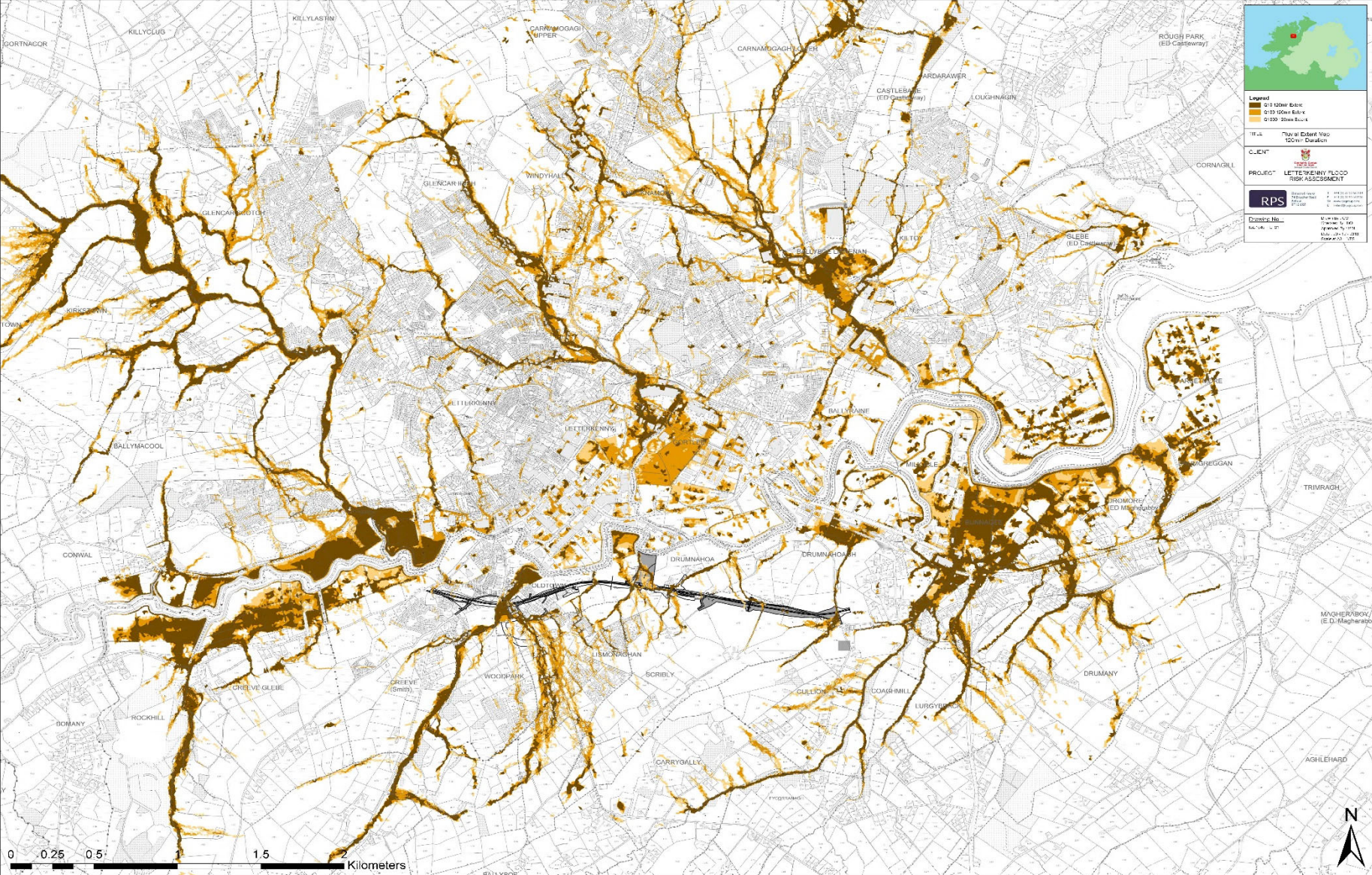


Figure 5.5: Representation of ICM model set-up

Figure 5.6 illustrates the pluvial extent map for a 120 minute duration storm over a range of return periods.

The maps can be used to identify areas that may be at risk and that may require a pluvial flooding assessment to be carried out for planning applications. Recommendations and guidelines in relation to SuDs should be implemented in these areas to reduce the risk of pluvial flooding.



5.7 CLIMATE CHANGE SENSITIVE AREAS

The flood zones are generated without the inclusion of climate change factors. Due to the uncertainty surrounding the potential effects of climate change a precautionary approach is recommended. Areas that are potentially sensitive to climate change were reviewed from the North western CFRAMs and the mapping available on floodinfo.ie. Letterkenny AFA is considered to be at high vulnerability from the mid-range future scenario (MRFS) and high vulnerability from the high end future scenario (HEFS). Detailed flood risk assessment and adaptation of the preferred flood relief measures would require consideration of the impacts from climate change at the planning stages of development.

In reviewing the impact of climate change for the purposes of the SFRA, flood zone mapping for flood zone A and flood zone B has been prepared for the Mid-Range Future Scenario (MRFS).

Looking at the extent of flooding in the future there are a number of key areas that could be affected by increased flood risk due to climate change, these include the town centre and Bunnagee area as illustrated in Figure 5.7 and Figure 5.8.

5.7.1 Town Centre Zoning

There is limited increase in the extents of Flood one A under the Mid-Range Future Scenario in the Town Centre area, however Flood Zone B does extend to areas along Pearse Road and the area to the East of the Isle Burn.

5.7.1.1 Town Centre – East of Isle Burn

Policy LK-TC-P-10 within the Local Area Plan outlines the nature of development that will be permitted to the East of Isle Burn. This policy restricts development to water compatible uses to the West of the Isle Burn with the exception of the ATU Campus which has passed a justification Test (See Appendix B) and the existing development in the current day flood risk zones (subject to certain conditions being met). Comparison and convenience retailing and residential development will not be supported in these areas including the areas that are potentially at risk of flooding due to climate change.

The additional areas affected by the MRFS flood zones and climate change in this part of the Town Centre will only be considered in the context of Development that accords with the Letterkenny 2040 Regeneration Strategy and objective CAM-LK-O-3 which states *“It is an objective of the council to ensure that flood risk management measures in Letterkenny consider and provide for effective climate change adaptation, as set out in the OPW Flood Risk Management Climate Change Sectoral Adaptation Plan (OPW 2019).”*

In addition to this there has been adequate open space retained to ensure that any future flood defences with climate adaptation measures can be accommodated within this area.

5.7.1.2 Town Centre area West of R250 Pearse Road/Oldtown Road

There are some additional areas within the Town Centre that could potentially be within Flood Zone B based on the MRFS, these are mainly areas of existing development along the Pearse Road and in the Letterkenny Retail Park where Dunnes Stores and Homebase are located. Objective CAM-LK-O-3 which states *“It is an objective of the council to ensure that flood risk management measures in Letterkenny consider and provide for effective climate change adaptation, as set out in the OPW Flood Risk Management Climate Change Sectoral Adaptation Plan (OPW 2019).”* Therefore this objective will ensure that climate change impacts are appropriately assessed with this land use zoning and measures such as appropriate finished floor levels to account for climate change will be considered.

In addition to this there has been adequate open space retained to ensure that any future flood defences to address flooding from the River Swilly and any necessary climate adaptation measures can be accommodated within this area.

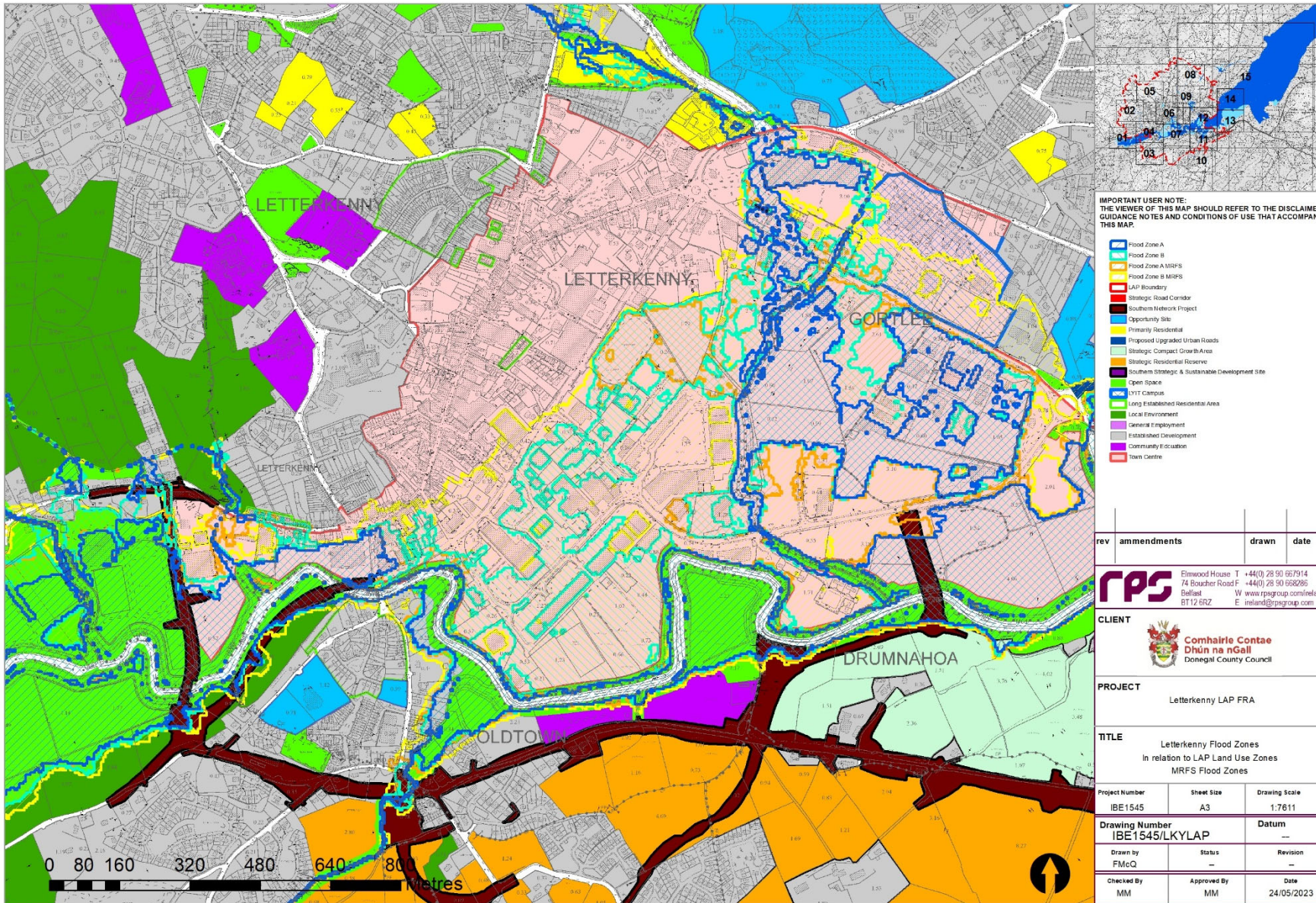


Figure 5.7: Flood zone mapping for flood zone A (orange hatch) and flood zone B (yellow hatch) for the Mid-Range Future Scenario (MRFS) in Town Centre.

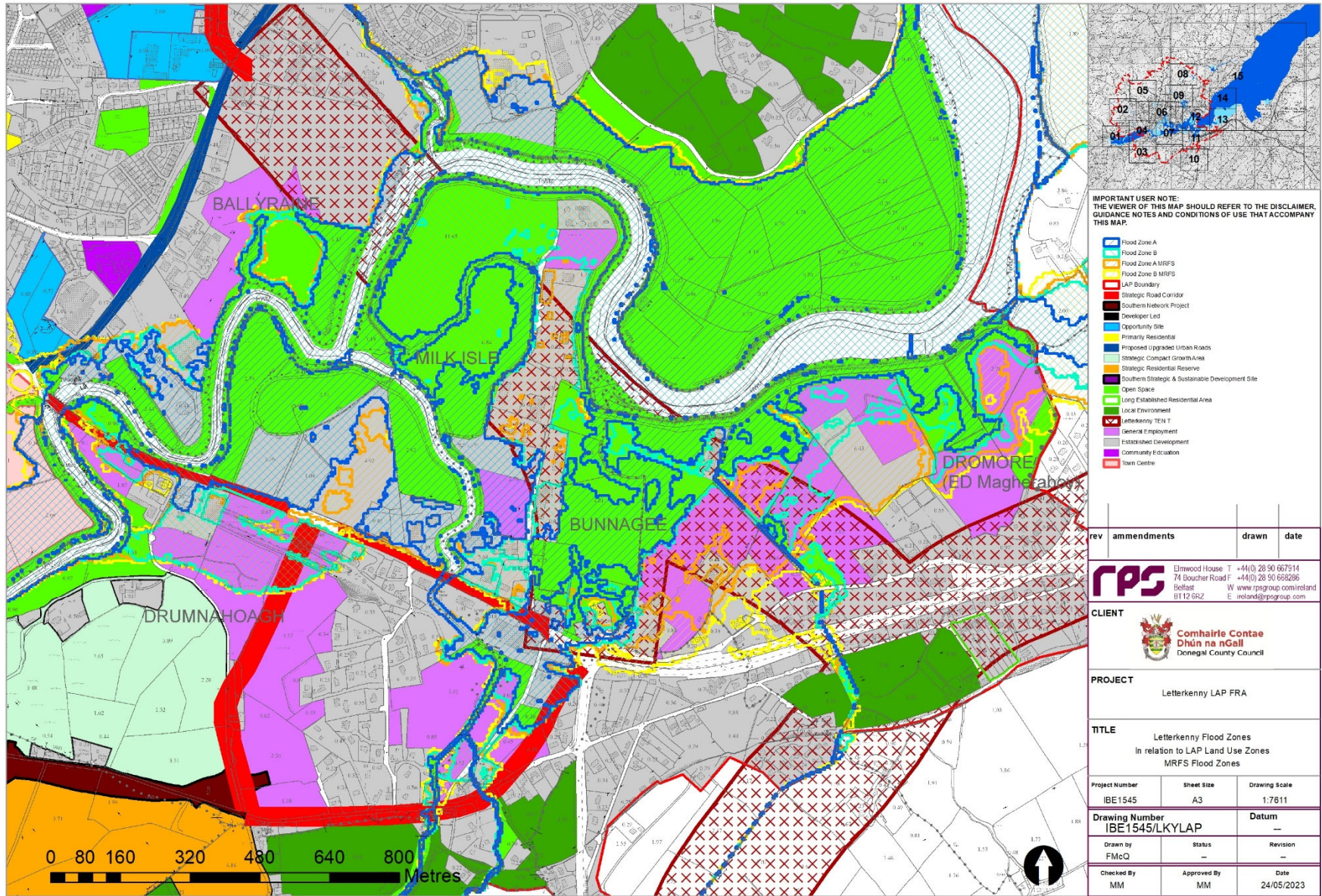


Figure 5.8: Flood zone mapping for flood zone A (orange hatch) and flood zone B (yellow hatch) for the Mid-Range Future Scenario (MRFS) at Bunnagee

5.7.2 Bunnagee Area

There are locations within the Bunnagee Area where climate change is likely to result in an increase in flood risk. Large zonings within this areas have been set aside for open space and water compatible development and therefore offer the opportunity to provide climate change resilience. There are a number of areas that have been set aside for less vulnerable development within the current flood zone B. The effects of climate change, based on the MRFS, could result in some of these areas moving into flood zone A in the future climate change scenario and some further expansion of the areas within flood zone B. There are no vulnerable land use types proposed in these areas and the implementation of Objective CAM-LK-O-3 which states *“It is an objective of the council to ensure that flood risk management measures in Letterkenny consider and provide for effective climate change adaptation, as set out in the OPW Flood Risk Management Climate Change Sectoral Adaptation Plan (OPW 2019)”* will ensure appropriate consideration is given to climate adaptation measures for less vulnerable development within these areas in addition to ensuring land that could potentially be prone to flooding in the future remains as water compatible and there is adequate space provided for future flood defences.

6 DEVELOPMENT PLAN ZONING

6.1 INTRODUCTION

The initial SFRA reviewed areas of interest in terms of fluvial and coastal flood zones, historical flooding spots and indicative pluvial flooding mapping. The flood zones are derived from the Final North Western CFRAM maps within which Letterkenny was identified as an AFA and therefore had detailed assessment of the flood risk undertaken. As described in Section 5.3. The CFRAM mapping is the most comprehensive flood zone mapping available for the Letterkenny LAP and is considered appropriate for use as a strategic overview of flood risk. The flood zone maps are shown in Appendix A.

This flood risk information has enabled DCC to apply 'The Guidelines' sequential approach to both zoned and non-zoned land, and where necessary the Justification Test, to appraise sites for suitable land zonings and identify how flood risk can be managed as part of the development plan. Appendix B outlines the approach undertaken by DCC in application of the sequential approach and details the Justification Tests where necessary. The Land use zonings for Letterkenny as contained in the Draft Letterkenny Plan and Local Transport Plan 2023-2029 overlaid with Flood Zones A and B are shown in Appendix A in Figure A.1 to Figure A15.

Development in flood risk areas can broadly be classified as:

- Existing, developed, zoned areas at risk of flooding
- Undeveloped lands at risk of flooding

6.2 EXISTING, DEVELOPED, ZONED AREAS AT RISK OF FLOODING

The SFRA identifies several areas of existing established development which are at risk of flooding. In accordance with Circular PL2/2014 a Justification Test should be carried out to assess the appropriateness of the existing zoning for existing, developed, zoned areas and proposed areas of regeneration at risk of flooding. If still deemed appropriate the Justification Test should outline flood risk management measures to ensure that flood risk is not increased in the areas and to other adjoining areas. The locations of established development that are considered to be at risk of flooding, i.e. located within flood zones A and B are outlined in **Table 6.1** with a reference to the relevant mapping in Appendix A of this report. The Table also includes a number of existing development areas within the Town Centre Zoning.

The development types that are open to consideration within the established development zone include both highly vulnerable, less vulnerable and water compatible development. The application of Section 4.27a of the Guidelines, which was inserted in Circular PL 2/2014 requires a Plan-making Justification Test for existing, developed, zoned areas at risk of flooding to assess if the zoning is still relevant.

"In some instances, particularly in older parts of cities and towns, an existing land use may be categorised as a "highly vulnerable development" such as housing, be zoned for residential purposes and also be located in flood zone A/B. Additional development such as small scale infill housing, extensions, or changes of use that could increase the risk or number of people in the flood-prone area can be expected in such a zone into the future. In these instances, where the residential / vulnerable use zoning has been considered as part of development plan preparation, including use of the Justification Test as appropriate, and it is considered that the existing use zoning is still appropriate, the development plan must specify the nature and design of structural or non-structural flood risk management measures required prior to future development in such areas in order to ensure that flood hazard and risk to the area and to other adjoining locations will not be increased or, if practicable, will be reduced. Planning authorities should consider the issues and opportunities raised in section 4 of Appendix B (Technical Appendices) in this regard, and may consider including certain objectives or conditions as part of the zoning."

The Justification Test for the established development follows the criteria outlined in Box 4.1 of the guidelines. In these instances it is necessary to apply the criteria as if the area is undeveloped but also note that the area is already developed.

Table 6.1: Areas of Established development within Flood Zone A and Flood Zone B

Map Reference (Appendix A)	Description of Location	Flood Zone	Summary of Position
Map 4	Existing Houses including gardens and yards at R250 Frontage Existing Houses and gardens along the L1114 Oldtown Road that back onto the River Swilly. Century Complex established development within Town Centre Zoning. Dunnes Stores Oldtown – established development within Town Centre Zoning	A & B	See Justification Test in Appendix B for Established Development, - adherence to Section 5.28 of the Guidelines will be required in consideration of development within these areas. New development in these established development zones must be limited to water compatible development in Flood Zone A and less vulnerable and water compatible in Flood Zone B
Map 6	Existing Housing along High Road (both sides) on approach to the Hospital. Tesco/Letterkenny Shopping Centre - established development within the Town Centre Zoning. Atlantic Technical University (ATU) - established development within the Town Centre Zoning.	A & B	
Map 7	Lands opposite Mount Errigal Hotel, including Flooring Company, Screwfix and Letterkenny Skip Hire L1094 Cullion Road – existing residential and commercial development, mainly within flood zone B, Public Service Centre, Neil T Blaney Road - established development within the Town Centre Zoning.	A & B	
Map 9	Educate Together Campus at Kiltyoy	A & B	
Map 11	Commercial Properties along the N14 Frontage at Bunnagee, including the Clanree Hotel South of Letterkenny Glass	A & B B	
Map 12	Commercial Properties on N56 at Kiltyoy (Mr Price, Homeland) Letterkenny WWTP/Bonagee Utd	A & B	

Appendix B includes the justification test for the retention of the established development zoning and existing development within the Town Centre Zoning in areas of flood risk and development will be limited to the requirements of Section 5.28 Guidelines as amended by Circular PL 2/2014:

“Applications for minor development, such as small scale infill, small extensions to houses or the rebuilding of houses, and most changes of use of existing buildings and or extensions and additions to existing commercial and industrial enterprises, are unlikely to raise significant flooding issues, unless they obstruct important flow paths, introduce a significant additional number of people into flood risk areas or entail the storage of hazardous substances. Since such applications concern existing buildings or developed areas, the sequential approach cannot be used to locate them in lower-risk areas and the Justification Test will not apply. However, a commensurate assessment of the risks of flooding should accompany such applications to demonstrate that

they would not have adverse impacts or impede access to a watercourse, floodplain or flood protection and management facilities. These proposals should follow best practice in the management of health and safety for users and residents of the proposal.”

In criterion 3 of the justification test for established development, as presented in Appendix B, development in these areas will be limited to minor development, as outlined in Section 5.28 of the Guidelines above. Furthermore any new development in these established development zones must be limited to water compatible development in Flood Zone A and less vulnerable and water compatible in Flood Zone B.

This approach has been carried forward to the Draft Letterkenny Plan and Local Transport Plan 2023-2029 which states under Section 12.3.4:

“The areas of existing development that conflict with flood zones, but where certain development types can be justified, are clearly identified in the SFRA report (see Section 6.2) and prospective applicants are advised to consult said report in this regard. In assessing planning applications within such areas, the Planning Authority will ensure adherence to the principles of the ‘Planning System and Flood Risk Management Guidelines’ and in this respect will impose limitations on development proposals pursuant to the findings of relevant justification test for established development (see Section 6.2 and Appendix B of the SFRA report).”

6.3 UNDEVELOPED LANDS AT RISK OF FLOODING

The SFRA identified several areas of undeveloped land which are at risk of flooding that required a review of the appropriateness of the land use following ‘The Guidelines’ sequential approach. The Planning Authority had regard to Section 4.26, 4.26a and 4.27 of the Guidelines in reconsidering the zoning. Following this reconsideration, the Planning Authority implemented a range of decisions in various areas of the LAP:

1. Removed the existing zoning for all types of development on the basis of the unacceptable high level of flood risk;
2. Required the preparation of a detailed flood risk assessment to prepare a strategy for development in more detail and prior to any development.
3. Where the criteria of the Justification Test have been met, retain the zoning and require a detailed flood risk assessment and the application of Section 5 of the Guidelines.

6.3.1 Avoidance

In several areas flood risk has been avoided by recommending zoning the conflicting areas with water compatible land uses. These areas have varying degrees of flood risk and could also be impacted by changes to the floodplains due to climate change.

A list of these areas is provided below in Table 6.2 which provides a detailed explanation of the potential conflicts between areas of flood risk and land use zoning classes that are not appropriate and the measures undertaken through the revision of the land use zonings to ensure appropriate development is zoned in areas of flood risk and vulnerable development is avoided in these areas.

All development in these areas should still consider flood risk. Development should be supported by an appropriately detailed Flood Risk Assessment (FRA). The level of detail within the FRA will depend on the risks identified and the proposed land use. All development proposals shall carry out a surface water and drainage assessment to ensure that drainage from the site is managed sustainably.

Table 6.2: Areas where avoidance has been recommended for vulnerable development zoning within flood risk areas

Development Land Zoning	Vulnerability class	Flood Zone	Map Reference (Appendix A)	Preliminary consideration in context of the land use zoning map	Summary of Position
Opportunity Site 8	Highly Vulnerable and Less Vulnerable	A & B	Map 5	Relates to a land parcel located at Windyhall which has been zoned as opportunity site 8. A watercourse runs along the southwestern boundary of the site, resulting in a small area of potential flood risk in this area. This would not necessarily preclude development on the remainder of the site and it is considered appropriate to identify the linear corridor of Flood zones A and B at this location as 'open space'.	No justification test required. Action has been taken to identify linear areas of flood risk as 'open space.', i.e. water compatible development
Opportunity Site 1	Highly Vulnerable and Less Vulnerable	A & B	Map 6	Map Reference 6 relates to Opportunity 1 at Gortlee which is a large Opportunity site identified for a range of uses which may include residential, offices, tourism, institutional or local neighbourhood level uses. Flood Zone A and B run along the edge of the site adjacent to the De Valera Road associated with nearby areas of flood risk on the western side of the De Valera Road. The area of flood risk within the site is limited in nature and can be addressed by reduction in the extent of the Opportunity site and identification of a linear area of 'open space' to link to the town park. Notwithstanding, the development of the Gortlee Opportunity site may intensify the flood risk issues experienced downstream around the area of Tesco and therefore the text in relation to Opportunity Site 1 will require revision to ensure that any development proposals provide adequate assessment of the impact of a proposed development on flood risk downstream together with appropriate measures to address it.	No justification test required. Action has been taken to identify flood risk area as 'Open Space' and reduce the area of 'Opportunity Site 1'.
Opportunity Site 5	Highly Vulnerable and Less Vulnerable	A & B	Map 7	Map reference 7 relates to lands adjoining the river at the Polestar Roundabout. The lands are zoned as Opportunity Site 5 for the purposes of highly vulnerable and less vulnerable classes of development. Originally the lands adjoining the River Swilly at the Polestar Roundabout were included with this opportunity site which includes flood zones A and B. Given the extent of encroachment of Flood Zone A throughout the most part of the site adjacent to the Swilly, these uses would require a justification test. It is not considered that a justification test would be favourable as (i) the site	No justification test required. Action has been taken to identify flood risk areas as 'Open Space and 'Established development'

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Development Land Zoning	Vulnerability class	Flood Zone	Map Reference (Appendix A)	Preliminary consideration in context of the land use zoning map	Summary of Position
				<p>is not essential to facilitate regeneration and/or expansion of the centre of the town; (ii) does not comprise significant previously developed and/or under utilised lands; (iii) is not within or adjoining the core of the town in line with the definition of ‘core’ in the Flood Risk management Guidelines and given the separation of the lands from the core by virtue of existing strategic roads; (iv) is not essential in achieving compact and sustainable growth and (v) there are suitable alternatives elsewhere. In lieu, it is considered that the lands at risk will better serve to contribute to the green infrastructure strategy associated with the river with the exception of the areas of established development located along the roadside edge of the lands. These areas are reasonably to be delineated as ‘established development.’</p>	
General Employment & Commercial	Less Vulnerable	A & B	Map 9	<p>Relates to The IDA Business Park. Predominantly Flood Zone B occurs in a linear manner along two existing watercourses and linking to the existing Enterprise Centre and largely coordinates with a linear open space zoning in any case only overlapping with General Employment zoning marginally. This represents only a linear area of Flood Zone B risk for development type considered as less vulnerable and therefore to retain any overlap with the General Employment zoning would not require a justification test. The existing open space zoning together with a marginal increase of this to reflect the flood zone B is considered to provide a template for walkability and accessibility (including cycle) through this area of general employment and furthermore linking northwards to LYIT lands and SRR lands.</p>	<p>No justification test required.</p> <p>Action has been taken to identify linear areas of flood risk as ‘Open Space.’</p>

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Development Land Zoning	Vulnerability class	Flood Zone	Map Reference (Appendix A)	Preliminary consideration in context of the land use zoning map	Summary of Position
	Less Vulnerable	A & B	Map 11/12	<p>Relates to lands at Bunnagee that had a proposed zoning of general employment originally, located to the north of the four lane carriageway and traversed by the reserved routes for the Ten-T link road as well as reserved routes for developer led roads. Flood zones A and B overlap with a significant area of General Employment lands, the development of which is classed as less vulnerable in accordance with the Guidelines. Within Flood Zone A, this land use zoning would require a justification test while in Flood zone B, less vulnerable uses are considered appropriate. However, given the configuration of the flood risk shown on the mapping indicating several Flood Zone B areas located closer to the river, it results in a disjointed area for potential development.</p>	<p>No justification tests required.</p> <p>Action has been taken to revise area of 'general employment', to open space' and 'established development'</p>
				<p>In addition, initial design in respect of the link road associated with the Ten-T indicates that there will be no provision for the 'developer led roads' to service the lands but rather provision for local access arrangements will continue. Therefore subject to the delineation of existing development in this area as 'established development', it is recommended that the flood zone A be amended to 'open space' in so far as access can be taken from the main existing roads servicing existing economic developments and that, where the land areas identified as Flood Zone B are disjointed from the greater area of development appropriate lands, these also be delineated as 'open space' in addition to having due regard to the corridor in respect of the strategic Ten-T route. To compensate for the loss of employment lands in the Bonagee and Port Road areas, new areas of 'General Employment and Commercial' land have been provided for in the Mountain Top area and in Bonagee; the latter at locations outside of Flood Zone A.</p>	

Development Land Zoning	Vulnerability class	Flood Zone	Map Reference (Appendix A)	Preliminary consideration in context of the land use zoning map	Summary of Position
	Less Vulnerable	A	Map 11	In relation to the area located to the rear of the Clanree Hotel, this area partly overlaps with area of flood zone A which would require a justification text in line with the guidelines if this entire area was proposed as general employment and commercial development. It is noted that the predominant area of flood zone A overlaps with the existing Clanree Hotel all of which is proposed to be identified as 'Established development' in the LAP to reflect the long established existing uses. It is considered at this stage in the process that the lands to the rear of the Clanree Hotel provide for potential future expansion or for other 'General Employment and Commercial' uses and for the most part are at the location of flood zone B therefore a justification test is not required in that regard. Thereafter, Flood zone A is delineated along an existing open watercourse with flood risk area to the rear of the existing hotel. It is therefore recommended that these areas be identified as 'open space' around which any proposals for extension or for new economic development may be designed.	No justification test required. Action has been taken to: <ul style="list-style-type: none"> • Reflect the full extent of existing development as 'Established Development.' • Identify the remaining areas of flood zone A as 'open space'.
Strategic Residential Reserve	High	A & B	Map 3 and 4	Map reference 3 & 4 relates to lands at Oldtown and Woodpark adjacent to the Southern Network Zoning. Zoned as Strategic Residential Reserve there are a number of pockets of flood risk, both A and B within the site which are recommended to be identified as 'open space' and which would form the basis of green infrastructure within an overall design concept of the site should the lands be suitable at some point in the future for 'primarily residential.'	No justification test required. Action has been taken to identify linear areas of flood risk as 'Open Space.'
			Map 5	Relates to Strategic Residential Reserve lands in Glencar Irish indicating a linear area of Flood Zone A and B that is recommended for inclusion as 'open space'	No justification test required. Action has been taken to identify linear areas of flood risk as 'open space.'
Community and Education	High	A & B	Map 5	Relates to a small area of land within the 'Community/Education' zoning to the north west of the hospital, located within Flood Zone A. The area in question is immediately south of a proposed 'Open Space' zoning within a parcel that is zoned as Opportunity site 8 and given the limited extent of flood area shown within the 'Community/Education' zoning on Map 5 it is considered reasonable	No justification test required. Steps have been taken to amend the area of conflict to 'open space.'

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Development Land Zoning	Vulnerability class	Flood Zone	Map Reference (Appendix A)	Preliminary consideration in context of the land use zoning map	Summary of Position
				that the proposed Open Space zoning be extended into this 'Community/Education' area.	
Strategic Community Opportunity	High	A & B	Map 9	<p>Map reference 9 refers to a small area of 'Flood Zone A' land that was within an area zoned as Strategic Community Opportunity, to the northwest of Pramerica, Sita and Optibelt. The rezoning of this small area to 'Open Space' would not prejudice the development of the remainder of the lands.</p> <p>This area is subject to a requirement for co-ordinated and master planned approach to ensure connectivity and permeability throughout adjacent land parcels including the General employment and commercial zoning immediately downstream where a similar approach to flood risk avoidance has been taken.</p>	No justification test required. Steps have been taken to reflect the limited areas of flood risk as 'open space.'
Local Environment	High and Less Vulnerable	A & B	Map 4	Map reference 4 relates to lands at Sallaghagrane that are currently zoned 'local environment'. Within the 'Local Environment' zoning small scale one off type development can be considered which potential includes single one off houses and therefore may provide for a combination of Less vulnerable and Highly vulnerable development. As a result, it is appropriate to identify the linear area of flood zone A and B as 'Open Space.'	No justification test required. Steps have been taken to reflect the limited areas of flood risk as 'open space'.
			Map 8	Map reference 8 relates to lands at Carnamuggagh Lower and should be read in conjunction with Row 6 in this table (map reference 8). It reflects the same position as outlined in respect of Map reference 4 above	No justification test required. Steps have been taken to reflect the limited areas of flood risk as 'open space'.
			Map 11	Relates to two areas of 'Local Environment' zoning located at Bonagee (east of the Ballybofey National Primary Road) and at Dromore. The flood zone mapping indicates in both cases that there are limited linear layout areas of flood risk A and B.	No justification test required. Action has been taken to identify linear areas of flood risk as 'open space'

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Development Land Zoning	Vulnerability class	Flood Zone	Map Reference (Appendix A)	Preliminary consideration in context of the land use zoning map	Summary of Position
			Map 14	Relates to the eastern edge of lands at Glebe where Flood Zone A is indicated. This area is adjacent to the eastern edge which is already identified as 'open space'. Therefore it is recommended to slightly adjust the area of 'open space' in order to include the additional edge.	<p>No justification test required.</p> <p>Action has been taken to identify linear areas of flood risk as 'Open Space'.'</p>
Strategic Compact Growth Area	High and Less Vulnerable	A & B	Map 7	<p>The Plan identifies a key future development area to the south of the River Swilly. Development of this area, hereafter referred to as the Strategic Compact Growth Area, is currently constrained by the absence of water and sewer networks, a bridge crossing over the immediately adjacent River Swilly and deficiencies in the local road network. Notwithstanding these current constraints, the area is specifically addressed in this Plan because of its location immediately adjacent to the town centre and the sequential growth opportunities that arise.</p> <p>The zoning of these lands has extended only as far as the boundary of Flood Zone B and the areas at flood risk adjacent to the River Swilly have therefore been left as open space to ensure that the site will not be impacted by flooding</p>	<p>No justification test required.</p> <p>Action has been taken to identify linear areas of flood risk as 'Open Space'.'</p>

6.3.2 Highly Vulnerable Development

6.3.2.1 Strategic Road Infrastructure

DCC has identified undeveloped areas for strategic road infrastructure which include portions of lands in flood risk areas. Strategic infrastructure such as this, including the TEN-T road corridors, are considered as highly vulnerable development in the context of the 'Guidelines' due to their strategic nature. The locations are illustrated in Figures 6.6 – 6.9 inclusive.

6.3.2.1.1 TEN-T Priority Route Improvement Project, Donegal (PRIPD) and Strategic Road corridor at Drumnahoagh and Bonagee Roundabout

Figure 6.1 **Error! Reference source not found.** illustrates the location of the strategic TEN-T Priority Route Improvement Project, Donegal (PRIPD) and the Strategic road corridors at Drumnahoagh and the Bonagee Roundabout. Extensive option development has ensured that flood risk is reduced as much as possible in this corridor whilst still achieving the objectives of the project. Separate Justification Tests for the TEN-T PRIPD and the Strategic Road Corridors for Drumnahoagh and Bonagee are included in Appendix B.

All the areas are being retained with a zoning objective for strategic road development. As outlined in the justification tests, included in Appendix B, mitigation to offset any potential to increase flood risk is possible including spanning the flood plains, so long as adequate freeboard is provided and it can be proven that any supports required in the flood plain have a negligible effect on the displacement of flood waters. Flood relief culverts through road embankments may also be an option to allow flood waters to reach their natural flood extents. Applying the Guidelines to the formulation of detailed FRA at the Development Management stage means such development will be appropriately assessed. These strategic road corridors will be subjected to a flood risk assessment at an appropriate level of detail and designed to ensure that there is limited impact on flood risk.

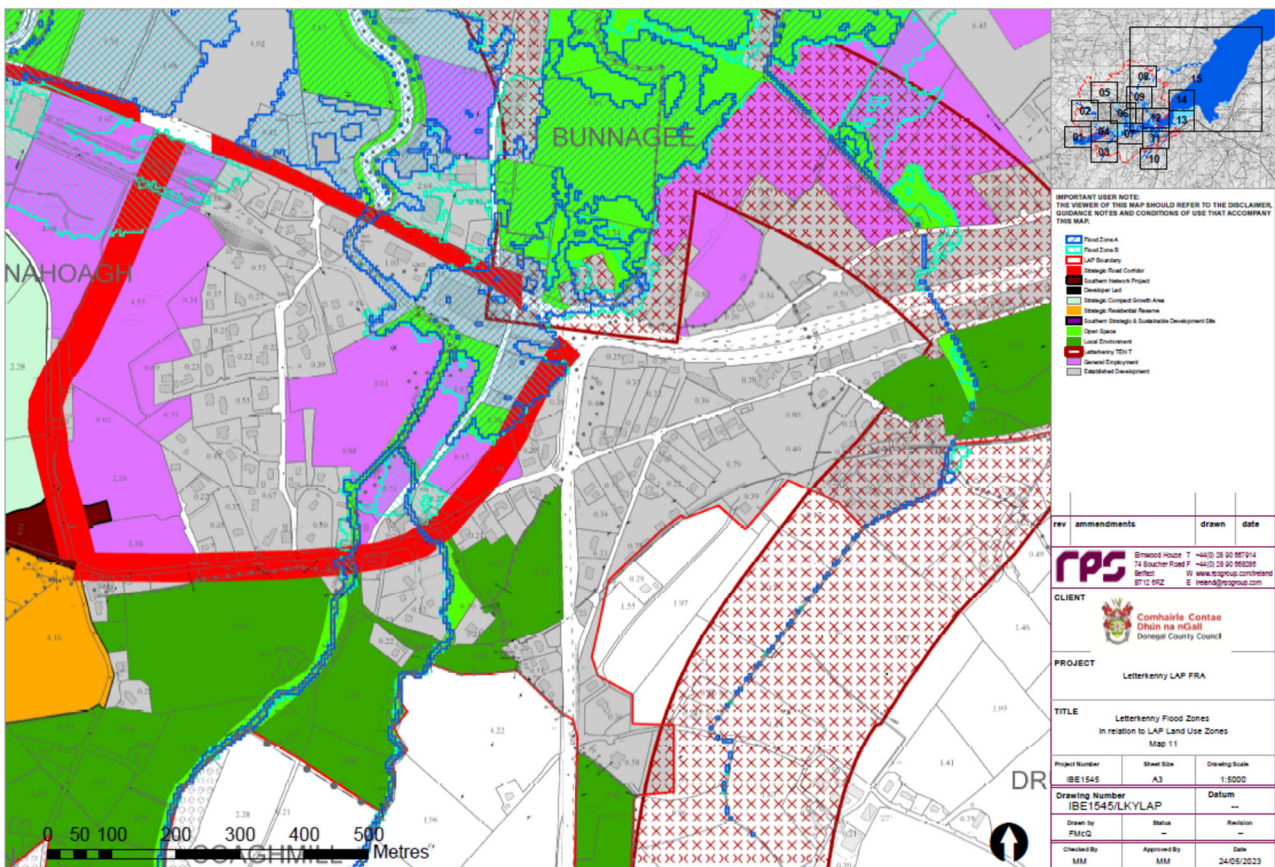


Figure 6.1: Strategic Road Infrastructure corridor from TEN-T option appraisal at Bonagee and Strategic road corridors at Drumnahoagh

6.3.2.1.2 Strategic Road Corridor with minor impact on areas of flood risk

Figure 6.2 and Figure 6.3 show the strategic road infrastructure at Kirkstown (Western Relief Road) and Glencar (Northern Relief Road) cross a limited extent of flood risk areas. In these instances the extent of the lands within Flood Zones A or B is insignificant in the context of the wider overall lands zoned at the location. Due to relatively small watercourses and floodplains there is a high likelihood that this will not increase the risk of flooding elsewhere provided adequate mitigation measures including the consideration of suitable bridge spans can be proposed as part of a site specific FRA. Justification Tests for these sites are included in Appendix B. All the areas are being retained with a zoning objective which includes strategic road development. Applying the Guidelines to the formulation of detailed FRA at the Development Management stage means such development will be appropriately assessed and designed to ensure that there is limited impacted on flood risk provided the mitigation to span the limited flood risk areas is achieved.

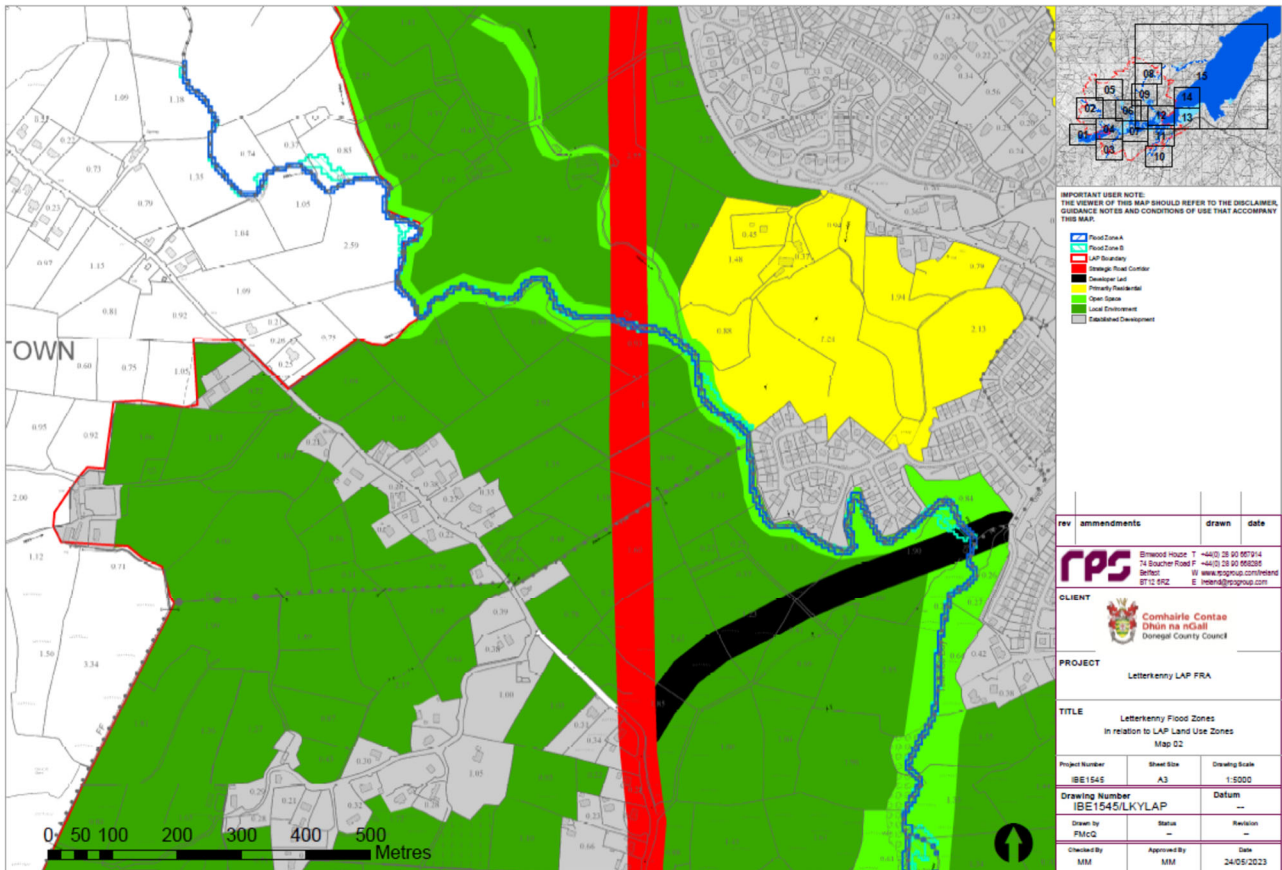


Figure 6.2: Strategic Road Infrastructure at Kirkstown (Map 2 Appendix A)

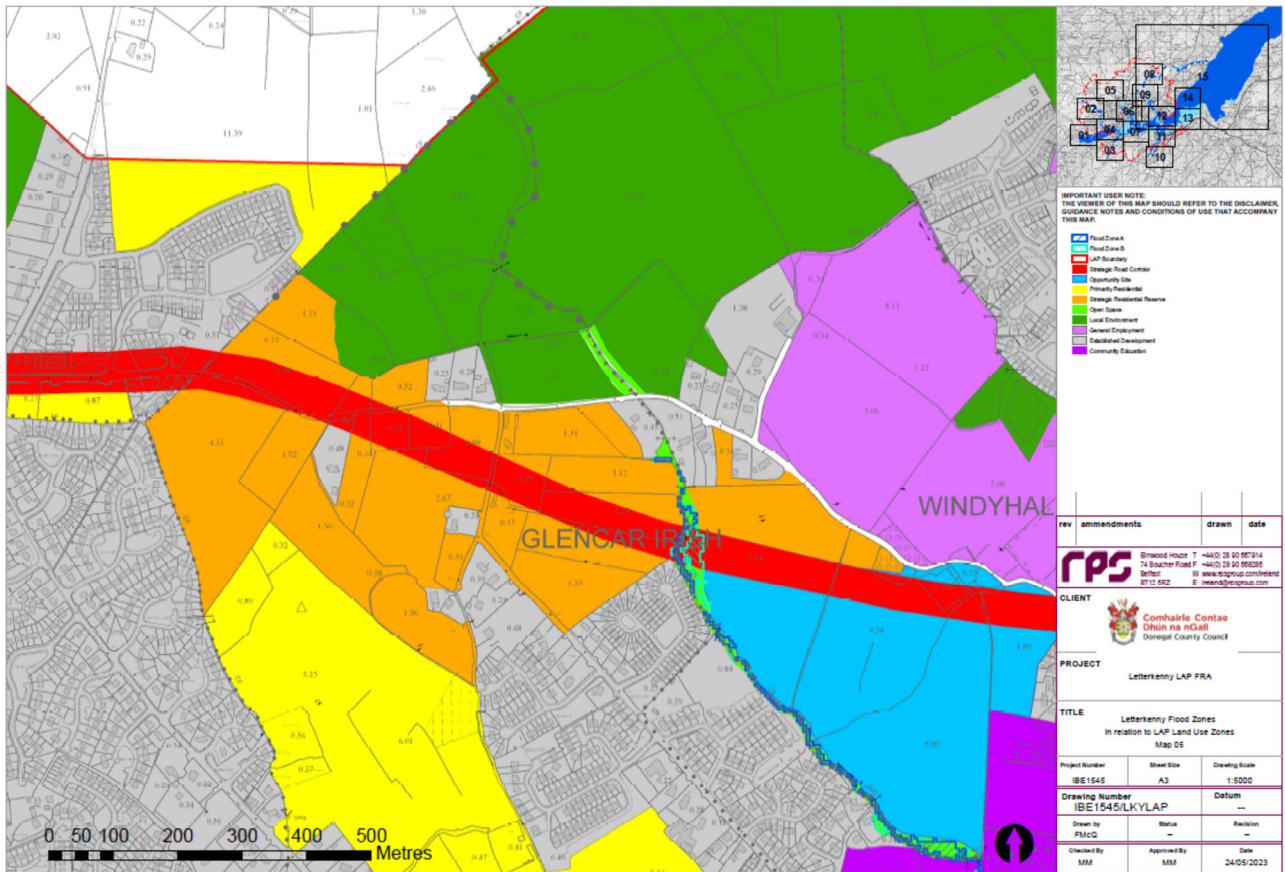


Figure 6.3: Strategic Road Infrastructure at Glencar (Map 5, Appendix A)

6.3.2.1.3 Southern Network Project

The Southern Network Project (SNP) (previously referred to as the Southern Relief Road) has been conceived as a strategic transportation corridor development project commencing on the N13/N14 and traversing in a westerly direction (Figure 6.4). The scheme terminates adjacent to the Ballymacool roundabout located to the west of the town with a proposed connection onwards to the Rock Hill Road and the west of the county. The project comprises online widening (Leck Road and Rockhill Road), new road construction and new river crossings.

Given the objective of this project and in particular the need for a number of crossings of the River Swilly it is not possible to avoid crossing areas at flood risk. A detailed flood risk assessment has already been completed for large parts of the new road construction where the outline design has been completed. Figure 6.5 shows the extent of the Southern Network Project where a detailed flood risk assessment has already been completed.

A new 1D/2D hydraulic model has been constructed using Innovyze Integrated Catchment Management (ICM) software of the Lismonaghan watercourse. The new relief road model was used to assess the impact of potential flooding to properties and infrastructure. Following this, the results were used to determine whether mitigation measures would be required to offset potential increases in this flood risk.

Hydraulic modelling indicated that flood extents remain unchanged and water levels increases are negligible. No additional receptors are expected to become at risk due to the construction of the relief road and culvert so no mitigation measures are considered necessary along this section.

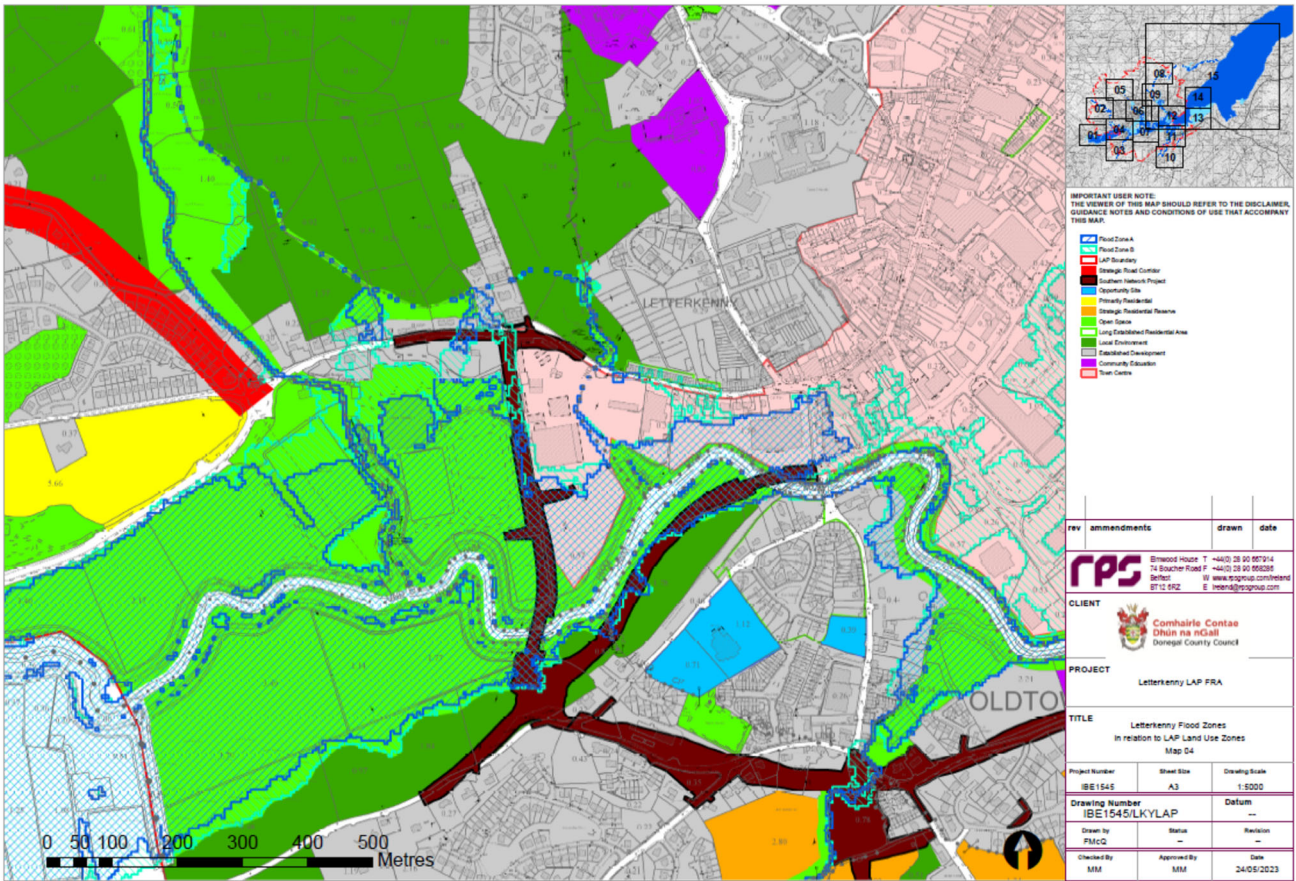


Figure 6.4: Location of Southern Network Project

The Southern Network Project also requires a number of crossings of the River Swilly and its floodplain. This means the corridor will cross areas at flood risk. As outlined in the justification test for the Southern Network Project, mitigation to offset any potential to increase flood risk from the River Swilly Crossings is possible including spanning the flood plains, so long as adequate freeboard is provided and it can be proven that any supports required in the flood plain have a negligible effect on the displacement of flood waters. Flood relief culverts through road embankments may also be an option to allow flood waters to reach their natural flood extents. The detailed development management FRA completed for the elements of this project that have had outline design completed and the mitigation measures necessary to ensure the project will not adversely impact on flood risk for the River Swilly crossings means that the project passes the development plan justification test.

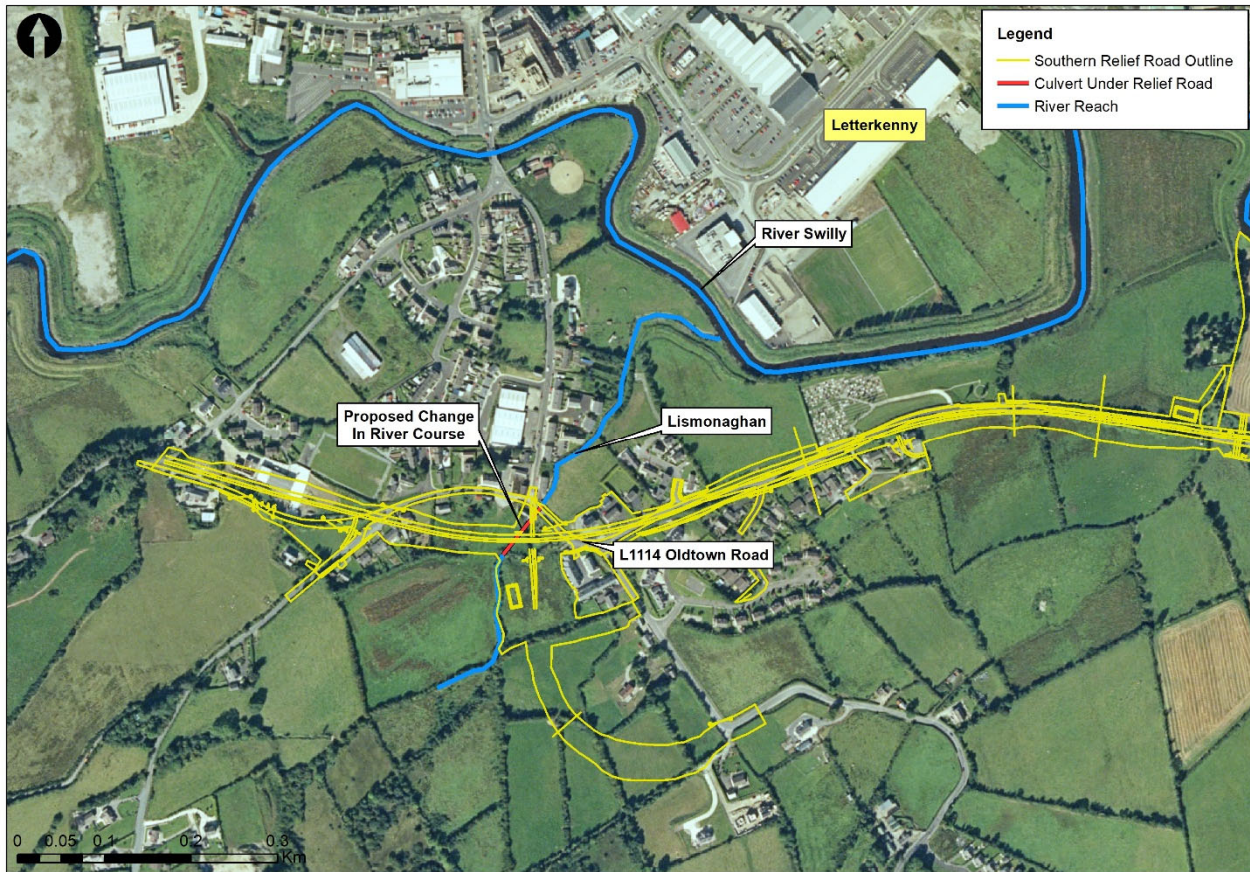


Figure 6.5: Location of Southern Network Project subject to detailed development management flood risk assessment

6.3.2.2 Flood Risk within the Town Centre Zoning

The topography of the town centre is extremely flat. This is an important consideration when considering flood risk because it means that any increase in water levels can have a significant implication in the overall extent of flooding. The Council has undertaken dedicated modelling as part of this SFRA which investigate this. A number of computer model simulations have been run to determine the impact of developing some of the undeveloped Town Centre sites that are affected by flooding, particularly flood zone A where vulnerable and less vulnerable development should be avoided. This analysis confirmed how sensitive the Town Centre is to the displacement of water with all simulations indicating a significant increase in flooding extents resulting in properties not previously at risk of flooding to be impacted. The entire Town Centre zoning is not going to pass the Development Plan Justification Test for any undeveloped sites that are within flood zone A and to comply with the Planning System and Flood Risk Management Guidelines it will be necessary that these sites are zoned as for Water Compatible uses only. Undeveloped lands within flood zone B can be zoned for less vulnerable development, as defined in **Table 3.3**, without the need for a justification test, however the inclusion of highly vulnerable development types in the Town Centre Zoning Matrix means that a justification test is required and is included in Appendix B.

6.3.2.2.1 Flood Zone A

There are two distinct areas of the town centre that fall within Flood Zone A (see Figure 6.6) –

- (i.) a significant area to the east of the Isle Burn and
- (ii.) a smaller area on the western periphery of the town centre.

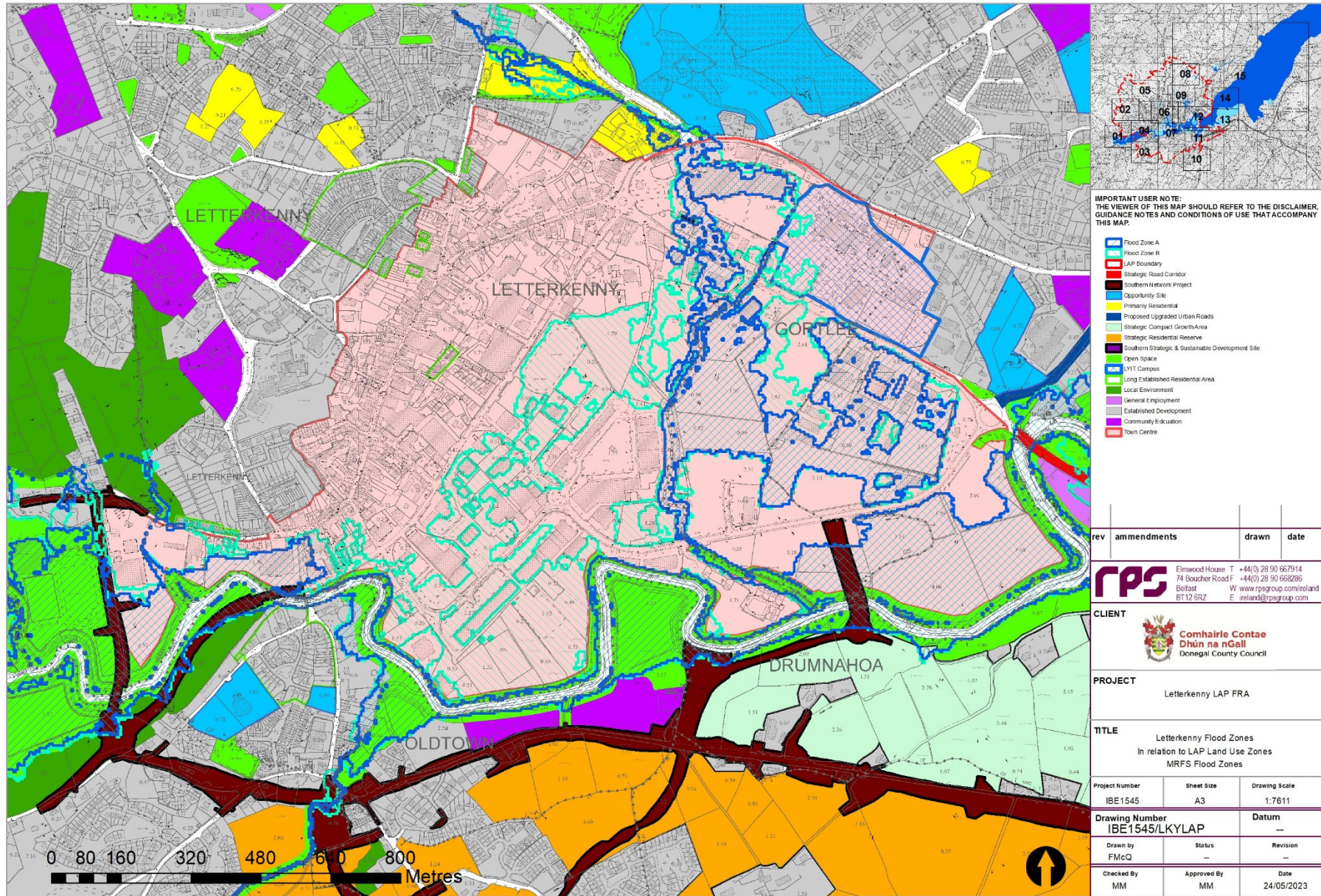


Figure 6.6: Flood Zone A and Flood Zone B in the Town Centre Zoning

Town Centre Area to the East of the Isle Burn

The area to the east of the Isle Burn requires special consideration in terms of two policy issues:

1. the principle of appropriate and orderly development outwards from the centre; and
2. the risk of flooding.

Preparatory work and consultation on both this Plan and the Letterkenny 2040 Regeneration Strategy has identified key challenges around the vitality and appearance of the traditional town centre, focussed on Main Street/Lower Main Street and the significant undeveloped or under-developed lands to the west of the Isle Burn in the vicinity of Pearse Road. The significant capacity of these areas in terms of being able to facilitate further development, and the principles of orderly and sustainable development, require that proposals for town centre retail developments should be restricted to west of the Burn, save for ancillary retail floorspace that is otherwise in accordance with the provisions of Policy LK-TC-10.

Having regard to the aforementioned capacity of the area to the west of the Burn, the encouragement of traditional town centre development on undeveloped lands to the east of the Burn cannot be justified in accordance with the requirements of the 'Planning System and Flood Risk Management Guidelines for Planning Authorities.' Policy LK-TC-10 therefore identifies those uses that *may* be acceptable in principle and includes a recognition of those areas that have already been developed, as well as the opportunities arising from the comprehensive Letterkenny 2040 Regeneration Strategy.

For areas that are intended to be zoned for development following the application of a Justification Test where proportions of the area is at risk of flooding, policy objectives have been developed requiring that the sequential approach be applied in site planning, whereby to ensure no encroachment onto, or loss of the flood plain, or that only water compatible development such as Open Space would be permitted for the lands which are identified as being at risk of flooding within that site..

A specific policy has been included within the Plan in relation to development within the Town Centre Area to the East of the Isle Burn:

Policy LK-TC-P-10: *It is a policy of the Council to only support the principle of the following uses within that part of the designated town centre that lies East of the Isle Burn and south of the Port Road, subject to the findings of a detailed site-specific flood risk assessment as required:*

- a. Water-compatible development, as defined in the Planning System and Flood Risk Management Guidelines;*
- b. Expansion of the ATU campus;*
- c. Redevelopment/extension of existing commercial units in the area of Port Road/Joe Bonner Link Road where such developments are contained within the existing site, do not obstruct important flow paths, do not introduce a significant additional number of people into flood risk areas or entail the storage of hazardous substances and satisfy the Authority's urban design ambitions for the centre as set out in the Letterkenny 2040 Regeneration Strategy Masterplan;*
- d. Sustainable urban drainage systems and nature-based solutions for the management of rainwater and surface water runoff; or*
- e. Development that accords with the Letterkenny 2040 Regeneration Strategy.*

Comparison and convenience retailing and residential development will not be supported in these areas.

This policy ensures that these lands are compliant with the Guidelines and that this area passes the justification test.

Atlantic Technological University (ATU) Expansion

The Expansion of the ATU campus has been subject to its own individual justification test as this represents the only area where new highly vulnerable development is proposed within this area to the East of the Isle Burn under Policy LK-TC-P-10.

Using an Infoworks hydraulic model, developed as part of this SFRA, a flood risk assessment has been carried out to determine the implications of the development of areas of the site that are currently at risk of flooding. This analysis has been undertaken with the aims of maintaining the functional flood plain and flooding mechanisms that currently existing on the site and then assessing the impact of developing the periphery of the floodplain and ensuring there is no increase in risk in flood risk to adjacent sites. This has been simulated by blocking out areas of the floodplain (shown in Figure 6.7) within the hydraulic model as a representation of the impact of developing the site. The model has then been re-run and flood extents compared to the existing.

Flooding on this site is limited to shallow depth sheet flow. For the areas outlined in red in Figure 6.7, the model results indicate that development with appropriately designed measures to address the flood risk in the site, e.g. raising of ground levels or finished floor levels can take place without increasing the risk of flooding elsewhere. This flood risk assessment has demonstrated that flood risk to the development can be adequately managed and the use or development of the lands at the ATU site, within the boundary illustrated in Figure 6.7 below, will not cause unacceptable adverse impacts elsewhere, particularly in the Town Centre.

For the areas outside of the red boundary in Figure 6.7 the land use zoning in the areas within flood zone B should be less vulnerable development and those in flood zone A should be water compatible in accordance with the guidelines. The justification test has been included in Appendix B.

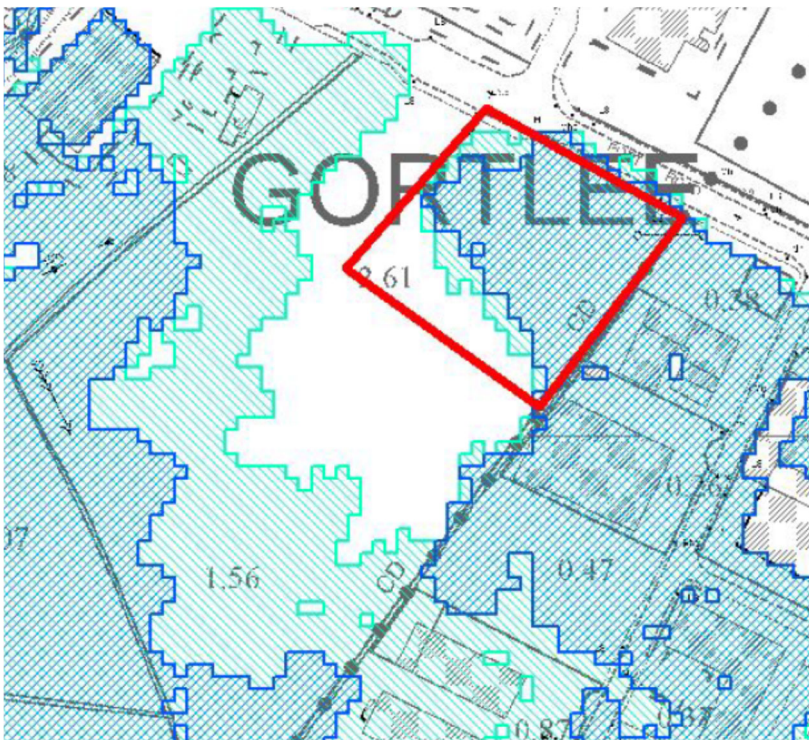


Figure 6.7: ATU site with area in red raised to simulate development as assessed by hydraulic modelling

Town Centre area West of R250 Pearse Road/Oldtown Road

A small portion of the town centre area west of the R250 Pearse Road/Oldtown Road also falls within Flood Zone A in the vicinity of the Dunnes Stores at Oldtown. Undeveloped lands within the flood zone in this area have been zoned as ‘Open Space’ in order to address flood risk. Existing developed areas in this part of the town centre have passed a ‘justification test’ as part of the overall established and existing development justification test included in Appendix B and detailed in Section 6.2 of this report. Proposals for development in this location will be subject to restrictions to ensure the requirements of Section 5.28 Guidelines as amended by Circular PL 2/2014 are adhered to.

6.3.2.2.2 Flood Zone B

Flood Zone B also affects a considerable area, most notably to the east of the Pearse Road (see Figure 6.6). The Town Centre Zoning Justification Test outlines the need to retain certain vulnerability classes within this zoning and the mitigation measures required to ensure that the zoning proposed will pass part 3 of the justification test. This will be achieved through the creation of a sustainable urban structure where residential uses are accommodated above ground floor level and the design ensures the safe movement of people into and out of the area, especially near where floodwater might be flowing, and considering the location of safe overland flow routes, as per Appendix B of the Planning System and Flood Risk Management Guidelines.

The following policy has been inserted into the Plan to ensure that the flood risk to all vulnerability classes can be managed.

Policy LK-TC-P-11: It is a policy of the Council that within Flood Zone B in the town centre, proposed uses that are considered to be highly vulnerable to flooding will only be considered where –

- a. Such uses are to be located at first floor level, above predicted flood levels.
- b. Appropriate provision has been made for access and egress to and from the site in the event of a flood.

6.3.2.3 Opportunity Site 3

This area is the location of a new school Educate Together, (blue zoning area in Figure 6.8) and it is appropriate to identify the extent of the existing school as established development which has been subject to its own Plan justification test (see section 6.2). The remaining area of the most northerly site is impacted by an area of flood zone A and B predominantly on its lower levels. The uses identified in the Local Area Plan are a combination of both highly vulnerable (residential use and medical) and less vulnerable uses. Having regard to the nature of this site as a brownfield site surrounded along its boundaries closer to the town centre by established development, it is considered that there is a significant likelihood that the site would pass a stage 1 and Stage 2 justification test on the basis of less vulnerable development.

Using the existing MIKE hydraulic model, developed during CFRAM, RPS have considered the implications of development of this site. The analysis has been undertaken by 'blocking' out areas of the site currently at risk of flooding within the model to simulate the implications of developing the site. The model has then been re-run and flood extents compared to the existing. The model runs in this area are positive showing that majority of the site can be developed without increasing the risk of flooding elsewhere. There is a 5m buffer on either side of the watercourse to facilitate access and maintenance and some preservation of existing flood mechanisms but compliance with Point 3 of the Development Plan Justification Test is achievable.

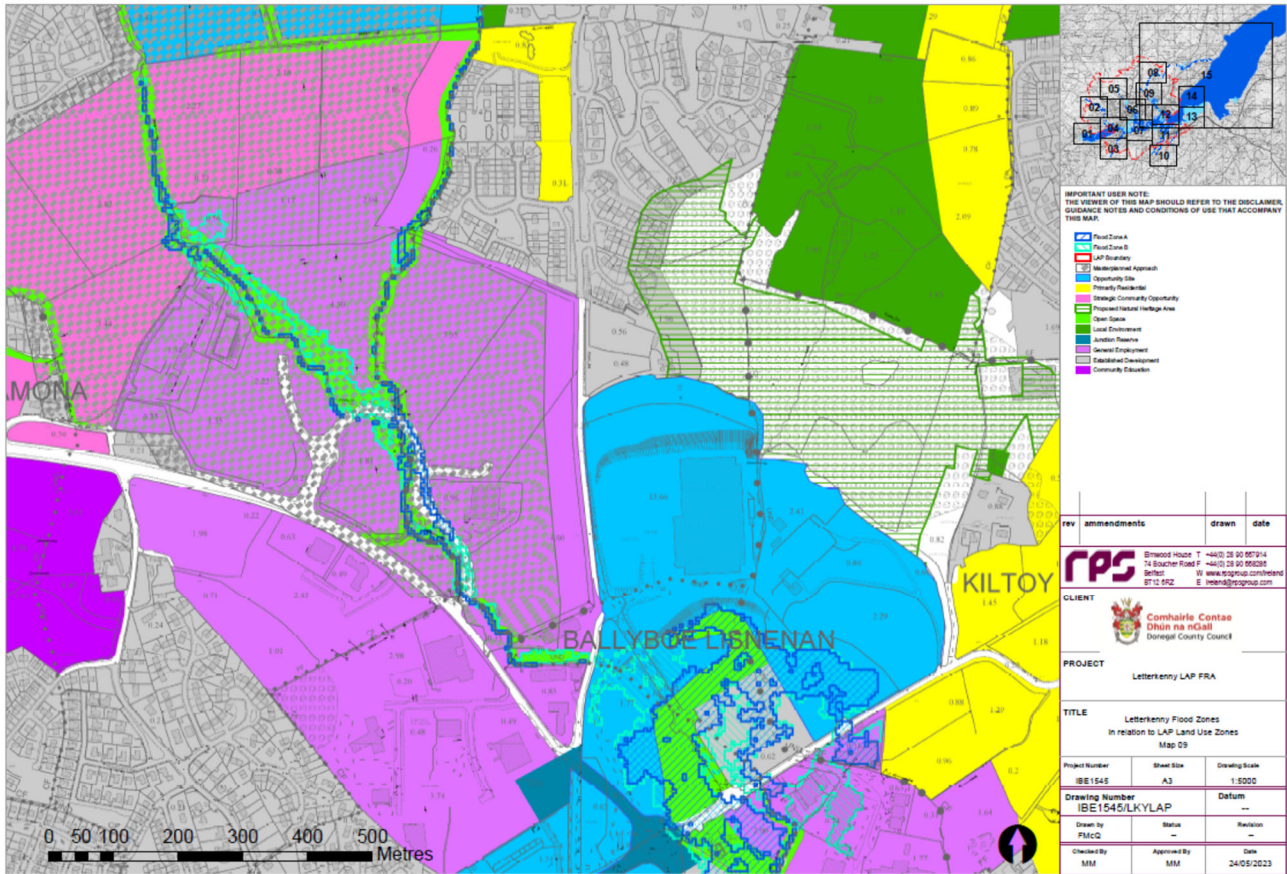


Figure 6.8: Opportunity Site 3 zoning at Kiltyoy

6.3.2.4 Primarily Residential Sites

A new InfoWorks ICM model has been developed as part of the SFRA covering Primarily Residential Sites PR9, PR10 and the Town Centre Zoning. This facilitates the assessment of the implications of development of these sites in combination and any potential increase in flood risk elsewhere.

6.3.2.4.1 Primarily Residential – Site PR9

The lands are at risk of flooding from the Sprack Burn which also represents a risk to the established development land zoning to the rear of the Fire Station on the De Valera Road and further downstream within the Town Centre Zoning. Figure 6.9 shows that there is fluvial flood risk in this area with both Flood Zone A and B present on the site. The indicative pluvial mapping also the area as being particularly at risk.

This residential zoning is considered as a highly vulnerable and a Justification Test been applied as shown in Appendix B for these lands. Flooding on this site is limited to shallow depth sheet flow and hydraulic modelling has demonstrated that with allowing a 5m buffer to the existing watercourse, the remainder of the site can be developed without increasing the risk of flooding downstream particularly to Primarily Residential Site PR10 or the Town Centre. This site therefore passes the justification test provided the flood management measures as outlined in section 3 of the justification test are enforced. A FRA of appropriate detail should accompany applications for development on this site to demonstrate that they would not have adverse flood risk impacts.

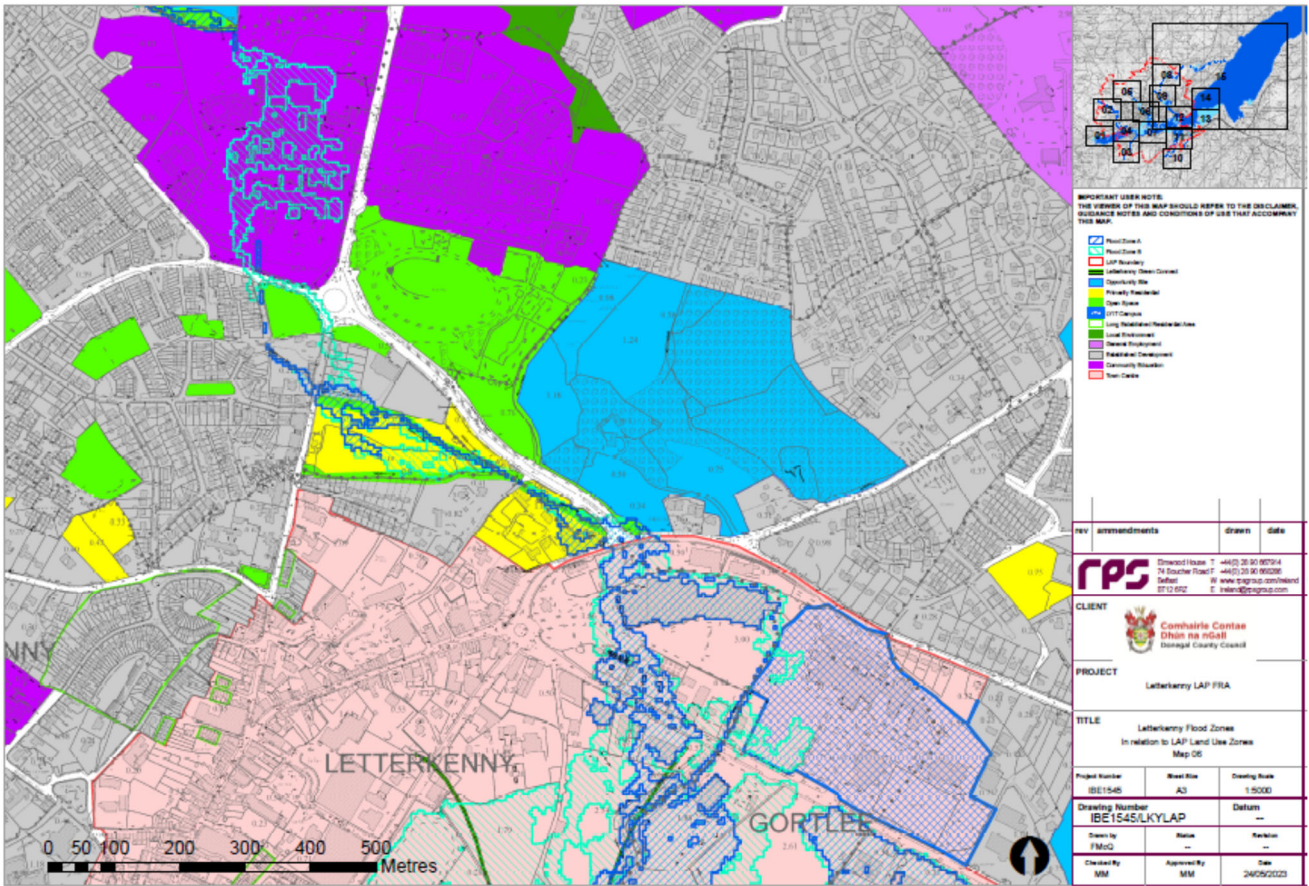


Figure 6.9: Primarily Residential Sites PR9 and PR10 zoning at edge of the Town Centre Zoning on De Valera Road

6.3.2.4.2 Primarily Residential – Site PR10

Primarily Residential Site PR10 is also at risk of flooding from the Sprack Burn and Flood Zones A and B are both present on the site (Figure 6.9). An iterative hydraulic assessment using the ICM model developed as part of the SFRA was used to determine the area of the old Oatfield site that could be considered as suitable for highly vulnerable development in the context of flood risk. The model runs on the Oatfield site allowed for a 5m buffer adjacent to the watercourse and suppressed the flood extents within the site to simulate development within the site and the raising of lands or finished floor levels to reduce flood risk at the site. The modelling demonstrated that this type of mitigation within this site would not result in a significant increase in flood risk downstream in the Town Centre provided the buffer zones along the frontage of the site were retained for water compatible land use. A justification test for Primarily Residential – Site PR10 is included in Appendix B.

6.3.2.5 Community and Education

6.3.2.5.1 Letterkenny University Hospital

The flood zone mapping for LUH indicates that the Campus is partially within flood zone B and given the highly vulnerable nature of the development would not normally be considered appropriate for this land use type. However Flood Zone B largely coincides with the existing buildings and parts of the car parking areas within the site which are already established development within the zoning. The remain parts of this land use zone are not at risk of flooding (i.e. within Flood Risk zone C) and Community Education zoning is appropriate in these locations.

The application of Section 4.27a of the Guidelines, which was inserted in Circular PL 2/2014 requires a Plan-making Justification Test for existing, developed, zoned areas at risk of flooding to assess if the zoning is still relevant.

In the case of established development in Flood Zone B within the LUH campus the development will be limited to the requirements of Section 5.28 Guidelines as amended by Circular PL 2/2014.

The development in these areas will be limited to minor development, as outlined in Section 5.28 of the Guidelines above and whilst a development stage justification test may not apply a commensurate assessment must accompany any application for development within these areas. Furthermore any new development in these established development zones must be limited to less vulnerable or water compatible development in Flood Zone B.

This approach has been carried forward to the Draft Letterkenny Plan and Local Transport Plan 2023-2029 which states under Section 12.3.4:

“The areas of existing development that conflict with flood zones, but where certain development types can be justified, are clearly identified in the SFRA report and prospective applicants are advised to consult said report in this regard. In assessing planning applications within such areas, the Planning Authority will ensure adherence to the principles of the ‘Planning System and Flood Risk Management Guidelines’ and in this respect will impose limitations on development proposals pursuant to the findings of relevant justification test for established development (see Section 6.2 and Appendix B of the SFRA report).”

6.3.2.6 General Employment and Commercial Zoning within Flood Zone B

The zoning matrix for General Employment and Commercial zoning has development types that would be considered less vulnerable in the context of the guidelines and acceptable in flood zone B, with the exception of the inclusion of creches/playschools. Given that this is a highly vulnerable development type its use within flood zone B would require a justification test.

There are a number of locations within the Plan that have the General Employment and Commercial zoning where parts of the site coincide with Flood Zone B, these include:

- Lands between N14/Cullion Road Junction and the River Swilly (Appendix A, Map 7);
- Lands at IDA Business and Technology Park (Appendix A, Map 9);
- Lands behind Clanree Hotel, Drumnamonagh and Bunnagee near the N14 (Appendix A, Map 11);
- Lands at Milk Isle and Bunnagee (Appendix A, Map 12);
- Lands at Dromore (Appendix A, Map 13)

In these locations the sequential approach will be applied in site planning, to ensure only less vulnerable or water compatible development such as “Open Space” will be permitted within Flood Zone B. Therefore whilst creches/playschools will be open to consideration within these General Employment and Commercial Zonings it will only be considered in areas that are not at flood risk, i.e. flood zone C. Planning permission for these sites will then be subject to the sequential approach having been adopted and applied as above, following a detailed FRA.

A justification test for these General Employment and Commercial zonings within flood zone B has been included in Appendix B.

6.3.2.7 General Employment and Commercial Zoning at Kiltroy

The general employment zoning on lands opposite the Educate together Campus (Figure 6.10) at Kiltroy have also been considered as part of the MIKE 11 hydraulic modelling associated with Opportunity Site 3 undertaken as part of this SFRA. There are two land parcels in this area that were proposed as general employment & commercial zoning within flood zones A and B.

There is an existing flooding mechanism that flows from Opportunity site 3 across the road to these general employment lands and then onto the established development that is the Mr Price and Homeland Stores development which fronts the N56.

Using the existing MIKE hydraulic model, developed during CFRAM, RPS have carried out a flood risk assessment to determine the implications of the development of areas of the site that are currently at risk of

flooding. This analysis has been undertaken with the aims of maintaining the functional flood plain and flooding mechanisms that currently existing on the site and then assessing the impact of developing the periphery of the floodplain, where it intersects the zoning, and ensuring there is no increase in risk in flood risk to adjacent sites.

The model results indicate that development can take place without increasing the risk of flooding elsewhere. In addition, there is a 5m buffer on either side of the watercourse to facilitate access and maintenance and some preservation of existing flood mechanisms. This flood risk assessment has demonstrated that flood risk to the development can be adequately managed and the use or development of the lands at the General Employment lands at Kilttoy within the general employment and commercial zoning (purple zones) illustrated in Figure 6.10 below including raising the lands or finished floor levels to remove the risk of flooding to properties, will not cause unacceptable adverse impacts elsewhere.

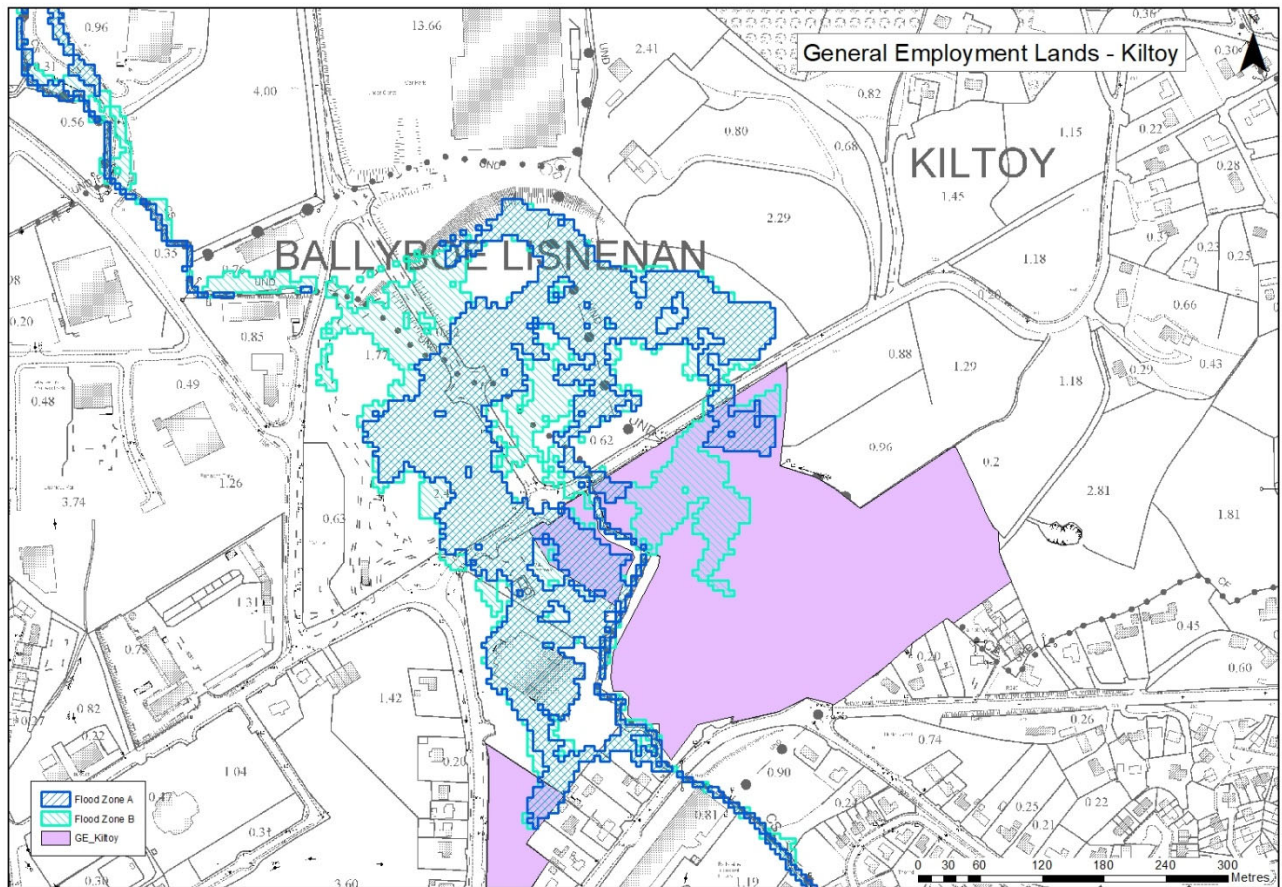


Figure 6.10: General Employment Zoning in Flood Risk Area opposite Educate Together

6.3.2.8 General Employment and Commercial Zoning at Bunnagee

The general employment zoning on lands off the L11142 road between Donegal Tractors and Green Vehicle Recycling (Figure 6.11) at Bunnagee is within Flood Zone A and therefore, despite the less vulnerable class of development, would not be considered appropriate at this location if compliance with the Guidance is to be achieved. Given the part 3 of the justification test is not likely to be satisfied a justification test has not been applied.

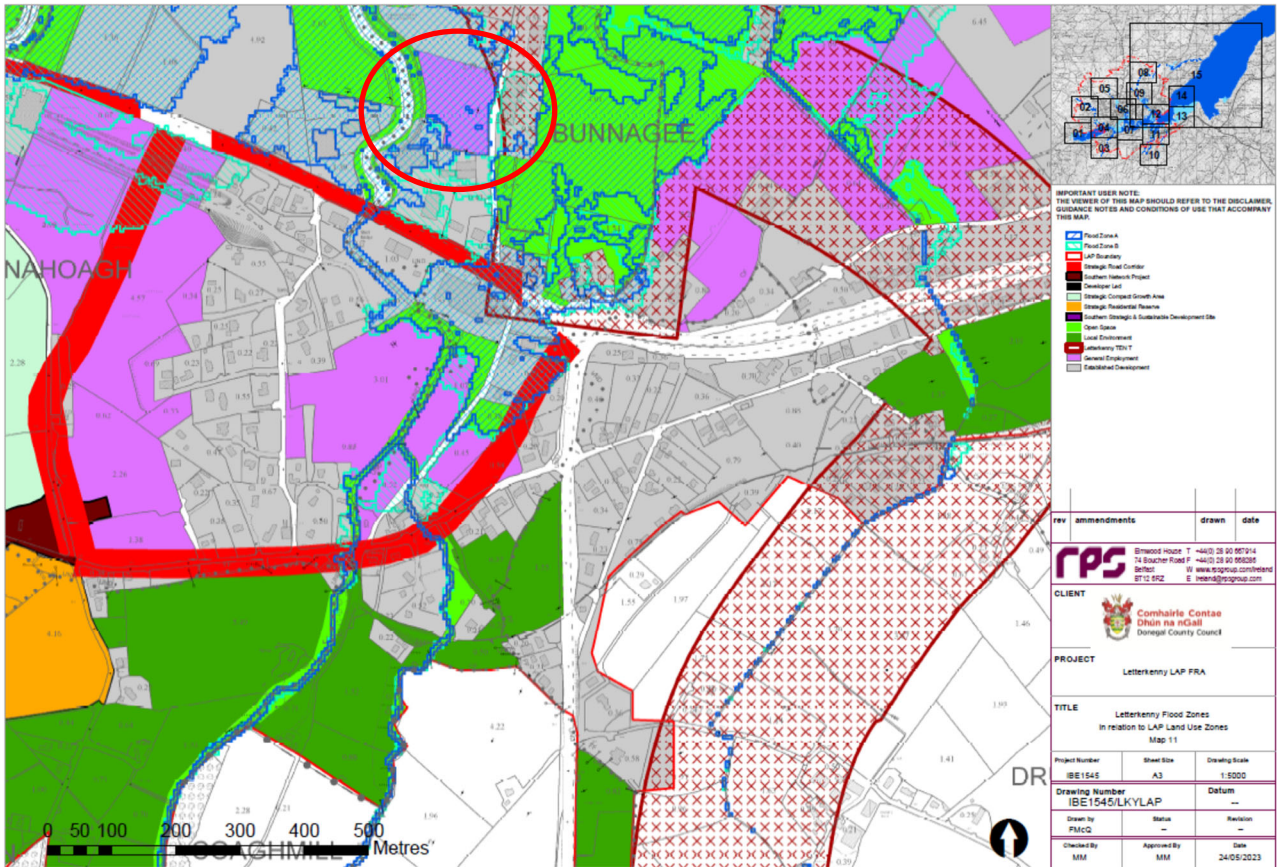


Figure 6.11: General Employment and Commercial Zoning at Bunnagee within Flood Zone A

6.3.3 Less Vulnerable Development

6.3.3.1 Developer Led Road

The Developer led road associated with the Western Relief Road at Kirkstown would be considered to be less vulnerable infrastructure as they are not strategic in nature so would be considered appropriate in flood zone B.

The location of the developer led road is shown in Figure 6.12 with the infrastructure crossing a limited extent areas of flood risk in this instance, the extent of the lands within Flood Zones A or B is insignificant in the context of the wider overall lands zoned at the location. The Justification Test for this site is included with the strategic road infrastructure at Kirkstown (Western Relief Road) and Glencar (Northern Relief Road) in Appendix B. Applying the Guidelines to the formulation of detailed FRA at the Development Management stage means such development will be appropriately assessed and designed to ensure that there is limited impacted on flood risk provided the mitigation to span the limited flood risk areas is achieved.

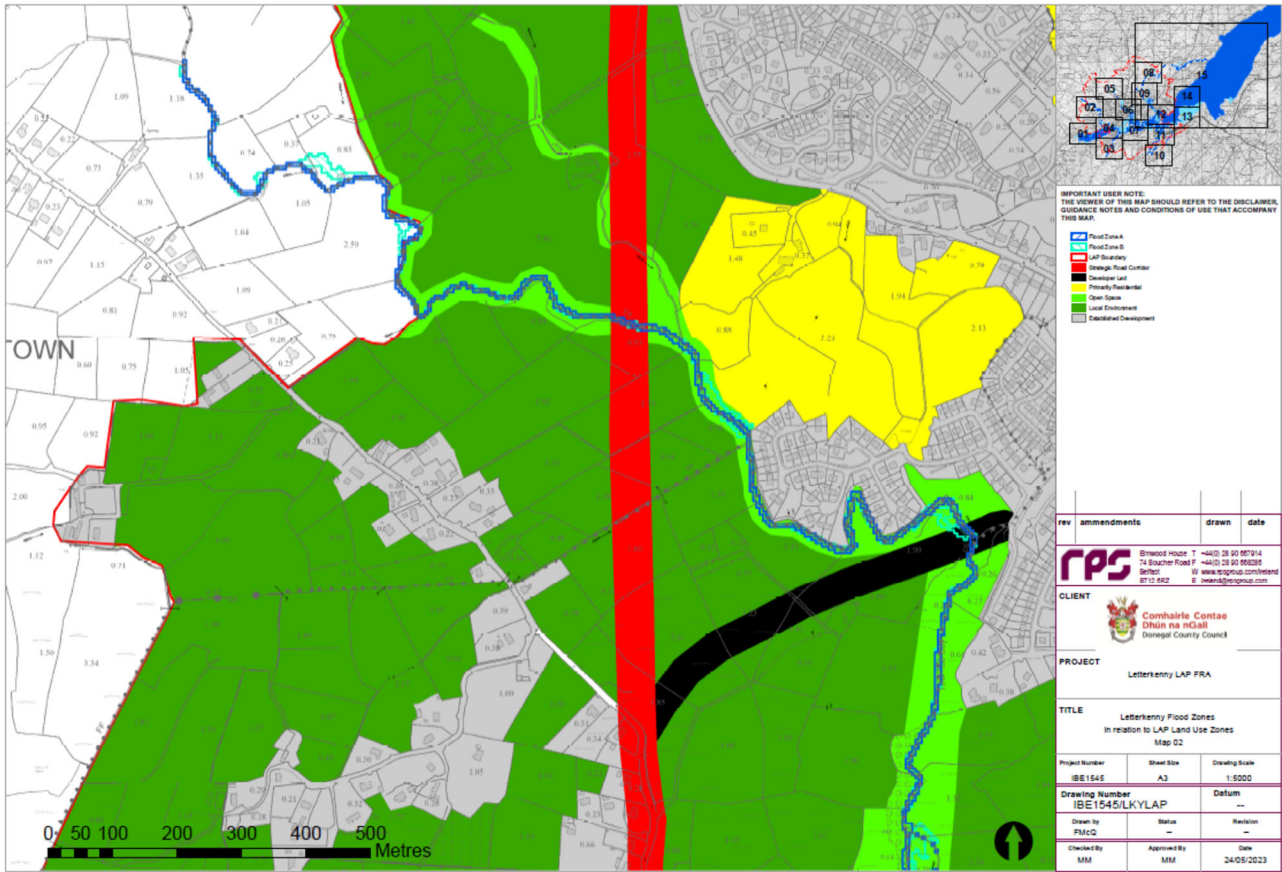


Figure 6.12: Developer Led Road associated with the Western Relief Road

7 FLOOD RISK MANAGEMENT POLICIES AND OBJECTIVES

7.1 GENERAL DEVELOPMENT PLAN STRATEGIES

The County Development Plan outlines flood risk management strategies for management of development, these include:

7.1.1 Flood Risk Assessment

Flood risk management will be carried out in accordance with the Flood Risk Management Guidelines for Planning Authorities, DOECLG (2009) and Circular PL2/2014. The North Western CFRAMS FRMP provides information in relation to known flood risk in Letterkenny. Development proposals on lands that may be at risk of flooding should be subject to a flood risk assessment, prepared by an appropriately qualified Chartered Engineer, in accordance with the Flood Risk Management Guidelines. Detailed flood risk assessments should be cognisant of possible pluvial flood risk and appropriate drainage proposals should be implemented to reduce the risk of pluvial flooding. Proposals for minor development to existing buildings in areas of flood risk (e.g. extensions or change of use) should include a flood risk assessment of appropriate detail.

7.1.2 Surface Water

Development proposals should provide suitable drainage measures in compliance with the principals of SuDs. The maximum permitted surface water outflow from any new development should not exceed the existing situation. On Greenfield lands the permitted outflow of a development should be the equivalent to a Greenfield Site. All new development must allow for climate change. Development proposals should not give rise to the pollution of ground or surface waters either during construction phases or subsequent operation. This will be achieved through the adherence to best practice in the design, installation and management of systems for the interception, collection and appropriate disposal or treatment of all surface water and effluents.

7.1.3 Sustainable Urban Drainage System (SUDS)

In general all new developments will be required to incorporate Sustainable Urban Drainage Systems (SuDS). Sustainable Drainage Systems include devices such as swales, permeable pavements, filter drains, storage ponds, constructed wetlands, soakways and green roofs. In some exceptional cases and at the discretion of the Planning Authority, 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. Watercourses should remain open in their natural valley and culverting shall be confined to road crossings. In exceptional circumstances and at the discretion of the Planning Authority, approval may be given to install a culvert within a development where it is demonstrated that this is the most appropriate design response based on site specific constraints/circumstances.

A policy has been included within the Draft Letterkenny Plan and Local Transport Plan 2023-2029, Policy CAM-LK-P-6, which states that: *It is a policy of the Council to require, save in exceptional circumstances, the use of SUDS that all proposals within public and private developments and within the public realm incorporate the use of SUDS as part of a nature-based approach to minimise and limit the extent of impermeable hard surfacing and paving and reduce the potential impact effects of flooding in accordance with 'Nature-based Solutions to the Management of Rainwater and Surface Water Runoff in Urban Areas, Water Sensitive Urban Design Best Practice Interim Guidance Document (2022)'.*

The development of the Letterkenny Plan and Local Transport Plan 2023-2029, the Letterkenny 2040 Regeneration Strategy, of which it is a policy of the Plan to support, and the preparation of the Strategic Flood

Risk Assessment have identified a number of areas of open space and green infrastructure in the Town Centre Zoning and also in the lands zoned along the N14 at Bunnagee. These open spaces whilst zoned for potentially other reasons, flood risk, urban wetlands and recreation offer the opportunity for integrated and area based provision of SuDS and green infrastructure, where appropriately designed in order to avoid reliance on individual site by site solutions in these locations.

7.2 FLOOD RISK MANAGEMENT OBJECTIVES

The County Development Plan outlines core flood risk management policies which have been strengthened and improved upon since the previous Development Plan.

Table 7.1: DCC Existing Flood Risk Management Policies

Planning Policy ID No.	Policy Description
F-P-1	<p>It is a policy of the Council to ensure that all development proposals comply with ‘The Planning System and Flood Risk Management - Guidelines for Planning Authorities’, November 2009, DoEHLG. In doing so the planning authority shall:</p> <ul style="list-style-type: none"> Assess developments in accordance with the Sequential approach and precautionary principle set out the in the Planning System and Flood Risk Management – Guidelines for Planning Authorities’; and Utilise the Draft Flood Risk Management Plans (and any associated flood risk mapping) prepared as part of the CFRAMS programme, or any other flood risk datasets or mapping it considers appropriate, in assessing flood risk.
F-P-2	<p>It is a policy of the Council to require applicants/developers to submit, where appropriate, an independent ‘Flood Risk Assessment’ in accordance with the Flood Risk Management Guidelines, DEHLG, 2009 or any subsequent related publication and/or ‘Surface Water Drainage Calculations’, from suitably qualified persons.</p>
F-P-3	<p>It is a policy of the Council to require applicants/developers to submit, where appropriate, evidence of compliance with the Justification test set out in S5.15 of The Planning System and Flood Risk Management - Guidelines for Planning Authorities’ (DoEHLG 2009) or any subsequent related publication.</p>
F-P-4	<p>It is a policy of the Council not to permit development where flood or surface water management issues have not been, or cannot be, addressed successfully and/or where the presence of unacceptable residual flood risks remain for the development, its occupants and/or property or public infrastructure elsewhere including, inter alia, up or downstream.</p>
F-P-5	<p>It is a policy of the Council to promote the use of Sustainable Urban Drainage Systems (SUDs), flood attenuation areas, the controlled release of surface waters and use of open spaces and semi permeable hard surfaces for appropriate development proposals.</p>
F-P-6	<p>It is a policy of the Council to consider the development of long and short-term flood remediation works, including embankments, sea defences, drainage channels, and attenuation ponds to alleviate flood risk and damage to livelihoods, property and business subject to environmental considerations including potential impact on designated shellfish water and, fresh water pearl mussel catchment areas, compliance with Article 6 of the Habitats Directive, best practice in Coastal Zone Management and the Marine Resource and Coastal Management policies of this Plan.</p>
F-P-7	<p>It is a policy of the Council not to permit developments which would hinder the maintenance of river or drainage channels.</p>

7.3 FLOOD RISK MANAGEMENT PLANS

The Development Plan already has a commitment to assist with the implementation of the relevant CFRAMs. The North Western CFRAM has been completed since the previous development plan and the following recommendations for flood risk management should be supported:

- Implement the Guidelines to avoid inappropriate development in flood plains, or development that can increase runoff rates and volumes, can create flood risk to the properties being built and potentially increase the risk to other areas.
- Implement the Guidelines to prevent loss of floodplain storage and conveyance.
- SuDS should be applied to all new developments.

8 SUMMARY

8.1 OVERVIEW

The SFRA Report has been prepared in accordance with the requirements of The Planning System and Flood Risk Assessment Guidelines for Planning Authorities (2009) and Circular PL02/2014 (August 2014). The SFRA has provided an assessment of all types of flood risk within the Plan area to assist DCC to make informed strategic land-use planning decisions. The flood risk information has enabled DCC to apply the Guidelines sequential approach, and where necessary the Justification Test, to appraise sites and areas for development and identify how flood risk can be reduced as part of the development plan.

8.2 FLOOD ZONES AND FLOOD RISK

Letterkenny is susceptible to several types of flood risk, including:

- Fluvial - Flooding occurs when a river overtops its banks due to a blockage in the channel or the channel capacity is exceeded.
- Coastal - Coastal flooding occurs when sea levels along the coast or in estuaries exceed neighbouring land levels, or overcome coastal defences where these exist, or when waves overtop the coastline or coastal defences
- Pluvial - Flooding occurs when overland flow cannot infiltrate into the ground, when drainage systems exceed their capacity or are blocked and when the water cannot discharge due to a high water level in the receiving watercourse.

The flood zones extents have been prepared in accordance the Planning System and Flood Risk Assessment Guidelines identifying Flood Zones A, B and C. The flood zone maps are derived from the North Western CFRAM. These maps are the most comprehensive flood maps produced for Letterkenny since the introduction of the Guidelines and the Floods Directive.

The Flood Zone mapping is based on the best currently available data and a more detailed, site specific FRA may generate localised flood extents. The flood zones only account for inland and coastal flooding and are generated without the inclusion of climate change factors. They should not be used to suggest that any areas are free from flood risk as they do not account for potential flooding from pluvial and groundwater flooding.

8.3 FLOOD MANAGEMENT POLICIES & OBJECTIVES

The County Development Plan outlines flood risk management strategies and objectives that incorporate Flood Risk Management into the spatial planning of the County, to meet the requirements of the EU Floods Directive and the EU Water Framework Directive. Appropriate Flood Risk Management strategies and objectives are detailed in Section 6.1 and Section 6.2 respectively and within the Letterkenny Plan and Local Transport Plan 2023-2029. Flood risk management will be carried out in accordance with the Flood Risk Management Guidelines for Planning Authorities, DOECLG (2009) and Circular PL2/2014. The North Western CFRAMS provide information in relation to known flood risk in Letterkenny. Development proposals on lands that may be at risk of flooding should be subject to a flood risk assessment, prepared by an appropriately qualified Chartered Engineer, in accordance with the Flood Risk Management Guidelines. Detailed flood risk assessments should be cognisant of possible pluvial flood risk and appropriate drainage proposals should be implemented to reduce the risk of pluvial flooding. Proposals for minor development to existing buildings in areas of flood risk (e.g. extensions or change of use) should include a flood risk assessment of appropriate detail.

8.4 SFRA REVIEW AND MONITORING

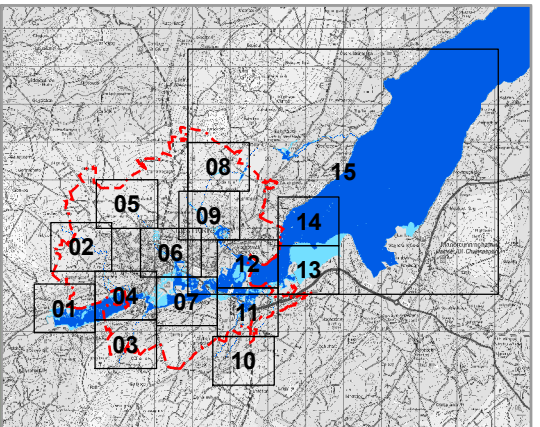
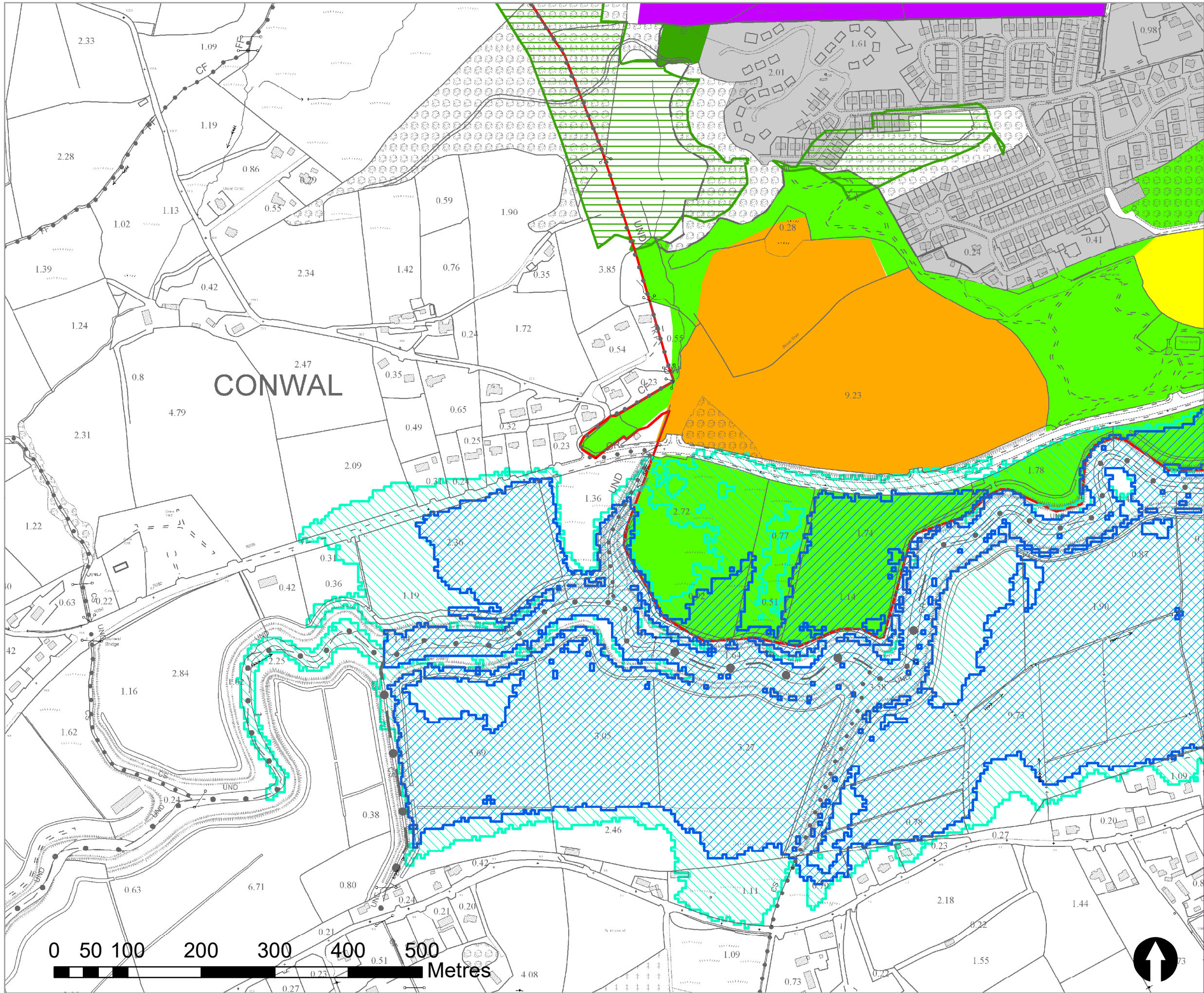
The DCC SFRA will be reviewed and updated every six years in line the County Development Plan review process. Additionally, outputs from future studies and datasets may trigger a review and update of the SFRA during the lifetime of the Local Area Plan. Other sources of information may not lead to an update of the SFRA during the lifetime of the plan but they should be retained and collected to supplement the future County SFRA's.



APPENDICES

Appendix A

Letterkenny LAP Zoning and Flood Zones



IMPORTANT USER NOTE:
THE VIEWER OF THIS MAP SHOULD REFER TO THE DISCLAIMER, GUIDANCE NOTES AND CONDITIONS OF USE THAT ACCOMPANY THIS MAP.

- ▭ Flood Zone A
- ▭ Flood Zone B
- ▭ LAP Boundary
- ▭ Primarily Residential
- ▭ Strategic Residential Reserve
- ▭ Proposed Natural Heritage Area
- ▭ Open Space
- ▭ Local Environment
- ▭ Established Development
- ▭ Community Education

rev	amendments	drawn	date

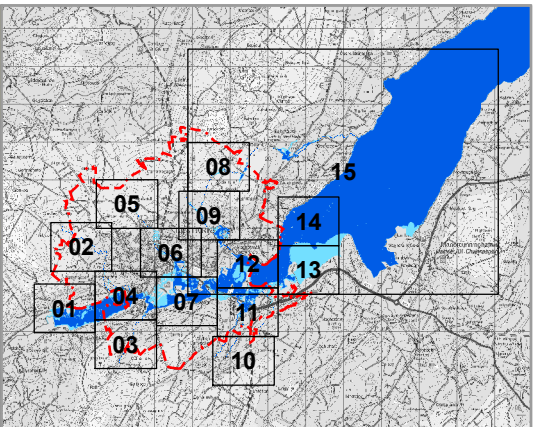
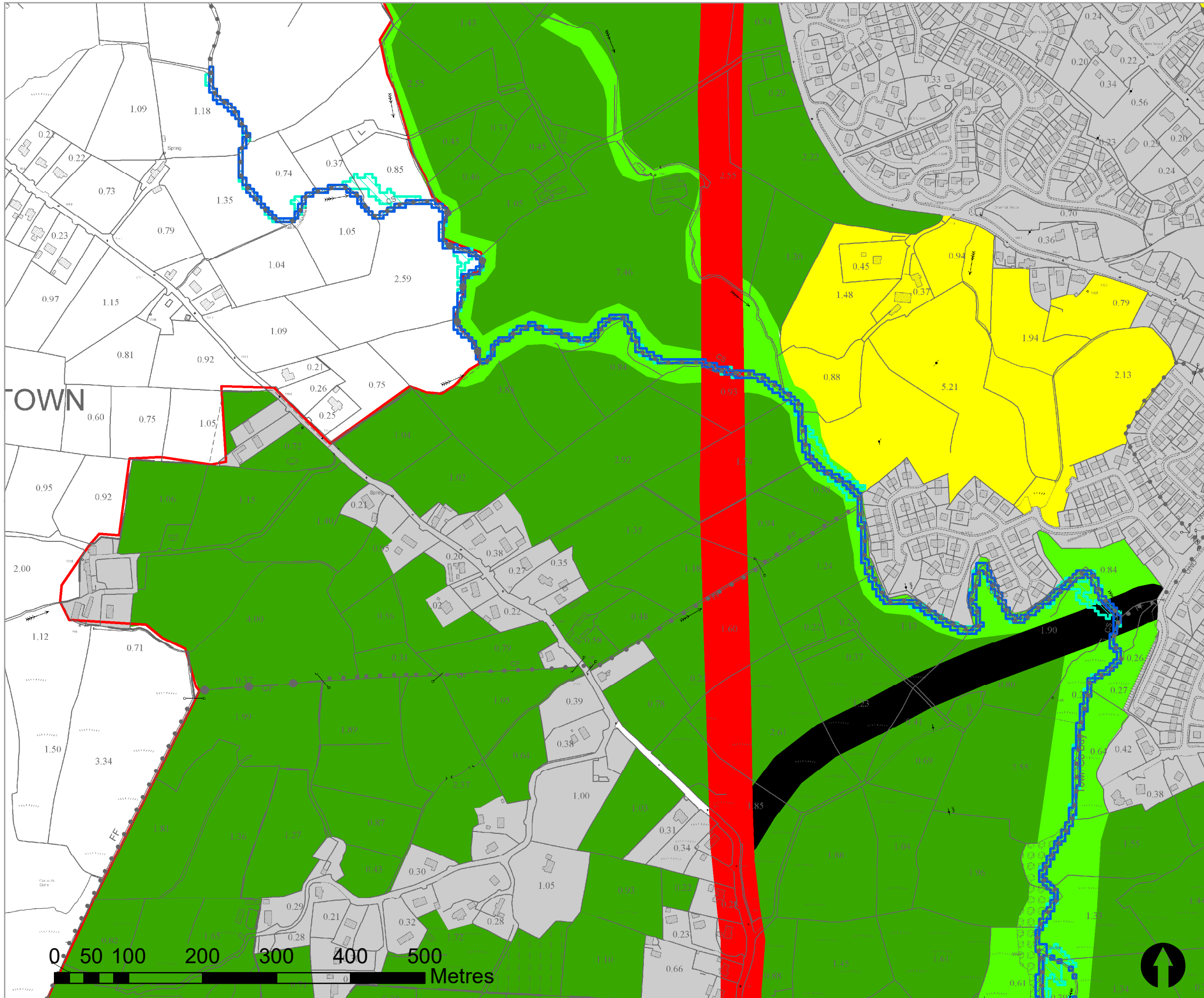
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PROJECT
Letterkenny LAP FRA

TITLE
Letterkenny Flood Zones
In relation to LAP Land Use Zones
Map 01

Project Number IBE1545	Sheet Size A3	Drawing Scale 1:5000
Drawing Number IBE1545/LKYLAP		Datum --
Drawn by FMcQ	Status --	Revision --
Checked By MM	Approved By MM	Date 24/05/2023



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- Flood Zone A
- Flood Zone B
- LAP Boundary
- Strategic Road Corridor
- Developer Led
- Primarily Residential
- Open Space
- Local Environment
- Established Development

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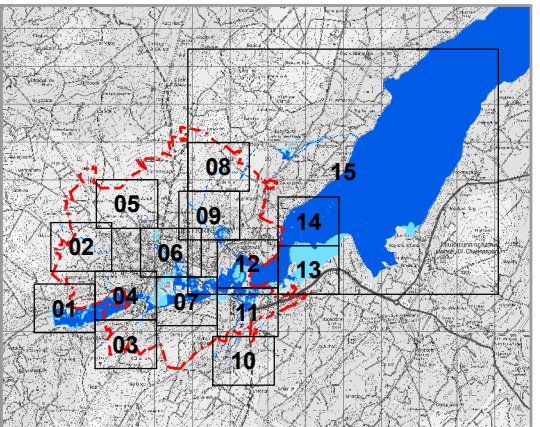
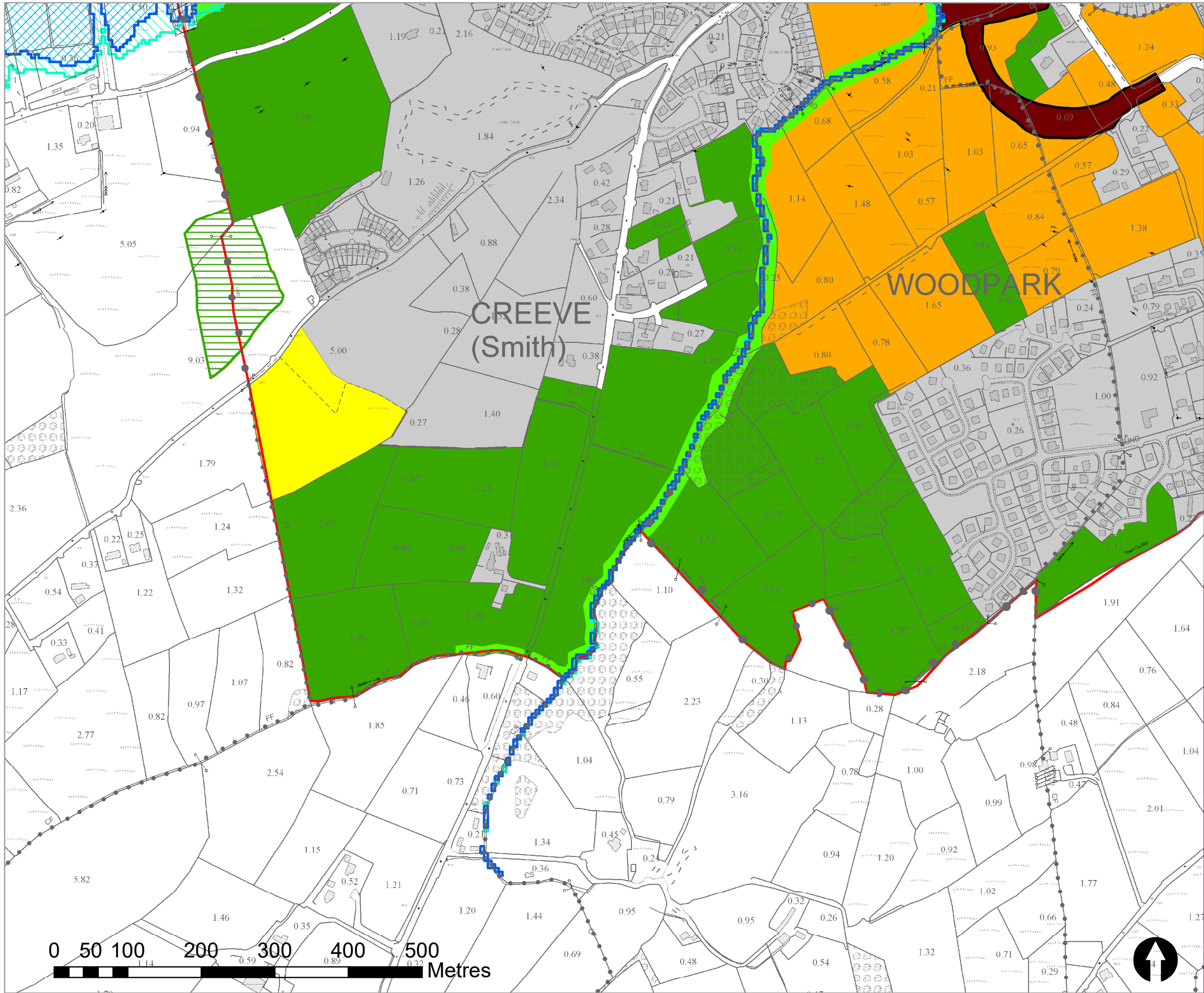
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PROJECT
 Letterkenny LAP FRA

TITLE
 Letterkenny Flood Zones
 In relation to LAP Land Use Zones
 Map 02

Project Number IBE1545	Sheet Size A3	Drawing Scale 1:5000
Drawing Number IBE1545/LKYLAP		Datum --
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- Flood Zone A
- Flood Zone B
- LAP Boundary
- Southern Network Project
- Primarily Residential
- Strategic Residential Reserve
- Proposed Natural Heritage Area
- Open Space
- Local Environment
- Established Development

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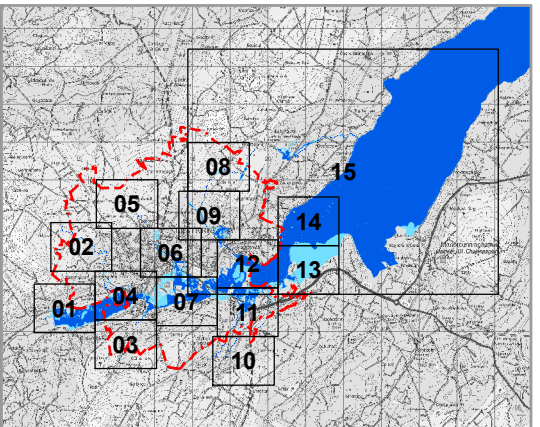
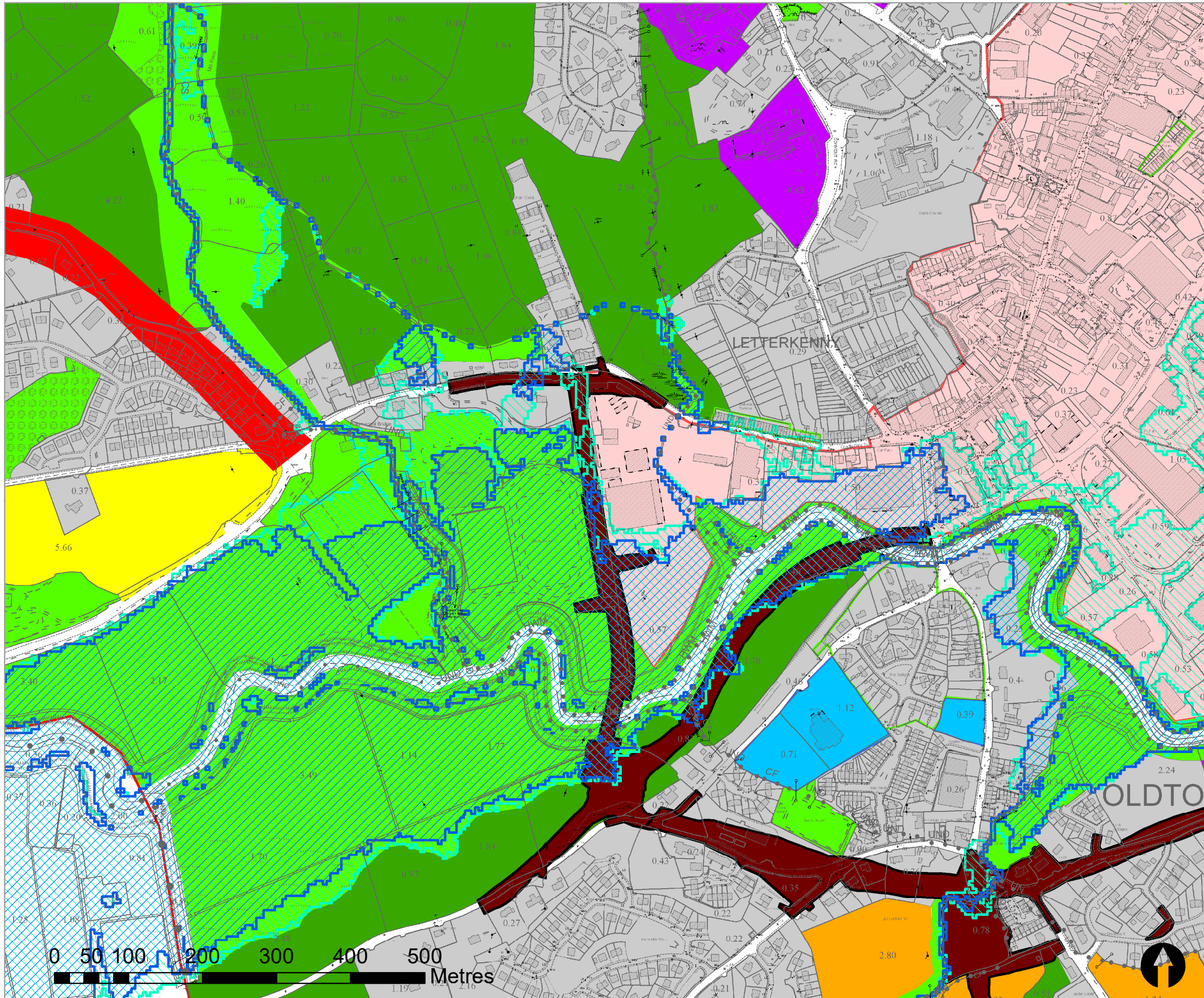
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PROJECT
 Letterkenny LAP FRA

TITLE
 Letterkenny Flood Zones
 In relation to LAP Land Use Zones
 Map 03

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- ▭ Flood Zone A
- ▭ Flood Zone B
- LAP Boundary
- Strategic Road Corridor
- Southern Network Project
- Opportunity Site
- Primarily Residential
- Strategic Residential Reserve
- Open Space
- Long Established Residential Area
- Local Environment
- Established Development
- Community Education
- Town Centre

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PROJECT Letterkenny LAP FRA

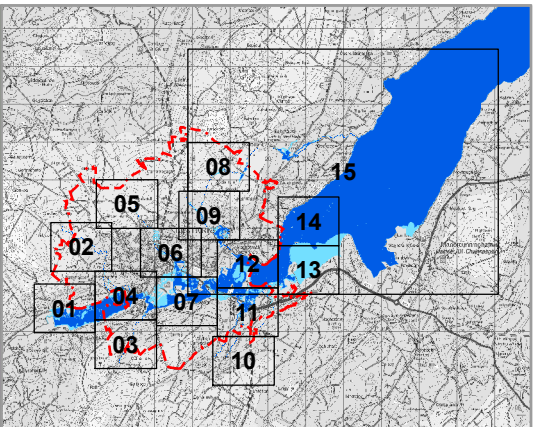
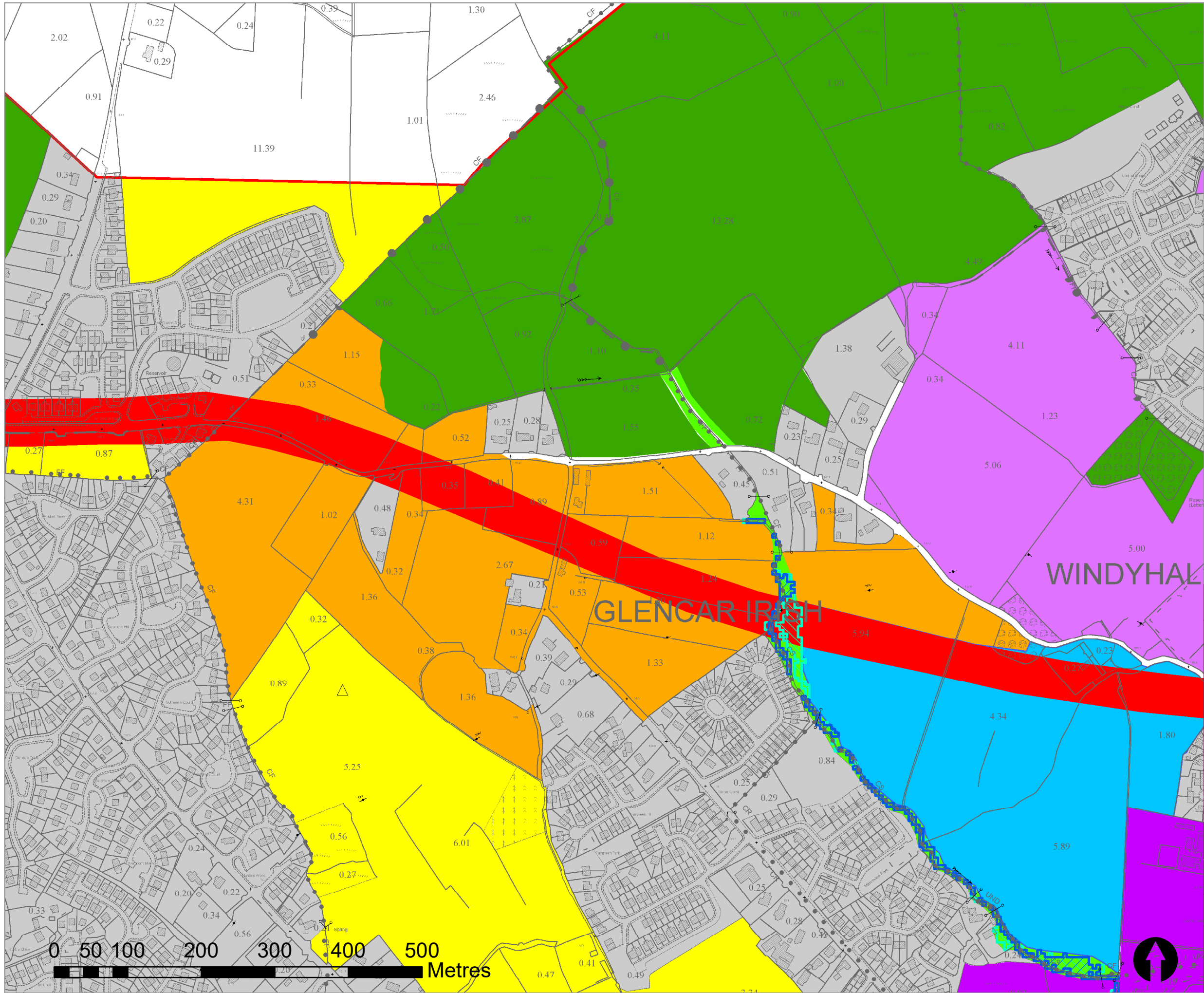
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 In relation to LAP Land Use Zones
 Map 04

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MM	MM	24/05/2023



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- Flood Zone A
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- Strategic Residential Reserve
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- Local Environment
- General Employment
- Established Development
- Community Education

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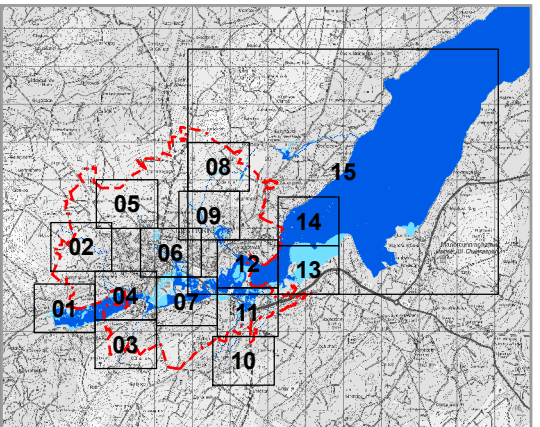
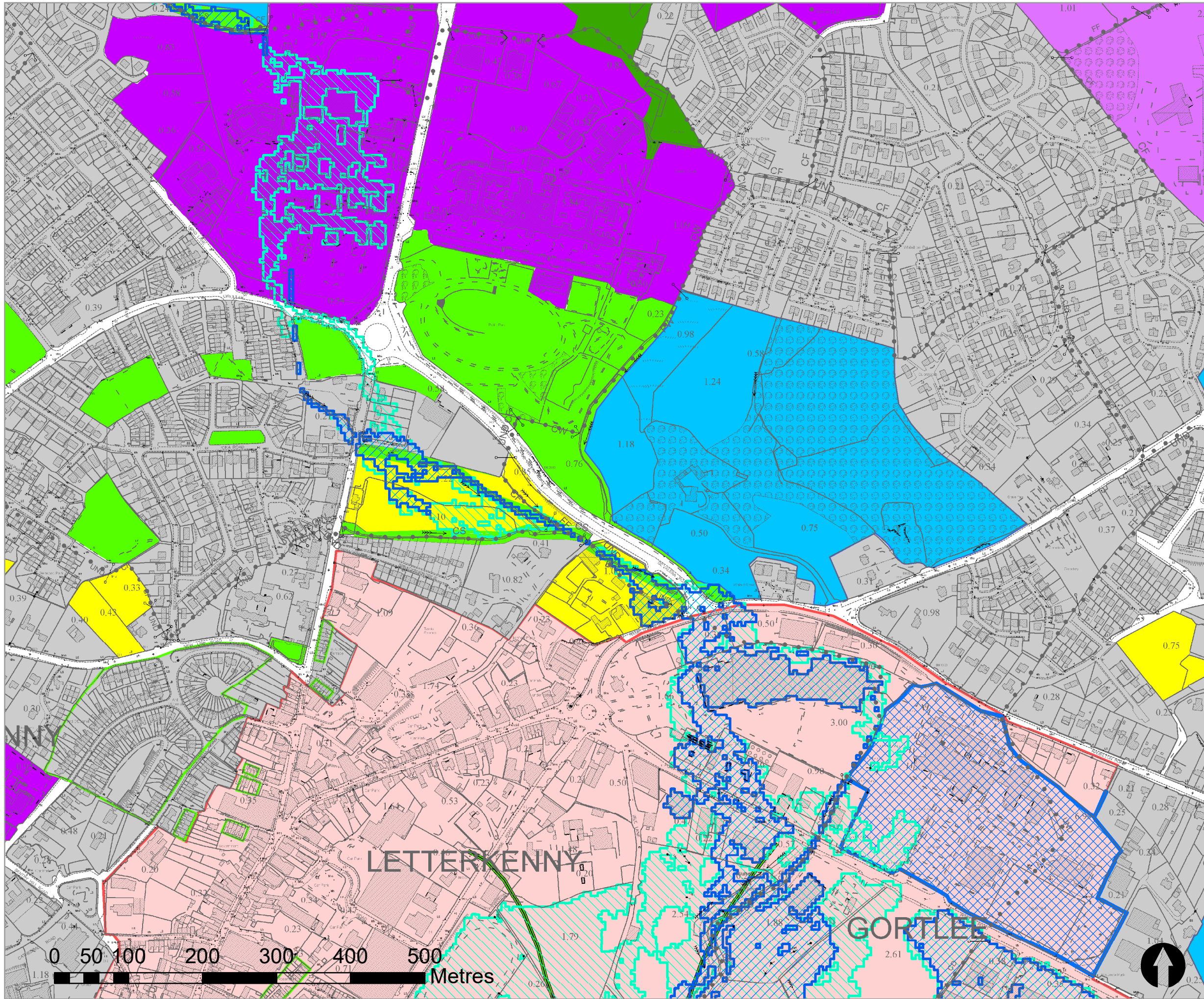
Comhairle Contae Dhún na nGall
 Donegal County Council

PROJECT
 Letterkenny LAP FRA

TITLE
 Letterkenny Flood Zones
 In relation to LAP Land Use Zones
 Map 05

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Drawing Number IBE1545/LKYLAP	Datum --	
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- Flood Zone A
- Flood Zone B
- LAP Boundary
- Letterkenny Green Connect
- Opportunity Site
- Primarily Residential
- Open Space
- LYIT Campus
- Long Established Residential Area
- Local Environment
- General Employment
- Established Development
- Community Education
- Town Centre

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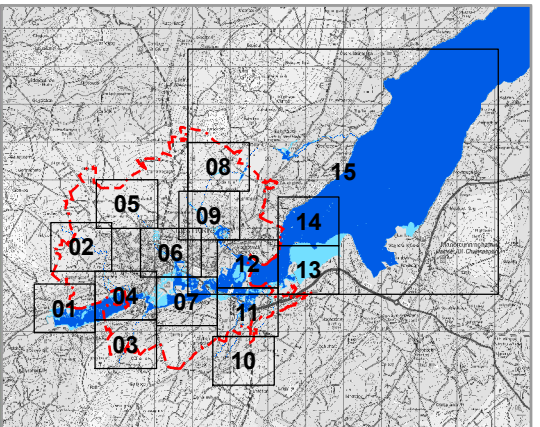
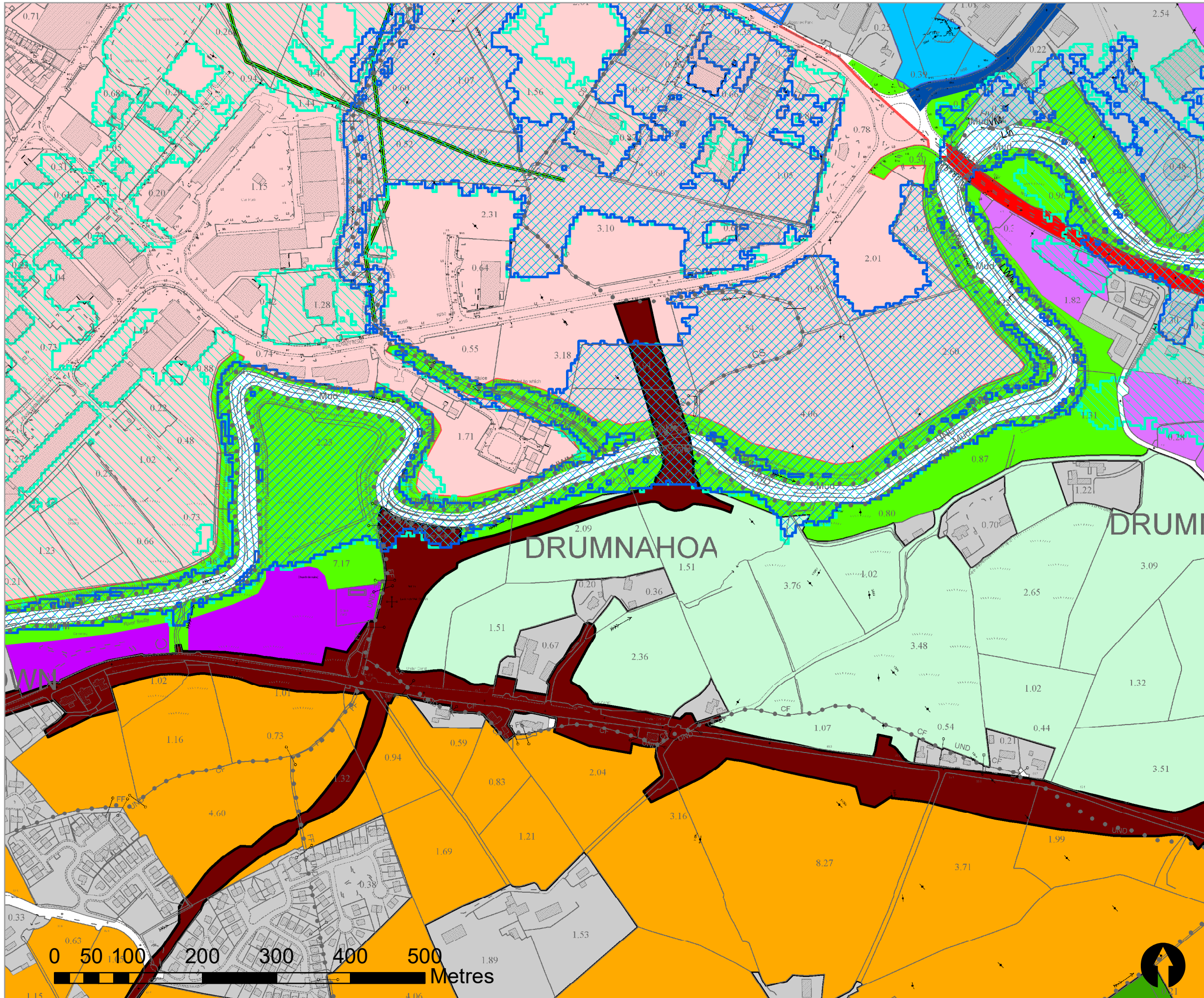
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PROJECT
Letterkenny LAP FRA

TITLE
Letterkenny Flood Zones
In relation to LAP Land Use Zones
Map 06

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- Flood Zone A
- Flood Zone B
- LAP Boundary
- Letterkenny Green Connect
- Strategic Road Corridor
- Southern Network Project
- Opportunity Site
- Proposed Upgraded Urban Roads
- Strategic Compact Growth Area
- Strategic Residential Reserve
- Southern Strategic & Sustainable Development Site
- Open Space
- LYIT Campus
- Local Environment
- General Employment
- Established Development
- Community Education
- Town Centre

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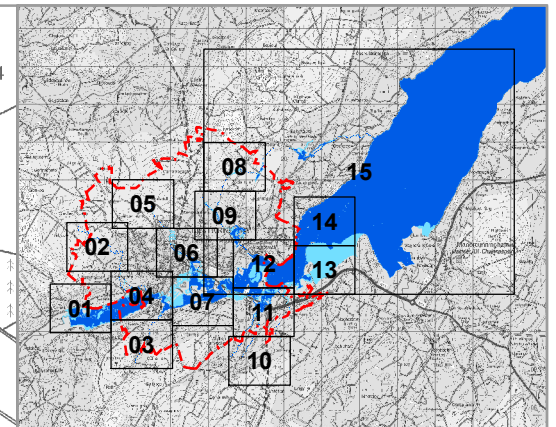
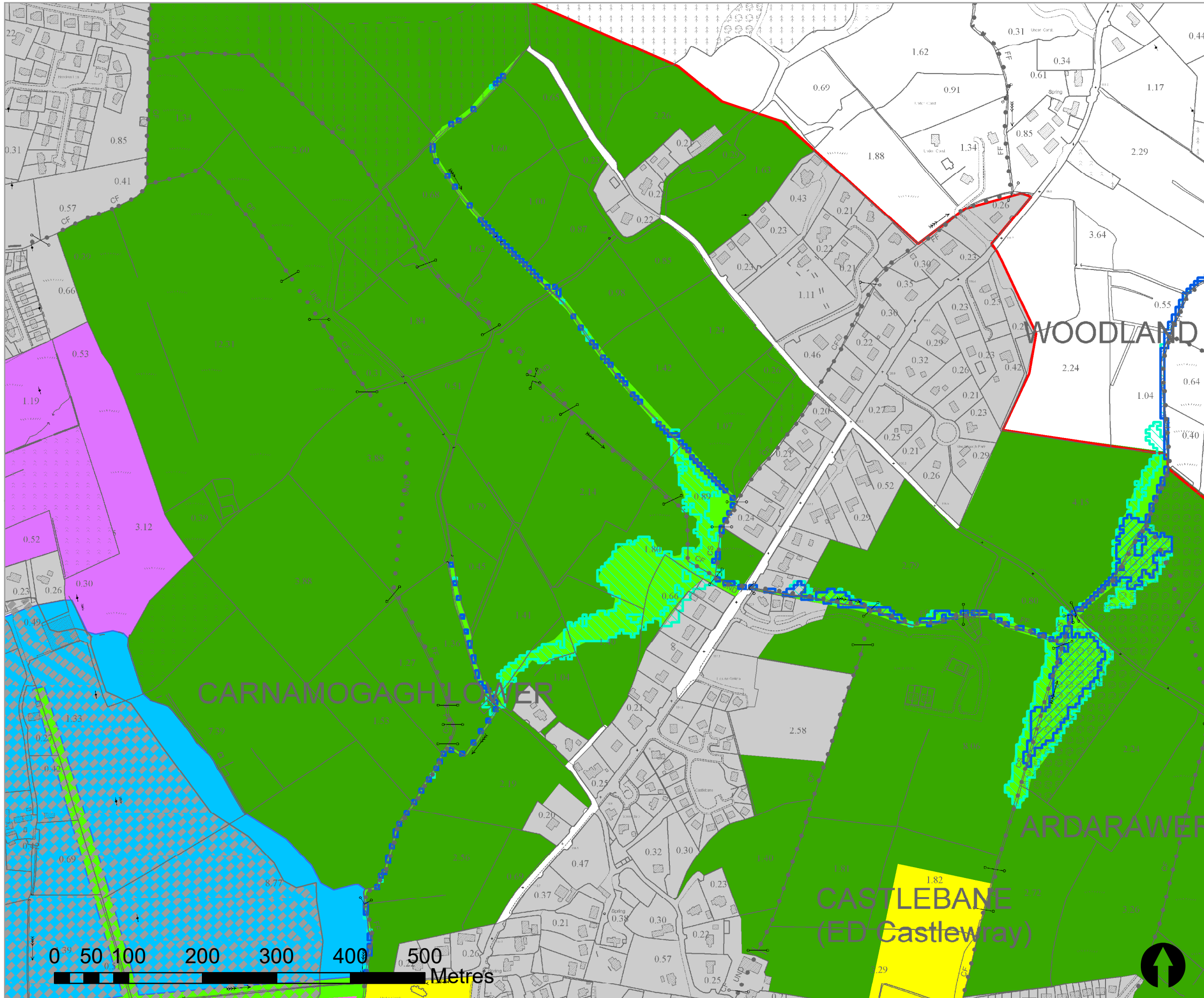
PROJECT

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TITLE

Letterkenny Flood Zones
In relation to LAP Land Use Zones
Map 07

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Drawing Number	Datum	
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- Flood Zone A
- Flood Zone B
- LAP Boundary
- Masterplanned Approach
- Opportunity Site
- Primarily Residential
- Strategic Community Opportunity
- Open Space
- Local Environment
- General Employment
- Established Development

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PROJECT

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TITLE

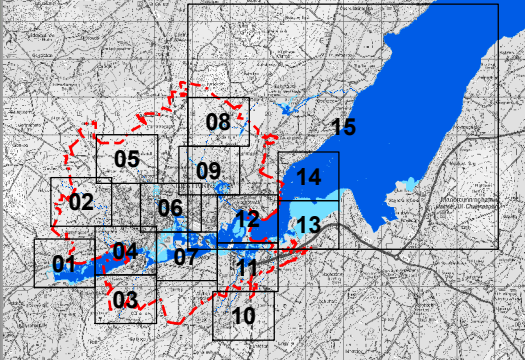
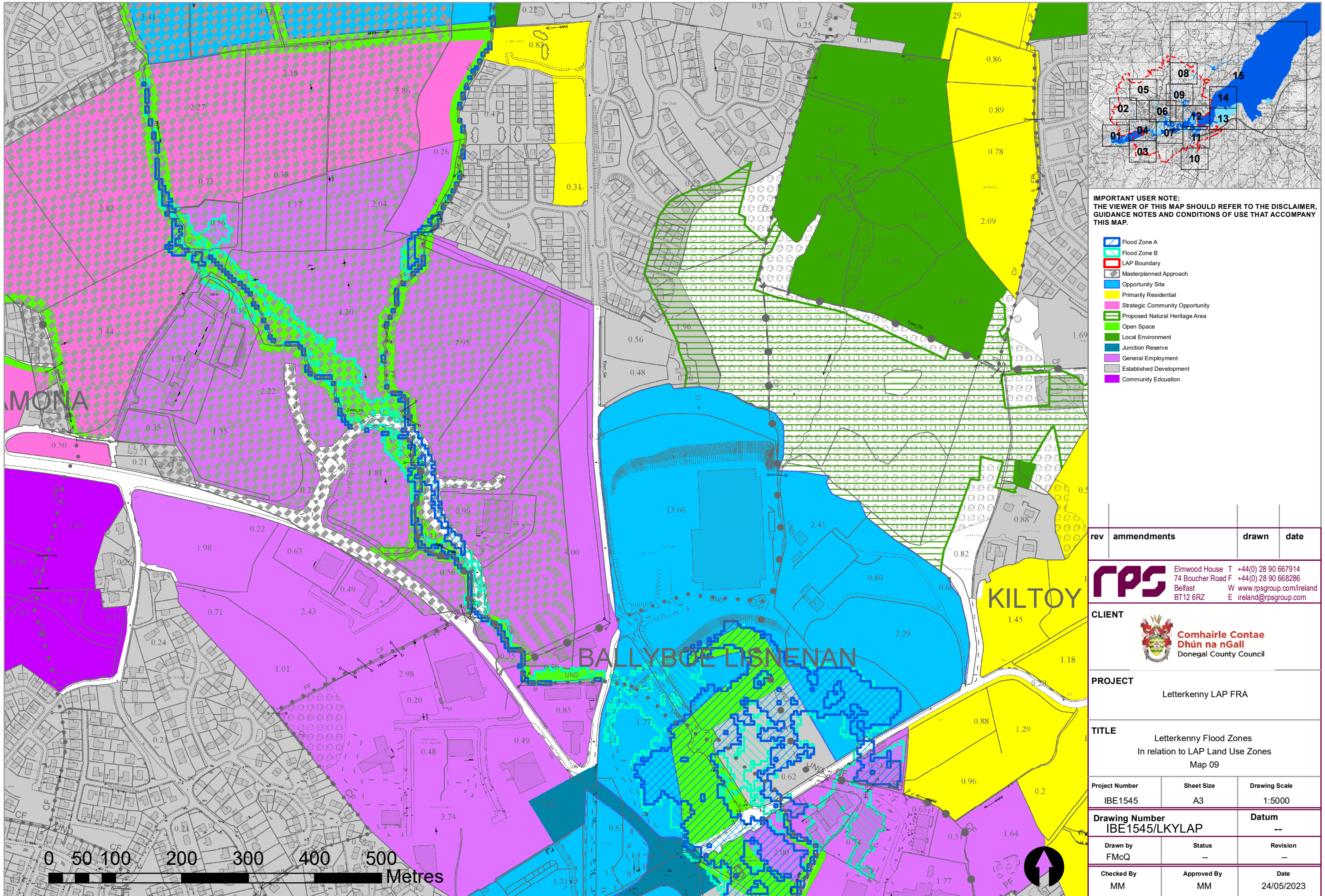
Letterkenny Flood Zones
In relation to LAP Land Use Zones
Map 08

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- ▬ Flood Zone A
- ▬ Flood Zone B
- ▬ LAP Boundary
- ▬ Masterplanned Approach
- ▬ Opportunity Site
- ▬ Primarily Residential
- ▬ Strategic Community Opportunity
- ▬ Proposed Natural Heritage Area
- ▬ Open Space
- ▬ Local Environment
- ▬ Junction Reserve
- ▬ General Employment
- ▬ Established Development
- ▬ Community Education

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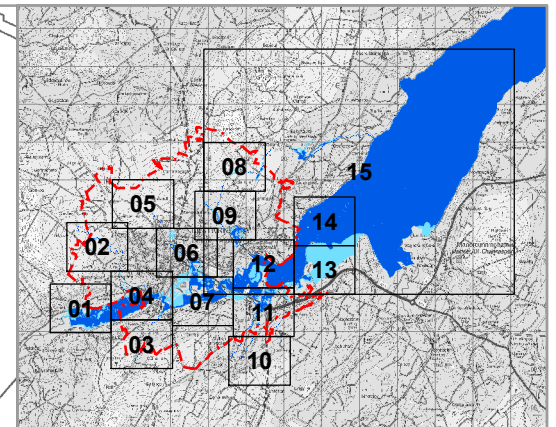
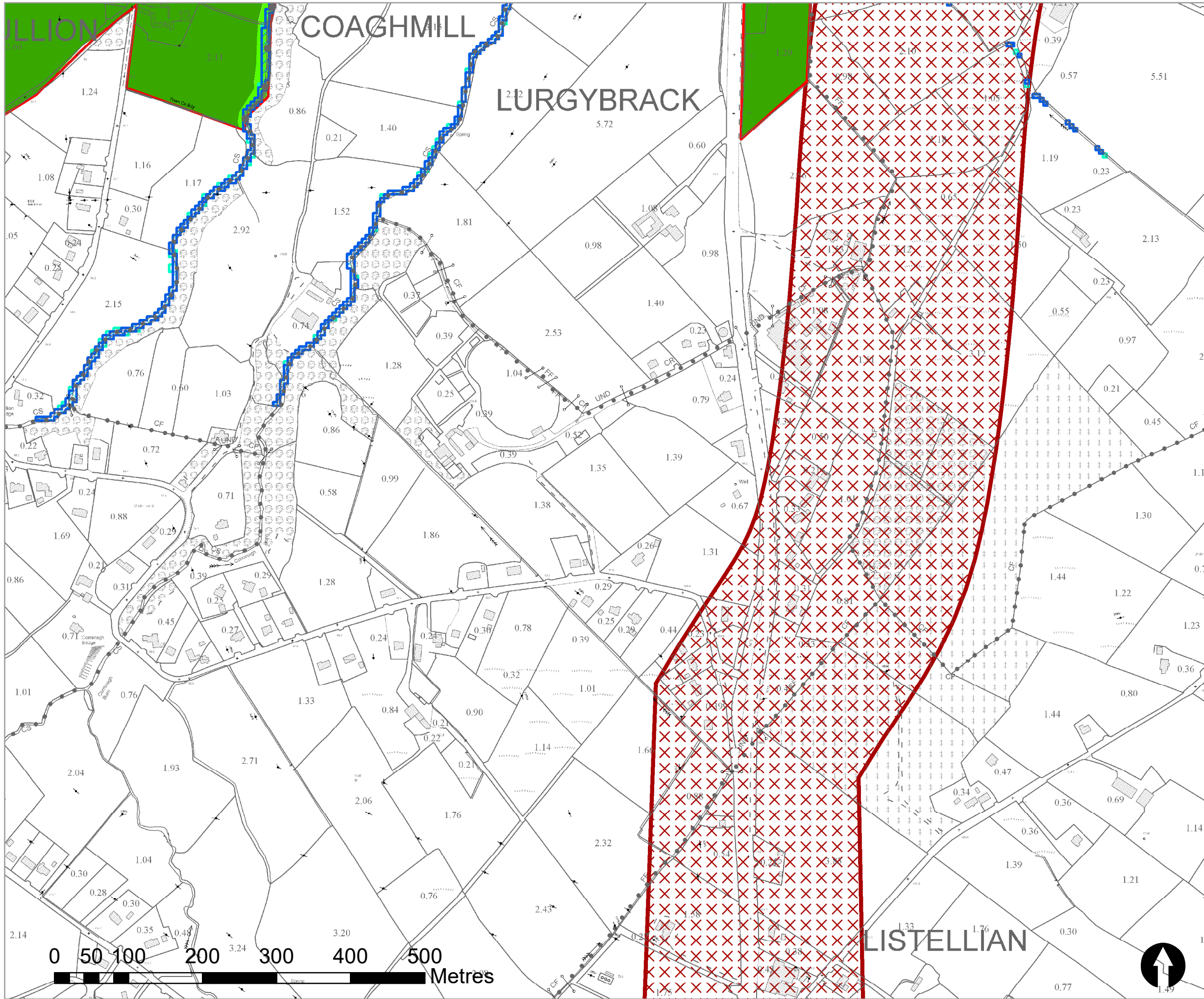
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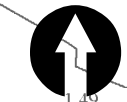
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Letterkenny Flood Zones
In relation to LAP Land Use Zones
Map 09

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- Flood Zone A
- Flood Zone B
- LAP Boundary
- Open Space
- Local Environment
- Letterkenny TEN T



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PROJECT

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TITLE

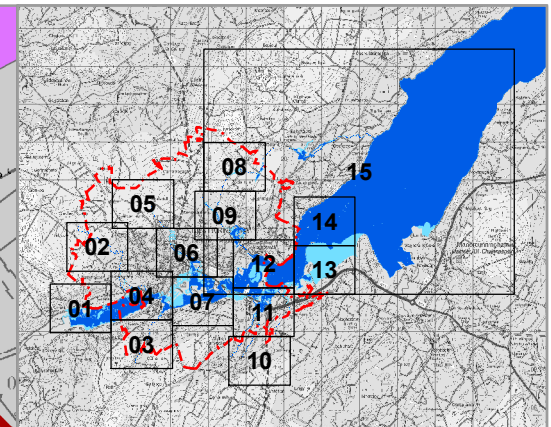
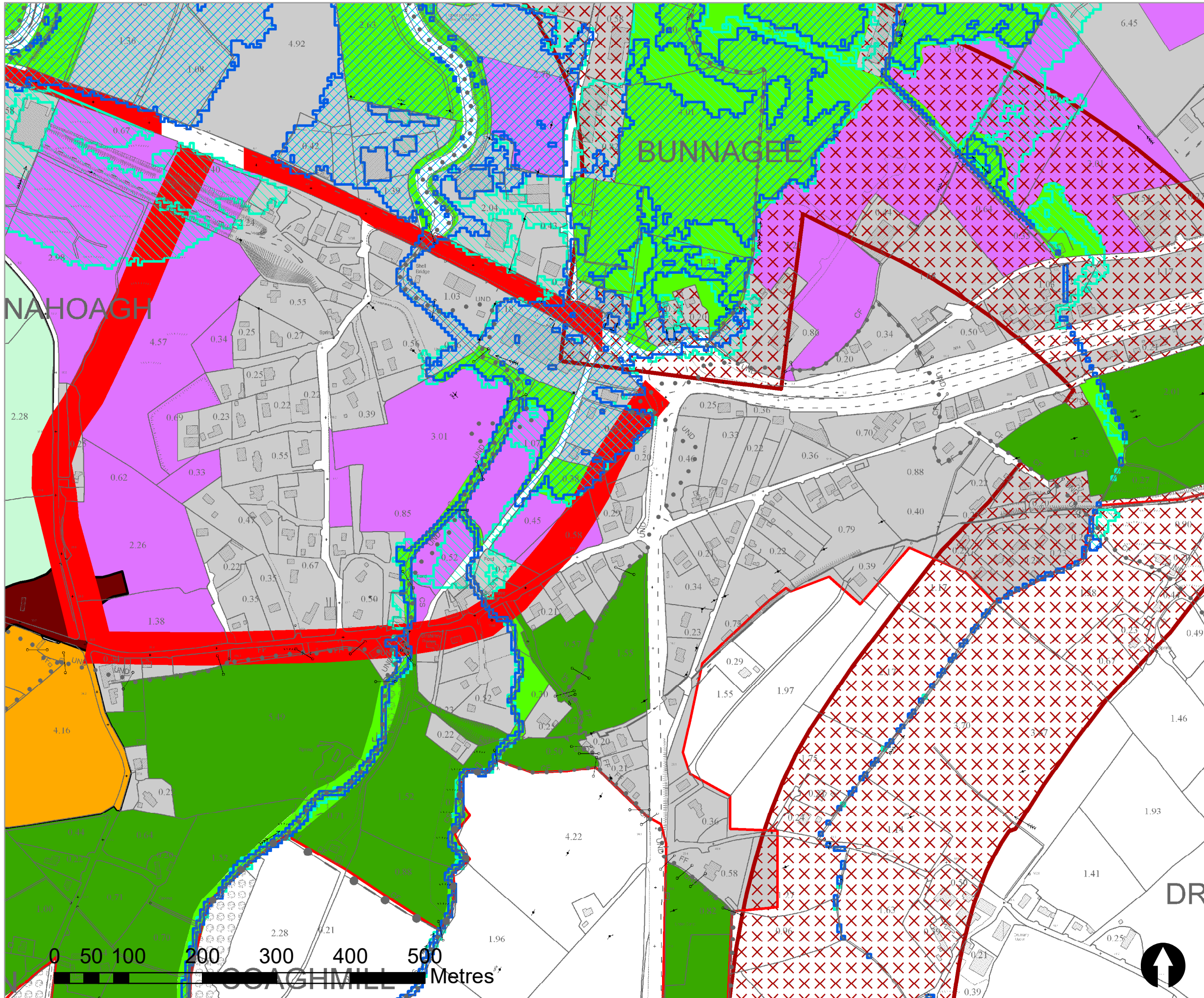
Letterkenny Flood Zones
In relation to LAP Land Use Zones
Map 10

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- Flood Zone A
- Flood Zone B
- LAP Boundary
- Strategic Road Corridor
- Southern Network Project
- Developer Led
- Strategic Compact Growth Area
- Strategic Residential Reserve
- Southern Strategic & Sustainable Development Site
- Open Space
- Local Environment
- Letterkenny TEN T
- General Employment
- Established Development

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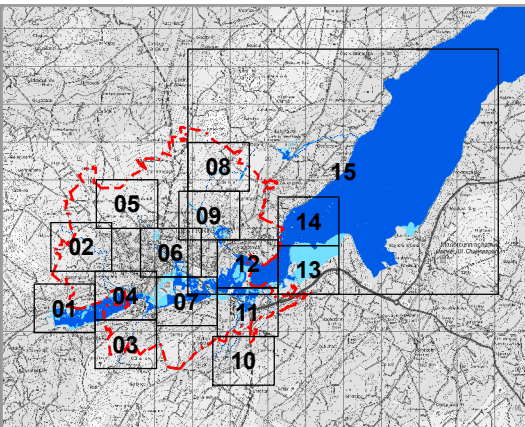
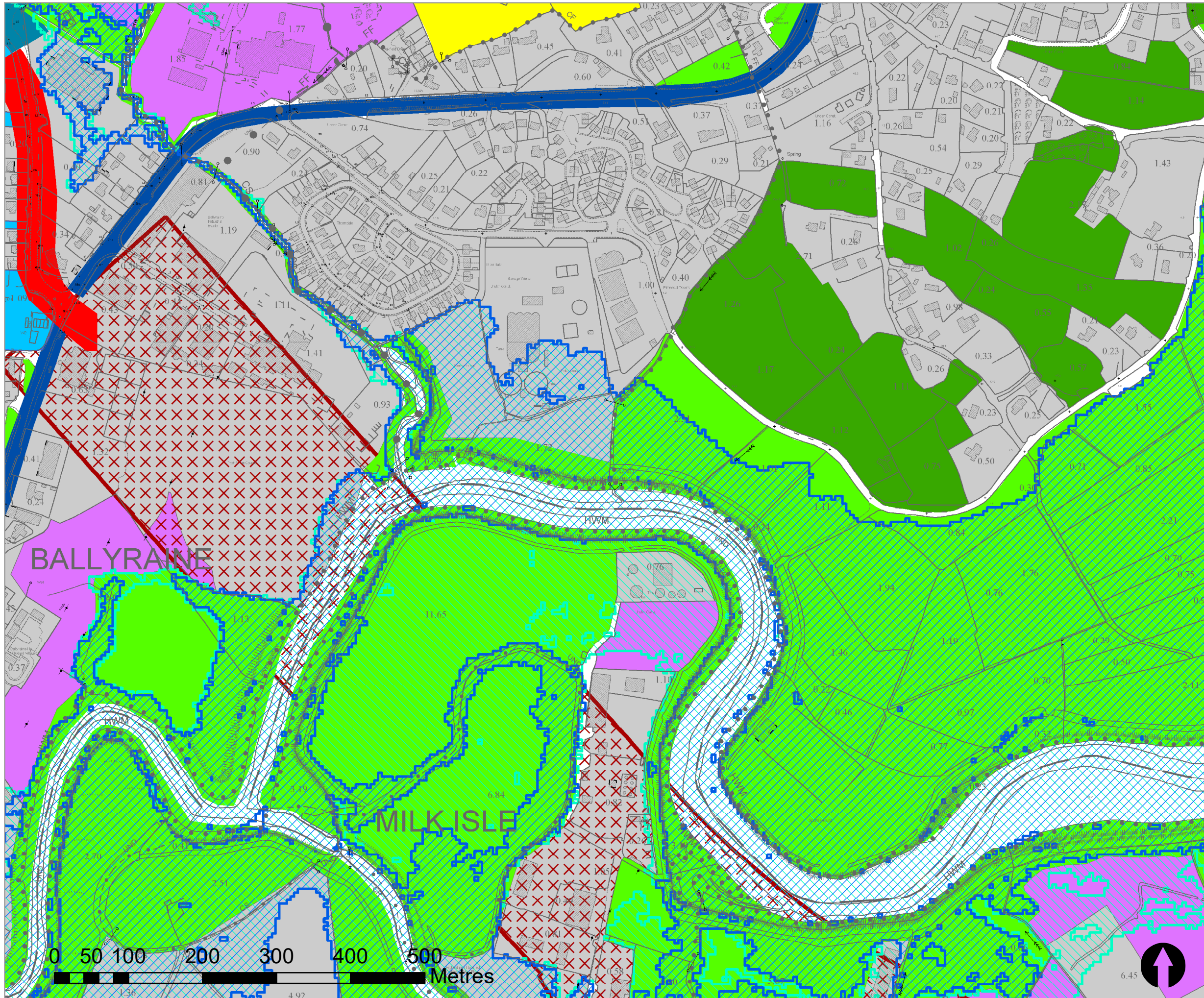
PROJECT

Letterkenny LAP FRA

TITLE

Letterkenny Flood Zones
In relation to LAP Land Use Zones
Map 11

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- Flood Zone A
- Flood Zone B
- LAP Boundary
- Strategic Road Corridor
- Opportunity Site
- Primarily Residential
- Proposed Upgraded Urban Roads
- Open Space
- Local Environment
- Letterkenny TEN T
- Junction Reserve
- General Employment
- Established Development

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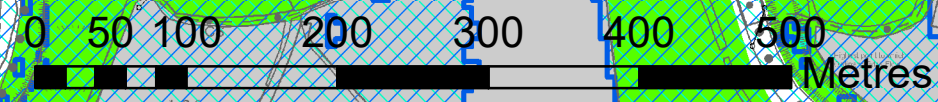
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 Letterkenny Flood Zones
 In relation to LAP Land Use Zones
 Map 12

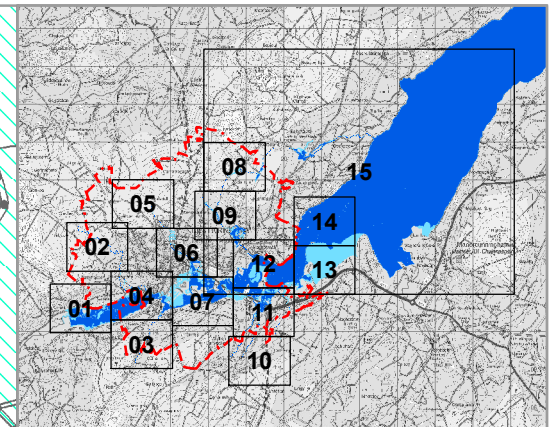
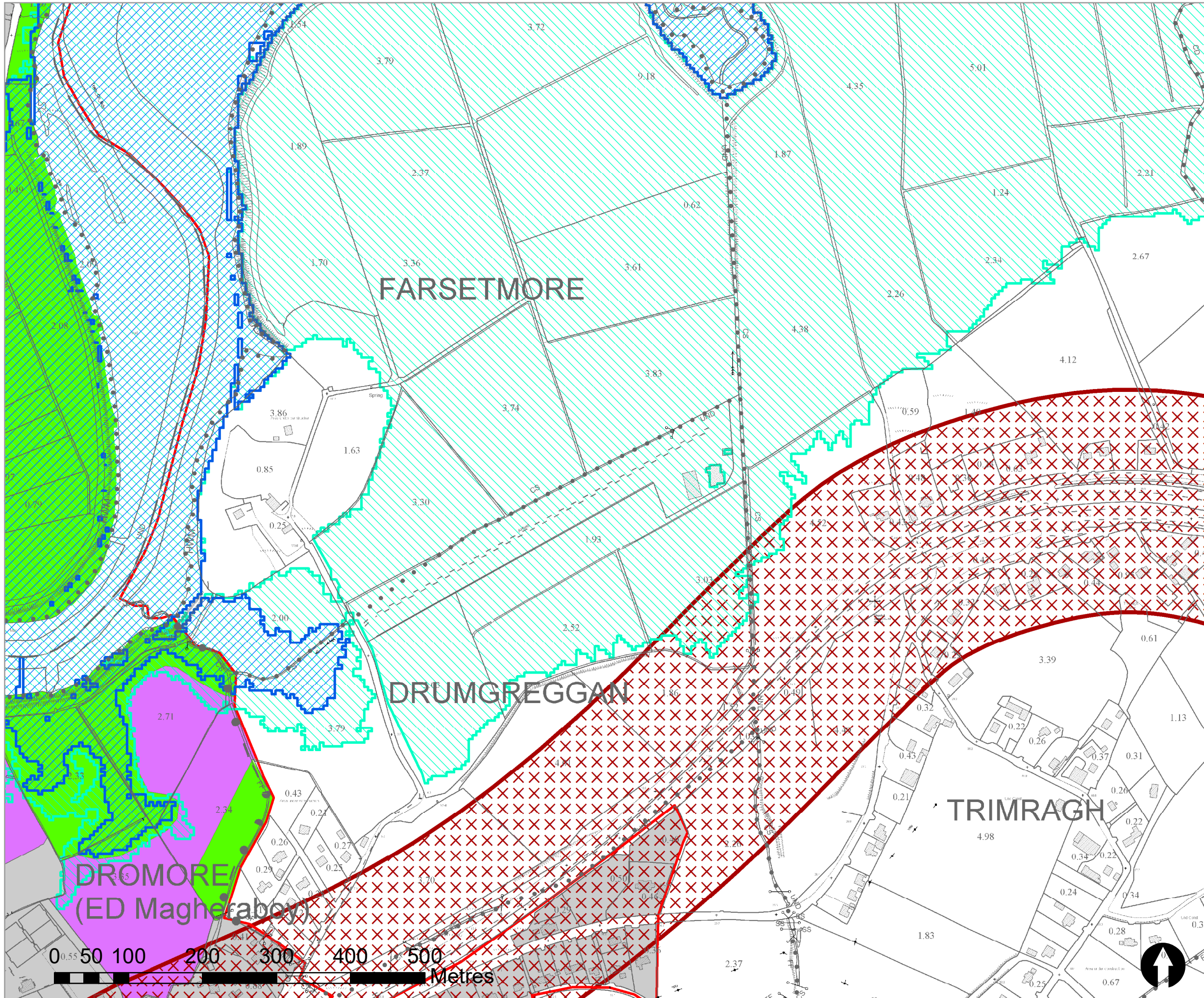
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- Flood Zone A
- Flood Zone B
- LAP Boundary
- Open Space
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- General Employment
- Established Development

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PROJECT

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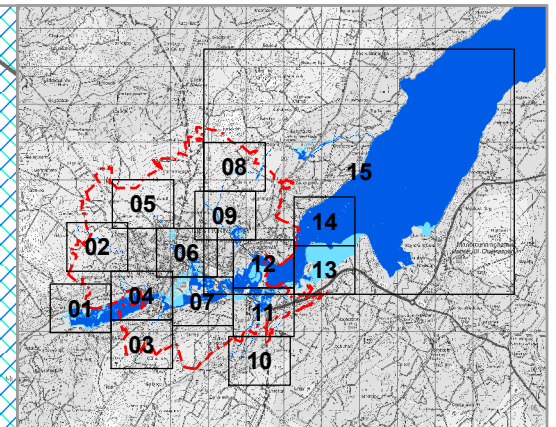
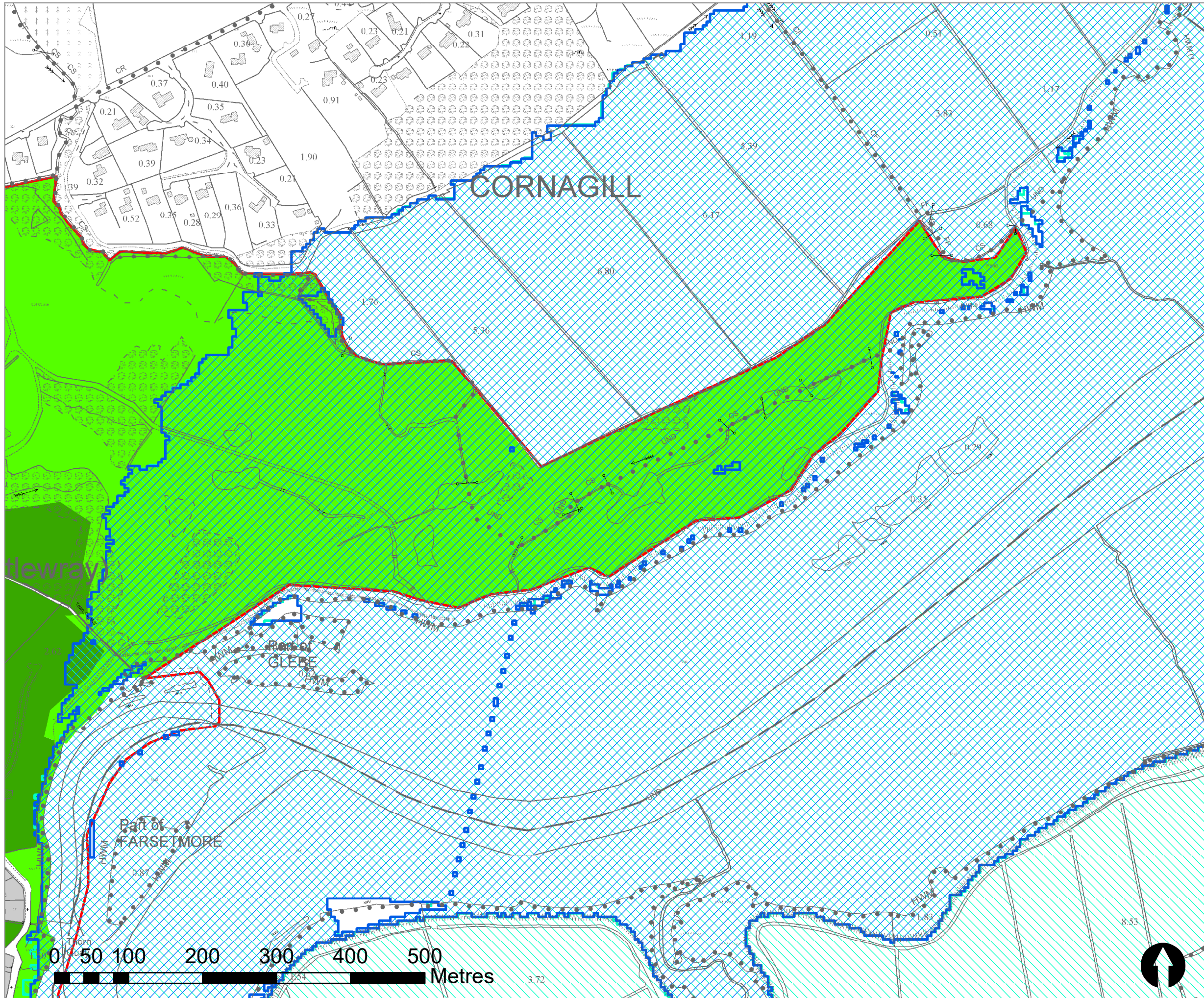
Letterkenny Flood Zones
In relation to LAP Land Use Zones
Map 13

Project Number	Sheet Size	Drawing Scale
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Drawing Number	Datum
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- Flood Zone A
- Flood Zone B
- LAP Boundary
- Open Space
- Local Environment
- Established Development

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Letterkenny LAP FRA

TITLE

Letterkenny Flood Zones
In relation to LAP Land Use Zones
Map 14

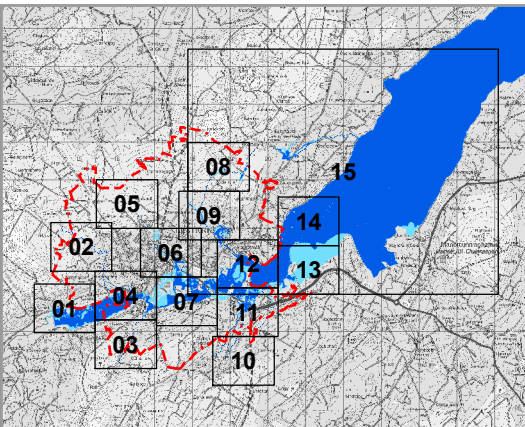
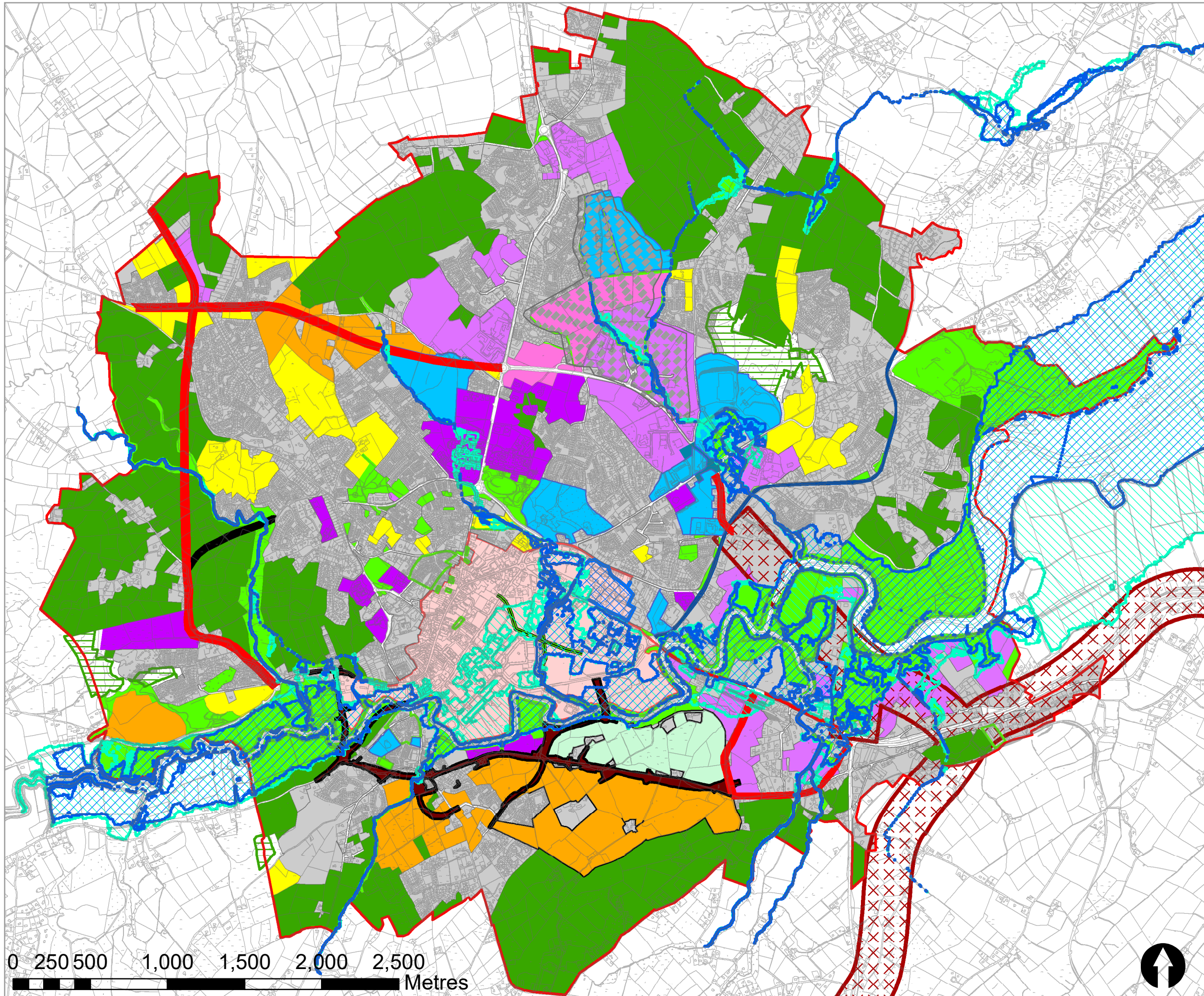
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- Southern Network Project
- Developer Led
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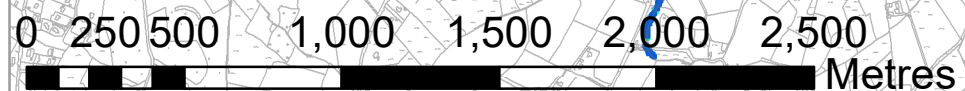
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PROJECT
 Letterkenny LAP FRA

TITLE
 Letterkenny Flood Zones
 In relation to LAP Land Use Zones
 Map 01

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Appendix B
Justification Tests

Appendix B - Justification Tests

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1 INTRODUCTION

A SFRA has been carried out as part of the assessment of the proposed Local Area Plan for Letterkenny. The SFRA outlines how the zoning proposed in the LAP can be adequately managed.

The SFRA identifies a number of locations where the vulnerable and less vulnerable land use zonings coincide with areas which are at risk of flooding. In accordance with guidelines the sequential approach has been adopted and where avoidance or substitution of land use is not possible a justification test should be carried out to assess the appropriateness of the zoning in these flood risk areas. If still deemed appropriate the Justification Test should outline flood risk management measures to ensure that flood risk is not increased in the areas and to other adjoining areas. These include existing highly vulnerable development in Flood Zones A and B and existing less vulnerable development in Flood Zone A.

The areas within the Letterkenny Area Plan that are at flood risk which coincide with vulnerable and less vulnerable land use zonings have been identified and are illustrated in Appendix A and Section 6 of the main report.

A justification test is required where avoidance or substitution is not possible to review the appropriateness of the land use following 'The Guidelines' sequential approach as outlined in the tables below. The SFRA has used the flood risk mapping from the North Wester CFRAM study but has also undertaken more detailed modelling for specific locations to demonstrate the zoning proposed in areas of flood risk is in compliance with the Guidelines and part 3 of the justification test. Detailed modelling will also be necessary during the development stage FRA for developments brought forward in these areas.

In applying the Justification Test Part 3, consideration has been given to structural and non- structural measures identified in the SFRA which may be required prior to further development taking place. As such, in most of these built-up areas, flood risk can be addressed through requiring a site-specific flood risk assessment which will identify appropriate mitigation measures such as retaining flow paths, flood resilient construction and emergency planning.

2 INDIVIDUAL JUSTIFICATION TESTS

2.1 Justification Test for Areas of Established development within Flood Zone A and Flood Zone B

	Criteria	Response
1.	The urban settlement is targeted for growth under the National Spatial Strategy, regional planning guidelines, statutory plans or under the Planning Guidelines or Planning Directives provisions of the Planning and Development Act 2000, as amended.	Letterkenny is targeted for growth under the National Planning Framework, the Regional Spatial and Economic Strategy for the Northern and Western Regional Assembly Area 2020-2032 and the County Donegal Development Plan 2018-2024. In particular, Letterkenny is identified as a Regional Centre in the National Planning Framework and the Regional Spatial and Economic Strategy. Such centres are identified in the NPF to lead the development of their regions.
2.	The zoning or designation of the lands for the particular use or development type is required to achieve the proper planning and sustainable development of the urban settlement and, in particular:	
2(i)	Is essential to facilitate regeneration and/or expansion of the centre of the urban settlement:	The infilling of development in areas within the established development zoning and existing development within the town centre is essential for the regeneration of Letterkenny.
2(ii)	Comprises significant previously developed and/or under-utilised lands:	The established development zoning throughout Letterkenny Town and existing development within the Town Centre Zoning represent lands that are currently developed and in some instance under utilised.
2(iii)	Is within or adjoining the core of an established or designated urban settlement:	The subject lands are either within the town centre of Letterkenny or represent established development areas throughout Letterkenny Town.
2(iv)	Will be essential in achieving compact and sustainable urban growth;	The infilling of development in areas within the established development zoning and existing development within the town centre is essential for the future compact growth and regeneration of Letterkenny.
2(v)	There are no suitable alternative lands for the particular use or development type, in areas at lower risk of flooding within or adjoining the core of the urban settlement.	The existing development within the established development and town centre zoning cannot be replicated at any other location within the proposed Letterkenny plan boundary. The lands are already developed and immediately adjacent the town centre, within walking distance of a range of amenities and services. As such, the redevelopment of this site is deemed to be justified, subject to the findings of a detailed flood risk assessment (inclusive of flood modelling).
3.	A flood risk assessment to an appropriate level of detail has been carried out as part of the SFRA. Areas of established and existing development within Flood Zone A and Flood Zone B are identified in Section 6.2 and Table 6.1 of the SFRA. The Draft Letterkenny Plan and Local Transport Plan 2023-2029 includes development types that are open to consideration within the established development zone include both highly vulnerable, less vulnerable and water compatible development.	

Criteria	Response
	<p>The application of Section 4.27a of the Guidelines, which was inserted in Circular PL 2/2014 requires a Plan-making Justification Test for existing, developed, zoned areas at risk of flooding to assess if the zoning is still relevant.</p> <p><i>“In some instances, particularly in older parts of cities and towns, an existing land use may be categorised as a “highly vulnerable development” such as housing, be zoned for residential purposes and also be located in flood zone A/B. Additional development such as small scale infill housing, extensions, or changes of use that could increase the risk or number of people in the flood-prone area can be expected in such a zone into the future. In these instances, where the residential / vulnerable use zoning has been considered as part of development plan preparation, including use of the Justification Test as appropriate, and it is considered that the existing use zoning is still appropriate, the development plan must specify the nature and design of structural or non-structural flood risk management measures required prior to future development in such areas in order to ensure that flood hazard and risk to the area and to other adjoining locations will not be increased or, if practicable, will be reduced. Planning authorities should consider the issues and opportunities raised in section 4 of Appendix B (Technical Appendices) in this regard, and may consider including certain objectives or conditions as part of the zoning.”</i></p> <p>In the case of established development zoning and existing development within the Town Centre zoning the development will limited to the requirements of Section 5.28 Guidelines as amended by Circular PL 2/2014:</p> <p><i>“Applications for minor development, such as small scale infill, small extensions to houses or the rebuilding of houses, and most changes of use of existing buildings and or extensions and additions to existing commercial and industrial enterprises, are unlikely to raise significant flooding issues, unless they obstruct important flow paths, introduce a significant additional number of people into flood risk areas or entail the storage of hazardous substances. Since such applications concern existing buildings or developed areas, the sequential approach cannot be used to locate them in lower-risk areas and the Justification Test will not apply. However, a commensurate assessment of the risks of flooding should accompany such applications to demonstrate that they would not have adverse impacts or impede access to a watercourse, floodplain or flood protection and management facilities. These proposals should follow best practice in the management of health and safety for users and residents of the proposal.”</i></p> <p>The development in these areas will be limited to minor development, as outlined in Section 5.28 of the Guidelines above and whilst a development stage justification test may not apply a commensurate assessment must accompany any application for development within these areas. Furthermore any new development in these established development zones must be limited to water compatible development in Flood Zone A and less vulnerable and water compatible in Flood Zone B.</p> <p>This approach has been carried forward to the Draft Letterkenny Plan and Local Transport Plan 2023-2029 which states under Section 12.3.4:</p> <p><i>“The areas of existing development that conflict with flood zones, but where certain development types can be justified, are clearly identified in the SFRA report (see Section 6.2) and prospective applicants are advised to consult said report in this regard. In assessing planning applications within such areas, the Planning Authority will ensure adherence to the principles of the ‘Planning System and Flood Risk Management Guidelines’ and in this respect will impose limitations on development proposals pursuant to the findings of relevant justification test for established development (see Section 6.2 and Appendix B of the SFRA report).”</i></p>

2.2 Justification Test for zoning and objectives in Draft Letterkenny Plan and Local Transport Plan 2023-2029 in respect of the TEN-T PRIPD in areas of flood risk

Criteria	Response
<p>1. The urban settlement is targeted for growth under the National Spatial Strategy, regional planning guidelines, statutory plans or under the Planning Guidelines or Planning Directives provisions of the Planning and Development Act 2000, as amended.</p>	<p>The urban settlements related to the TEN-T PRIPD are targeted for growth under the National Planning Framework, the Regional Spatial and Economic Strategy for the Northern and Western Regional Assembly Area 2020-2032 and the County Donegal Development Plan 2018-2024. In particular:</p> <ul style="list-style-type: none"> Letterkenny is identified as a Regional Centre in the National Planning Framework and the Regional Spatial and Economic Strategy. Such centres are identified in the NPF to lead the development of their regions. <p>The TEN-T PRIPD is supported by a number of policies across international, national and regional strategic planning documents and its strategic importance to the County is highlighted by the fact that:</p> <ul style="list-style-type: none"> Article 4 of EU Regulation 1315/2013 highlights that the TEN-T network “shall strengthen the social, economic and territorial cohesion of the Union” and shall support “inclusive growth”. It shall demonstrate European added value by contributing to objectives set out in the Regulations. Enhanced Regional accessibility, including upgrading access to the North West utilising routes such as the N14 and progressive development of the Atlantic Economic Corridor Northwards by upgrading the N15/N13 link, is a National Strategic Outcome of the National Planning Framework Project Ireland 2040. The “N13/N14/N56 Letterkenny Bypass and Dual Carriageway to Manorcunningham” is listed as a priority for investment within the NDP 2018-2027. It is an objective of the Regional Spatial and Economic Strategy for the Northern and Western Regional Assembly Area to deliver the project by 2028. (Objective RPO 3.7.30 of said document refers). The project is fundamental to both the success of the North West City Region and enhanced transport connectivity between Ireland and Northern Ireland, each of which in turn are National Policy Objectives of the National Planning Framework (NPO 45 and 46 of said document refers).
<p>2. The zoning or designation of the lands for the particular use or development type is required to achieve the proper planning and sustainable development of the urban settlement and, in particular:</p>	

	Criteria	Response
2(i)	Is essential to facilitate regeneration and/or expansion of the centre of the urban settlement:	<p>The purpose of the proposed variation is to facilitate the TEN-T PRIPD, a strategic roads project whose geographical scope covers both urban and rural areas in east Donegal. As such the project is not specifically designed to facilitate the regeneration and/or expansion of the centre of a specific urban settlement. Nevertheless the project will facilitate the regeneration and expansion of the urban areas of Ballybofey/Stranorlar, Letterkenny and Lifford by:</p> <ul style="list-style-type: none"> • Alleviating traffic congestion and associated air and noise pollution and thus enhancing the overall viability and quality of life in core of said urban settlements. • Removing strategic traffic from said urban settlements thus freeing up space for sustainable transport modes and urban improvements in said urban settlements. • Supporting the expansion of said urban settlements by facilitating economic growth and allowing Donegal to successfully compete for inward investment by improving the efficiency and capacity of the road network including improving journey time and journey time reliability at a local, regional and national level.
2(ii)	Comprises significant previously developed and/or under-utilised lands:	As stated, the TEN-T PRIPD is a strategic roads project whose geographical scope covers both urban and rural land in east Donegal as such is it not specifically intended to re-develop previously developed and/or utilized lands. However some of the Section 2 – N56/N13 Letterkenny to Manorcunningham Preferred Route Corridor does incorporate underutilized lands.
2(iii)	Is within or adjoining the core of an established or designated urban settlement:	The TEN-T PRIPD is a strategic roads projects aimed at upgrading and improving parts of the TEN-T strategic road network in Donegal and the associated Preferred Route Corridors have been chosen to on the basis, inter alia, that they would enhance the functionality and carrying capacity of the road network. Accordingly the corridors are not within, and do not adjoin, the cores of designated urban settlements.
2(iv)	Will be essential in achieving compact and sustainable urban growth;	<p>As a strategic roads project the TEN-T PRIPD is not specifically aimed at achieving compact and sustainable urban growth. However by removing strategic traffic from the urban settlements of Ballybofey/Strannorlar, Letterkenny and Lifford the project will promote sustainable urban growth by:</p> <ul style="list-style-type: none"> • Alleviating traffic congestion, and associated air and noise pollution and thus enhancing the overall viability and quality of life in these urban settlements. • Removing strategic road traffic from these urban settlements thus freeing up space for sustainable transport modes and urban improvements.
2(v)	There are no suitable alternative lands for the particular use or development type, in areas at lower risk of flooding within or adjoining the core of the urban settlement.	<p>Section 2: N56/N13 Letterkenny to Manorcunningham Preferred Route Corridor</p> <p>This section contains the following locations identified in Section 6.2 and Figure 6-2 at which said corridor traverses flood risk areas:</p> <ol style="list-style-type: none"> 1. River Swilly/Lough Swilly and tributaries at Letterkenny; <p>The section of the preferred route corridor that is in an area of flood risk is predominantly the 2.5km strategic link connecting to</p>

Criteria

Response

the existing N56/R245 junction northeast of the Polestar roundabout in Letterkenny. This is a key link to achieving the objectives of the project.

In total there were 39 different options or variations of the same option considered in Stage 1 Preliminary Options Assessment process as illustrated in the preliminary options drawing below (Figure 1 taken from the Phase 2 option selection report).

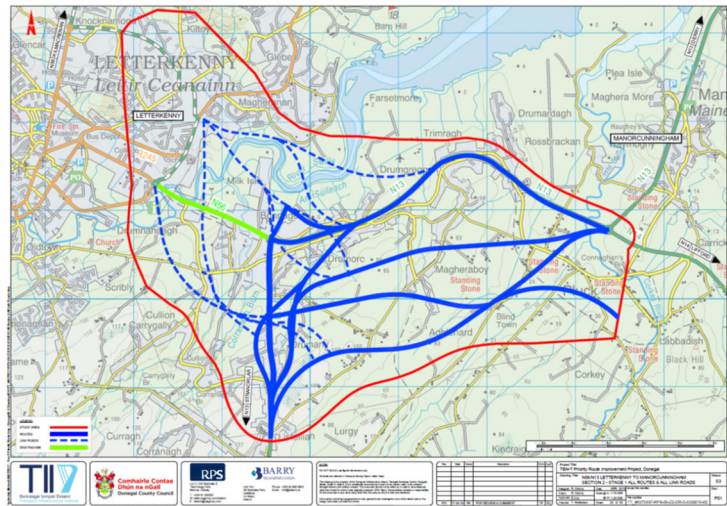


Figure 1: Stage 1 preliminary options considered for Section 2

Eleven of these options were discounted immediately as they did not achieve one of the key objectives for the TEN-T PRIPD which was to provide a link road into Letterkenny. Of the remaining 28 options there were varying lengths of road within the flood plain (1% AEP) ranging from 55m to 220m.

The Stage 1 assessment using the criteria of Environment, Engineering and Economy, resulted in seven shortlisted options, shown in Figure 3 below, which were brought forward to the Stage 2 assessment process. In addition, three Letterkenny link options were carried forward for continued assessment. As outlined above all options considered for the link road that were taken forward from the stage 1 preliminary option assessment into the Stage 2 route corridor appraisal traversed the areas of flood risks (Figure 2).

The preferred route corridor identified through the Stage 2 Options Assessment process (Option 2D) traversed 90m of floodplain which in terms of flood risk was only bettered by 2 other options (2 variations of the yellow option in the preliminary option assessment report).

However these other options were considered unsuitable for the following reasons and were eliminated during the Stage 1 preliminary option assessment:

1. The number of roads and strategic services crossed;
2. A less favourable alignment with almost double the volume of earthworks (cut and fill balance) required;
3. Landscape and Visual impacts;
4. Archaeology /Cultural Heritage;

Criteria

Response

- 5. Agriculture
- 6. The number of Residential Properties affected.

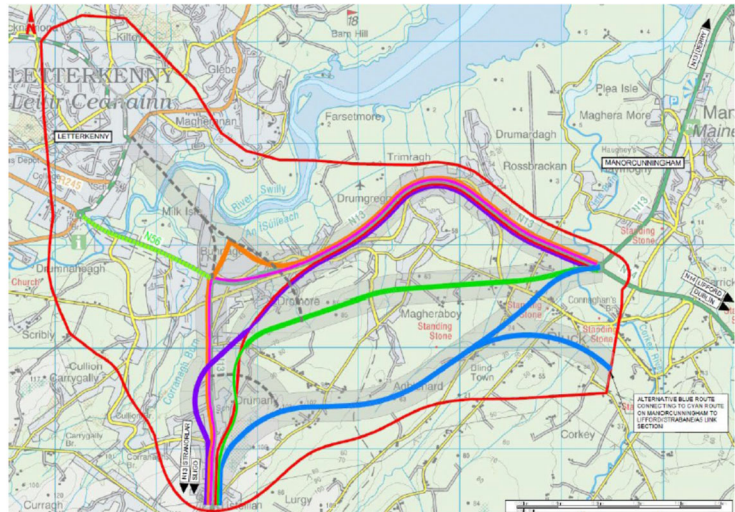


Figure 2: Stage 2 options considered for Section 2

Consequently there were no other suitable alternative routes in areas at lower risk of flooding that could have been selected for the Section 2 Preferred Route Corridor.

Note: Full details of the option selection process can be found in the Stage 2 option selection report and associated supporting information (<http://www.donegal-ten-t.ie/pages/documents/downloads/options-selection-report.php>)

3. A flood risk assessment to an appropriate level of detail has been carried out as part of the SFRA for the proposed variation to the CDP 2018-2024 in respect of the TEN-T PRIPD, which demonstrates that flood risk to the strategic road corridors can be adequately managed, and the use or development of the lands will not cause unacceptable adverse impacts elsewhere. The findings

N.B. The acceptability or otherwise of levels of any residual risk should be made with consideration for the proposed development and the local context and should be described in the relevant detailed flood risk assessment.

A SFRA has been carried out as part of the assessment of the Draft Letterkenny Plan and Local Transport Plan 2023-2029 in respect of the TEN-T PRIPD. The SFRA outlines how the zoning of these development can be adequately managed. As this zoning has already been assessed for this variation the incorporation into the Letterkenny LAP is based on the findings of the SFRA carried out for that variation. The elements relevant to the Letterkenny LAP are reproduced below.

In particular this SFRA has noted that:

The proposed Bonagee link road for Letterkenny town in Section 2 crosses the River Swilly Channel. The Swilly river channel is approximately 55m wide at this location. Furthermore, much of this link road passes through the floodplains of the Swilly River;

In addition to the locations where the TEN-T PRIPD Preferred Route Corridor traverses areas which are at significant risk of flooding there are also minor watercourses which must be traversed. Given the linear nature of the TEN-T PRIPD road scheme and the linear nature of

Criteria	Response
	<p>these water courses there were no suitable alternatives to crossing these minor watercourses. For these minor water courses managing the flow of water by culverting beneath the proposed road or small span bridges will be readily achieved and will not represent a significant flood risk, acknowledging that section 50 of the Arterial Drainage Act will still need to be complied with.</p> <p>It has been demonstrated that there are no other suitable alternatives in areas of lesser flood risk in these areas. Construction of these sections of the TEN-T PRIPD could pose significant flooding risk to the adjacent lands and properties, both during the construction and post construction stages of the works. However it is recommended that the following measures be implemented to ensure that the strategic road does not give rise to unacceptable adverse impacts elsewhere:</p> <ul style="list-style-type: none"> ▪ The infilling of floodplains for construction of any kind should be avoided where possible. Where this is not possible and the other criteria for the justification test is met, the mitigation for the strategic roads will include: <ul style="list-style-type: none"> - Spanning the flood plains is a possible option so long as adequate freeboard is provided and it can be proven that any supports required in the flood plain have a negligible effect on the displacement of flood waters. - Flood relief culverts through road embankments may also be an option to allow flood waters to reach their natural flood extents. ▪ A detailed hydraulic model for the associated river channel and floodplains should be carried out at development management stage to assess this impact and appropriate mitigation measure should be implemented. ▪ The detailed FRAs for the preferred option should demonstrate that road level is designed for the 0.1% AEP level plus suitable freeboard. The recommended level of freeboard is 500 mm for fluvial flood levels. ▪ The detailed FRAs should also examine residual risk associated with culvert blockages, defence failure and climate change to set final road levels where appropriate. The FRAs should ensure development of the strategic roads do not block flow paths, does not increase flood risk elsewhere, is designed to appropriate standard of flood resilient construction and demonstrates emergency evacuation procedures during flood events. ▪ Adjacent existing open spaces and water compatible uses in Flood Zones A and B should be retained to maintain flood storage areas. ▪ FRAs and project level mitigation should also address surface water management for the development of the preferred routes, demonstrating consideration of CDP 2018-2024 policies, Technical Document RE-CPI-07001 a Drainage Design for National Road Schemes - Sustainable Drainage Options, incorporation of SuDS into the design and the potential transfer of surface water runoff between subcatchments. ▪ Ancillary development associated with the strategic road corridors in the flood zoned area can generally be considered appropriate, but an appropriately detailed flood risk assessment will be required in support of the development consent process. The level of detail will vary depending on the risks identified and the proposed land use. The FRA should be aimed at setting road levels and demonstrating no increase in flood risk elsewhere. <p>The County Donegal Development Plan 2018-2024 already incorporates policy requirements to consider such measures outlined above, as summarised in Table 7.1 of this SFRA.</p>

2.3 Justification Test for Strategic Road Corridors at Drumnahoagh and Bonagee

	Criteria	Response
1.	The urban settlement is targeted for growth under the National Spatial Strategy, regional planning guidelines, statutory plans or under the Planning Guidelines or Planning Directives provisions of the Planning and Development Act 2000, as amended.	Letterkenny is targeted for growth under the National Planning Framework, the Regional Spatial and Economic Strategy for the Northern and Western Regional Assembly Area 2020-2032 and the County Donegal Development Plan 2018-2024. In particular, Letterkenny is identified as a Regional Centre in the National Planning Framework and the Regional Spatial and Economic Strategy. Such centres are identified in the NPF to lead the development of their regions.
2.	The zoning or designation of the lands for the particular use or development type is required to achieve the proper planning and sustainable development of the urban settlement and, in particular:	
2(i)	Is essential to facilitate regeneration and/or expansion of the centre of the urban settlement:	The strategic road corridors at Drumnahoagh and Bonagee are essential components of the suite of traffic management solutions for Letterkenny, designed to cater for the free flow of traffic as the town expands, to free up town centre space for alternative, sustainable modes of transport and to potentially activate new tracts of lands adjacent to the urban core. The corridors are thus essential for the regeneration and expansion of the settlement.
2(ii)	Comprises significant previously developed and/or under-utilised lands:	The road corridors pass through under-utilised lands in close proximity to the urban core of Letterkenny.
2(iii)	Is within or adjoining the core of an established or designated urban settlement:	The road corridors are located in close proximity to the urban core of Letterkenny.
2(iv)	Will be essential in achieving compact and sustainable urban growth;	The strategic road corridors at Drumnahoagh and Bonagee comprise critical parts of the suite of traffic management solutions for Letterkenny going forward and thus will be essential in terms of achieving compact and sustainable urban growth.
2(v)	There are no suitable alternative lands for the particular use or development type, in areas at lower risk of flooding within or adjoining the core of the urban settlement.	The road corridors have been identified to enable the development of links between the Leck Road area and the Port Road/National Route N13. The corridors are essential elements of the bigger picture regarding traffic movements in Letterkenny as the Regional Centre expands. The corridors may also allow for the activation of additional employment lands at Drumnahoagh/Bonagee. There are no suitable alternative lands for the intended purpose.
3.	A flood risk assessment to an appropriate level of detail has been carried out as part of the SFRA for Letterkenny Local Area Plan, which demonstrates that flood risk to the strategic road corridors can be adequately managed and the use or development of the lands will not cause unacceptable adverse impacts elsewhere. N.B. The acceptability or otherwise of levels of any residual risk should be made with consideration for the proposed development and the local context and should be described in the relevant detailed flood risk assessment.	
		Construction of these sections of the strategic road corridors could pose significant flooding risk to the adjacent lands and properties, both during the construction and post construction stages of the works. However, it is recommended that the following measures be implemented to ensure

Criteria	Response
	<p>that the strategic road does not give rise to unacceptable adverse flood risk impacts elsewhere:</p> <ul style="list-style-type: none"> ▪ The infilling of floodplains for construction of any kind should be avoided where possible. Where this is not possible and the other criteria for the justification test is met, the mitigation for the strategic roads will include: <ul style="list-style-type: none"> - Spanning the flood plains is a possible option so long as adequate freeboard is provided and it can be proven that any supports required in the flood plain have a negligible effect on the displacement of flood waters. - Flood relief culverts through road embankments may also be an option to allow flood waters to reach their natural flood extents. ▪ A detailed hydraulic model for the associated river channel and floodplains should be carried out at development management stage to assess this impact and appropriate mitigation measure should be implemented. ▪ The detailed FRAs for the preferred option should demonstrate that road level is designed for the 0.1% AEP level plus suitable freeboard. The recommended level of freeboard is 500 mm for fluvial flood levels. ▪ The detailed FRAs should also examine residual risk associated with culvert blockages, defence failure and climate change to set final road levels where appropriate. The FRAs should ensure development of the strategic roads do not block flow paths, does not increase flood risk elsewhere, is designed to appropriate standard of flood resilient construction and demonstrates emergency evacuation procedures during flood events. ▪ Adjacent existing open spaces and water compatible uses in Flood Zones A and B should be retained to maintain flood storage areas. ▪ FRAs and project level mitigation should also address surface water management for the development of the preferred routes, demonstrating consideration of CDP 2018-2024 policies, Technical Document RE-CPI-07001 a Drainage Design for National Road Schemes - Sustainable Drainage Options, incorporation of SuDS into the design and the potential transfer of surface water runoff between subcatchments. ▪ Ancillary development associated with the strategic road corridors in the flood zoned area can generally be considered appropriate, but an appropriately detailed flood risk assessment will be required in support of the development consent process. The level of detail will vary depending on the risks identified and the proposed land use. The FRA should be aimed at setting road levels and demonstrating no increase in flood risk elsewhere. <p>The County Donegal Development Plan 2018-2024 already incorporates policy requirements to consider such measures outlined above, as summarised in Table 7.1 of this SFRA.</p>

2.4 Justification Test for Northern and Western Relief Roads and Associated Developer Led Road

Criteria	Response
1. The urban settlement is targeted for growth under the National Spatial Strategy, regional planning guidelines, statutory plans or under the Planning Guidelines or Planning Directives provisions of the Planning and Development Act 2000, as amended.	Letterkenny is targeted for growth under the National Planning Framework, the Regional Spatial and Economic Strategy for the Northern and Western Regional Assembly Area 2020-2032 and the County Donegal Development Plan 2018-2024. In particular, Letterkenny is identified as a Regional Centre in the National Planning Framework and the Regional Spatial and Economic Strategy. Such centres are identified in the NPF to lead the development of their regions.
2. The zoning or designation of the lands for the particular use or development type is required to achieve the proper planning and sustainable development of the urban settlement and, in particular:	
2(i) Is essential to facilitate regeneration and/or expansion of the centre of the urban settlement:	The development of both the northern and western relief roads (and the developer led road) is seen as a crucial component in easing traffic congestion within Letterkenny town centre and thereby 'creating space' for the development of alternative, sustainable modes of travel through the centre. Thus, the development of said roads is essential for the regeneration and future sustainable development of Letterkenny.
2(ii) Comprises significant previously developed and/or under-utilised lands:	The corridors for the northern and western relief roads skirt the edges of the urban area, passing significant areas of existing development at Windyhall and Glencar (northern relief road) and more under-utilised lands at Kirkstown (western relief road and developer led road). The development of the road corridors is deemed to constitute an efficient use of otherwise under-utilised land in these respective areas in order to facilitate the sustainable development of Letterkenny going forward.
2(iii) Is within or adjoining the core of an established or designated urban settlement:	The road corridors pass significant areas of existing development to the south and east and are intended to function as relief roads to ease congestion within the urban core.
2(iv) Will be essential in achieving compact and sustainable urban growth;	The northern and western relief roads comprise a critical part of the suite of traffic management solutions for Letterkenny going forward and thus will be essential in the achievement of compact and sustainable urban growth.
2(v) There are no suitable alternative lands for the particular use or development type, in areas at lower risk of flooding within or adjoining the core of the urban settlement.	The road corridors have been identified to enable traffic to bypass more centrally located lands that suffer from traffic congestion. There are no suitable alternative lands for the intended purpose.
3. The strategic road infrastructure at Kirkstown (Western Relief Road) and Glencar (Northern Relief Road) and the developer led road associated with the Western Relief Road cross a limited extent of flood risk areas. In these instances the extent of the lands within Flood Zones A or B is insignificant in the context of the wider overall lands zoned at the location. Due to relatively small watercourses and floodplains there is a high likelihood that this will not increase the risk of flooding elsewhere provided adequate mitigation measures including the consideration of suitable bridge spans can be proposed as part of a site-specific FRA.	

Criteria	Response
	<p>Therefore flood risk to the road corridors can be adequately managed and the use or development of the lands will not cause unacceptable adverse impacts elsewhere.</p> <p>It is recommended that the following measures be implemented to ensure that the road does not give rise to unacceptable adverse impacts elsewhere:</p> <ul style="list-style-type: none"> ▪ The infilling of floodplains for construction of any kind should be avoided where possible. Where this is not possible and the other criteria for the justification test is met, the mitigation for the strategic roads will include: <ul style="list-style-type: none"> - Spanning the flood plains is a possible option so long as adequate freeboard is provided and it can be proven that any supports required in the flood plain have a negligible effect on the displacement of flood waters. - Flood relief culverts through road embankments may also be an option to allow flood waters to reach their natural flood extents. ▪ A detailed hydraulic model for the associated river channel and floodplains should be carried out at development management stage to assess this impact and appropriate mitigation measure should be implemented. ▪ The detailed FRAs for the preferred option should demonstrate that road level is designed for the 0.1% AEP level plus suitable freeboard. The recommended level of freeboard is 500 mm for fluvial flood levels. ▪ The detailed FRAs should also examine residual risk associated with culvert blockages, defence failure and climate change to set final road levels where appropriate. The FRAs should ensure development of the strategic roads do not block flow paths, does not increase flood risk elsewhere, is designed to appropriate standard of flood resilient construction and demonstrates emergency evacuation procedures during flood events. ▪ Adjacent existing open spaces and water compatible uses in Flood Zones A and B should be retained to maintain flood storage areas. ▪ FRAs and project level mitigation should also address surface water management for the development of the preferred routes, demonstrating consideration of CDP 2018-2024 policies, Technical Document RE-CPI-07001 a Drainage Design for National Road Schemes - Sustainable Drainage Options, incorporation of SuDS into the design and the potential transfer of surface water runoff between subcatchments. ▪ Ancillary development associated with the strategic road corridors in the flood zoned area can generally be considered appropriate, but an appropriately detailed flood risk assessment will be required in support of the development consent process. The level of detail will vary depending on the risks identified and the proposed land use. The FRA should be aimed at setting road levels and demonstrating no increase in flood risk elsewhere. <p>The County Donegal Development Plan 2018-2024 already incorporates policy requirements to consider such measures outlined above.</p> <p>N.B. The acceptability or otherwise of levels of any residual risk should be made with consideration for the proposed development and the local context and should be described in the relevant detailed flood risk assessment.</p>

2.5 Justification Test for Southern Network Project

Criteria	Response
1.	The urban settlement is targeted for growth under the National Spatial Strategy, regional planning guidelines, statutory plans or under the Planning Guidelines or Planning Directives provisions of the Planning and Development Act 2000, as amended.
2.	The zoning or designation of the lands for the particular use or development type is required to achieve the proper planning and sustainable development of the urban settlement and, in particular:
2(i)	Is essential to facilitate regeneration and/or expansion of the centre of the urban settlement:
2(ii)	Comprises significant previously developed and/or under-utilised lands:
2(iii)	Is within or adjoining the core of an established or designated urban settlement:
2(iv)	Will be essential in achieving compact and sustainable urban growth;
2(v)	There are no suitable alternative lands for the particular use or development type, in areas at lower risk of flooding within or adjoining the core of the urban settlement.
3.	<p>Given the objective of this project and in particular the need for a number of crossings of the River Swilly it is not possible to avoid crossing areas at flood risk. A detailed flood risk assessment has already been completed for large parts of the new road construction where the outline design has been completed. Figure 1 shows the extent of the Southern Network Project where a detailed flood risk assessment has already been completed.</p> <p>A new 1D/2D hydraulic model has been developed using Innovyze Integrated Catchment Management (ICM) software of the Lismonaghan watercourse. The new relief road model was used to assess the impact of potential flooding to properties and infrastructure. Following this,</p>

Criteria**Response**

the results were used to determine whether mitigation measures would be required to offset potential increases in this flood risk.

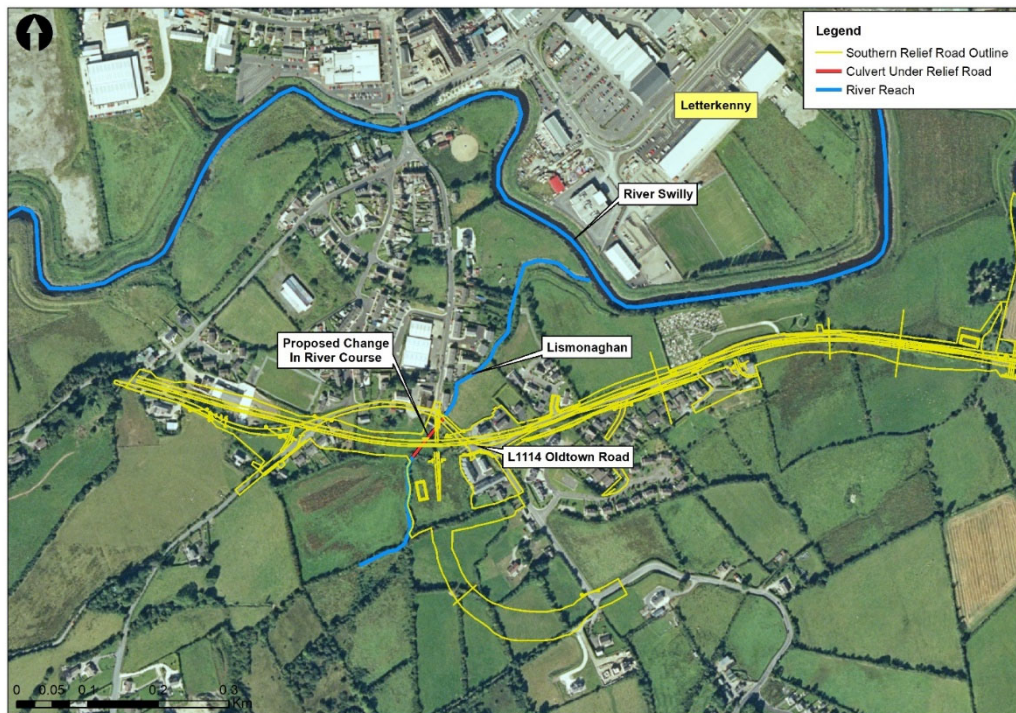


Figure 1: Location of Southern Network Project subject to detailed development management flood risk assessment

Hydraulic modelling indicated that flood extents remain unchanged and water levels increases are negligible. No additional receptors are expected to become at risk due to the construction of the relief road and culvert so no mitigation measures are considered necessary along this section.

The Southern Network Project also requires a number of crossings of the River Swilly and its floodplain. This means the corridor will cross areas at flood risk. Mitigation to offset any potential to increase flood risk from the River Swilly Crossings is possible including spanning the flood plains, so long as adequate freeboard is provided and it can be proven that any supports required in the flood plain have a negligible effect on the displacement of flood waters. Flood relief culverts through road embankments may also be an option to allow flood waters to reach their natural flood extents. The detailed development management FRA completed for the elements of this project that have had outline design completed and the mitigation measures necessary to ensure the project will not adversely impact on flood risk for the River Swilly crossings means that the project passes the development plan justification test.

It is recommended that the following measures be implemented to ensure that the strategic road does not give rise to unacceptable adverse impacts elsewhere:

- The infilling of floodplains for construction of any kind should be avoided where possible. Where this is not possible and the other criteria for the justification test is met, the mitigation for the strategic roads will include:
 - Spanning the flood plains is a possible option so long as adequate freeboard is provided and it can be proven that any supports required in the flood plain have a negligible effect on the displacement of flood waters.
 - Flood relief culverts through road embankments may also be an option to allow flood

Criteria	Response
	<p>waters to reach their natural flood extents.</p> <ul style="list-style-type: none"> ▪ A detailed hydraulic model for the associated river channel and floodplains should be carried out at development management stage for the sections of the project not already subjected to detailed FRA to assess this impact and appropriate mitigation measure should be implemented. ▪ The detailed FRAs for the preferred option should demonstrate that road level is designed for the 0.1% AEP level plus suitable freeboard. The recommended level of freeboard is 500 mm for fluvial flood levels. ▪ The detailed FRAs should also examine residual risk associated with culvert blockages, defence failure and climate change to set final road levels where appropriate. The FRAs should ensure development of the strategic roads do not block flow paths, does not increase flood risk elsewhere, is designed to appropriate standard of flood resilient construction and demonstrates emergency evacuation procedures during flood events. ▪ Adjacent existing open spaces and water compatible uses in Flood Zones A and B should be retained to maintain flood storage areas. ▪ FRAs and project level mitigation should also address surface water management for the development of the preferred routes, demonstrating consideration of CDP 2018-2024 policies, Technical Document RE-CPI-07001 a Drainage Design for National Road Schemes - Sustainable Drainage Options, incorporation of SuDS into the design and the potential transfer of surface water runoff between subcatchments. ▪ Ancillary development associated with the strategic road corridors in the flood zoned area can generally be considered appropriate but an appropriately detailed flood risk assessment will be required in support of the development consent process. The level of detail will vary depending on the risks identified and the proposed land use. The FRA should be aimed at setting road levels and demonstrating no increase in flood risk elsewhere. <p>The County Donegal Development Plan 2018-2024 already incorporates policy requirements to consider such measures outlined above, as summarised in Table 7.1 of this SFRA.</p> <p>N.B. The acceptability or otherwise of levels of any residual risk should be made with consideration for the proposed development and the local context and should be described in the relevant detailed flood risk assessment.</p>

2.6 Justification Test for Town Centre Zoning

	Criteria	Response
1.	The urban settlement is targeted for growth under the National Spatial Strategy, regional planning guidelines, statutory plans or under the Planning Guidelines or Planning Directives provisions of the Planning and Development Act 2000, as amended.	Letterkenny is targeted for growth under the National Planning Framework, the Regional Spatial and Economic Strategy for the Northern and Western Regional Assembly Area 2020-2032 and the County Donegal Development Plan 2018-2024. In particular, Letterkenny is identified as a Regional Centre in the National Planning Framework and the Regional Spatial and Economic Strategy. Such centres are identified in the NPF to lead the development of their regions.
2.	The zoning or designation of the lands for the particular use or development type is required to achieve the proper planning and sustainable development of the urban settlement and, in particular:	
2(i)	Is essential to facilitate regeneration and/or expansion of the centre of the urban settlement:	As is outlined in Chapter 9 of the Draft Letterkenny Plan and Local Transport Plan 2023-2029, the development of the town centre is essential for the regeneration of Letterkenny. Ultimately, the aim of the Planning Authority is that Letterkenny Town Centre will be transformed from a car-dominated and disconnected centre to one that presents a more attractive and safer environment for all users inclusive of those who wish to live, work, do business in, or visit the town.
2(ii)	Comprises significant previously developed and/or under-utilised lands:	The potential of the physical and environmental landscape in Letterkenny's urban core remains under-utilised. There are significant vacant, derelict and under-utilised backland and infill lands where the market has not delivered regeneration projects. Environmental resources such as the river have not been integrated into the urban form and indeed development has turned its back on the river corridor, resulting in no public interface with the river habitat. The existing parklands (Ballymacool Town Park, Bernard McGlinchey Town Park and Ballyboe Park) provide high quality recreation, amenity and environmental infrastructure, but are located on the edge of the urban core and have not been complemented by smaller sized 'pocket parks' within the town centre core. Public realm is underperforming throughout the town centre as the competing demands between public space, walkability and the private car remain, with the situation at Market Square being a notable case in point.
2(iii)	Is within or adjoining the core of an established or designated urban settlement:	The subject lands constitute the town centre of Letterkenny and are therefore the core of an established/designated urban settlement.
2(iv)	Will be essential in achieving compact and sustainable urban growth;	<p>A number of core urban design legacy issues have been identified in the town centre including:</p> <ul style="list-style-type: none"> • Disconnect between Main St. and New Retail Parks • Decline of Traditional Town Centre • Low Density, Poor Quality Developments on Pearse Road • Poor Sustainable Mobility • Under-Utilisation of Physical and Environmental Landscape <p>The policy framework as outlined in the Draft Plan has been specifically framed to enable the disruption of longstanding and</p>

Criteria	Response
	disconnected development patterns and move over time towards creating a more robust sense of place with a co-ordinated place-making approach.
2(v) There are no suitable alternative lands for the particular use or development type, in areas at lower risk of flooding within or adjoining the core of the urban settlement.	A number of core urban design legacy issues have been identified in the town centre and it is considered appropriate that the Development Management policy framework as outlined in the Draft Plan is prepared with that in mind. Given that these lands constitute the town centre there are no other suitable lands for this use given that this area is the core of the urban settlement.
3.	<p>A flood risk assessment to an appropriate level of detail has been carried out as part of the SFRA.</p> <p>The topography of the town centre is extremely flat. This is an important consideration when considering flood risk because it means that any increase in water levels can have a significant implication in the overall extent of flooding. The Council has undertaken dedicated modelling as part of this SFRA which investigate this. A number of computer model simulations have been run to determine the impact of developing some of the undeveloped Town Centre sites that are affected by flooding, particularly flood zone A where vulnerable and less vulnerable development should be avoided. This analysis confirmed how sensitive the Town Centre is to the displacement of water with all simulations indicating a significant increase in flooding extents resulting in properties not previously at risk of flooding to be impacted.</p> <p>For undeveloped sites that are within flood zone A it will be necessary that these sites are zoned as for Water Compatible uses only and to comply with the Planning System and Flood Risk Management Guidelines. Undeveloped lands within flood zone B can be zoned for less vulnerable development, without the need for a justification test, however the inclusion of highly vulnerable development types in the Town Centre Zoning Matrix means that a justification test is required for this zoning given the inclusion of vulnerable and highly vulnerable development types in the zoning matrix.</p> <p>Town Centre - Flood Zone A</p> <p>There are two distinct areas of the town centre that fall within Flood Zone A (see Figure 6.6 in main report) –</p> <ul style="list-style-type: none"> (i.) a significant area to the east of the Isle Burn and (ii.) a smaller area on the western periphery of the town centre <p>Preparatory work and consultation on both this Plan and the Letterkenny 2040 Regeneration Strategy has identified key challenges around the vitality and appearance of the traditional town centre, focused on Main Street/Lower Main Street and the significant undeveloped or under-developed lands to the west of the Isle Burn in the vicinity of Pearse Road. The significant capacity of these areas in terms of being able to facilitate further development, and the principles of orderly and sustainable development, require that proposals for town centre retail developments should be restricted to west of the Burn, save for ancillary retail floorspace that is otherwise in accordance with the provisions of Policy LK-TC-10.</p> <p>Having regard to the aforementioned capacity of the area to the west of the Burn, the encouragement of traditional town centre development on undeveloped lands to the east of the Burn cannot be justified in accordance with the requirements of the 'Planning System and Flood Risk Management Guidelines for Planning Authorities.' Policy LK-TC-10 therefore identifies those uses that may be acceptable in principle and includes a recognition of those areas that have already been developed, as well as the opportunities arising from the comprehensive Letterkenny 2040 Regeneration Strategy.</p> <p>For areas that are intended to be zoned for development following the application of a Justification Test where proportions of the area is at risk of flooding, policy objectives have been developed requiring that the sequential approach be applied in site planning, whereby to ensure no encroachment onto, or loss of the flood plain, or that only water compatible development</p>

Criteria	Response
	<p>such as Open Space would be permitted for the lands which are identified as being at risk of flooding within that site..</p> <p>A specific policy has been included within the Plan in relation to development within the Town Centre Area to the East of the Isle Burn:</p> <p>Policy LK-TC-P-10: It is a policy of the Council to only support the principle of the following uses within that part of the designated town centre that lies East of the Isle Burn and south of the Port Road, subject to the findings of a detailed site-specific flood risk assessment as required:</p> <ul style="list-style-type: none"> a. Water-compatible development, as defined in the Planning System and Flood Risk Management Guidelines; b. Expansion of the ATU campus; c. Redevelopment/extension of existing commercial units in the area of Port Road/Joe Bonner Link Road where such developments are contained within the existing site, do not obstruct important flow paths, do not introduce a significant additional number of people into flood risk areas or entail the storage of hazardous substances and satisfy the Authority's urban design ambitions for the centre as set out in the Letterkenny 2040 Regeneration Strategy Masterplan; d. Sustainable urban drainage systems and nature-based solutions for the management of rainwater and surface water runoff; or e. Development that accords with the Letterkenny 2040 Regeneration Strategy. <p>Comparison and convenience retailing and residential development will not be supported in these areas.</p> <p>This policy ensures that these lands are compliant with the Guidelines and that this area passes the justification test.</p> <p>Town Centre area West of R250 Pearse Road/Oldtown Road</p> <p>A small portion of the town centre area west of the R250 Pearse Road/Oldtown Road also falls within Flood Zone A in the vicinity of the Dunnes Stores at Oldtown. Undeveloped lands within the flood zone in this area, to the rear of the Charles Kelly store, have been zoned as 'Open Space' in order to address flood risk. Existing developed areas in this part of the town centre have passed a 'justification test' as part of the overall established and existing development justification test See section 2.1 of this Appendix and Section 6.2 of the main report. Proposals for development in this location will be subject to restrictions to ensure the requirements of Section 5.28 Guidelines as amended by Circular PL 2/2014 are adhered to.</p> <p>Town Centre - Flood Zone B</p> <p>Flood Zone B also affects a considerable area, most notably to the east of the Pearse Road (see Figure 6.6 of the main document). The Town Centre Zoning Justification Test outlines the need to retain certain vulnerability classes within this zoning and the mitigation measures required to ensure that the zoning proposed will pass part 3 of the justification test has been inserted into the Plan as a policy. This will be achieved through the creation of a sustainable urban structure where residential uses are accommodated above ground floor level and the design ensures the safe movement of people into and out of the area, especially near where floodwater might be flowing, and considering the location of safe overland flow routes, as per Appendix B of the Planning System and Flood Risk Management Guidelines.</p> <p>Policy LK-TC-P-11: It is a policy of the Council that within Flood Zone B in the town centre, proposed uses that are considered to be highly vulnerable to flooding will only be considered where:</p> <ul style="list-style-type: none"> a. Such uses are to be located at first floor level, above predicted flood levels, and. b. Appropriate provision has been made for access and egress to and from the site in the event of a flood.

2.7 Justification Test for ATU Site

	Criteria	Response
1.	The urban settlement is targeted for growth under the National Spatial Strategy, regional planning guidelines, statutory plans or under the Planning Guidelines or Planning Directives provisions of the Planning and Development Act 2000, as amended.	Letterkenny is targeted for growth under the National Planning Framework, the Regional Spatial and Economic Strategy for the Northern and Western Regional Assembly Area 2020-2032 and the County Donegal Development Plan 2018-2024. In particular, Letterkenny is identified as a Regional Centre in the National Planning Framework and the Regional Spatial and Economic Strategy. Such centres are identified in the NPF to lead the development of their regions.
2.	The zoning or designation of the lands for the particular use or development type is required to achieve the proper planning and sustainable development of the urban settlement and, in particular:	
2(i)	Is essential to facilitate regeneration and/or expansion of the centre of the urban settlement:	The ATU lands south of the Port Road are essential to facilitate the future expansion of the University, which is a regionally important facility and crucial for the economic development of Letterkenny and indeed the County.
2(ii)	Comprises significant previously developed and/or under-utilised lands:	This parcel of land has been partially developed by ATU for use as a car park, whilst planning permission is in place for the development of a solar array on another area of the lands. The remainder of the land parcel constitutes a significant area of under-utilised land in the town centre of Letterkenny.
2(iii)	Is within or adjoining the core of an established or designated urban settlement:	The lands are within the urban core of Letterkenny.
2(iv)	Will be essential in achieving compact and sustainable urban growth;	The subject lands will be essential in achieving compact growth, being the only logical area that can facilitate the future expansion of the University campus in the town centre.
2(v)	There are no suitable alternative lands for the particular use or development type, in areas at lower risk of flooding within or adjoining the core of the urban settlement.	There are no suitable alternative lands available to enable the expansion of the ATU campus in the town centre.
3.	<p>A flood risk assessment to an appropriate level of detail has been carried out as part of the SFRA.</p> <p>A new InfoWorks ICM model has been created covering Opportunity Site 7, 11 and the Town Centre Zoning. This facilitates the assessment of the implications of development of these sites in combination and any potential increase in flood risk elsewhere.</p> <p>ATU Site</p> <p>Using the Infoworks hydraulic model, developed as part of this SFRA, RPS have carried out a flood risk assessment to determine the implications of the development of areas of the site that are currently at risk of flooding. This analysis has been undertaken with the aims of maintaining the functional flood plain and flooding mechanisms that currently existing on the site and then assessing the impact of developing the periphery of the floodplain and ensuring there is no increase in risk in flood risk to adjacent sites. This has been simulated by blocking out areas of</p>	

Criteria

Response

the floodplain (shown in Figure 1) within the hydraulic model as a representation of the impact of developing the site. The model has then been re-run and flood extents compared to the existing.

Flooding on this site is limited to shallow depth sheet flow. For the areas outlined in red in Figure 1, the model results indicate that development can take place without increasing the risk of flooding elsewhere. This flood risk assessment has demonstrated that flood risk to the development can be adequately managed and the use or development of the lands at the ATU site, within the boundary illustrated in Figure 1 below, will not cause unacceptable adverse impacts elsewhere, particularly in the Town Centre.

On further investigation of the flooding mechanisms of this part of the site it is apparent that this site has been raised in the past and flood waters from the Isle Burn flow across the flood plain flanking around the southern portion of this site and then continue into the lower lying areas to the east of the site. Once the flood waters flow into this lower lying area they then have a flood route back into the ATU site along the Port Road. The flood extents within this part of the site are at the extreme of the flood plain and flood depths are not significant, and this means that the development of this part of the site along the Port Road Frontage does not result in the displacement of significant volumes of water. Therefore, the impact downstream is not significant.

For the areas outside of the red boundary in Figure 1 the land use zoning in the areas within flood zone B should be less vulnerable development and those in flood zone A should be water compatible in accordance with the guidelines.

A detailed site-specific flood risk assessment will still be required at Planning Application Stage, in full compliance with The Planning System and Flood Risk Management Guidelines and with application of the Justification Test for Development Management as appropriately guided by the Sequential Approach.

N.B. The acceptability or otherwise of levels of any residual risk should be made with consideration for the proposed development and the local context and should be described in the relevant detailed flood risk assessment.

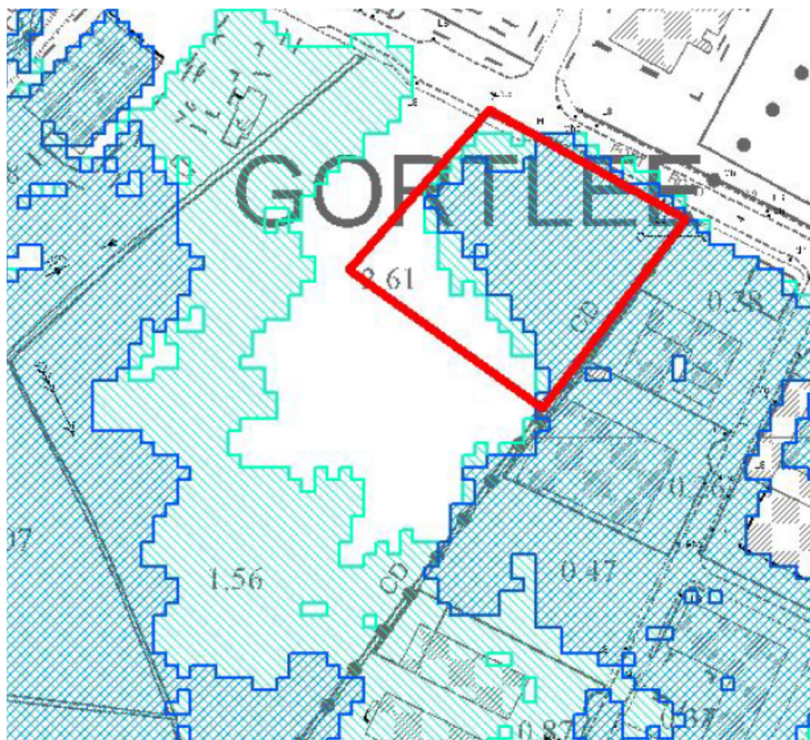


Figure 1 – ATU site with area in red raised to simulate development as assessed by hydraulic modelling

2.8 Justification Test for Opportunity Site 3

Criteria	Response
1.	The urban settlement is targeted for growth under the National Spatial Strategy, regional planning guidelines, statutory plans or under the Planning Guidelines or Planning Directives provisions of the Planning and Development Act 2000, as amended.
2.	The zoning or designation of the lands for the particular use or development type is required to achieve the proper planning and sustainable development of the urban settlement and, in particular:
2(i)	Is essential to facilitate regeneration and/or expansion of the centre of the urban settlement:
2(ii)	Comprises significant previously developed and/or under-utilised lands:
2(iii)	Is within or adjoining the core of an established or designated urban settlement:
2(iv)	Will be essential in achieving compact and sustainable urban growth;
2(v)	There are no suitable alternative lands for the particular use or development type, in areas at lower risk of flooding within or adjoining the core of the urban settlement.
3.	A flood risk assessment to an appropriate level of detail has been carried out as part of the SFRA. Using the existing MIKE hydraulic model, developed during CFRAM, RPS have carried out a flood risk assessment to determine the implications of the development of areas of the site that are currently at risk of flooding. This analysis has been undertaken with the aims of maintaining the functional flood plain and flooding mechanisms that currently existing on the site and then assessing the impact of developing the periphery of the floodplain and ensuring there is no increase in risk in flood risk to adjacent sites. This has been simulated by blocking out areas of

Criteria**Response**

the floodplain (shown in Figure 1) within the hydraulic model as a representation of the impact of developing the site and raising the level of the lands within flood zones A and B to ensure flood risk to the site at these locations on the periphery of the existing floodplain is not an issue. The model has then been re-run and flood extents compared to the existing.

If the areas within flood zones A and B within the green outline in Figure 1 were raised to accommodate development whilst still retaining the other areas of floodplain within Opportunity Site 3, the model results indicate that development can take place without increasing the risk of flooding elsewhere. In addition, a 5m buffer on either side of the watercourse to facilitate access and maintenance and some preservation of existing flood mechanisms has also been modelled. This flood risk assessment and hydraulic modelling has demonstrated that flood risk to the development site can be adequately managed through structural means and that the use or development of the lands at opportunity site 3, within the boundary illustrated in Figure 1 below, will not cause unacceptable adverse impacts elsewhere.

A detailed site-specific flood risk assessment will still be required at Planning Application Stage, in full compliance with The Planning System and Flood Risk Management Guidelines and with application of the Justification Test for Development Management as appropriately guided by the Sequential Approach.

N.B. The acceptability or otherwise of levels of any residual risk should be made with consideration for the proposed development and the local context and should be described in the relevant detailed flood risk assessment.

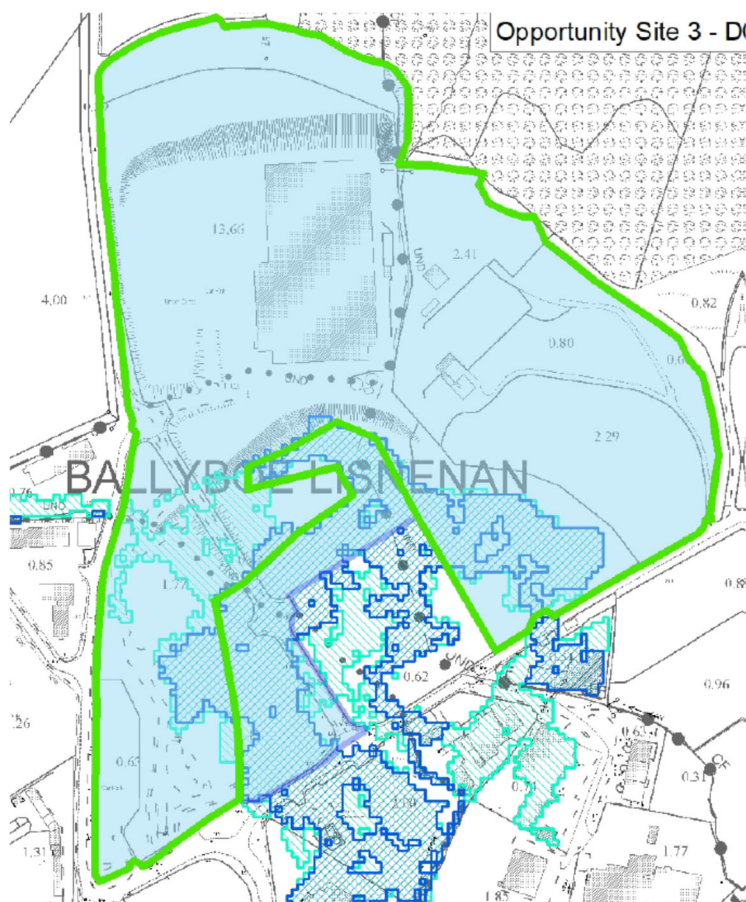


Figure 1 – Development extents of opportunity Site 3 after flood risk assessment

2.9 Justification Test for Primarily Residential Site PR9 - High Road/De Valera Road

Criteria	Response
1. The urban settlement is targeted for growth under the National Spatial Strategy, regional planning guidelines, statutory plans or under the Planning Guidelines or Planning Directives provisions of the Planning and Development Act 2000, as amended.	Letterkenny is targeted for growth under the National Planning Framework, the Regional Spatial and Economic Strategy for the Northern and Western Regional Assembly Area 2020-2032 and the County Donegal Development Plan 2018-2024. In particular, Letterkenny is identified as a Regional Centre in the National Planning Framework and the Regional Spatial and Economic Strategy. Such centres are identified in the NPF to lead the development of their regions.
2. The zoning or designation of the lands for the particular use or development type is required to achieve the proper planning and sustainable development of the urban settlement and, in particular:	
2(i) Is essential to facilitate regeneration and/or expansion of the centre of the urban settlement:	Residential Site PR9 is located in a prime position circa 20m from the defined town centre boundary and 150m south of the Letterkenny University Hospital campus. The development of the subject lands would constitute a logical extension of urban form of Letterkenny, effectively constituting infill development adjacent the urban core.
2(ii) Comprises significant previously developed and/or under-utilised lands:	Residential Site PR9 comprises a significant parcel of under-utilised lands adjacent to the town centre and within easy reach of critical services.
2(iii) Is within or adjoining the core of an established or designated urban settlement:	The subject lands are located circa 20m from the defined town centre boundary.
2(iv) Will be essential in achieving compact and sustainable urban growth;	The development of this site, located in close proximity to the town centre, is deemed essential in terms of delivering compact growth in Letterkenny, potentially offering opportunities for residential development in a central location proximate to numerous amenities and services such as the Town Park, Hospital and neighbourhood shops.
2(v) There are no suitable alternative lands for the particular use or development type, in areas at lower risk of flooding within or adjoining the core of the urban settlement.	The Planning Authority is of the opinion that there are no suitable alternative sites offering the same locational benefits as Residential Site PR9 and therefore that the development of this site would be justified, subject to the findings of a detailed flood risk assessment (inclusive of flood modelling).
3. A flood risk assessment to an appropriate level of detail has been carried out as part of the SFRA. A new InfoWorks ICM model has been created covering Residential Site PR9, PR10 and the Town Centre Zoning. This facilitates the assessment of the implications of development of these sites in combination and any potential increase in flood risk elsewhere. Primarily Residential Site - PR9 High Road/De Valera Road Using the Infoworks hydraulic model, developed as part of this SFRA, RPS have carried out a flood risk assessment to determine the implications of the development of areas of the site that are currently at risk of flooding. This analysis has been undertaken with the aims of maintaining	

Criteria

Response

the functional flood plain and flooding mechanisms that currently existing on the site and then assessing the impact of developing the periphery of the floodplain and ensuring there is no increase in risk in flood risk to adjacent sites. This has been simulated by blocking out areas of the floodplain (shown in Figure 1) within the hydraulic model as a representation of the impact of developing the site. The model has then been re-run and flood extents compared to the existing.

Flooding on this site is limited to shallow depth sheet flow. For the areas outlined in green in Figure 1, the model results indicate that if the areas within flood zones A and B were raised to accommodate development whilst still retaining the buffer zone along the water course, development can take place without increasing the risk of flooding elsewhere. A proposed 5m buffer on either side of the watercourse will facilitate access and maintenance and some preservation of existing flood mechanisms.

This flood risk assessment has demonstrated that flood risk to the development can be adequately managed and the use or development of the lands at Primarily Residential Site PR9, within the boundary illustrated in Figure 1 below, will not cause unacceptable adverse impacts elsewhere, particularly in Primarily Residential PR10 or the Town Centre. This is based on the assumption that the buffer zone along the existing water course is maintained and the development is undertaken with suitable flood management measures e.g. raise the land or finished floor levels.

A detailed site-specific flood risk assessment will still be required at Planning Application Stage, in full compliance with The Planning System and Flood Risk Management Guidelines and with application of the Justification Test for Development Management as appropriately guided by the Sequential Approach.

N.B. The acceptability or otherwise of levels of any residual risk should be made with consideration for the proposed development and the local context and should be described in the relevant detailed flood risk assessment.

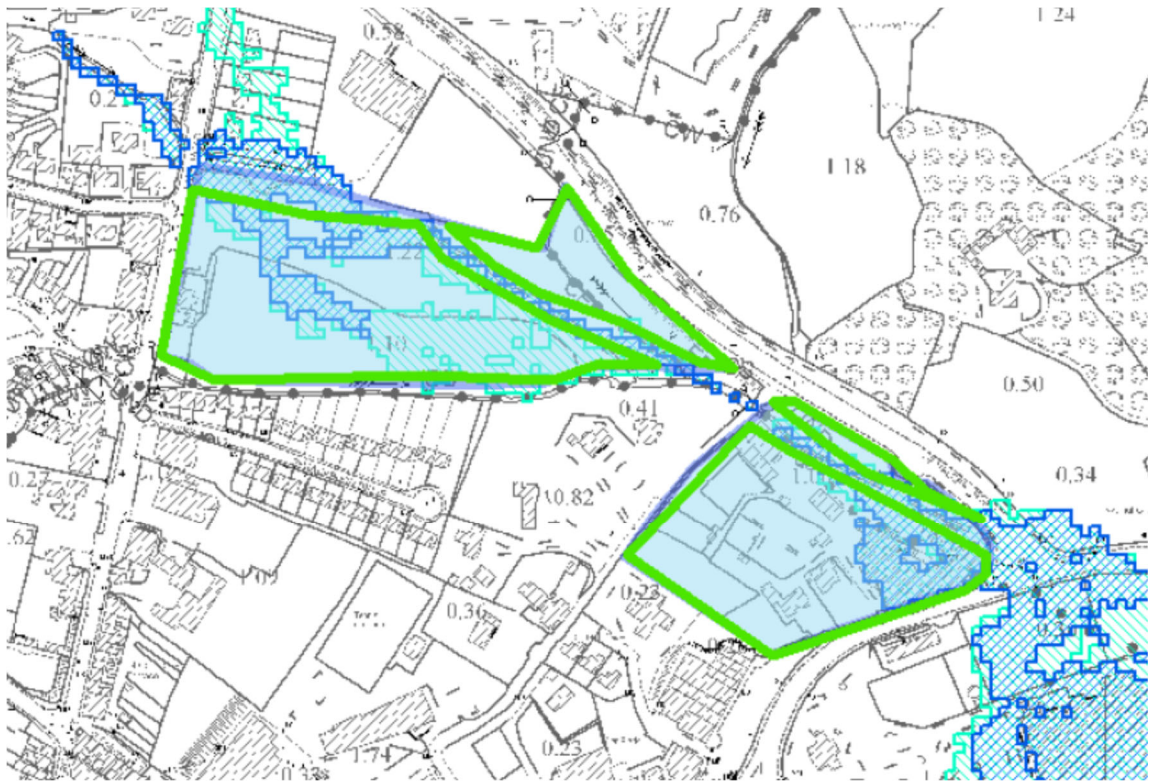


Figure 1 – Development extents of opportunity Site 7 and 11 after flood risk assessment

2.10 Justification Test for Primarily Residential Site PR10 - Old Oatfield Site

	Criteria	Response
1.	The urban settlement is targeted for growth under the National Spatial Strategy, regional planning guidelines, statutory plans or under the Planning Guidelines or Planning Directives provisions of the Planning and Development Act 2000, as amended.	Letterkenny is targeted for growth under the National Planning Framework, the Regional Spatial and Economic Strategy for the Northern and Western Regional Assembly Area 2020-2032 and the County Donegal Development Plan 2018-2024. In particular, Letterkenny is identified as a Regional Centre in the National Planning Framework and the Regional Spatial and Economic Strategy. Such centres are identified in the NPF to lead the development of their regions.
2.	The zoning or designation of the lands for the particular use or development type is required to achieve the proper planning and sustainable development of the urban settlement and, in particular:	
2(i)	Is essential to facilitate regeneration and/or expansion of the centre of the urban settlement:	Primarily Residential Site PR10 a brownfield site that was formerly occupied by the Oatfield confectionery factory. The subject lands, which now lie vacant, occupy a strategic corner site adjoining the town centre and are deemed essential to facilitate regeneration.
2(ii)	Comprises significant previously developed and/or under-utilised lands:	Primarily Residential Site PR10 is a brownfield site that was formerly occupied by the Oatfield confectionery factory.
2(iii)	Is within or adjoining the core of an established or designated urban settlement:	The subject lands adjoin the town centre of Letterkenny.
2(iv)	Will be essential in achieving compact and sustainable urban growth;	The redevelopment of this prime brownfield site is deemed essential for the future compact growth and regeneration of Letterkenny.
2(v)	There are no suitable alternative lands for the particular use or development type, in areas at lower risk of flooding within or adjoining the core of the urban settlement.	The brownfield redevelopment opportunity offered by Primarily Residential Site PR10 is not replicated at any other location within the proposed Letterkenny plan boundary. The lands are immediately adjacent the town centre, within walking distance of a range of amenities and services. As such, the redevelopment of this site is deemed to be justified, subject to the findings of a detailed flood risk assessment (inclusive of flood modelling).
3.	<p>A flood risk assessment to an appropriate level of detail has been carried out as part of the SFRA.</p> <p>A new InfoWorks ICM model has been created covering Primarily Residential Sites PR9 and PR10 and the Town Centre Zoning. This facilitates the assessment of the implications of development of these sites in combination and any potential increase in flood risk elsewhere.</p> <p>Primarily Residential Site PR10 - Old Oatfield Site</p> <p>Using the Infoworks hydraulic model, developed as part of this SFRA, RPS have carried out a flood risk assessment to determine the implications of the development of areas of the site that are currently at risk of flooding. This analysis has been undertaken with the aims of maintaining the functional flood plain and flooding mechanisms that currently existing on the site and then assessing the impact of developing the periphery of the floodplain in relation to the flood risk within the site and ensuring there is no increase in risk in flood risk to adjacent sites.</p>	

Criteria

Response

This has been simulated by blocking out areas of the floodplain (shown in Figure 1) within the hydraulic model as a representation of the impact of developing the site and assuming that the areas at flood risk within the green boundary are raised to remove the risk of flooding. The model has then been re-run and flood extents compared to the existing.

Flooding on this site is limited to shallow depth sheet flow. For the areas outlined in green in Figure 1, the model results indicate that if the areas within flood zones A and B were raised to accommodate development whilst still retaining the buffer zone along the water course, development can take place without increasing the risk of flooding elsewhere. A proposed 5m buffer on either side of the watercourse will facilitate access and maintenance and some preservation of existing flood mechanisms.

This flood risk assessment has demonstrated that flood risk to the development can be adequately managed and the use or development of the lands at Primarily Residential Site PR10, within the boundary illustrated in Figure 1 below, will not cause unacceptable adverse impacts elsewhere, particularly in the Town Centre. This is based on the assumption that the buffer zone along the existing water course is maintained and the development is undertaken with suitable flood management measures e.g. raise the land or finished floor levels.

A detailed site-specific flood risk assessment will still be required at Planning Application Stage, in full compliance with The Planning System and Flood Risk Management Guidelines and with application of the Justification Test for Development Management as appropriately guided by the Sequential Approach.

N.B. The acceptability or otherwise of levels of any residual risk should be made with consideration for the proposed development and the local context and should be described in the relevant detailed flood risk assessment.

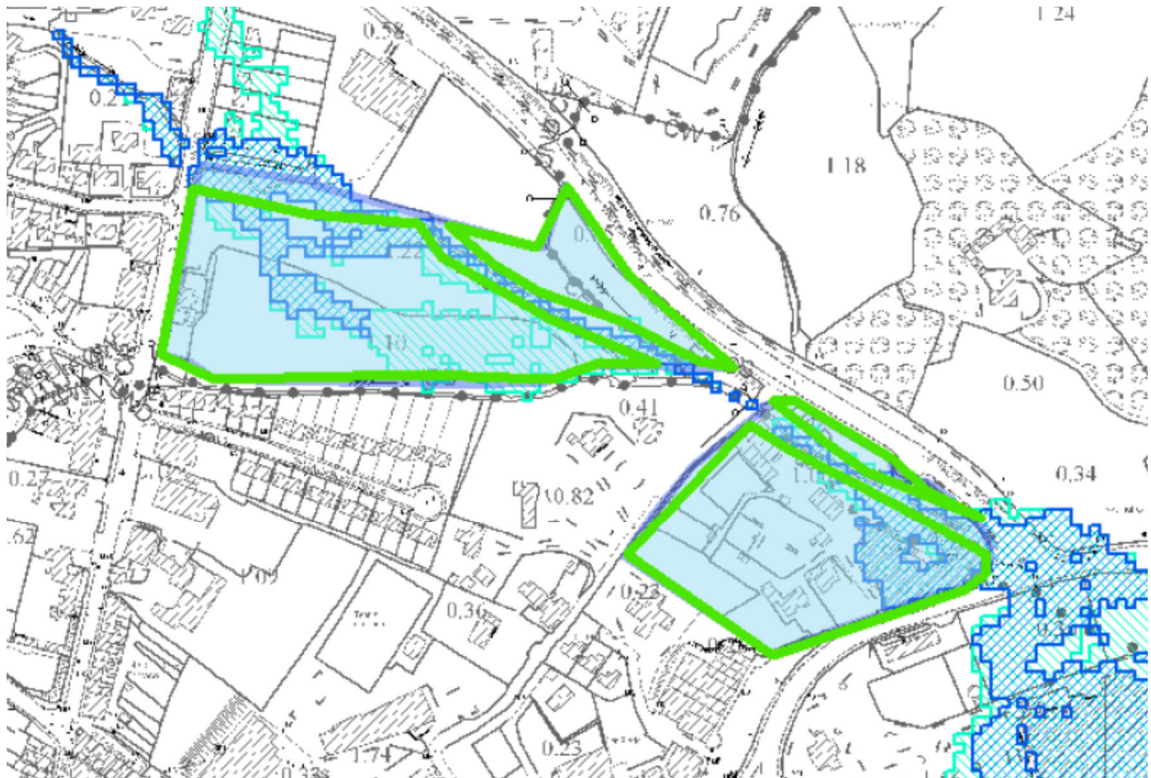


Figure 1 – Development extents of opportunity Site 7 and 11 after flood risk assessment

2.11 Justification Test for Community Education Zoning- Letterkenny University Hospital

	Criteria	Response
1.	The urban settlement is targeted for growth under the National Spatial Strategy, regional planning guidelines, statutory plans or under the Planning Guidelines or Planning Directives provisions of the Planning and Development Act 2000, as amended.	Letterkenny is targeted for growth under the National Planning Framework, the Regional Spatial and Economic Strategy for the Northern and Western Regional Assembly Area 2020-2032 and the County Donegal Development Plan 2018-2024. In particular, Letterkenny is identified as a Regional Centre in the National Planning Framework and the Regional Spatial and Economic Strategy. Such centres are identified in the NPF to lead the development of their regions.
2.	The zoning or designation of the lands for the particular use or development type is required to achieve the proper planning and sustainable development of the urban settlement and, in particular:	
2(i)	Is essential to facilitate regeneration and/or expansion of the centre of the urban settlement:	Letterkenny University Hospital represents an existing significant community service. Letterkenny University Hospital is a major employer in the town and indeed the region, alongside its core functions of providing medical services and therefore represents a key economic and employment centre for the Town.
2(ii)	Comprises significant previously developed and/or under-utilised lands:	Letterkenny University Hospital Campus is a significant existing developed area and is critical to continued economic development and employment in Letterkenny.
2(iii)	Is within or adjoining the core of an established or designated urban settlement:	The subject lands adjoin the town centre of Letterkenny and the Campus is already an established development within the urban development.
2(iv)	Will be essential in achieving compact and sustainable urban growth;	Figure 5.1 of the draft plan identifies the location of the key spatial components of the central business district of Letterkenny. Principal amongst these are: the town centre, inclusive of the Atlantic Technological University (Letterkenny campus); the IDA Business Park and employment areas; the Letterkenny University Hospital (LUH) campus and adjacent Bernard McGlinchey Town Park; and the concentration of schools on the Convent Road and the adjacent Cathedral area. The continued operation of the LUH on this campus adjoining the town centre is key to achieving compact growth in Letterkenny.
2(v)	There are no suitable alternative lands for the particular use or development type, in areas at lower risk of flooding within or adjoining the core of the urban settlement.	The LUH campus is not replicated at any other location within the proposed Letterkenny plan boundary. The lands are immediately adjacent the town centre, within walking distance of a range of amenities and services. As such, the redevelopment of this site is deemed to be justified, subject to the findings of a detailed flood risk assessment (inclusive of flood modelling).
3.	A flood risk assessment to an appropriate level of detail has been carried out as part of the SFRA. The flood zone mapping for LUH indicates that the Campus is partially within flood zone B and given the highly vulnerable nature of the development would not normally be considered appropriate for this land use type. However Flood Zone B largely coincides with the existing	

Criteria	Response
	<p>buildings and parts of the car parking areas within the site which are already established development within the zoning. The remain parts of this land use zone are not at risk of flooding (i.e. within Flood Risk zone C) and Community Education zoning is appropriate in these locations.</p> <p>The application of Section 4.27a of the Guidelines, which was inserted in Circular PL 2/2014 requires a Plan-making Justification Test for existing, developed, zoned areas at risk of flooding to assess if the zoning is still relevant.</p> <p><i>“In some instances, particularly in older parts of cities and towns, an existing land use may be categorised as a “highly vulnerable development” such as housing, be zoned for residential purposes and also be located in flood zone A/B. Additional development such as small scale infill housing, extensions, or changes of use that could increase the risk or number of people in the flood-prone area can be expected in such a zone into the future. In these instances, where the residential / vulnerable use zoning has been considered as part of development plan preparation, including use of the Justification Test as appropriate, and it is considered that the existing use zoning is still appropriate, the development plan must specify the nature and design of structural or non-structural flood risk management measures required prior to future development in such areas in order to ensure that flood hazard and risk to the area and to other adjoining locations will not be increased or, if practicable, will be reduced. Planning authorities should consider the issues and opportunities raised in section 4 of Appendix B (Technical Appendices) in this regard, and may consider including certain objectives or conditions as part of the zoning.”</i></p> <p>In the case of established development in Flood Zone B within the LUH campus the development will limited to the requirements of Section 5.28 Guidelines as amended by Circular PL 2/2014:</p> <p><i>“Applications for minor development, such as small scale infill, small extensions to houses or the rebuilding of houses, and most changes of use of existing buildings and or extensions and additions to existing commercial and industrial enterprises, are unlikely to raise significant flooding issues, unless they obstruct important flow paths, introduce a significant additional number of people into flood risk areas or entail the storage of hazardous substances. Since such applications concern existing buildings or developed areas, the sequential approach cannot be used to locate them in lower-risk areas and the Justification Test will not apply. However, a commensurate assessment of the risks of flooding should accompany such applications to demonstrate that they would not have adverse impacts or impede access to a watercourse, floodplain or flood protection and management facilities. These proposals should follow best practice in the management of health and safety for users and residents of the proposal.”</i></p> <p>The development in these areas will be limited to minor development, as outlined in Section 5.28 of the Guidelines above and whilst a development stage justification test may not apply a commensurate assessment must accompany any application for development within these areas. Furthermore any new development in these established development zones must be limited to water compatible development in Flood Zone A and less vulnerable and water compatible in Flood Zone B.</p> <p>This approach has been carried forward to the Draft Letterkenny Plan and Local Transport Plan 2023-2029 which states under Section 12.3.4:</p> <p><i>“The areas of existing development that conflict with flood zones, but where certain development types can be justified, are clearly identified in the SFRA report (see Section 6.2) and prospective applicants are advised to consult said report in this regard. In assessing planning applications within such areas, the Planning Authority will ensure adherence to the principles of the ‘Planning System and Flood Risk Management Guidelines’ and in this respect will impose limitations on development proposals pursuant to the findings of relevant justification test for established development (see Section 6.2 and Appendix B of the SFRA report).”</i></p> <p>For sites that are intended to be zoned for development following the application of a Justification Test where only a small proportion of the site is at risk of flooding, a policy objective might be attached to such zoning. Such an objective might require that the sequential approach</p>

Criteria	Response
	be applied in site planning, whereby to ensure no encroachment onto, or loss of the flood plain, or that only water compatible development such as Open Space would be permitted for the lands which are identified as being at risk of flooding within that site. Planning permission for these sites might then be subject to the sequential approach having been adopted and applied as above, following a detailed FRA.

2.12 Justification Test for General Employment and Commercial Zoning within Flood Zone B

	Criteria	Response
1.	The urban settlement is targeted for growth under the National Spatial Strategy, regional planning guidelines, statutory plans or under the Planning Guidelines or Planning Directives provisions of the Planning and Development Act 2000, as amended.	Letterkenny is targeted for growth under the National Planning Framework, the Regional Spatial and Economic Strategy for the Northern and Western Regional Assembly Area 2020-2032 and the County Donegal Development Plan 2018-2024. In particular, Letterkenny is identified as a Regional Centre in the National Planning Framework and the Regional Spatial and Economic Strategy. Such centres are identified in the NPF to lead the development of their regions.
2.	The zoning or designation of the lands for the particular use or development type is required to achieve the proper planning and sustainable development of the urban settlement and, in particular:	
2(i)	Is essential to facilitate regeneration and/or expansion of the centre of the urban settlement:	The subject lands, a large portion of which adjoin the largest employment areas in the town of Letterkenny and occupy a strategic location adjacent to National Secondary Route N56 and the National Primary Route N14. The lands are deemed essential for development purposes, to enable the consolidation of this employment area and thus contribute towards the economic success of the Regional Centre.
2(ii)	Comprises significant previously developed and/or under-utilised lands:	The General Employment and Commercial lands are already partially developed with a number of exiting commercial businesses present, e.g. Optibelt, Pramerica in the case of the IDA Business and Technology Park and which are already are already serviced by an existing access from the N56 and N14.
2(iii)	Is within or adjoining the core of an established or designated urban settlement:	The subject lands are located in or adjacent to areas of established commercial development .
2(iv)	Will be essential in achieving compact and sustainable urban growth;	The further development of these lands in some of the key employment areas identified in the Draft Letterkenny Plan & Local Transport Plan 2023-2029 would contribute towards the compact and sustainable growth of Letterkenny going forward; in effect allowing for the densification of an existing employment areas, in turn potentially facilitating economies of agglomeration and enabling efficient and cost effective future public transport solutions.
2(v)	There are no suitable alternative lands for the particular use or development type, in areas at lower risk of flooding within or adjoining the core of the urban settlement.	The location of the zonings within or adjacent to existing employment uses and indeed to local services, renders these sites ideal for development, subject to the findings of a suitably detailed flood risk assessment (inclusive of flood modelling).
3.	A flood risk assessment to an appropriate level of detail has been carried out as part of the SFRA identifying the main flood risk areas within the zoning. There are a number of locations within the Plan that have the General Employment and Commercial zoning where parts of the site coincide with Flood Zone B, these include: <ul style="list-style-type: none"> Lands between N14/Cullion Road Junction and the River Swilly (Appendix A, Map 7); 	

Criteria	Response
<ul style="list-style-type: none"> • Lands at IDA Business and Technology Park (Appendix A, Map 9); • Lands behind Clanree Hotel, Drumnamonagh and Bunnagee near the N14 (Appendix A, Map 11); • Lands at Milkisle and Bunnagee (Appendix A, Map 12); • Lands at Dromore (Appendix A, Map 13) <p>In these locations the sequential approach will be applied in site planning, to ensure only less vulnerable or water compatible development such as “Open Space” will be permitted within Flood Zone B. Therefore whilst creches/playschools will be open to consideration within these General Employment and Commercial Zonings it will only be considered in areas that are not at flood risk, i.e. flood zone C. Planning permission for these sites will then be subject to the sequential approach having been adopted and applied as above, following a detailed FRA.</p>	

2.13 Justification Test for General Employment Lands at Kiltroy

Criteria	Response
1. The urban settlement is targeted for growth under the National Spatial Strategy, regional planning guidelines, statutory plans or under the Planning Guidelines or Planning Directives provisions of the Planning and Development Act 2000, as amended.	Letterkenny is targeted for growth under the National Planning Framework, the Regional Spatial and Economic Strategy for the Northern and Western Regional Assembly Area 2020-2032 and the County Donegal Development Plan 2018-2024. In particular, Letterkenny is identified as a Regional Centre in the National Planning Framework and the Regional Spatial and Economic Strategy. Such centres are identified in the NPF to lead the development of their regions.
2. The zoning or designation of the lands for the particular use or development type is required to achieve the proper planning and sustainable development of the urban settlement and, in particular:	
2(i) Is essential to facilitate regeneration and/or expansion of the centre of the urban settlement:	The subject lands, a large portion of which now lie vacant, adjoin the largest employment area in the town of Letterkenny and occupy a strategic location adjacent to National Secondary Route N56. The lands are deemed essential for regeneration purposes, to enable the consolidation of this employment area and thus contribute towards the economic success of the Regional Centre.
2(ii) Comprises significant previously developed and/or under-utilised lands:	The general employment lands at Kiltroy are already partially developed with a number of exiting commercial businesses present. Part of the zoning was also formerly occupied by the Unifi textiles plant treatment works.
2(iii) Is within or adjoining the core of an established or designated urban settlement:	The subject lands are located circa 900m from the defined town centre boundary (approximately 10 mins walking time) in an area of long-established commercial development.
2(iv) Will be essential in achieving compact and sustainable urban growth;	The redevelopment of this site, located in close proximity to the town centre, would contribute towards the compact and sustainable growth of Letterkenny going forward; in effect allowing for the densification of an existing employment area, in turn potentially facilitating economies of agglomeration and enabling efficient and cost effective future public transport solutions.

	Criteria	Response
2(v)	There are no suitable alternative lands for the particular use or development type, in areas at lower risk of flooding within or adjoining the core of the urban settlement.	The proximity of the site to existing employment uses within the IDA Business Park and indeed to local services such as neighbourhood shops, renders this as an ideal site for redevelopment, subject to the findings of a suitably detailed flood risk assessment (inclusive of flood modelling).
3.	<p>A flood risk assessment to an appropriate level of detail has been carried out as part of the SFRA.</p> <p>Using the existing MIKE hydraulic model, developed during CFRAM, RPS have carried out a flood risk assessment to determine the implications of the development of areas of the site that are currently at risk of flooding. This analysis has been undertaken with the aims of maintaining the functional flood plain and flooding mechanisms that currently existing on the site and then assessing the impact of developing the periphery of the floodplain and ensuring there is no increase in risk in flood risk to adjacent sites. This has been simulated by blocking out areas of the floodplain (shown in Figure 1) within the hydraulic model as a representation of the impact of developing the site and raising levels to avoid flood risk. The model has then been re-run and flood extents compared to the existing.</p> <p>For the areas outlined in green in Figure 1, the model results indicate that development can take place without increasing the risk of flooding elsewhere. In addition, there is a 5m buffer on either side of the watercourse throughout the zoning to facilitate access and maintenance and some preservation of existing flood mechanisms. This flood risk assessment has demonstrated that flood risk to the development can be adequately managed and the use or development of the lands at the General Employment lands at Kiltroy, within the general employment and commercial zoning (purple zones) illustrated in Figure 1 below including raising the lands or finished floor Levels to remove the risk of flooding to properties, will not cause unacceptable adverse impacts elsewhere.</p> <p>A detailed site-specific flood risk assessment will still be required at Planning Application Stage, in full compliance with The Planning System and Flood Risk Management Guidelines and with application of the Justification Test for Development Management as appropriately guided by the Sequential Approach.</p> <p>N.B. The acceptability or otherwise of levels of any residual risk should be made with consideration for the proposed development and the local context and should be described in the relevant detailed flood risk assessment.</p>	

Criteria

Response

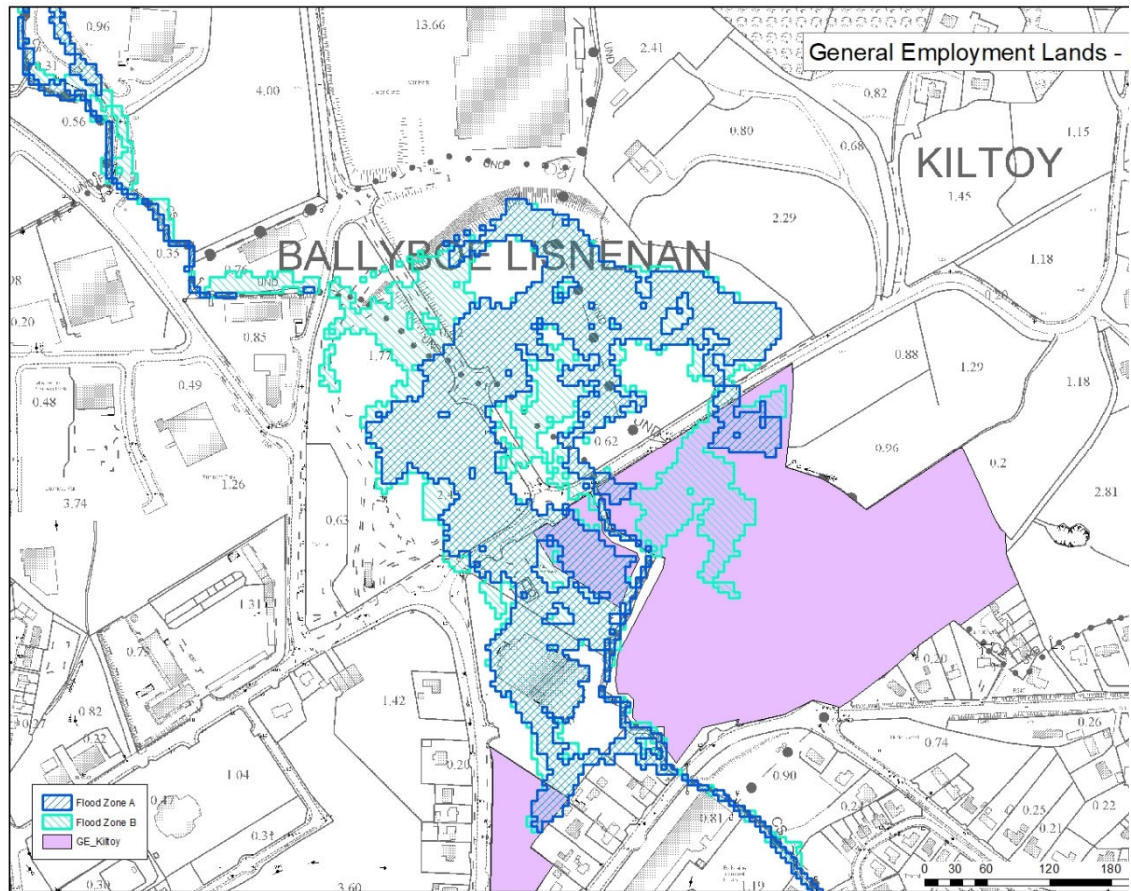


Figure 1 – Development extents of General Employment Lands at Kiltyoy after flood risk assessment

Appendix C
Consultation Responses



The Central Planning Unit,
Donegal County Council,
County House,
Lifford,
Donegal
F93Y622

13/02/2023

RE: Draft Letterkenny Plan and Local Transport Plan 2023-2029

Dear Sir/Madam,

The OPW, as lead agency for flood risk management in Ireland, welcomes the opportunity to comment on the Draft Letterkenny Plan and Local Transport Plan 2023-2029

This submission is made specifically with regard to flood risk and the application of the Guidelines on the Planning System and Flood Risk Management (DECLG/OPW, 2009), hereafter referred to as the 'Guidelines'. Further submissions on the draft Plan may be made by the OPW with regard to the estate portfolio, heritage and other areas of responsibility.

The OPW welcomes the acknowledgement of the Guidelines and the preparation of a Strategic Flood Risk Assessment (SFRA).

The following comments highlight opportunities for the Draft Plan before it is finalised.

Preliminary Flood Risk Assessment (PFRA)

The OPW notes that PFRA mapping has been included in section 5.5 of the SFRA as a source of flood information, albeit that it has not been used as CFRAM mapping is available for the plan area.

PFRA indicative flood maps have been superseded by the recently published national indicative fluvial, coastal and groundwater flood mapping, and therefore the mapping provided in 2012 should no longer be used. Planning Authorities may need to carry out their own Flood Risk Assessments to inform the definition of Flood Zones for areas less than 5km² that were not included in the National CFRAM and the national indicative flood mapping Programmes.

Flood Zones

Section 5.7.1 of the SFRA states that the "*flood zones only account for inland flooding*". In line with the Guidelines, Flood Zones should account for fluvial and coastal flooding.

Justification Tests

The Justification Tests supplied in the SFRA are welcomed by the OPW.

There are however a number of proposed land use zonings, some of which allow for usage classified in the Guidelines as highly vulnerable development, that are located in Flood Zones



A and B, for which no commentary has been included to indicate that they have been assessed against and have satisfied all the criteria of the Plan Making Justification Test. Examples of these are detailed in the 'Comments on Individual Areas' section below.

Sections 6.2.1 and 6.2.2 of the SFRA state regarding existing development that "*These areas are already developed and any further applications would involve existing buildings or developed areas the sequential approach cannot be used to locate them in lower risk areas and the justification test does not apply in this case, as highlighted in Section 5.28 of the guidelines*". Circular PL 2/2014 provides advice and detail to planning authorities on existing, developed, zoned areas at risk of flooding, i.e. "*In some instances, particularly in older parts of cities and towns, an existing land use may be categorised as a "highly vulnerable development" such as housing, be zoned for residential purposes and also be located in flood zone A/B. Additional development such as small scale infill housing, extensions, or changes of use that could increase the risk or number of people in the flood-prone area can be expected in such a zone into the future. In these instances, where the residential / vulnerable use zoning has been considered as part of development plan preparation, including use of the Justification Test as appropriate, and it is considered that the existing use zoning is still appropriate, the development plan must specify the nature and design of structural or non-structural flood risk management measures required prior to future development in such areas in order to ensure that flood hazard and risk to the area and to other adjoining locations will not be increased or, if practicable, will be reduced. Planning authorities should consider the issues and opportunities raised in section 4 of Appendix B (Technical Appendices) in this regard, and may consider including certain objectives or conditions as part of the zoning*". Where already developed lands do not meet the criteria of the Plan Making Justification Test it should be noted that they have not passed, and a policy objective could be attached to the zoning to limit development to that as outlined in section 5.28 of the Guidelines.

For sites that are intended to be zoned for development following the application of a Justification Test where only a small proportion of the site is at risk of flooding, a policy objective might be attached to such zoning. Such an objective might require that the sequential approach be applied in site planning, whereby to ensure no encroachment onto, or loss of the flood plain, or that only water compatible development such as *Open Space* would be permitted for the lands which are identified as being at risk of flooding within that site. Planning permission for these sites might then be subject to the sequential approach having been adopted and applied as above, following a detailed FRA.

SFRA Vulnerability Classifications

Section 6.2.2, 'Existing Less Vulnerable Development' refers to lands adjacent to the Swilly River opposite Mount Errigal Hotel and lands in Bonagee at the Clanree Hotel and Applegreen, both of which are zoned Established Development. It should be noted that the zoning matrix for this zoning classification allows for highly vulnerable usage such as Residential.

Section 6.3.2.3, 'Town Centre Flood Risk' states that "*Undeveloped lands within flood zone B can be zoned for less vulnerable development, as defined in Table 3.3 without the need for a justification test, however any application for planning would require a detailed development stage FRA.*" As the zoning matrix included in the plan indicates that lands zoned Town Centre allow usage defined in the Guidelines as highly vulnerable, such as Creches,



Hotels/Hostels, Healthcare, Nursing Homes, Residential and Education, any lands zoned as such in Flood Zones A or B would need to satisfy all criteria of the Plan Making Justification Test.

Section 6.3.3.1.2 'Opportunity Site 7' states that "*Opportunity Site' is a less vulnerable land use*". The commentary on this site in the written statement, and the policy LK-OPP-P-7 allow for highly vulnerable usage such as residential in this zoning.

Section 6.3.3.1.3 'Opportunity Site 11' states that "*It is a probability that development of this site will need to be restricted to those areas not currently shown to be at risk of flooding*". This restriction has not been reflected in policy LK-OPP-P-11, which allows for highly vulnerable usage such as residential at this site, subject to the submission of an FRA. It should be noted that the discussion in Part 3 of the Plan Making Justification Test carried out with respect to this zoning deals mainly with the potential for increased risk elsewhere, and does not propose specific structural or non-structural mitigation measures for flood risk at the site itself.

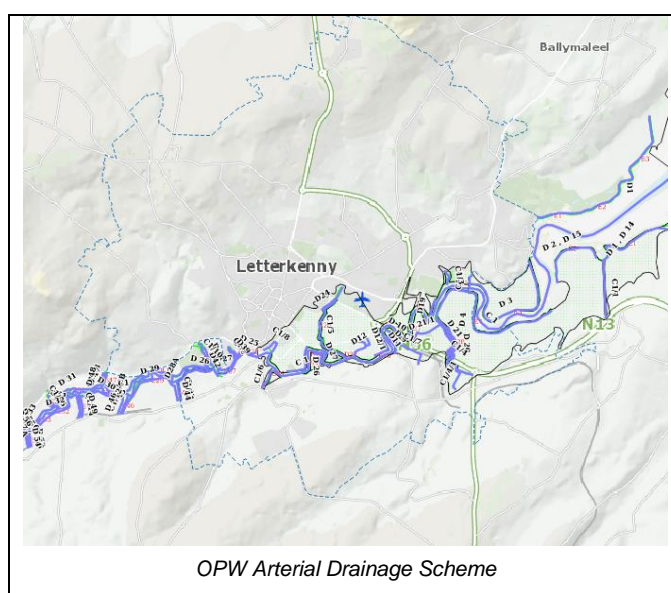
Assessment of Proposals for Highly Vulnerable Development

The OPW welcomes the guidance in section 4.4.3 of the SFRA, particularly regarding finished floor levels. Consideration might be given to incorporating this guidance into the plan via a policy objective.

Arterial Drainage Schemes and Drainage Districts

No commentary has been provided on the Arterial Drainage Scheme maintained by the OPW within the extents of Letterkenny.

As the area covered by Arterial Drainage Schemes is considerable, Donegal County Council should consider including the requirement for access for maintenance as a policy objective in the Plan. The location of Arterial Drainage Schemes and Drainage Districts may be viewed on www.floodinfo.ie.





Nature-based Solutions and SuDS

The OPW welcomes the following:

- The development of a 2D ICM Pluvial Flood Model for Letterkenny
- The commitment in policy LK-TC-P-05 to support “*the provision of green and blue infrastructure, with particular reference to the River Swilly Corridor*”
- The commitment in policy CAM-LK-P-2 to enhance surface water management by planting of suitable native trees, hedgerows at appropriate locations as part of development proposals
- Policy CAM-LK-P-6 which requires “*save in exceptional circumstances, the use of SuDS within public and private developments and within the public realm, to minimise and limit the extent of hard surfacing and paving and reduce the potential impact of flooding*”
- Policy LK-NBH-P-1 which supports for amenity corridors and natural biodiversity and wetlands systems adjacent to the River Swilly Corridor

It is noted in section 5.9.3.2 of the SFRA that recommendations and guidelines in relation to SuDS should be implemented in areas highlighted in the maps derived from the pluvial modelling undertaken for Letterkenny. The Guidelines also recommend that the SFRA provide guidance on the likely applicability of different SuDS techniques for managing surface water run-off at key development sites, and that the SFRA identifies where integrated and area based provision of SuDS and green infrastructure are appropriate in order to avoid reliance on individual site by site solutions.

In addition to the above, reference should be made to the “*Nature-based Solutions to the Management of Rainwater and Surface Water Runoff in Urban Areas - Water Sensitive Urban Design - Best Practice Interim Guidance Document (2021)*”.

Climate Change

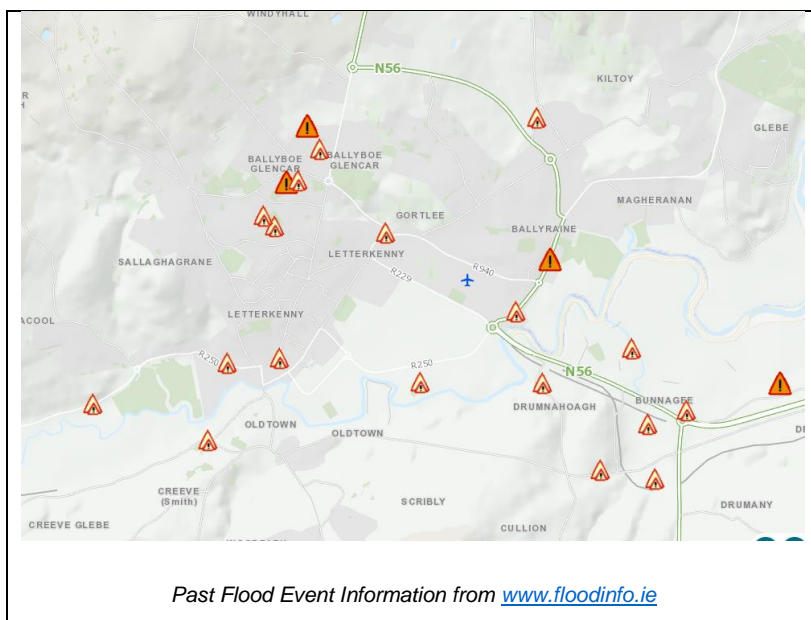
Section 4.2.1 of the SFRA sets out drainage requirements. After stating that “*all new developments must allow for climate*”, it is stated that “*river flows 20% increase in flows for all return periods up to 100 years*”, “*rainfall 10% increase in depth (factor all intensities by 1.1)*”. It might be noted that the future scenarios set out by the OPW include the Mid-Range Future Scenario with increases flows and rainfall depths of 20%, and the High-End Future Scenario with increases in both of 30%.

Section 5.8 of the SFRA recommends a precautionary approach to climate change which is welcomed by the OPW, and notes the high vulnerability of Letterkenny in future scenarios. However, the only proposed mitigation measures outlined are that “*detailed assessment and adaptation of the preferred flood relief measures would require consideration of the impacts from climate change at the planning stages of development*”. In line with the Guidelines, while Flood Zones are defined on the basis of current flood risk, planning authorities need to consider climate change impacts in the preparation of plans, such as by avoiding development in areas potentially prone to flooding in the future, providing space for future flood defences, specifying minimum floor levels and setting specific development management objectives.



Past Flood Information

SFRA section 5.2 states that a review of historical flood data was carried out using information provided on www.floodmaps.ie. This portal is no longer operative, and information on past flooding can be found on www.floodinfo.ie, which contains additional past flood event information not referenced in section 5.2.



Comments on Individual Areas

The following land use zonings allow usage inappropriate to their flood zone as set out in the Guidelines. Highly vulnerable development is not appropriate in Flood Zones A or B, and less vulnerable development is not appropriate in Flood Zone A unless all criteria of the Plan Making Justification Test have been satisfied.

Map 4

Zoning	Allowed Usage Vulnerability	Flood Zone	Location	Developed?
Established Development	High	A and B	Old Town	Yes
Town Centre	High	A	Century Complex	Yes
Town Centre	High	B	Dunnes Stores	Yes



Town Centre	High	B	South of Charles Kelly Ltd Builders Providers	Yes
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Map 6

Zoning	Allowed Usage Vulnerability	Flood Zone	Location	Developed?
Community Education	High	A and B	Letterkenny University Hospital	Yes
Established Development	High	A and B	North of Opportunity Site 7	Yes
Established Development	High	A	West of Opportunity Site 7	Yes
Town Centre	High	A and B	Tesco	Yes
Town Centre	High	A	Between Tesco and Aldi	No
Town Centre	High	B	Atlantic Technological University	Includes undeveloped

Map

Zoning	Allowed Usage Vulnerability	Flood Zone	Location	Developed?
Town Centre	High	A	At Motor Tax Office	Yes
Town Centre	High	A	South of Motor Tax Office	No



Town Centre	High	B	Radisson Area	Yes
Existing Development	High	B	South of Letterkenny Skip Hire	Yes
Existing Development	High	A and B	Adjacent to Kellys Toyota	Contains undeveloped lands in Flood Zone B

Map 8

Zoning	Allowed Usage Vulnerability	Flood Zone	Location	Developed?
Existing Development	High	A and B	Educate Together School enclosed by Opportunity Site 3	Yes
General Employment	Less	A	South of Opportunity Site 3	Includes undeveloped
Community Education	High	B	Letterkenny Recycling Centre	Yes

Map 11

Zoning	Allowed Usage Vulnerability	Flood Zone	Location	Developed?
Existing Development	High	A	Between Bunagee and Milk Isle	Yes
General Employment	Less	A	Donaghy Motorhomes	Yes



Existing Development	High	A	Clanree hotel	Yes
General Employment	Less	A	North of Coyle Welding	No
Existing Development	High	B	South of Letterkenny Glass	Yes

Errata

- Section 1.2 of the SFRA states that information on the North Western CFRAM study is available at www.cfram.ie. Information on the North Western CFRAM should be found at www.floodinfo.ie.
- Section 4.2.2 of the SFRA references a requirement for approval from SDCC
- Section 5.7.2 of the SFRA states that groundwater flooding is not a risk for South Dublin County

If further information or input is required, please do not hesitate to contact the OPW (floodplanning@opw.ie) in advance of the completion of the Letterkenny Plan and Local Transport Plan 2023-2029.

Yours sincerely,



pp Conor Galvin

Flood Risk Management – Climate Adaptation and Strategic Assessments

17th February 2023

The Central Planning Unit,
Donegal County Council,
County House,
Lifford,
F93 Y622.

Re: Draft Letterkenny Plan and Local Transport Plan 2023-2029

A chara,

Thank you for your authority's work on preparing the Draft Letterkenny Plan and Local Transport Plan 2023-2029 (the draft LAP).

The Office of the Planning Regulator (the Office) wishes to acknowledge the considerable and evident work your authority has put into the preparation of the draft LAP against the backdrop of an evolving national and regional planning policy and regulatory context and the need to balance competing pressures within an increasingly complex system.

As your authority is aware, a key function of the Office is the assessment of statutory plans to ensure consistency with legislative and policy requirements relating to planning.

The Office has evaluated and assessed the draft LAP under the provisions of sections 31AO(1) and 31AO(2) of the *Planning and Development Act 2000*, as amended (the Act) and this submission has been prepared accordingly.

The Office's evaluation and assessment has had regard to the current county development plan, the Northern and Western Regional Assembly Regional Spatial and Economic Strategy (RSES) and relevant section 28 guidelines.

Recommendations issued by the Office relate to clear breaches of the relevant legislative provisions, of the national or regional policy framework and/or of the policy of Government, including as set out in the Ministerial guidelines under section 28. As such, the planning authority is required to implement or address recommendation(s) made by the Office in order to ensure consistency with the relevant policy and legislative provisions.

Observations take the form of a request for further information, justification on a particular matter, or clarification regarding particular provisions of a plan on issues that are required to ensure alignment with policy and legislative provisions. The planning authority is requested by the Office to action an observation.

A submission can include advice on matters that the Office considers would contribute positively to the proper planning and sustainable development of the area. The planning authority is requested by the Office to give full consideration to the advice contained in a submission.

Overview

The Office generally welcomes the preparation of the draft LAP, having regard to the statutory requirements for same under section 19 of the Act. The document is engaging and easy to read, and is supported with appropriate mapping and illustrations.

However, the timing of the published draft in advance of the completion of the development plan review will give rise to significant practical and legal uncertainties regarding the relevant policy framework for both the public and the planning authority itself. This matter needs to be resolved prior to the adoption of the LAP.

The designation of Letterkenny as a Regional Growth Centre in the Regional Spatial and Economic Strategy is highly significant in terms of the development of the town. Letterkenny provides a strong employment and service base for the region, in addition to higher level health care and educational facilities. The level of housing growth, however, has been very low over recent years and it is critical that the LAP puts in place a focused strategy to deliver housing close to the infrastructure and facilities within the town and avoid displacement to less sustainable locations.

The Office welcomes the preparation of a Local Transport Plan (LTP) in conjunction with the draft LAP. However, the LTP is overly focussed on road building projects and is not consistent with more recent transport policy to reduce carbon emissions by facilitating and encouraging walking, cycling and other sustainable modes. The Office also has concerns regarding the methodology and data in the LTP and strongly advises the planning authority to consult with the NTA when addressing the matters raised below.

The Office notes that the draft LAP is generally based on the growth ambitions for Letterkenny as a Regional Growth Centre, as designated under the NPF and RSES.

However, as the growth targets applied in the 6-year draft LAP (up to 2029) exceeds those in the RSES for 2040, the area of land zoned for residential purposes is significantly in excess of that required. This matter is addressed in detail, below.

The excess zonings and inappropriately located land use zoning objectives makes development difficult to coordinate and has implications for the implementation of compact growth and integrated land use and sustainable transport planning in accordance with national and regional objectives and with the government’s National Sustainable Mobility Policy. This also affects the ability of Ireland to meet its obligations for climate action through the reduction of greenhouse gas (GHG) emissions by 51% by 2030. The Office aims to help the planning authority align with the relevant objectives and with government policy through several of its recommendations.

The Office has also found it necessary to include recommendations on several other land use zoning objectives which impact on compact growth and sustainable transport and climate action, and also on the strategic road network. Matters relating to the regeneration of the town centre are also addressed.

Finally, the Office is highly concerned that the planning authority has prepared a draft LAP that does not provide for an appropriate level of flood risk management, consistent with a national objective under the NPF, in view of the increased future risks to property and people associated with climate change and, in particular, potential sea level rise. The Office’s submission identifies the lands concerned and makes recommendations on how this matter is to be resolved.

It is within this context the submission below sets out sixteen (16) recommendations and two (2) observations under the following themes:

Key theme	Recommendation	Observation
<u>Consistency with Regional, Spatial and Economic Strategy</u>	-	-
<u>Consistency with Development Plan and Core Strategy</u>	<u>Recommendation 1</u>	-
<u>Population and housing targets</u>	<u>Recommendation 2</u>	-
<u>Zoning, compact growth and infrastructural services</u>	<u>Recommendation 3</u>	-

Approach to development	Recommendation 4 , 5 , 6 , 7 & 8	-
Sustainable Transport and Accessibility	Recommendation 9 , 10 , 11 , 12	-
Education, Social and Community	-	Observation 1
Economy and Employment	Recommendation 13	Observation 2
Climate Action	Recommendation 14 , 15	-
Regeneration	Recommendation 16	-

1. Consistency with Regional, Spatial and Economic Strategy

Section 19(2) of the Act requires the LAP to be consistent with any RSES that applies to the area of the plan. The draft LAP acknowledges the policy context set by the RSES and by the NPF including the designation of Letterkenny as a Regional Growth Centre and its role as part of the linked metropolitan area of Derry and Strabane. These are reflected in the growth ambitions for the settlement under the draft LAP, as set out in chapter 2.

However, while the planning authority is to be commended for embracing ambitions for the Regional Growth Centre, the growth targets in the draft Plan do not align with those of the RSES and the time period within which the RSES envisages they can be sustainably delivered. This is particular so having regard to the 6-year period of the LAP. This matter is addressed in more detail under section 3.

The Office also notes that the settlement boundary for Letterkenny does not align with that of the RSES (figure 32, refers), inconsistent with RPO 3.7.24. The planning authority is advised to review the boundary selected for the draft LAP with a view to ensuring consistency with the objective of the RSES.

2. Consistency with Development Plan and Core Strategy

Section 19(2) of the Act also requires that a local area plan be consistent with the objectives of the development plan and its core strategy. This requirement also applies under section 20(5) of the Act. In this regard the Office notes that the development plan

objectives and its core strategy has not been varied to incorporate the objectives of the NPF and RSES as required under section 11(1)(b) of the Act.

The Office also notes that the current development plan includes extensive objectives relevant to future development in Letterkenny (in chapter 12 of Part C), including a land use zoning map.

The adoption of the draft LAP with an alternative zoning map and objectives will therefore give rise to considerable practical and legal uncertainty regarding the policy framework that will apply in the context of individual planning applications and having regard to the statutory obligations of the planning authority.

In these circumstances the planning authority is strongly advised to consider how this situation can be fully resolved prior to the adoption of the LAP, for example by way of a concurrent variation to the development plan.

Recommendation 1 – Statutory policy framework

Having regard to:

- the statutory requirements for local area plans under section 19 and 20 of the Planning and Development Act 2000; and
- to the potential for practical and legal uncertainties having regard to the policies and objectives of the Donegal County Development Plan (2018-2024)

the planning authority is required to ensure that the policy framework that will apply to future development in Letterkenny is both clear and consistent with the requirements under the Act.

3. Population and housing targets

The RSES (RPO 3.7.20) provides that Letterkenny will grow to 27,300 by 2040, an increase of 8,026 people or c.42% over the population of 2016. This is anticipated to take place in stages, rising from 19,300 in 2016, to 23,700 by 2026 (+4,400 or c.22.8% over 2016), and to 25,900 by 2031 (+6,600 or c.34.2% over 2016).

The draft LAP is based on an increase of almost 10,000 population (9,881) to 2031, which is more than 50% greater than the RSES target for 2031 (6,600) and is c.25% greater than the RSES target for 2040.

Notwithstanding that the RSES sets minimum targets, it is essential for the proper planning and sustainable development of the settlement that the targets included in the draft LAP are realistic and consistent with the implementation of compact growth.

Similarly, the draft LAP is not consistent with the RSES housing targets. RPO 3.7.23 seeks to provide between 3,000-4,000 housing units to 2040, compared to 3,600 units proposed to 2031 in the draft LAP. Moreover, the housing growth targets do not align with the LAP period.

The inclusion of significantly higher targets necessitate greater areas of residential zoning, which directly conflict with national and regional objectives for compact growth (NPO 3a and NPO 3c; RPO 3.7.22) and with the policy objective for sequential growth under the *Development Plans Guidelines for Planning Authorities (2022)*. The zoning of excessive land will reduce the ability to provide the physical and social infrastructure needed to deliver housing on better located lands.

Notwithstanding the importance of ambition, it is important that the LAP is seen to be a credible document. In this regard, the targets also need to be seen in the context of recent housing delivery for the settlement. Only c.350 units have been completed in Letterkenny during the 6-year period 2017 to 2022, inclusive.

Recommendation 2 – Population and housing targets

Having regard to the:

- growth targets for Letterkenny under RPO 3.7.20 and RPO 3.7.23;
- targets for compact growth NPO 3a, NPO3c and RPO 3.7.22;
- provisions for the sequential approach to land use zoning under the *Development Plans Guidelines for Planning Authorities (2022)*;
- 6 year plan LAP period; and
- growth that has taken place in the settlement since census 2016;

the planning authority is required to amend the population and housing targets to be consistent with the RSES population and housing growth targets, pro rata with the 6 year statutory local area plan period only.

4. Zoning, compact growth and infrastructural services

As referred to, above, the population and housing growth targets, which have informed the land use zoning objectives, are materially in excess of and inconsistent with those in the RSES.

The planning authority proposes to zone 123.87ha for new residential development. In determining land area required to accommodate the project growth, the planning authority included only lands zoned 'Primarily Residential' and portions of 'Opportunity Sites'. It excluded the considerable potential for such development within the extensive 'Town Centre' land use zone, inconsistent with objectives UB-O-2 and UB-O-9 of the Development Plan and LK-TC-P-02 of the draft LAP, with RPO 3.7.29 to consolidate the town centre and national objectives for regeneration under NPO 6 and NPO 11, and with RPO 3.7.22 and NPO 3a and NPO 3c compact growth. It is also inconsistent with the Government's Town Centre First strategy.

Similarly, the planning authority has not taken account of or quantified the potential for infill residential development in the 'Established Development', to which many of the aforementioned objectives also apply.

In determining the land area required to accommodate the projected growth, the planning authority has applied a density standard that does not have regard to the recommended standards under the *Guidelines for Planning Authorities on Sustainable Residential Development in Urban Areas: Cities, Towns and Villages* (2009). The density rate applied is not consistent with RPO 3.7.27, which requires a minimum target of 50uph for the town centre area and a general default rate of 35uph (gross density), or with NPO 35, which seeks to increase density in settlements.

It is apparent, therefore, that the draft LAP has proposed considerable excess zoning for residential use, even allowing for 'additional provision' under the *Development Plans Guidelines for Planning Authorities* (2022). This is inconsistent with the delivery of compact growth in accordance with RPO 3.7.22 and NPO 3a and NPO 3c.

Recommendation 3 – Zoning for housing growth

Having regard to:

- growth targets for Letterkenny under RPO 3.7.20 and RPO 3.7.23;
- NPO 3a and 3c, and RPO 3.7.22 compact growth;
- RPO 3.7.27 and NPO 35 residential density,
- Town centre development objectives UB-O-2 and UB-O-9 of the County Development Plan
- RPO 3.7.29 consolidation and NPO 6 and NPO 11 regeneration;
- the Government’s Town Centre First strategy;
- the *Guidelines for Planning Authorities on the Sustainable Residential Development of Urban Areas: Cities, Towns and Villages* (2009) concerning the application of recommended minimum residential density standards; and
- the policy objective to adopt the sequential approach to land use zoning under the *Development Plans Guidelines for Planning Authorities* (2022), ,

the planning authority is requested, taking account of the potential housing yield from the extensive and underdeveloped Town Centre land use zone in table 10.2, to:

- (i) review its determination of housing yield from proposed zoned lands in the draft LAP; and
- (ii) amend, on foot of point (i), the land use zoning areas proposed in the draft LAP, including the extent of new ‘Primary Residential’ and / or ‘Opportunity Sites’, consistent with the amendments to the housing targets under Recommendation 2.

5. Approach to development

5.1 Residential lands

The Office welcomes much of the approach to the zoning in the draft LAP. In particular, the reduction in the Strategic Reserve and the definition of the Southern Strategic and Sustainable Development Site provides a clearer picture of the intended longer term and medium development strategy for the settlement.

Lands PR3, PR4, PR5, PR6 and PR19 are consistent with the definition of compact growth and infill and, therefore, the proposed zoning as Primarily Residential is a positive approach. As, these lands (18.8ha) would have potential to deliver between approximately 500 and 700 units, they would absorb a significant proportion of the housing target.

The zoning 'Primarily Residential' of certain lands in Leck/Scribly (PR9, PR10, PR11 and PR 12), identified in the RSES as potential residential development areas, to the south of the river is also considered a reasonable approach. But, only if good connectivity across the river to the town proper (in addition to across the subject lands) is first provided for active and sustainable modes. If not, these lands will serve to reinforce the existing pattern of car-based development in Letterkenny, contrary to National Sustainability Mobility Policy, and impact on the strategic national road network to the east contrary to the SPNRGs.

The subject lands, at 24.68ha, have the potential to deliver between c.650 and 925 dwelling units. Taken together, these 9 sites would likely exceed the applicable housing target for the plan period.

The zoning of more peripheral sites to the northeast and northwest, although technically within the existing built-up footprint, are not desirable in terms of facilitating active and sustainable modes due to their distance to the town centre and the nature and design of the junctions on existing road network, including the N56. In this regard, the Office has specific concern regarding the extensive greenfield site (10.75ha) PR1 to the northeast and the individual greenfield sites, PR15, PR16, PR17, PR18 and PR22 at the remote northwest of the town, especially when there is extensive greenfield land nearer the town centre.

In relation to Killylastin the RSES states ‘the phasing of this growth will have to be done in tandem with the growth figures outlined in table 6’, ‘*delivered sequentially on a phased basis, providing for compact growth*’¹. It does not anticipate that all these lands would be proposed at the outset and such an approach is neither feasible nor sustainable. It also recognises that there are opportunities to provide infill or and/or consolidating development that would assist in expanding the growth of the Town, without significantly extending the overall urban footprint in an outward manner, consistent with RPO 3.7.29.

Although PR13 is located relatively close to the town centre, it is not strategically located for the purposes of the draft LAP period compared to the above-mentioned accepted PR sites. In view of the quantum of development that can be accommodated on more suitable, strategically located sites that should be prioritised, PR13 should be reserved for a future plan period as strategic reserve.

Recommendation 4 – Primary Residential

Having regard to:

- growth targets for Letterkenny under RPO 3.7.20 and RPO 3.7.23;
- NPO 3a and 3c, and RPO 3.7.22 compact growth;
- RPO 3.7.27 and NPO 35 residential density,
- Town centre development objectives UB-O-2 and UB-O-9 of the County Development Plan
- RPO 3.7.29 consolidation and NPO 6 and NPO 11 regeneration;
- the Government’s Town Centre First strategy;
- the *Guidelines for Planning Authorities on the Sustainable Residential Development of Urban Areas: Cities, Towns and Villages* (2009)

¹ P.90

concerning the application of recommended minimum residential density standards; and

- the policy objective to adopt the sequential approach to land use zoning under the *Development Plans Guidelines for Planning Authorities (2022)*,

The planning authority is required to amend the following land use zoning objectives from Primarily Residential to either Strategic Reserve or Agriculture:

- PR1, PR13, PR15, PR16, PR17, PR18 and PR22

and to amend or omit relevant associated text from the draft LAP.

5.2 Opportunity sites

The Office welcomes the identification of key opportunity sites in the draft LAP. The more centrally located sites in particular allow the authority to plan strategically for the sustainable growth of the town in the northeast area. However, while provision for mixed-use sites offer certain flexibility, the number and extent of these zoning objectives result in a lack of clarity in the future development pattern for the settlement. Moreover, the uses proposed on these sites cannot be viewed in isolation of the uses, services and facilities already available on the surrounding lands.

RPO 6.30 seeks to promote active and sustainable modes by maximising the number of people living within walking distance of centres, transport and other services at a local level, consistent with the goals of the NSMP, as supported by the CAP 2023. Sites 1, 7 and 11 are centrally located within the settlement, adjacent or very close to the Town Centre and are well placed to facilitate active and sustainable travel if developed for residential uses. The sites, by reason of their location and character and setting within the wider lands including the town park and institutional lands, have the potential to deliver very high quality residential environments close to all the amenities offered by Letterkenny Town Centre.

The Office considers the non-residential uses proposed on these sites, including offices, restaurants, pubs, hotels, tourism, institutional use, commercial and retail, in particular, to be unnecessary in view of the substantial lands available for such uses in the Town Centre, and on other lands zoned for such uses in the immediate vicinity. This is

particularly so in respect of the proposed retail and commercial uses on Site 11 and Site 7.

The overarching objective of the Retail Planning Guidelines 2012 is to enhance the vitality and viability of city and town centres in all their functions through sequential development. It is a national policy objective (NPO2) to promote greater vitality in city and town centres by promoting the Sequential Development Approach. It is also the objective (NPO5) to ensure that retail development plays its part in realising quality outcomes in relation to urban design.

The County Development Plan sets out the sequential approach from the RPGs and states that focusing retail land uses within the established town centres is central to the strategy. It is an objective of the Development Plan (RS-O-1) to achieve critical mass of retail in key urban centres, (RS-O-2) to ensure consistency with the retailing objectives of the RPGs, and (RS-O-8) to promote the regeneration of derelict land and buildings within town centres for retail uses consistent with RPO 3.7.29 consolidation and NPO 6 and NPO 11 regeneration and the government's Town Centre First Strategy. The proposed land use zoning objectives for Sites 1, 7 and 11 concerning retail and commercial uses in an edge of centre location, without justification by an appropriate evidence base, is inconsistent with the objectives of the development plan, and does not have regard to the objectives of the RPGs.

In addition, having regard to RPO 6.30 sustainable mobility, RPO 3.7.22 compact growth and RPO 3.2.29 consolidation, the Office has concern about residential development in more peripheral Opportunity Site locations, in particular sites 12 and 3. Both sites will facilitate car-dependent development at a distance from the town centre and are inconsistent with the implementation of compact growth and sustainable mobility and therefore the development of these lands in the short to medium term should not be prioritised over more suitably located lands. Although lands at Carnamuggah (Site 12) are identified in the RSES as a potential new area for residential development, the development of a c.10ha site on the periphery of the settlement is not consistent with the objective to consolidate the existing neighbourhood through targeted measures. These lands should therefore be set aside as Strategic Reserve.

Recommendation 5 – Opportunity Sites

Having regard to:

- growth targets for Letterkenny under RPO 3.7.20 and RPO 3.7.23;
- NPO 3a and 3c, and RPO 3.7.22 compact growth;
- RPO 3.7.27 and NPO 35 residential density;
- Town centre development objectives UB-O-2 and UB-O-9 of the County Development Plan;
- RPO 3.7.29 consolidation and NPO 6 and NPO 11 regeneration;
- the Government's Town Centre First strategy;
- the *Retail Planning Guidelines for Planning Authorities (2012)*; and
- the *Guidelines for Planning Authorities on the Sustainable Residential Development of Urban Areas: Cities, Towns and Villages (2009)* concerning the application of recommended minimum residential density standards,

the planning authority is required to amend the following land use zoning objectives:

- Opportunity Site 1, 7 and 11 – from Opportunity Site to Primary Residential;
- Opportunity Site 12 – from Opportunity Site 12 and masterplanned approach to Strategic Residential Reserve
- Opportunity Site 3 – to omit consideration of residential use.

5.3 Masterplanned Approach

The Office generally welcomes the proposal to masterplan the area encompassing Opportunity Site 12, the Strategic Community Opportunity land and General Employment and Enterprise lands to the north of the N56. The Office has recommended the omission of Opportunity Site 12 and the associated masterplanned approach objective as related to site 12 for reasons set out above. However, the extension of the proposed masterplanned

approach objective (from the Strategic Community Opportunity and General Employment and Enterprise lands north of the N56) to other lands in the vicinity would resolve concerns it has about the potential impacts on the strategic road network.

Due to the nature and scale of development in the vicinity of the future junction between the N56 and the TEN-T PRIP objective (a national roads project of European significance), there is potential to affect the capacity of the strategic national road network. This is inconsistent with RPO 6.5 and does not have regard to requirements of the *Strategic Planning and National Roads Guidelines for Planning Authorities (2012)*. The Office therefore recommends that the subject lands, including Opportunity Sites 2, 3, 4 and 8 and adjoining General Employment and Enterprise lands on both sides of the N56 are encompassed within the masterplan objective, also.

However, there is no provision for masterplans under the *Planning and Development Act 2000*, as amended. Similarly, there is no provision for masterplans under the *Development Plans Guidelines for Planning Authorities (2022)*. Although the *Local Area Plans Guidelines (2013)* refer to masterplanning, this is within the context of the more detailed planning approach to be contained as part of an LAP, rather than an exercise to be carried out separate to the statutory plan making process. The preparation of masterplans to determine the future development of extensive areas of lands with potential adversely affect, among others, national infrastructure should be carried out within the statutory plan making process to facilitate environmental assessments and consultation with the public and public agencies.

Recommendation 6 – Masterplanned Approach

Having regard to:

- RPO 6.5;
- The provisions of the *Spatial Planning and National Roads Guidelines for Planning Authorities (2012)*; and
- The *Local Area Plans Guidelines for Planning Authorities (2013)*

The planning authority is required to amend the maps and written statement of the draft LAP to:

- Extend the objective to prepare a masterplan for Strategic Community Opportunity and General Employment and Enterprise lands to the north of the N56, to encompass Opportunity Sites 2, 3, 4 and 8 and adjoining General Employment and Enterprise lands on both sides of the N56;
- Include an objective that the LAP will be amended to incorporate the masterplan for these lands prior to implementation.

5.4 Strategic Residential Reserve

The Office notes the inclusion of zoned Strategic Residential Reserve lands in the draft LAP and recognises the value of this designation as an indicator of the future growth of the town in long term and as a tool to protect strategically located lands.

However, the Office is concerned with the Strategic Residential Reserve proposed to the west of the settlement. The scale of the area is excessive in view of the growth targets for Letterkenny to 2040. In addition, the southern portion of the lands are non-sequential and leapfrog lands (zoned 'Local Environment') that are adjacent to the existing built up footprint of the settlement and that are proximate to the centre of the settlement. While the northern portion (northeast of the dividing watercourse) is adjacent the built up area, it is much further from the centre compared to lands proposed to be zoned 'Local Environment' to the south.

This approach does not have regard to the policy objective to implement the sequential approach to zoning under the *Development Plans Guidelines (2022)*. It is also inconsistent with RPO 3.7.20 and NPO 3a and NPO 3c for compact growth and with the potential new areas for residential development identified the RSES. Furthermore, the subject lands necessitate substantial additional roads infrastructure, in the form of the 'Western Relief Road' and a 'Developer Led Road', that are inconsistent with objectives to promote active travel (RPO 6.30) and goals for modal shift under the National Sustainable Mobility Policy (2022). These lands are therefore not considered appropriate as 'Strategic Residential Reserve' and should be deleted from the draft LAP.

In terms of preserving the Strategic Residential Reserve, the Office welcomes explanatory footnote 12 to the land use zoning matrix Table 7.2, which indicates that proposals for multiple (i.e. 2 or more) residential units will not be considered on such

lands. However, policy LK-H-P would contradict this approach, in that it provides for the ‘appropriate release of ‘Strategic Residential Reserve’ lands on the basis of a transparent, evidence-led approach’, notwithstanding that it would require an amendment of the LAP. In view of the scale of land use zoning proposed for residential use, the Office would advise that this policy results in ambiguity and should therefore be omitted.

Recommendation 7 – Strategic Residential Reserve

Having regard to

- RPO 3.7.22 and NPO 3a and NPO 3c; and
- RPO 6.30 and NPO 27 and NPO 33;
- The *Climate Action and Low Carbon (Amendment) Act 2021*,
- The *Climate Action Plan 2023*; and
- The *National Sustainability Mobility Policy*, including goal 6,

The planning authority is requested to delete the Strategic Residential Reserve lands and associated strategic and development led roads objectives to the west of the settlement.

5.5 Southern Strategic and Sustainable Development Site (SSSD Site)

The Office welcomes the inclusion of the SSSD Site, which will provide for a rebalancing of Letterkenny to the south to allow for residential development that is physically closer to the centre of the settlement than other potential development locations. This is consistent with the provisions of the RSES, which envisages new residential growth to the south of the River Swilly in the Leck / Scribly area. Although, in view of the relatively substantial area contained in the SSSD (90ha, excluding PR zoned lands of c.25ha within Leck / Scribly), it is important to note that the RSES is silent on the extent of land this would include.

The Office welcomes the identification by the planning authority of the significant infrastructure constraints to the future development of the SSSD Site and notes the proposals to resolve the delivery of these constraints under LK-H-P-10 through the

delivery of the masterplan approach. In view of the scale of these constraints and the need to avoid piecemeal delivery (as acknowledged in section 10.7 of the draft LAP) and the importance of these lands to the future of Letterkenny, it is important that the planning authority take the lead in coordinated infrastructure and planning.

In addition, assuming the resolution of infrastructure constraints, the delivery of the entire SSDS Site over a single plan period is not likely feasible, sustainable or necessarily desirable. For practical purposes, there is a need to provide balanced development, including the development of alternative development lands in the settlement over the LAP period.

The Office therefore recommends that the draft LAP prioritises the delivery of the northern portion of the SSDS Site. These lands, north of the Southern Network Project (road scheme), are closer to the town centre and better able to contribute to compact growth (RPO 3.7.20) and active travel (RPO 6.30). Their delivery could be expedited through the more focused, staged delivery of infrastructure to resolve constraints for that specific area. The draft LAP, including maps and policy, should therefore distinguish between the two in terms of short/medium and long term phasing.

Having regard to Ireland's statutory obligations for GHG emissions reductions, the targets for modal shift under the *Climate Action Plan 2023* and under the *National Sustainable Mobility Policy 2022* (NSMP), in addition to the objectives and vision of the RSES concerning modal shift (RPO 6.30) and promoting healthier lifestyles, it is essential that transport and accessibility are very carefully planned. The exact details of the Southern Network Project are not included in the draft LAP, however the layout on Map 7.1 suggests it follows the traditional relief road format.

In view of the transport and climate policy context, transport infrastructure planning must apply the road user priority hierarchy under the NSMP and the *Design Manual for Urban Roads and Streets Standards* (2019) (DMURS) (RPO 6.26 and goal 7 of the NSMP). Although the County Development Plan and draft LAP refer to DMURS, there is no objective or policy to apply these standards to urban areas. The planning authority will therefore need to review the design of the Southern Network Project to ensure consistency with the current transport policy and roads design standards context.

The planning authority will also need to consider all modes in accordance with the road user priority under the NSMP and DMURS, and the relevant transport networks (including

walking and cycling) will need to be integrated with proposed and existing land uses, north and south of the River including the entire Leck / Scribly area. The integrated land use transport planning for this area should be specifically addressed in the review of the Local Transport Plan (see transport and accessibility recommendations, below).

Recommendation 8 – Southern Strategic Sustainable Development Site

Having regard to

- RPO 3.7.22 and NPO 3a and NPO 3c;
- RPO 6.30 and NPO 27 and NPO 33;
- The *Climate Action and Low Carbon (Amendment) Act 2021*,
- The *Climate Action Plan 2023*; and
- The *National Sustainability Mobility Policy 2022*, including goal 7,

the planning authority is requested to:

- a) Prioritise the development of the SSDS site north of the proposed Southern Network Project route and to zone lands to the south of the route as Strategic Residential Reserve;
- b) Provide that the design of the Southern Network Project will be reviewed to ensure consistency with the NSMP and the application of the Design Manual for Urban Roads and Streets (2019); and
- c) Review the transport and accessibility requirements for the SSDS lands and the wider lands in Leck / Scribly south of the River Swilly, integrated with existing and proposed land uses north and south of the river, as part of the overall review of the Local Transport Plan (Recommendation 9 on local transport planning, below, refers).

The planning authority is advised to consult with NTA and TII in responding to this recommendation.

6 Sustainable Transport and Accessibility

6.1 Local transport planning

The Office welcomes the preparation of the Local Transport Plan (LTP) for Letterkenny, as required by RPO 3.7.32 and RPO 6.27, to inform the draft LAP. This approach has the potential to deliver an integrated approach to land use planning for Letterkenny and, in tandem with compact growth, to help it achieve a shift from private car transport to active sustainable modes (walking and cycling) and to public transport, consistent with RPO 6.30. A significant shift to active and sustainable modes will be necessary to enable Ireland to achieve its mandatory climate action targets under the *Climate Action and Low Carbon (Amendment) Act 2021*, that is to reduce GHG emissions by 51% by 2030, with a commitment to achieving carbon neutrality by 2050.

However, the Office has concerns about the approach taken by the planning authority in preparing the LTP and its integration into the draft LAP. RPO 6.27 requires, among others, the application of the Area Based Transport Assessment (ABTA) guidance in carrying out the LTP, which is to be based on a clear set of objectives and the most recent demographic and travel information and alignment with national and regional policy.

Although the LTP refers to ABTA, it has not applied the methodology to consider all transport modes and to identify key opportunities to improve access to/from places where people live to where they work, study, play, shop or relax. It also does not apply the road user hierarchy under *Design Manual for Urban Roads and Streets (2019)*, considering the needs of pedestrians, cyclists and public transport before private car and goods vehicles, in accordance with the *National Sustainable Mobility Policy 2022*.

The LTP has addressed walking and cycling as a collective 'active travel' mode, when these modes have different infrastructure requirements, especially in a town of hills, notwithstanding that they are compatible modes and can frequently share infrastructure. The pedestrian and cycling networks need to be set out separately, including integrating these networks with the active travel schemes referred to in the draft Plan. The Office is concerned, however, that many of these schemes are dependent on road schemes included in the plan, when ideally they should be capable of being delivered as independent networks.

The Office welcomes, however, the inclusion of Table 19.1 ‘Compilation of identified Active Travel Schemes’ which identifies 19 no. projects which are included in Map 19.2 and which have been assessed under a Multi-Criteria Analysis Framework process (Appendix D). However, additional ‘proposed interconnecting routes’ and ‘local permeability’ interventions that do not correspond with an active travel scheme identified in table 19.1 are also included on Map 19.2. These also do not correspond with the Active Travel Projects identified in the Zoning Map for the Town Centre Core Area and the routes shown on the town centre zoning map.

It is important that relevant projects, objectives and measures are consistent across the LAP. It is also important that appropriate policy support is included in the LAP to ensure the delivery of the LTP objectives and measures, consistent with RPO 3.7.33 and RPO 6.28 and with the positive policies and objectives for walking and cycling infrastructure in the Development Plan, in addition to NPO 27 and NPO 64.

The LTP does not adequately address public transport, although policy LTP-PT-P-1 seeks the provision of a local bus service in consultation with the NTA. Letterkenny, as a regional centre (and Regional growth centre under the RSES) plays a focal role in public transport within Donegal and the wider region. This is inconsistent with RPO 6.20 and RPO 6.21 of the RSES to review bus services within regional centres and between settlements and rural areas. It is therefore important that the LTP acknowledges this role and reference the NTA’s Connecting Ireland: Rural Mobility Plan in developing transport linkages across the region.

The LTP is also expected to identify the interventions required to prioritise the movement of public transport within the town and to/from key destinations, having regard to existing dispersed development and proposed future development lands, in addition to around the town to serve regional networks.

The LTP does not adequately address how road proposals and increased road capacity have been considered in the context of the multi-modal focused solution (i.e. with walking, cycling and public transport) in accordance with ABTA methodology. In particular, the Southern Network Project, which will be critical to the delivery of the Southern Strategic Sustainable Development Site, has not been considered in terms of the different transport modes, including the potential for more direct pedestrian, cycle and public transport connectivity across the River Swilly to the Town Centre.

Finally, the Office has significant concerns with the use of the ILUTS Report, 2009, as an evidence base for proposals in the LTP, notwithstanding updates. The national and regional policy context has changed dramatically since that time and the modelling will not have considered the potential impacts of a change towards more sustainable transport modes reflecting the road user hierarchy.

In particular, the government has adopted the Avoid, Shift, Improve Framework for transport in the *National Sustainable Mobility Policy 2022*, in order to achieve the necessary modal shift to achieve the climate mitigation in accordance with the CAP 2023, including through expansion of sustainable mobility in regional and rural areas (goal 4), behavioural change and demand management (goal 5) and the application of universal design principles and the hierarchy of road user model (goal 7).

A revised approach will ultimately benefit residents and visitors to Letterkenny, and is a fundamental part of significantly reducing carbon emissions by 2030 consistent with the Climate Action Plan.

Recommendation 9 – Local transport planning

Having regard to

- RPO 3.7.32, RPO 6.27 and RPO 6.28 local transport plans
- RPO 3.7.33, RPO 6.20, RPO 6.21 RPO 6.30, NPO 27, NPO 64 active, sustainable and public travel;
- the provisions of the Climate Action and Low Carbon Development (Amendment) Act 2021,
- the Climate Action Plan 2023,
- the goals and provisions of the National Sustainable Mobility Policy (2022), goals 4, 5, 6 and 7 refer;

the planning authority is requested to:

- a) review its Local Transport Plan (LTP) consistent with the requires of RPO 6.27 and in accordance with the Area Based Transport Assessment

methodology (Advice Notes December 2018; and How to Guide, Pilot Methodology 2021), in consultation with the NTA and TII;

- b) Amend the draft Local Area Plan based on the output of the appropriately revised LTP, to provide the appropriate policy basis to implement the objectives and recommendations of the LTP consistent with the aforementioned national and regional sustainable transport and climate policy context.

The planning authority is advised to consult with NTA and TII in responding to this recommendation, including with regard to the availability of funding for the preparation of the revised LTP.

The Office would advise that any proposed transport network (pedestrian, cyclist, etc.) and network improvement measures arising from the revised LTP should be shown in the context of the proposed land use zoning objectives map.

6.2 Local roads objectives

Policies LTP-T-2 and LTP-T-P-3 seek to support and facilitate the strategic road projects identified in Table 20.2 to manage traffic within the town. However, in view of the *National Sustainable Mobility Policy 2022*, the Office has concerns that the proposed draft LAP depends excessively on the delivery of traditional road projects, including to facilitate more peripheral lands, particularly in the longer term. This concern does not extend to the critical TEN-T PRIP route, which has the potential to greatly improve regional connectivity consistent with RPO 3.7.30 and NPO 45 and NPO 56.

The Office considers the western strategic road corridor (Western Relief Road), which would facilitate the future development of extensive, peripheral lands (proposed Strategic Residential Reserve), to be inconsistent with the delivery of compact growth and sustainable mobility. The Office has similar concerns about the northern strategic road corridor (Northern Relief Road) and, also, in relation to the proposals for the southern corridor to the east of the Southern Network Project to connect to the N56, which will encourage car based development in this area.

It is important that all strategic roads projects are justified based on a transparent evidence base, that their delivery is consistent with *National Sustainable Mobility Policy 2022*, and that justified projects are feasible to deliver within a specified timeframe. In particular the Office considers it unlikely that the Western Relief Road and the southern corridor to the east of the Southern Network Project can be justified.

This approach is inconsistent with RPO 3.7.20 and NPO 3c compact growth and would be contrary to goal 5 of the NSMP and to the targets for modal shift under the NSMP and the CAP 2023 and the GHG emissions reduction targets under the *Climate Action and Low Carbon (Amendment) Act 2021*.

Recommendation 10 – Local roads objectives

Having regard to:

- RPO 3.7.20 and NPO 3c compact growth;
- the goals of the *National Sustainable Mobility Policy 2022*, goal 5, in particular, refers;
- the provisions of the *Climate Action and Low Carbon Development (Amendment) Act 2021*; and
- the *Climate Action Plan 2023*,

the planning authority is required to delete the Western Relief Road, the Northern Relief Road and the southern strategic road corridor to the east of the Southern Network Project, including text and from relevant maps.

6.3 Access to national roads

It is an objective of the RSES (RPO 6.5) to manage and enhance the capacity and safety of the region's transport networks to ensure optimal use and maintenance of the strategic capacity and safety of the national roads network. Similar policy provisions apply under the *Spatial Planning and National Roads Guidelines (2012)* (the SPNRGs), including under section 2.5, which requires the planning authority policy to avoid the creation of

additional access points or increased traffic from existing access points to national roads with >60kph speed limit.

The Office is concerned that the wording of Objective LK-ED-O-2 and Policy LK-EDE-P-2, while seeking to safeguard the carrying capacity, function and safety of the N56 would facilitate new and intensified access onto the national road under certain circumstances. This approach is inconsistent with RPO 6.5 and the SPNRGs.

Recommendation 11 – Access to national roads

Having regard to:

- RPO 6.5 to manage and maintain strategic capacity and safety of national roads; and
- The provisions under section 2.5 of the *Spatial Planning and National Road Guidelines for Planning Authorities* (2012);

the Planning Authority is required to amend:

i) Policy LK-EDE-P-2 as follows:

Policy LK-EDE-P-2: It is a policy of the Council to continue to avoid ~~an~~ ~~ad-hoc proliferation of the creation of~~ new or intensified existing access points along the N56 Four Lane Road. The Council will ~~prepare an~~ ~~access strategy to~~ consider limited and coordinated new junctions, or the intensification of use of existing junctions, where such proposals are presented and considered as part of an overall plan maximizing serviced areas and minimizing junctions, and where it can be clearly demonstrated that such development:

a. would not affect the capacity, operation or safe functioning of the road; and

b. would not prejudice the servicing of adjacent areas.

Such an access strategy will include consultation with TII and is required to be plan-led and evidenced based for inclusion in the Local Area Plan. Pending the incorporation of an agreed access strategy for the N56 Four

Lane Road into the Local Area Plan, the Council policy shall be to avoid the creation of new or intensified existing access points along the N56 Four Lane Road

ii) Objective LK-ED-O-2

Objective LK-ED-O-2: It is an objective of the Council to safeguard the carrying capacity, functioning and safety of urban sections of the N56 National Secondary Route in Letterkenny as a key strategic transport corridor, lifeline route and multimodal urban connector. Pending the development of an agreed transport solution and access strategy for the N56 Business Park Road, to be incorporated into the Local Area Plan, the policy of the planning authority will be to avoid the creation of any additional access point from new development or the generation of increased traffic from existing accesses to national roads to which speed limits greater than 60kph apply. ~~The Council will ensure that any development seeking direct access or that would result in the intensification of use of existing access points or junctions is designed and assessed to ensure that the capacity, operation and safe function of the N56 are preserved and/or improved. Where applicable, any development will tie in with any established or developed Junction Strategy/Policy for this key route as and where such are set out.~~

The Planning Authority should consult with TII in the amending of these Policies and Objectives.

6.4 Rail corridor

In relation to the rail network, Policy LTP-PT-P-2 (b) states that it is a policy of the council to “not protect the abandoned historic railways corridors within the Letterkenny Plan area boundary for strategic infrastructure provision (such as rail/road/greenway projects) or for recreational development”. This policy is contrary to RPO 3.7.35 which seeks to carry out a feasibility study for a rail link between Letterkenny and Derry and contrary to the Policy T-P-24 of the Development Plan, which seeks to protect established historic railway corridors throughout the county.

While the Office accepts that the rail corridor may have been compromised in locations, in view of the Development Objective the corridor should not be disregarded. The LTP should consider what potential there is for the remaining parts of the corridor to deliver active travel infrastructure, in particular.

Recommendation 12 – Rail corridor

Having regard to

- RPO 3.7.35; and
- Development Plan Policy T-P-24;

the planning authority are required to delete Policy LTP – PT-P-2 (b), and to consider the potential use of the remaining corridor for active travel modes in responding to the recommendation on Local Transport Planning, above.

7. Education, Social and Community

The Office notes the provision of significant lands for Strategic Community Opportunity at Carnamuggah. The Office understands that these lands are proposed to accommodate a sports campus for the ATU, for which significant funding has been allocated at national level and the Office agrees that this is a suitable location for such facilities, in addition to standard educational facilities.

In this context, the Office has some concern that ‘office use’ is open for consideration under the land use zoning matrix. Although footnote 14 is acknowledged, the Office considers that any office use should be ancillary to the primary use of these lands. Furthermore, while the Office would accept as reasonable that student accommodation is open for consideration on these lands, this should be subject to the proviso that any such accommodation is to be located at the southernmost section of the site. This will facilitate active travel from the site to the main campus by students and staff, consistent with RPO 6.30, the goals of the NSMP and the CAP and will contribute better to the compact growth of the settlement.

Observation 1 – Strategic Community Opportunity

Having regard to:

- RPO 6.30 active travel,
- The *National Sustainable Mobility Policy*, goals 5 and 7 refer,
- The *Climate Action Plan 2023*; and
- RPO 3.7.20 and NPO 3a and NPO 3c compact growth

The planning authority is requested to:

- i) Insert a specific objective requiring any student accommodation to be located at the southernmost portion of the Strategic Community Opportunity lands (as contained within the 'masterplan' boundary); and
- ii) Amend footnote 10 to table 7.1 land use zoning matrix to limit office development open for consideration on the subject lands to office use ancillary to the primary uses acceptable in principle within this land use zone, namely School / Education, Playing fields, Cultural Uses / Library, Creche / Playschool and Community / Recreational / Sports.

8 Economy and Employment

8.1 Town Centre

The Office welcomes the revisions to the Town Centre land use zoning objective, which has been pulled back north of the River Swilly. This approach will provide a better focus to the planning, development and regeneration of the centre of this vital regional commercial centre. It will better enable the planning authority to invest in key projects in line with the Regeneration 2040, and to tackle vacancy and dereliction within this area by directing appropriate retail and commercial development to this area.

As noted, above, the Office has significant concern about objectives to accommodate retail and commercial and other town centre uses on Opportunity Sites outside the centre. This has been addressed in a recommendation on the approach to development. However, the Office considers there to be potential to further refine the Town Centre land

use zone with a view to identifying lands that would be most conducive to residential development, consistent with objectives for compact growth and active travel.

Observation 2 – Town Centre

Having regard to:

- RPO 3.7.22 and NPO 3a and 3c compact growth;
- RPO 6.30 and NPO 27 integrated active travel and NPO 33 sustainable development

the planning authority is advised to review and amend the extent of land zoned Town Centre, with a view to:

- i) consolidating the town centre lands into a more manageable, prioritise town centre area, and
- ii) providing for residential development, in particular, on appropriate centrally located sites conducive to active travel modes.

8.2 General Employment and Enterprise

The Office welcomes the rationalisation of General Employment and Enterprise lands south of the River Swilly, including taking account of flood risk management requirements. However, significant greenfield lands located in a peripheral location are proposed to be zoned for General Employment and Enterprise use in Bonagee.

The zoning of these lands are inconsistent with the achievement of the NSO compact growth and will contribute to the continuance of a highly dispersed settlement pattern. They will also encourage car-based development that will not support the modal shift to active modes contrary to RPO 6.30.

In addition, while the land use zoning objective has been removed from much of the TEN-T objective, there are still significant proposed zoned lands which conflict the indicative route of the TEN-T PRIP Objective. The proposed land use zoning objectives therefore conflict with section 2.9 Protection of Alignments for Future National Road Projects of the *Spatial Planning and National Roads Guidelines for Planning Authorities*

(2012). It is also therefore inconsistent with RPO 6.5 concerning planning for future capacity enhancements of the national road network, with RPO 3.7.30 and RPO 6.7 to deliver the TEN-T PRIP, and with NPO 74, NSO Enhanced Regional Accessibility.

Recommendation 13 – General Employment and Enterprise

Having regard to:

- RPO 3.7.22 and NPO 3a, 3c and NSO compact growth;
- RPO 6.30 active travel;
- RPO 6.5, RPO 3.7.30 and RPO 6.7 national roads
- NPO 74 and NSO Enhanced Regional Accessibility; and
- Section 2.9 of the *Spatial Planning and National Roads Guidelines for Planning Authorities* (2012)

the planning authority is required to omit the General Employment and Enterprise land use zoning at Bonagee.

9. Climate Action

9.1 Flood Risk Management

Much of Letterkenny, by reason of location and topography, is highly vulnerable to flood risk. These risks are increasing due to the effects of climate change.

The Office welcomes the preparation of a Strategic Flood Risk Assessment (SFRA) to inform the draft LAP, including the production of detailed flood risk mapping for the town, which provides a clear picture of lands at most risk (flood risk zone A and/o B), and the preparation of some plan-making Justification Tests.

However, the plan-making Justification Test has not been carried out and passed for several proposed land use zonings within flood risk zone A or B that would accommodate vulnerable or highly vulnerable uses or development types.

This approach is contrary to the recommendation of *The Planning System and Flood Risk Management Guidelines for Planning Authorities* (2009), as amended by Circular PL

2/2014, that unless such lands first pass the plan-making Justification Test they should not be zoned for such uses. It is also inconsistent with the objectives of the RSES (RPO 3.10 and RPO 3.11) and the NPF (NPO 57) to implement the guidelines.

The Office is also concerned that the SFRA does not align fully with the Mid-Range Future Scenario set out by the OPW or the High-End Future Scenario, particularly in view of the settlement's location adjacent a tidal estuary and river, where coastal flood risk can be anticipated to be exacerbated by climate-change induced sea level rise. It is vital that appropriate mitigation for climate change impacts is included in the LAP, such as avoiding development in areas prone to flooding in the future, providing space for future flood defences, specifying minimum floor level and setting specific development management objectives.

Recommendation 14 – Flood Risk Management

Having regard to:

- RPO 3.10, RPO 3.11 and NPO 57 flood risk management; and
- *The Planning System and Flood Risk Management Guidelines for Planning Authorities* (2009), as amended by Circular PL 2/2014,

the planning authority is required to:

- a) review and amend the Strategic Flood Risk Assessment for the draft LAP, including to carry out the plan-making justification test for all lands proposed to be zoned to accommodate development vulnerable to flooding (fluvial and coastal) within areas at a high or moderate risk of flooding in particular the following:
 - SFRA Map 4 – ‘Established Development’ and ‘Town Centre’
 - SFRA Map 6 – ‘Community Education’, ‘Established Development’ and ‘Town Centre’
 - SFRA Map 7 – ‘Town Centre’ and ‘Existing Development’
 - SFRA Map 8 – ‘Existing Development’, ‘General Employment’ and ‘Community Education’

- SFRA Map 11 – ‘Existing Development’, ‘General Employment’ and ‘Existing Development’

- b) The planning authority is required, where relevant, to address the specific structure or non-structural mitigation measures for flood risk on the sites concerned, as per Part 3 of the plan-making Justification Test.
- c) The planning authority is required to either omit or appropriately amend (e.g. to water compatible use only) proposed zonings that do not meet the Justification Test in accordance with the provisions of the aforementioned Guidelines and Circular.
- d) The SFRA should note already developed lands that do not meet the criteria of the plan-making Justification Test and a policy objective should be attached to the zoning to limit development to that as outlined in section 5.28 of the Guidelines.

In carrying out this review, it is important that the climate change scenario considered by the SFRA aligns fully with the Mid-Range Future Scenario set out by the OPW or with the High-End Future Scenario.

The planning authority is advised to consult with the Office of Public Works regarding this recommendation

9.2 Surface water management

The Office welcomes the inclusion of policies and objectives, which relate directly, or indirectly, to surface water management policies, including support for green and blue infrastructure with reference to the River Swilling (LK-TC-P-05), to increase tree cover to enhance surface water management (CAM-LK-P-2), to require the use of SuDS (CAM-LK-P-6), and to support the principle of the creation of natural biodiversity and wetlands systems adjacent the River Swilly (LK-NBH-P-1).

However, the Office is concerned that many of these policies only suggest or support holistic approaches to surface water management rather than clearly require it. The draft LAP also does not reference up to date guidance on sustainable surface water management produced by the Local Authorities Water Programme – *Nature Based Solutions to the Management of Rainwater and Surface Water Runoff in Urban Areas* –

Best Practice Interim Guidance Document (2022). This is inconsistent with the objective of the RSES (RPO 8.22) to prioritise investment in stormwater infrastructure to improve sustainable drainage and reduce the risk of flooding, and is also inconsistent with the objective of the NPF (NPO 57) to integrate sustainable water management solutions, such as SUDS.

The Office notes that the SFRA identifies extensive areas of lands at risk of flooding within the settlement, some of which will not pass the plan-making justification test (including extensive Town Centre proposed zoned lands) and will therefore only be suitable for water compatible development. Having regard to the requirements under the recommendation on flood risk management, the planning authority should consider how the implementation nature based solutions and green and blue infrastructure on such lands can help climate proof Letterkenny.

Recommendation 15 – Surface water management

Having regard to:

- RPO 8.22 and NPO 57 sustainable drainage, and
- *The Planning System and Flood Risk Management Guidelines for Planning Authorities (2009)*, as amended by Circular PL 2/2014

the planning authority is required to:

- a) review and amend its policies relating to sustainable surface water management, including LK-TC-P-05, CAM-LK-P-2, CAM-LK-P-6 and LK-NBH-P-1, its associated objectives, to ensure that sustainable surface water drainage approaches, including Sustainable urban Drainage Systems (SuDS) and nature based solutions will be implemented consistently throughout the settlement;
- b) reference *Nature Based Solutions to the Management of Rainwater and Surface Water Runoff in Urban Areas – Best Practice Interim Guidance Document (2022)*; and

c) consider how the implementation nature based solutions and green and blue infrastructure on lands at risk of flooding can help climate proof Letterkenny and incorporate a clear strategy for same into the draft LAP.

10. Regeneration

The Office welcomes Policy LK-TC-P-05, which identifies specific strategic urban design / public realm interventions in Letterkenny Town Centre, similar to those in the Letterkenny 2040 Regeneration Project. However, it would be appropriate to include relevant objectives and/or policies committing to the implementation of Letterkenny 2040 Regeneration Project, integrated with other objectives of the draft LAP for the town centre development. This should be developed as a masterplanned approach, or tailored approach, forming part of the draft LAP, consistent with the requirements of RPO 3.7.26, and with NPO 6 and NPO 7.

In view of the vacancy problem in the Town Centre and historic core, it is important that the draft LAP facilitates and prioritises the regeneration of the Town Centre through appropriate active land management objectives and policies, in accordance with the government's Town Centre First policy. It should also identify the critical measures and/or actions the planning authority will implement, having regard to public funding available under, among others, the Urban Regeneration and Development Fund and Town Centre First funds (e.g. Croí Cónaithe).

In order to demonstrate the effectiveness of the planning authority's approach, the draft LAP should include measurable targets for the resolution of vacancy and proposals for the monitoring of same.

Recommendation 16 – Regeneration

Having regard to

- RPO 3.7.26,
- NPO 6 and NPO 7,
- to *Town Centre First, A Policy Approach for Irish Towns (2022)* –

the planning authority is required to amend the draft LAP to include a masterplanned approach to the Town Centre Area (comprising Main Street Area and New Retail Park area and the street linkages there-between), to include:

- i) objectives to implement the Letterkenny 2040 Regeneration Strategy integrated with other objectives of the draft LAP for the town centre development;
- ii) specific active land management objectives, policies and measures or actions tailored to address building and site vacancy;
- iii) measurable targets for the reduction of vacancy for the plan period and a strategy for the monitoring of same.

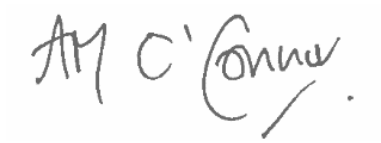
Summary

The Office requests that your authority addresses the recommendations and observations outlined above. As you are aware, the report of the chief executive of your authority prepared for the elected members under section 20 of the Act must summarise these recommendations and the manner in which they will be addressed.

Where your authority decides not to comply with the recommendations of the Office, made in the draft LAP and report, please outline the reasons for the decision in the chief executive's report.

Please feel free to contact the staff of the Office in the context of your authority's responses to the above, which we would be happy to facilitate. Contact can be initiated through plans@opr.ie.

Is mise le meas,

A handwritten signature in black ink that reads "AM O'Connor". The signature is written in a cursive style with a diagonal slash under the "n" in "Connor".

Anne Marie O'Connor

Deputy Regulator and Director of Plans Evaluations

REFERENCES