

STRATEGIC FLOOD RISK ASSESSMENT

Naas Draft Local Area Plan 2021-2027

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1 INTRODUCTION

1.1 Background

Kildare County Council (KCC) has prepared a Draft Naas Local Area Plan (LAP) 2021 - 2027 in accordance with the requirements and provisions of the Planning and Development Act 2000, (as amended) (the “Act”). It sets out the overall future development strategy for the proper planning and sustainable development of Naas in the context of the Project Ireland 2040 – the National Planning Framework, Eastern & Midland Regional Spatial and Economical Strategy (RSES), the Kildare County Development Plan 2017 – 2023 (as varied). It is informed by Ministerial Guidelines issued pursuant to Section 28 of the Act together with EU requirements regarding Strategic Environmental Assessment (SEA) and Appropriate Assessment (AA). The LAP will replace the Naas Town Development Plan 2011-2017.

KCC commissioned RPS to carry out a Strategic Flood Risk Assessment (SFRA) to support and inform the preparation of the LAP. The SFRA is 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) referred to hereafter as “The Guidelines”. The SFRA therefore informs policy regarding inappropriate development in areas at risk of flooding and identifies areas where Site Specific Flood Risk Assessments (SSFRAs) should be undertaken for development.

1.2 Report Objectives

The objective of this report is to prepare a SFRA for the Naas Draft LAP in accordance with the Guidelines. The SFRA provides an assessment of all types of flood risk within the LAP boundary and has enabled KCC to make informed strategic land-use planning decisions and to formulate flood risk policies. A review of available flood risk information was undertaken to identify any flooding or surface water management issues related to the town that may warrant further investigation.

The best available data at the time of preparation was acquired from the Office of Public Works (OPW) Eastern Catchment Flood Risk Assessment Management (CFRAM) Studies. The CFRAM Studies have generated flood zone mapping that have enabled KCC 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 / local area plan.

1.3 Disclaimer

The SFRA has been prepared in compliance with The Guidelines. It should be noted that the SFRA remains a live 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 LAP.

All information in relation to flood risk is provided for general policy guidance only. All landowners and developers are instructed that KCC 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 CFRAM mapping used to define the flood zones for this SFRA are bound by the disclaimer and other terms and conditions set out by the OPW on the website <https://www.floodinfo.ie/map/floodplans/>. The website www.floodinfo.ie provides access to the published Flood Plans along with the Flood Maps developed by the OPW as part of the CFRAM studies and information about flood risk management in Ireland. Further information on the CFRAM studies is available at 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% Annual Exceedance Probability (AEP) and 0.1% AEP events – refer to **Section 3.2.3**), rather than information on floods that have occurred in the past.

KCC 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, KCC 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 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 and claims of third parties, even if KCC has been advised of the possibility of such loss or damages, or such loss or damages were reasonably foreseeable.

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1.4 Report Structure

The Naas LAP 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 detailed information and data collated as part of the Stage 1 Flood Risk Identification carried out for the study area is discussed in **Section 5**.

Section 6 documents the Stage 2 Initial Flood Assessment to confirm the sources of flooding that affect Naas and presents the information used to prepare the flood zone maps.

Potential zoning areas at risk from flooding are examined and recommendations for Flood Risk Assessments are made in **Section 7**.

Section 7.3.5 details the flood risk management policies and objectives being brought forward to the LAP and lastly **Section 9** provides a summary.

2 STUDY AREA

2.1 Introduction

The extents for the Naas LAP area are shown in **Figure 2-1**. Naas is in County Kildare and it is approximately 36km west from Dublin City Centre, south of the M7 motorway. The population of the town in the 2011 census was 20,713 with results for the 2016 census showing a slight increase to 21,597.

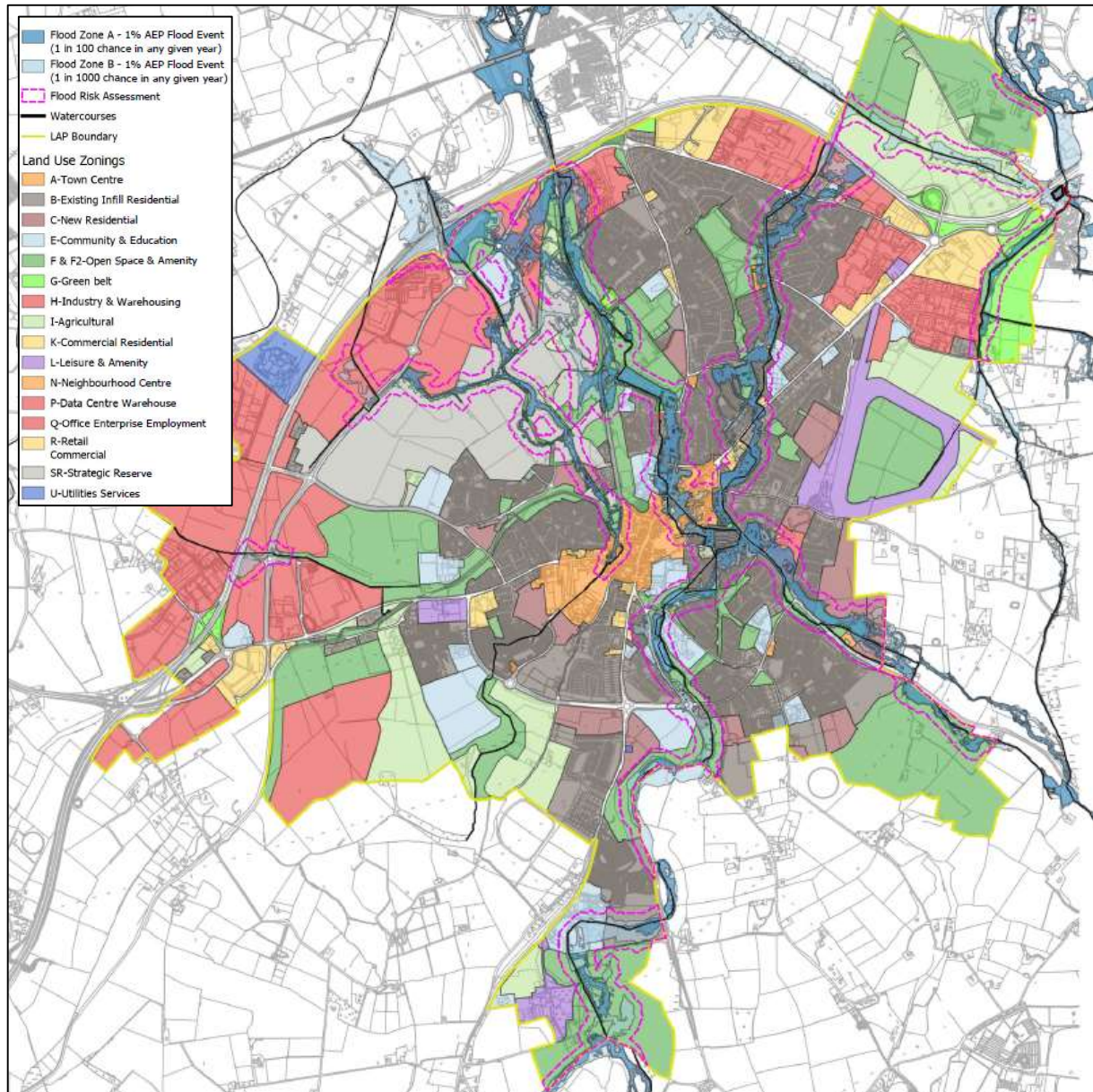


Figure 2-1 Naas LAP Boundary, Watercourses and Flood Risk Information

2.2 Watercourses

The town is situated on the banks of the Naas/Corbally branch of the Grand Canal. The Naas catchment consists of a network of tributaries into the River Liffey. These tributaries include the Naas River, Bluebell, Broadfield, Oldtown and Ploopluck watercourses. Each of these catchments is connected to and traverses the Grand Canal at various locations. The Naas River is largest of the catchments (25km²) and emanates in the foothills of the Wicklow Mountains to the south of the town. The Naas River then flows to the north and discharges into the Naas/Corbally branch of the Grand Canal.

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 Guidelines'). 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 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 (FRAs) 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), SFRA and SSFRA.

This section presents a brief summary of The Guidelines, for more detail refer to The Guidelines and the accompanying Technical Appendices at www.opw.ie.

3.2 Flood Risk Assessment

3.2.1 Flood Risk Assessment Approach

The Guidelines recommend that FRAs 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.

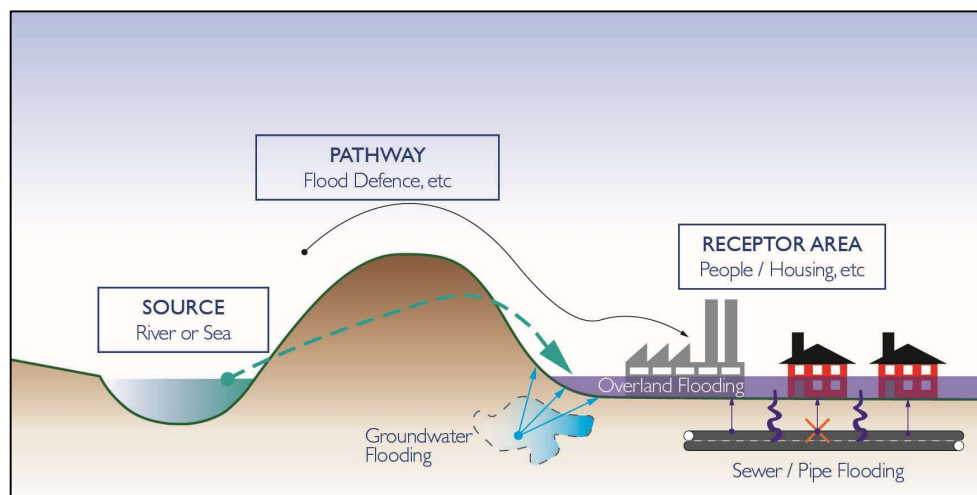


Figure 3-1 Flood Risk Assessment Source – Pathway – Receptor Model

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; and
- **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 or ground water flooding acting independently or in combination. Coastal flooding is not a concern for the Naas area as the watercourses within Kildare County do not experience any tidal influence from the Irish Sea.

- Fluvial flooding occurs when a river overtops its banks due to a blockage in the channel or the channel capacity is exceeded.
- 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.
- 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.

3.2.3 Flood Risk

The 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 of 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), and
- 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 still carry a residual risk of flooding from overtopping, failure of the defences and deterioration due to lack of maintenance. **Appendix A** shows the Flood Zone Map for the Naas LAP.

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; and
- 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

The purpose of this report is to carry out a SFRA at town scale for the Naas LAP. 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 for 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 a SSFRA 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;

- 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. **Figure 3-2** shows the sequential approach. 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. **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.

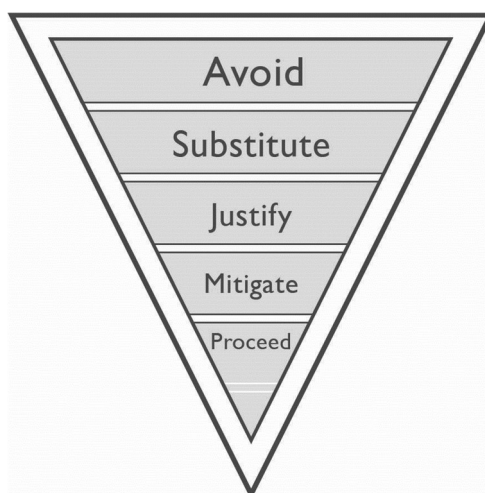


Figure 3-2 Sequential approach principles in Flood Risk Management

Table 3-2 Matrix of vulnerability versus flood zone to illustrate appropriate development and that required to meet the Justification Test

| | 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 and where avoidance or substitution is not appropriate. Where land use zoning objectives are being retained, they must satisfy the criteria of the Development Plan Justification Test. The Development Plan Justification Test from the Guidelines is shown in **Table 3-4**, Item 1 has been updated by KCC to reflect the most recent national planning policies and regulations.

Table 3-4 Justification Test for Development Plans

| Justification Test for Development Plans | |
|--|---|
| 1. | The Regional Planning Guidelines for the Greater Dublin Area 2010-2022 (now superseded by the Regional Spatial Economic Strategy for the Eastern Midlands Region 2019- 2031) set out the planned direction for growth within the Greater Dublin Area up to 2022 (2031) by giving regional effect to national planning policy under the National Spatial Strategy (NSS) (now superseded by Project Ireland 2040; the National Planning Framework & its Implementation Roadmap) County Development Plan or under the Planning Guidelines or Planning Directives provisions of the Planning and Development Act, 2000, as amended. |
| 2. | <p>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> <ol style="list-style-type: none"> Is essential to facilitate regeneration and/or expansion of the centre of the urban settlement, Comprises significant previously developed and/or under-utilised lands, Is within or adjoining the core_s of an established or designated urban settlement, Will be essential in achieving compact and sustainable urban growth, and 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>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.</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 flood risk assessment</p> |

In cases where existing zoned lands are discovered to be within flood zones, 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 one of 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; or
- Replace the existing zoning with a zoning or a specific objective for less vulnerable uses.

If the criteria of the Justification Test have been met, the design of structural or non-structural flood risk management measures can be applied as prerequisites to development in specific areas. These measures must ensure that flood hazard and risk to other locations will not be increased or, if practicable, be reduced. The mitigation measures are required prior to development taking place.

4 DEVELOPMENT MANAGEMENT AND FLOOD RISK

4.1 Overview

All development proposals taking place in areas that KCC have applied a Justification Test, where a residual flood risk remains, should be supported by an appropriately detailed FRA. The level of detail within the FRA will depend on the risks identified and the proposed land use. Applications should apply 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. The development should ensure that no encroachment onto, or loss of, the flood plain. 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. For any development in flood risk areas that meet the Development Plan Justification Test, a Development Management Justification Test must then be applied. Development must satisfy all the criteria of the Development Management Justification Test. The Development Management Justification Test from the Guidelines is shown in **Table 4-1** below. This chapter provides a broad overview of the requirements of Flood Risk Assessments which should accompany planning applications.

Table 4-1 Justification Test for Development Management

| Justification Test for Development Management | |
|---|---|
| 1. | 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. |
| 2. | The proposal has been subject to an appropriate flood risk assessment that demonstrates: <ol style="list-style-type: none"> The development proposed will not increase flood risk elsewhere and, if practicable, will reduce overall flood risk; The development proposal includes measures to minimise flood risk to people, property, the economy and the environment as far as reasonably possible; 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 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.

4.2 Surface Water and Drainage

KCC are obliged to ensure that permissions granted under the Planning Acts are consistent with the policies and objectives set out in their Development Plans. The Naas LAP outlines specific policies and objectives of the Council regarding the development of Naas. The overarching policies and objectives of the Kildare County Development Plan (CDP) also apply, specifically the Development Management Standards as set out in [Chapter 17](#). Where conflict exists between the LAP and the CDP, the CDP will take precedence. Chapter 17 of the CDP focuses on the general planning standards and design criteria that will be applied by the council. These standards ensure that future development is in accordance with these policies and objectives.

Chapter 17 of the CDP outlines the following considerations for the management of surface water run-off and flood risk when assessing planning applications:

- All applications for development shall include proposals for restricting the rate of surface water run-off in accordance with the recommendations of the Greater Dublin Strategic Drainage Study (GSDSDS);

- Developments shall incorporate Sustainable urban Drainage Systems (SuDS) as appropriate in accordance with the recommendations of the Greater Dublin Strategic Drainage Study (GDSDS);
- Proposals for development shall be subject to site specific flood risk assessment in accordance with Chapter 7 of the County Development Plan;
- Applicants shall have regard to the strategies, objectives and policies contained within Chapter 7 of the County Development Plan at all stages of their development proposals, as well as the requirements of The Planning System and Flood Risk Management – Guidelines for Planning Authorities, DEHLG (2009);
- Proposals for surface water attenuation systems should include maintenance proposals and procedures;
- Proposals to construct new and replacement culverts and bridges on watercourses shall be subject to the approval of the Office of Public Works, in accordance with Section 50 of the Arterial Drainage Act 1945 and the Planning System and Flood Risk Management Guidelines, DEHLG, (2009). These applications will be made to the Office of Public Works by the developer post receipt of planning permission. Approval shall be obtained prior to commencement of the works. The minimum permissible diameter of any culvert shall be 900mm with access to be provided for maintenance as appropriate;
- Peak flood flows used in the design of culvert sizes, channel sizes and flood alleviation works to be undertaken as part of a development shall be calculated in accordance with a method approved by the Office of Public Works;
- Applicants are required to conduct a flood impact assessment in accordance with The Planning System and Flood Risk Management – Guidelines for Planning Authorities (2009) in all applications where a potential flood risk exists;
- All new developments shall be designed and constructed to meet the following minimum flood design standards:
 - For urban areas – the 1% AEP storm event + a 20% allowance for climate change
 - For rural areas - the 1% AEP storm event + a 20% allowance for climate change
- The appropriate Office of Public Works approved method for assessing flood flows, which will depend on catchment size, shall be used in all designs. These flood flows will be used to generate channel sizes, culvert sizes and any required flood alleviation works. This assessment must be undertaken by the developer prior to the commencement of any development

All development proposals shall carry out a surface water and drainage assessment and shall be compliant with the Greater Dublin Strategic Drainage Study (GDSDS) (2005) and the Greater Dublin Regional Code of Practice for Drainage Works (2012) to ensure that drainage from the site is managed sustainably.

4.3 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.

4.4 Development Proposals in Flood Zones

4.4.1 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 surface water drainage must be compliant with the GSDS and the Code of Practice. 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.

4.4.2 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. These proposals should follow best practice in the management of health and safety for users and residents of the proposal. FRAs should consider placing bedrooms upstairs, sockets above the 1% AEP water level and other individual property protection measures e.g. flood doors, non-return valves. They must also ensure that modifications do not block significant flow paths or cause flood risk impacts to the surrounding areas.

4.4.3 Assessment of Proposals for Highly Vulnerable Development

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

- 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,
- 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,
- 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, and
- 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.

4.4.4 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.

4.4.5 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 to The Guidelines then the application should be refused on flood risk grounds and a new application submitted, allowing for appropriate design and FRA.

4.4.6 Potential Flood Mitigation Measures

To address flood risk for a new development or regeneration of an existing development, a sequential approach should be taken to minimise potential impact of flooding to more vulnerable land use. However, if necessary due to site constraints, potential flood mitigation measures could be incorporated into a site layout. Examples of potential measures are listed below:

- Compensatory storage,
- Raised defences, and
- Ground floor & basement protection.

Compensatory Storage

Compensatory Storage can be implemented by modifying existing ground levels within the site in order to relocate the flood extents to accommodate a proposed development. However, if not managed appropriately, this measure could have an adverse effect on flood risk for the surrounding areas. There are a number of steps to be taken before this measure can be considered as a viable option:

- An FRA to establish the extents of the existing flood risk, and also a hydraulic model to demonstrate the potential impacts of compensatory storage on site and also for the surrounding areas,
- Compensatory Storage to be implemented on a level for level basis to manage the flood volume reduced by infilling where the floodplain provides storage,
- Compensatory Storage is required to be provided at close proximity to the existing floodplain,
- The lands proposed for compensatory storage are required to be in control of the owner of the proposed development,
- The lands proposed for compensatory storage are required to be outside the existing Flood Zones A and B,
- Compensatory storage area should be constructed prior to the land being raised for the proposed development, and
- Any potential loss of storage for the 0.1% AEP year return period within urban areas as a result of compensatory storage should be compensated through additional storage.

Raised Defences

Raised defences such as flood walls or embankments are a traditional response to managing flood risk. However, if this measure were to be considered, a SSFRA should be required to establish the extent of the existing flood risk and the potential implications of raised defences on flood risk for a proposed development site and the surrounding areas.

Ground Floor and Basement Protection

The following flood protection measures are recommended for basements and ground level access:

- Raised doorway and access threshold levels can be incorporated into areas susceptible to floodwaters pooling. Temporary door-guards can be implemented where it is not practical to have a permanent raised threshold. However, these will require advance warning for installation,
- Shallow ramping can be considered for doorway or vehicular access at ground level if it can be facilitated,
- Particular care should be taken at closed spaces where it proposed to restrict the movement of floodwaters as the rapid inundation could pose a threat to life as well as causing major disruption or damage, and
- Alarm systems are strongly recommended for properties with basements or semi-basements. Training of residents and building personnel in alarms and escape routes and escorting all visitors out of basement areas should be a requirement.

5 STAGE 1 - FLOOD RISK IDENTIFICATION

5.1 Overview

The purpose of this section is to establish the level of flood risk for the town of Naas and to collate and assess existing current and historical information and data which may indicate the level and/or extent of any flood risk. The following sections detail information and data collated as part of the Stage 1 Flood Risk Identification. There are several sources of relevant flood risk information available for County Kildare and the Naas area. **Figure 2-1** shows an overview of the CFRAM flood extents and historical flooding areas for the town extents.

5.2 Source-Pathway-Receptor Model

In the first instance, an identification and assessment of the probability, magnitude, response of pathways and consequences of a flood event in the proposed development site were appraised. This analysis was aimed at identifying high risk elements as summarised in below.

Table 5-1 Justification Test for Development Management

| Source | Pathway | Receptor | Likelihood (remote, possible, likely) | Consequences (low, medium, high) | Risk (low, medium, high) | Comment/ Reason |
|----------------|--|-------------------------------|--|--|-----------------------------------|---|
| Tidal /Coastal | Increased river levels overtopping existing riverbanks | Town Centre and Suburbs | Remote | Low | Low | The study area is located inland and the rivers are not tidally influenced within the extents of the town. |
| Fluvial | Increased river levels overtopping riverbanks | Town Centre and Suburbs | Likely | High | High | There are several rivers located in the study area. |
| Pluvial | Overland Flow from Elevated Lands or Water logging | Town Centre and Suburbs | Possible | High | Low | The surrounding topography slopes gently towards the rivers. Localised pluvial flooding could occur on some sites. |
| Groundwater | Rising Ground Water Level | Town Centre and Suburbs | Possible | High | Low | There are no records of ground water flooding in the area. The subsoil for the most part in the area has medium to high permeability so waterlogging potential is unlikely. |

The primary source of flood risk to the town may be attributed to fluvial flooding from the local watercourses (Naas River and Broadfield River) and their tributaries. Secondary risks may arise from pluvial and groundwater flooding.

5.3 Flood Risk & Flood Studies Information

Relevant information was reviewed and collated from the following sources:

- [Kildare County Development Plan 2017 – 2023 and Strategic Flood Risk Assessment](#);
- [Naas Town Development Plan 2011-2017 and Strategic Flood Risk Assessment](#);
- Flood Mapping, Hydrology & Hydraulic Reports from the CFRAMS at www.floodinfo.ie, refer to **section 5.5** below for further detail on the CFRAMS.
- Proposals for regional and local flood mitigations measures from the Flood Risk Management Plans (FRMP) for the Liffey & Dublin Bay available at www.floodinfo.ie, refer to **section 5.5** below for further detail on the Liffey & Dublin Bay FRMP.
- [Groundwater Flooding Data](#) from the Geological Survey of Ireland.

5.4 Historical Flooding

A review of historical flood data was carried out using information provided on <https://www.floodinfo.ie/> and in consultation with KCC. Consultation with KCC engineering staff was also carried out as part of the SFRA to confirm sources of flooding. The main source of flooding in the town is fluvial. **Figure 5-1** and **Table 5-2** show the locations of the predicted and historical flood events within Naas and in the surrounding areas.

Table 5-2 Previously recorded flooding within in Naas

| Flood Location and Date |
|--|
| Flood event June 1993 – Homes flooded from the Broadfield and Naas Rivers in Rose lawn, Millbrook and Mountain View Estates |
| Occasional Flood Event – Limited Capacity Culvert causes flooding on the Newbridge Road |

5.5 Eastern CFRAMS and River Liffey & Dublin Bay FRMP

5.5.1 Overview

The OPW lead the development of the CFRAMS. 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 were identified as being potentially at risk from significant flooding, including areas that have experienced significant flooding in the past. They have considered 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”. The CFRAM Studies have developed FRMPs 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).

Naas has been identified as an Area for Further Assessment (AFA) within the Eastern CFRAMS. The Eastern CFRAMS Flood Risk Review recognised the need for the Naas to be identified as an AFA based on evidence from historical flood events and the extents of the flood risk determined during the OPW Preliminary Flood Risk Assessment (PFRA) Study. **Figure 5-2** below shows an example of flood extent mapping from the CFRAMS for Naas.

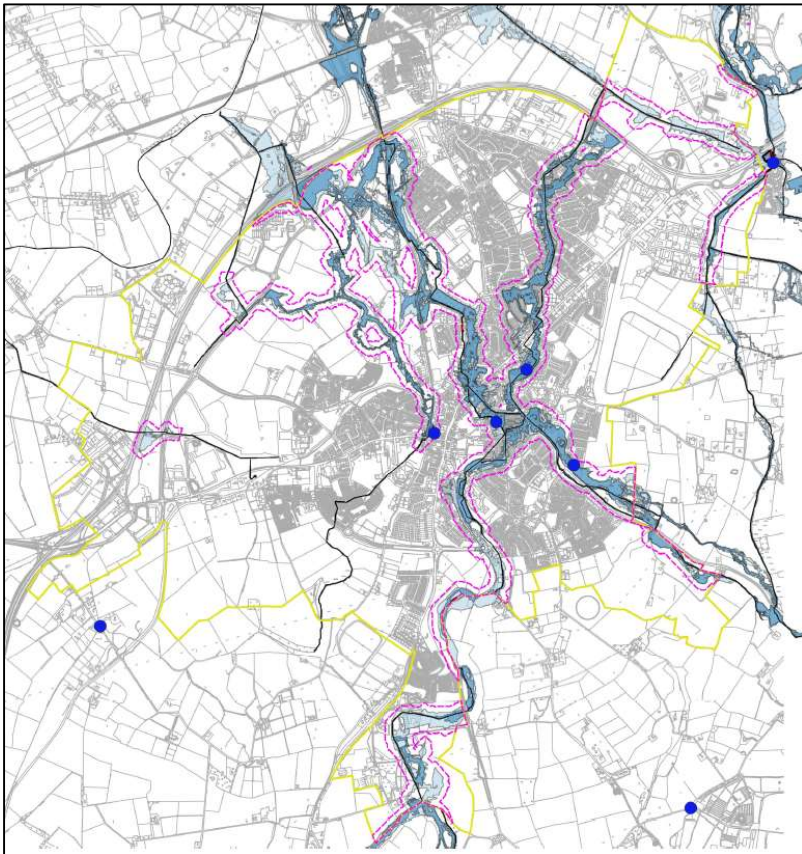


Figure 5-1 Predicted Flooding Extents & Historical Flooding Locations

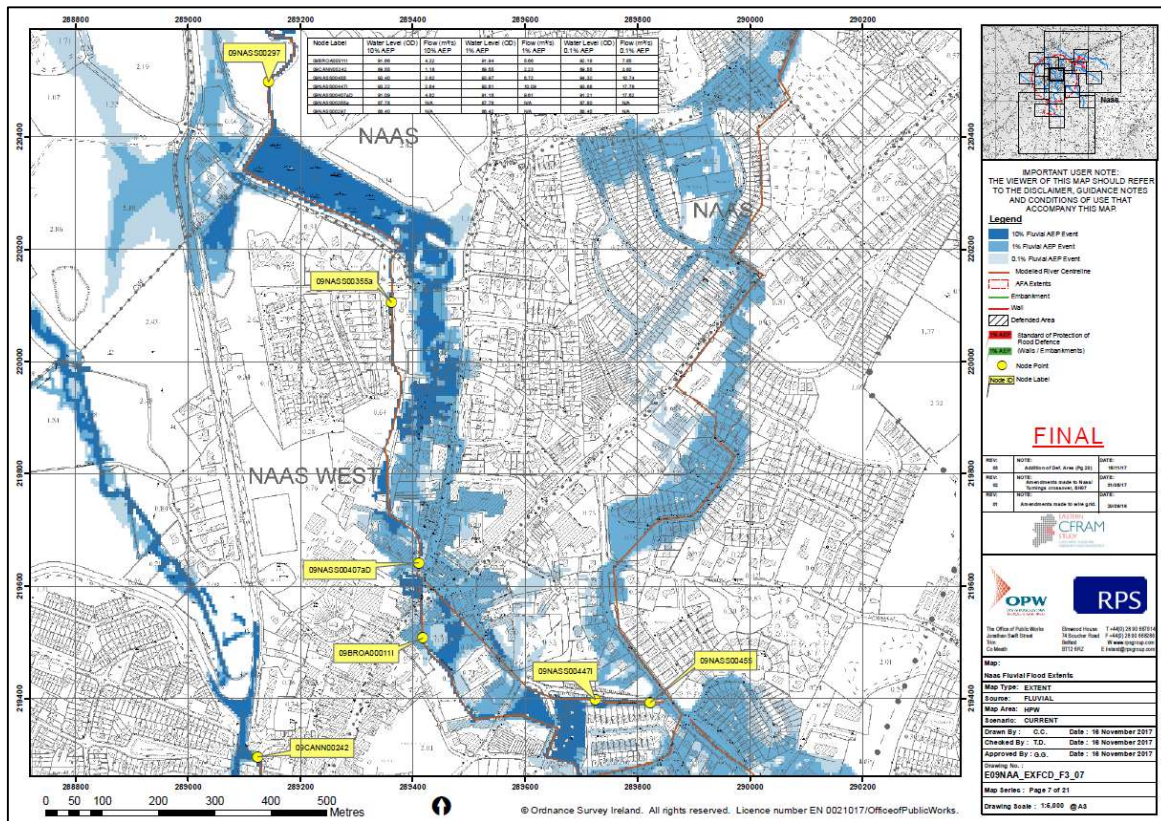


Figure 5-2 CFRAMS Flood Extent map for Naas town centre

5.5.2 FRMP Measures for Naas

The FRMP for the River Liffey & Dublin Bay was published by the OPW as an output from the Eastern CFRAMS. The FRMP outlined a series of proposed flood risk policy measures for the River Liffey catchment but also a preferred flood alleviation scheme for Naas, as shown in **Figure 6-1** below. The lists of measures applicable to Naas are outlined in **Table 5-3** below. A Disclaimer and Conditions of Use for flood maps the FRMP is available at www.floodinfo.ie. The River Liffey & Dublin Bay FRMP was adopted by KCC in July 2018 and they have committed to implementing the recommendations from the FRMP and will work in conjunction with the OPW to deliver the proposed flood relief scheme for Naas. This scheme will provide protection to existing residential and commercial properties at risk from fluvial flooding to 1% AEP event standard of protection (roughly equivalent to a 1 in 100-year storm).

Prior to the design of the scheme the FRMP recommended that further hydrometric data collection and flood mechanism analysis should be progressed either as the first phase of a Flood Relief Scheme for Naas, or as an initial study in advance of a Flood Relief Scheme. The purpose of this is to achieve greater confidence in the hydraulic modelling undertaken as part of the CFRAMS and to identify an integrated option to manage the existing risk in Naas.

It was recognised in the FRMP that there is a high level of uncertainty regarding the flood risk in relation to parts of Naas due to poor availability of model calibration events and possible interconnection between fluvial and surface water drainage and canal systems. Despite the uncertainty it was still considered appropriate that the outline of a potential option (IE09-090094-0909-M61) was developed and should be progressed in conjunction with the further data collection and analysis (E09-090094-1009-M61).

KCC has appointed (August 2020) a consultant to undertake further data collection and analysis (E09-090094-1009-M61) and following its conclusion, measure IE09-090094-0909-M61 will commence to evaluate a potential Naas Flood Relief Scheme. The current programme, which is subject to change, for completion of the further data collection and analysis (E09-090094-1009-M61) is December 2021 with an option for potential scheme to be completed by November 2022.

Table 5-3 River Liffey and Dublin Bay FRMP proposed Flood Risk Management measures

| | FRMP Code | Measure |
|-------------------|-------------------|--|
| Regional Measures | IE09-UoM-9011-M22 | Application of the Guidelines on the Planning System and Flood Risk Management (DECLG/OPW, 2009) |
| | IE09-UoM-9012-M34 | Implementation of Sustainable Urban Drainage Systems (SuDS) |
| | IE09-UoM-9052-M22 | Voluntary Home Relocation Scheme |
| | IE09-UoM-9053-M43 | Individual Property Protection |
| | IE09-UoM-9013-M24 | Consideration of Flood Risk in local adaptation planning. |
| | IE09-UoM-9021-M31 | Assessment of Land Use and Natural Flood Risk Management Measures |
| | IE09-UoM-9023-M33 | Ongoing Maintenance of Drainage Districts |
| | IE09-UoM-9031-M41 | Establishment of a National Flood Forecasting and Warning Service |
| | IE09-UoM-9032-M42 | Ongoing Appraisal of Flood Event Emergency Response Plans and Management Activities |

| | FRMP Code | Measure |
|---------------|----------------------|---|
| | IE09-UoM-9033-M51 | Individual Action to Build Resilience |
| | IE09-UoM-9041-M61 | Flood-Related Data Collection |
| | IE09-UoM-9051-M61 | Minor Works Scheme |
| Naas Measures | IE09-090094-0909-M61 | Progression of the Naas Flood Relief Scheme, comprising hard defences (flood walls and embankments) formalisation of an existing flow path to create a flow diversion channel and improvement of channel conveyance to project-level development and assessment for refinement and preparation for planning/Exhibition and, as appropriate, implementation. |
| | IE09-090094-1009-M61 | To carry out a detailed assessment, including data collection and an assessment of potential non-fluvial sources, in order to achieve confidence in the modelling and to identify an integrated option to manage the existing risk in Naas. |

5.6 Conclusion of Stage 1

Records of historical flooding, the flood extent mapping generated for the CFRAMS, and other records outlined in the preceding sections indicated that Naas is potentially at risk from fluvial flooding and to a lesser extent pluvial and groundwater flooding. Therefore, the FRA was progressed to Stage 2 – Initial Flood Risk Assessment.

6 STAGE 2 – INITIAL FLOOD RISK ASSESSMENT

6.1.1 Overview

The purpose of the Initial FRA was to appraise the availability and adequacy of the identified flood risk information; to qualitatively appraise the flood risk posed to the site and potential impacts on flood risk elsewhere; and recommend possible mitigation measures to reduce the risk to acceptable level. In consideration of the above assessment, the primary flood risk to the study area was attributed to:

- Fluvial – High Risk
- Pluvial (overland flow)– Medium Risk
- Groundwater – Low Risk

6.2 Fluvial Flooding

6.2.1 CFRAM Fluvial Flood Mapping

Section 5.4 and **Section 5.5** above detail the historical flooding in the town and the steps taken to analyse and assess the fluvial flood risk to Naas. The CFRAMS generated flood extent maps for the town identifying at risk areas. **Figure 5-2** shows an example of the maps created and they are also available at www.floodinfo.ie. The town is affected by fluvial flooding during a 1% AEP and 0.1% events. Some residential and non-residential properties are at risk. These are located in the town centre and residential areas including Woodlands, Blessington Road and Monread Avenue. There is also an area of undeveloped land in the North West of the town at risk from fluvial flooding.

As discussed in **section 5.5.2**, the FRMP identified an additional hydraulic modelling exercise to assess the potential non-fluvial flooding sources, to achieve increased confidence in the CFRAM modelling and to identify an integrated option to manage the existing risk in Naas. KCC has appointed a consultant to undertake this task and this analysis is ongoing, it is currently in the data collection stage with the design and planning for a potential design option scheduled (subject to change) to be completed by November 2022. This modelling exercise and associated flood extent mapping will inform future SFRA for the town and for the masterplan of the strategic lands in the North-west Quadrant. Once completed the study will inform any amendment or future local area plan, at which time an update of this current SFRA can be produced.

6.2.2 River Liffey & Dublin Bay FRMP – Naas Proposed Flood Relief Works

There is no existing flood scheme in place for Naas. As noted in **Table 5-3**, the Eastern CFRAM Flood Risk Management Plan (FRMP) identified a flood relief scheme for Naas. The proposed scheme comprises of hard defences (flood walls and embankments); formalisation of an existing flow path creating a flow diversion channel; improvement of channel conveyance and potential storage options. KCC have committed to implementing any recommendations from the FRMPs and will work in conjunction with the OPW to deliver any proposed flood alleviation schemes that are deemed appropriate and viable. This scheme will also be subject to further hydraulic analysis as discussed in **section 5.5.2**.

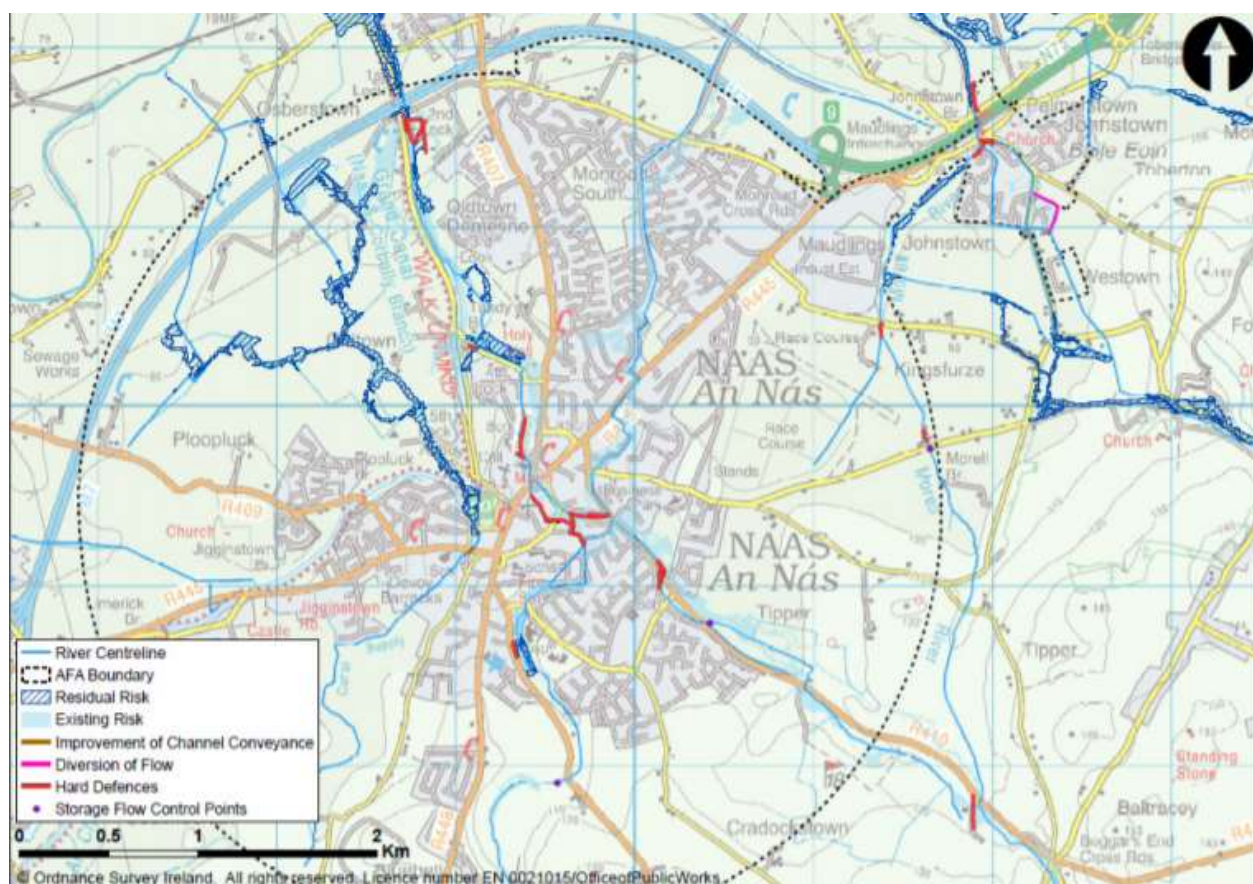


Figure 6-1 Proposed flood relief measures identified in the FRMP for Naas

6.2.3 Fluvial Flood Zone mapping

The River Liffey and Dublin Bay FRMP detailed that there is high uncertainty regarding the flood risk in relation to Naas due to poor availability of model calibration events and possible interconnection between fluvial and surface water drainage and canal systems. However as the CFRAMS maps are the most comprehensive flood maps produced for Kildare since the introduction of The Guidelines and the Floods Directive, they are the best available source of flooding information to inform the SFRA and they have been adopted by KCC as identifying the flood zones for Naas. The flood zones only account for inland flooding. The flood zone map is shown in **Appendix A**. The CFRAMS mapping used to define the flood zones for this SFRA are bound by the disclaimer and other terms and conditions set out by the OPW on the website <https://www.floodinfo.ie/>. KCC have used the flood zones 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 LAP.

6.3 Climate Change Sensitivity

The CFRAMS flood extent mapping for the present day scenario and a climate change scenario known as the mid-range future scenario (MFRS), as shown on www.floodinfo.ie, were compared to establish an indication of future flood risk in areas. The present-day flood extents were generated using methodologies based on historic flood data, without taking account of potential changes due to climate change. The MFRS flood extents were generated taking in the potential effects of climate change using an increase in rainfall of 20%.

The review concluded that some proposed highly vulnerable zonings, existing zonings and well-established areas of the town could come under increased flood risk. **Areas at specific risk from potential increases in flood extent due to climate change are discussed individually in Section 7.2.** SSFRAs should address climate change scenarios in relation to finished flood levels (FFLs) and potential mitigation measures in these areas. Any proposed flood relief measures should be designed for climate change

adaptability. Adaptation may require additional height and length of hard defences and additional space for embankments. Adaptations could be accommodated at moderate to significant cost and visual impact.

6.4 Pluvial Flooding

There are no recorded incidents of significant pluvial flooding within the town. The town is generally gently sloping towards the main watercourses. The soil, subsoils and geology of the site has been determined from the Geological Survey of Ireland (GSI) online Spatial Data and Resources and the Environmental Protection Agency (EPA) online map viewer. The GSI online spatial data viewer shows that the soil underlying the town is described as Urban (Made-Ground) associated with the town urban footprint while the regional sub soil is largely a series of medium to high permeability so water logging is a low risk. There are some areas of low permeable soil in the Monread and Dun Na Riogh areas.

The OPW undertook a national Preliminary Flood Risk Assessment (PFRA) that provided a national level screening of areas that are at potential risk of pluvial flooding. For a thorough assessment of pluvial risk in Kildare a more detailed assessment at a countywide scale (taking into consideration of local factors and parameters) would need to be carried out. Nonetheless, the national PFRA 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. Areas at risk from pluvial flooding where a more detailed FRA maybe required are discussed in **Section 7.2**. Recommendations and guidelines from the GDSDS should be implemented in these areas to reduce the risk of pluvial flooding. Implementing and following recommendations from the GDSDS in the town can reduce the risk of pluvial flooding.

6.5 Groundwater Flooding

A review of the [GSI Groundwater Flooding Data Viewer](#), as presented in **Figure 6-2**, shows no records of groundwater flooding occurring in the town. There are no recorded karst features, which can indicate potential for groundwater flooding. This is no predicted ground water flood in the region. There are some isolated areas of historical surface water flooding, which is mostly likely due to poor drainage during extreme rainfall events in non-developed areas of the town. The risk of ground water flooding for the town is deemed to be low.

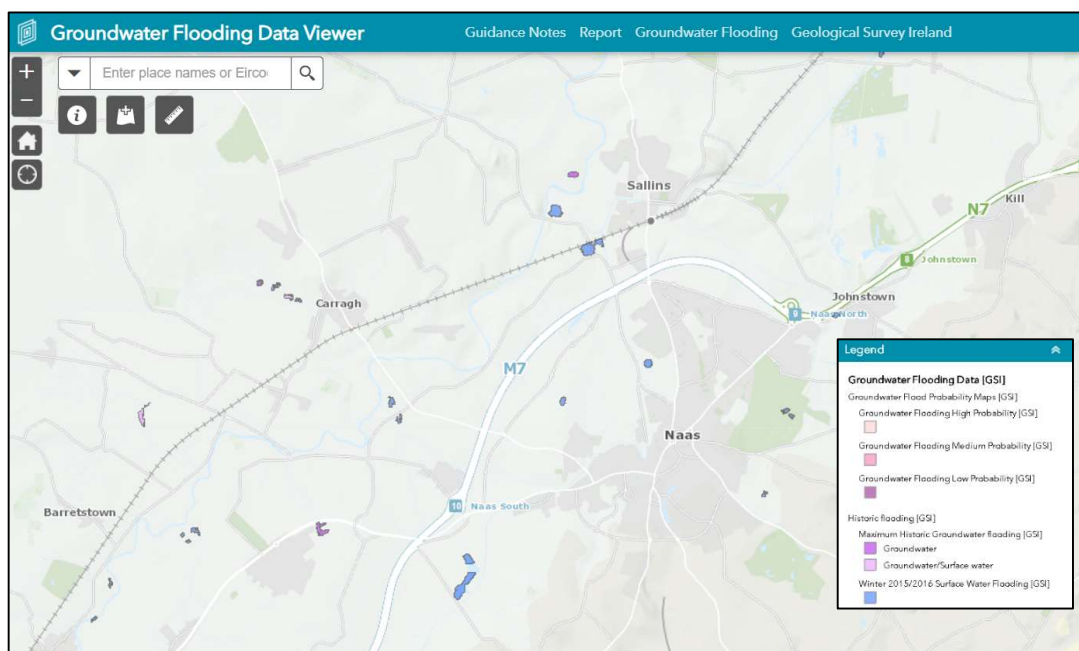


Figure 6-2 Groundwater Flooding Data from GSI Data Viewer

6.6 Conclusion of Stage 2

The town of Naas is identified to have a high fluvial flood risk and hence a further assessment of the implications to the town is necessary. A review of the available flood extent mapping and reports for the CFRAMS indicates the town is at risk from fluvial flooding for the 1% and 0.1% AEP events. The risk of pluvial and groundwater flooding has been deemed to be low and does not require further assessment for the SFRA, however they should still be assessed for SSFRAs as appropriate.

There is no existing flood scheme in place for Naas. The FRMP for the River Liffey and Dublin Bay identified a flood relief scheme for Naas. The proposed scheme comprises of hard defences (flood walls and embankments), formalisation of an existing flow path to create a flow diversion channel, improvement of channel conveyance and potential storage options. KCC have committed to implementing any recommendations from the FRMPs and will work in conjunction with the OPW to deliver any proposed flood alleviation schemes that are deemed appropriate and viable.

As noted in River Liffey and Dublin Bay FRMP there is high uncertainty regarding the flood risk in relation to Naas due to poor availability of model calibration events and possible interconnection between fluvial and surface water drainage and canal systems. Therefore, the proposed scheme will be subject to further hydraulic analysis to assess the potential non-fluvial flooding sources, to achieve increased confidence in the CFRAM modelling and to identify an integrated option to manage the existing risk in Naas. KCC has appointed a consultant to undertake this task and this analysis is ongoing, it is currently in the data collection stage with the option for potential scheme to be completed by November 2022

This exercise will generate updated flood extent mapping for Naas however the timeline for completion of the project does not align with the publication of the LAP, therefore as the CFRAMS maps are the best available source of flooding information to inform the SFRA they have been adopted by KCC to identify the flood zones for Naas. KCC have used the flood zones 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 LAP which is described in **Section 7** below. The flood zone map is shown in **Appendix A**.

Where significant uncertainty occurs in undeveloped areas which may, in future, be considered suitable for development, KCC have zoned these lands as Strategic Reserve (SR), with specific reference to the lands in the Northwest Quadrant (NWQ) in the Naas Local Area Plan, which will form part of an overall masterplan, to be prepared and informed by the aforementioned flood model for Naas.

KCC have appraised the zonings against the flood zones and they do not require further hydraulic modelling to be in compliance with the Guidelines, therefore it is not required for the Naas LAP to progress to Stage 3 Detailed FRA. Detailed FRAs for some development areas may be required at planning level stage, see **Section 7** below for further detail.

Following the completion of the flood mapping stage of the Naas hydraulic model review, an appraisal of the flood extents will be undertaken and if required KCC will carry out an update to the SFRA and a subsequent amendment of the LAP in accordance with Section 20 of the Planning and Development Acts, 2000 (as amended). Any revised SFRA will be prepared using the updated flood zone mapping in accordance with the requirements of The Guidelines.

7 DEVELOPMENT PLAN ZONING

7.1 Introduction

The land use zonings provided by KCC for the town of Naas have been reviewed in the context of the available flood zone mapping, the indicative pluvial risk, the sensitivity of flood extents to climate change and previous SFRA reports. A summary of the zonings (other zoning categories not listed here should be considered on their own merit) and an assessment of their vulnerability and the requirements of application of the Justification Test are shown in **Table 7-1**.

KCC reviewed the flood zones regularly during the LAP process and followed the sequential approach to zone land appropriate to their flood risk vulnerability. Open Space and Amenity areas have been zoned to coincide with flood risk areas in so far as possible and practicable. Where less vulnerable and highly vulnerable zonings coincide with flood zones, Justification Tests have been carried out as applicable and are illustrated in **Appendix B**.

Table 7-1 Land Use Zoning and Vulnerabilities

| Objective | Vulnerability | Justification Test Required |
|---------------------------------|-----------------------|---|
| A - Town Centre | High/Less | For highly vulnerable development in Flood Zone A or B For less vulnerable development in Flood Zone A |
| B - Existing/Infill Residential | High | For Development in Flood Zone A or B |
| C – New Residential | High | For Development in Flood Zone A or B |
| E - Community & Education | High/Less | For highly vulnerable development in Flood Zone A or B For less vulnerable development in Flood Zone A |
| F - Open Space & Amenity | Less/Water Compatible | For highly vulnerable development in Flood Zone A or B For less vulnerable development in Flood Zone A |
| F2 – Strategic Open Space | Less/Water Compatible | For highly vulnerable development in Flood Zone A or B For less vulnerable development in Flood Zone A |
| H – Industry & Warehousing | Less | For Development in Flood Zone A |
| I – Agricultural | Less | For Development in Flood Zone A |
| K – Commercial/Residential | High/Less | For highly vulnerable development in Flood Zone A or B For less vulnerable development in Flood Zone A |
| L – Leisure & Amenity | Less | For Development in Flood Zone A |
| N - Neighbourhood Centre | High/Less | For highly vulnerable development in Flood Zone A or B For less vulnerable development in Flood Zone A |
| P – Data Centre/Warehouse | Less | For Development in Flood Zone A |

| Objective | Vulnerability | Justification Test Required |
|-------------------------------------|---------------|---|
| Q – Office, Enterprise & Employment | Less | For Development in Flood Zone A |
| R - Retail/Commercial | Less | For Development in Flood Zone A |
| SR – Strategic Reserve | High/Less | For highly vulnerable development in Flood Zone A or B For less vulnerable development in Flood Zone A |
| U – Utilities & Services | High | For Development in Flood Zone A or B |

7.2 Pre-existing Zoned Areas

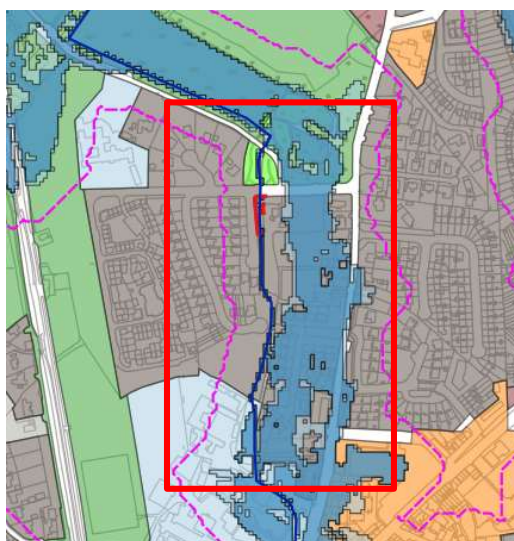
Table 7-2 below summarises the applicability of the Justification Test to pre-existing zoned areas in Naas by overlaying the flood mapping on the pre-existing land use zonings. Areas listed in **Table 7-2** are presented in more detail in the following sections where a review of the flood risk was undertaken and a strategy is presented to manage the flood risk for each location. Justification Tests where applicable for areas are shown in **Appendix B**. The images presented for each location showing Flood Zones A and B overlain on the land use zones are extracts from the Flood Zone Map in **Appendix A**.

Table 7-2 Pre-existing zoned areas vulnerable to potential flooding

| Site Location No. | Land Use Zoning | Land Use Vulnerability | Justification Test Requirement |
|--|----------------------------------|------------------------|--|
| 1 Millbridge Residential Estate | Existing Residential | Highly Vulnerable | Required as some residential properties are located in Flood Zone A and B. |
| 2 St David's Church & Schools | Existing Educational & Community | Highly Vulnerable | Required as the church and sections of two schools are located within Flood Zone A and B. |
| 3 Naas Town Centre | Town Centre/Mixed Use | Highly/Less Vulnerable | Required as Town Centre zoning is located in Flood Zone A and B. Town Centre Zoning has mixed uses including residential which requires a Justification Test. Justification Test is not applicable to commercial development uses in Flood Zone B. |
| 4 Monread Avenue Residential Areas | Existing Residential | Highly Vulnerable | Required as some residential properties are located in Flood Zone A and B. |
| 5 Dublin Road and Blessington Road Residential Areas | Existing Residential | Highly Vulnerable | Required as some residential properties are located in Flood Zone A and B. |
| 6 Blessington Road Business Park | Existing Commercial/Business | Less Vulnerable | Required as some commercial buildings are located in Flood Zone A. |
| 7 Ballymore Eustace Road Residential Areas | Existing Residential | Highly Vulnerable | Required as some residential properties are located in Flood Zone B. |

| Site Location No. | Land Use Zoning | Land Use Vulnerability | Justification Test Requirement |
|--|----------------------------------|------------------------|---|
| 8 Vista Primary Care Centre & Piper's Hill College | Existing Educational & Community | Highly Vulnerable | Required as some community infrastructure is located within Flood Zone A and B. |
| 9 Enterprise and Employment Lands - Northwest Quadrant | Existing Commercial/Business | Less Vulnerable | Required as some commercial located in Flood Zone A. |
| 10 Monread Avenue & Blessington Road Neighbourhood Centres | Neighbourhood Centres | Highly/Less Vulnerable | Required as some properties are located in Flood Zone A and B. |
| 11 Larchfield Nursing Home | Existing Community | Highly Vulnerable | Required as the property is located in Flood Zone A and B. |
| 12 Lands to the east of Monread Industrial Estate | Existing Industry & Warehousing | Less Vulnerable | Required as some commercial properties are located in Flood Zone A. |
| 13 McCormack Centre & Millbrook Court Retail Properties | Existing Commercial & Retail | Less Vulnerable | Not required as some commercial properties are located in Flood Zone B. |
| 14 Blessington Road | New Residential | Highly Vulnerable | Required as some areas are located in Flood Zone A and B. |
| 15 Kilcullen Road | New Residential | Highly Vulnerable | Required as some areas are located in Flood Zone A and B. |
| 16 Abbey Bridge | Existing Residential | Highly Vulnerable | Required as some areas are located in Flood Zone A and B. |
| 17 Community College - Northwest Quadrant | Existing Educational & Community | Highly Vulnerable | Required as some areas are located in Flood Zone A and B. |

7.2.1 Millbridge Residential Estate

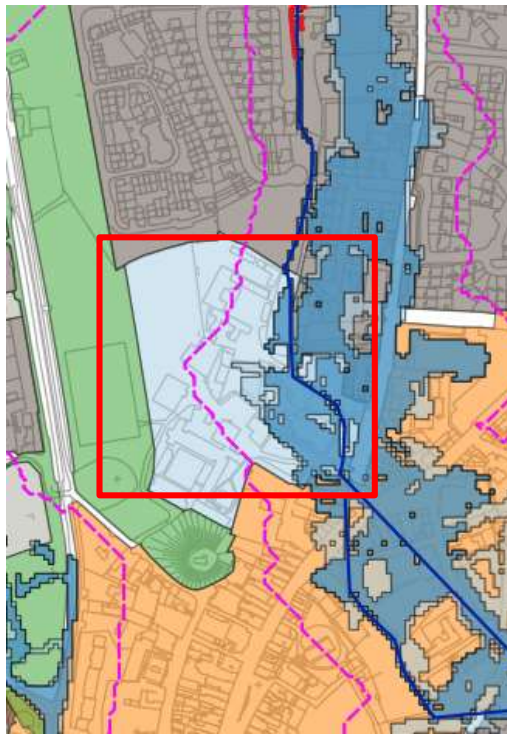


Historical Flooding

No historical flooding reported in the area.

| | |
|-----------------------------|--|
| Flood Zone Mapping | CFRAM mapping |
| Comment | <p><u>Fluvial Flooding</u></p> <p>The flood zones show properties within the Millbridge residential estate within Flood Zone A and B extents. The predicted flood zones are largely contained within the area between the right bank of the Naas River and the Sallins Road.</p> <p><u>Pluvial Flooding</u></p> <p>The PFRA mapping does not highlight pluvial extents in this area.</p> <p><u>Climate Change</u></p> <p>The flood mapping as shown on www.floodinfo.ie for the MRFS scenario indicates an increase in flood extents for Flood Zone A, taking into account climate change within Millbridge residential estate.</p> <p><u>Justification Test</u></p> <p>It was recommended that the Planning Authority carry out the Development Plan Justification Test to assess if the zoning in this area remains suitable.</p> |
| Development Strategy | <p>KCC carried out a Justification Test and found that it is considered appropriate to retain the pre-existing zoning. The Justification Test and proposed flood risk management measures are included in Appendix B. Any future significant development should be subject to a SSFRA. The Justification Test does not apply to applications for minor development to existing buildings in areas of flood risk such as small extensions and the majority of 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.</p> <p>The FRMP identified proposed flood defence works for the Millbridge estate which will be re-evaluated, along with the predicted flood zones, as part of the updated modelling exercise as described in section 6.2.3.</p> <p>In the interim, if a SSFRA were to re-evaluate the predicted flood extents for this area, a hydraulic model of an appropriate scale is required. The outputs from the hydraulic model will be expected to consist of enough detail and analysis to demonstrate revised Flood Zone A and B flood extents. Any revision of the predicted flood extents will be subject to KCC approval.</p> |

7.2.2 St David's Church & Two Schools



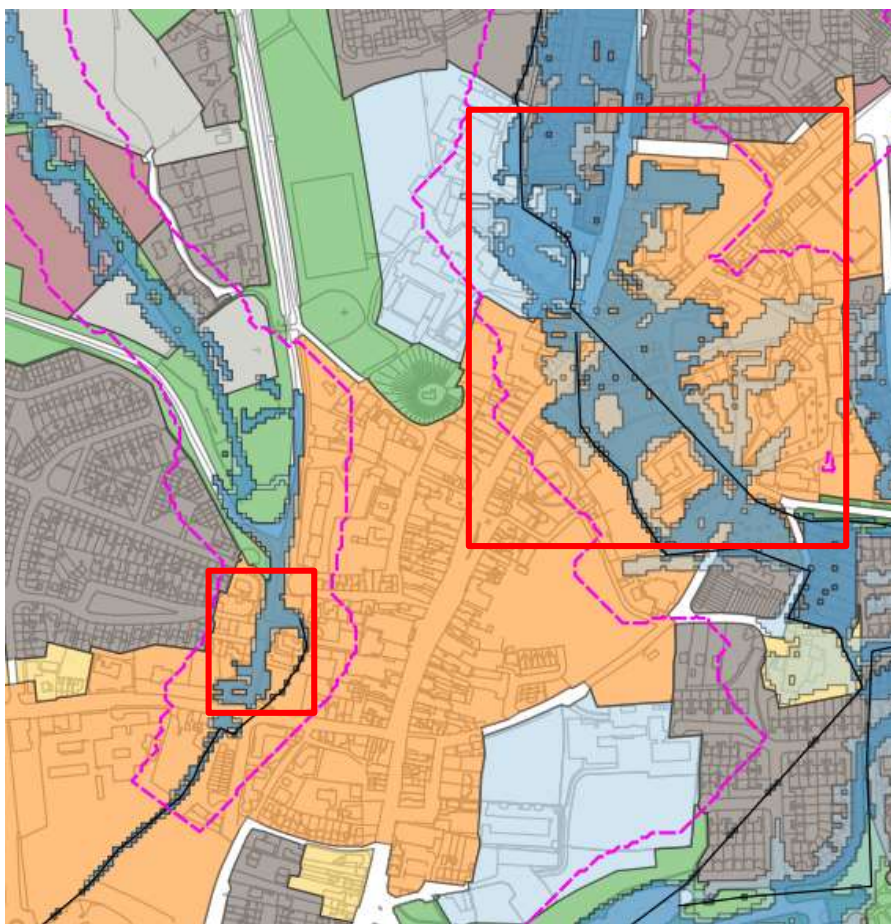
| | |
|----------------------------|---|
| Historical Flooding | No historical flooding reported in the area. |
| Flood Zone Mapping | CFRAM mapping |
| Comment | <p><u>Fluvial Flooding</u></p> <p>The flood zones show St David's Church to be within the Flood Zones A and B extents. The predicted Flood Zone A and B extents encroaches the grounds of the Mercy Convent Primary School and St Mary's Secondary School.</p> <p><u>Pluvial Flooding</u></p> <p>The PFRA mapping does not highlight pluvial extents in this area.</p> <p><u>Climate Change</u></p> <p>The flood mapping as shown on www.floodinfo.ie for the MRFS scenario indicates an increase in flood extents for Flood Zone A, taking into account climate change within the grounds of St Mary's Secondary School.</p> <p><u>Justification Test</u></p> <p>It was recommended that the Planning Authority carry out the Development Plan Justification Test to assess if the zoning in this area remains suitable.</p> |
| Conclusion | KCC carried out a Justification Test and found that it is considered appropriate to retain the pre-existing zoning. The Justification Test and proposed flood risk management measures are included in Appendix B . Any future significant development should be subject to a SSFRA. 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.

The FRMP identified proposed flood defence works for the educational and community infrastructure in this area will be re-evaluated, along with the predicted flood zones, as part of the updated modelling exercise as described in **section 6.2.3**.

Therefore, in the interim if a SSFRA were to re-evaluate the predicted flood extents for proposed significant development in this area a hydraulic model of an appropriate scale is required to be constructed. The outputs from the hydraulic model will be expected to consist of enough detail and analysis to demonstrate revised Flood Zone A and B flood extents, where necessary. Any revision of the predicted flood extents will be subject to KCC approval.

7.2.3 Naas Town Centre



| | |
|----------------------------|---|
| Historical Flooding | Occasional Flooding on the Newbridge Road |
| Flood Zone Mapping | CFRAM mapping |
| Comment | <p><u>Fluvial Flooding</u></p> <p>The flood zones overlap with existing business properties within the town centre at two locations. The predicted flooding at the first location originated from the Naas River and extends from Sallins Road to Friary Road. The predicted flooding from the Grand Canal at</p> |

the second location is less extensive and is confined to properties adjacent to the Basin Street and Harbour View.

Pluvial Flooding

The PFRA mapping indicates localised pluvial extents within the town centre. The land within the area consists of a range of steep to flat slopes in the direction towards the Naas River.

Climate Change

The flood mapping as shown on www.floodinfo.ie for the MRFS scenario indicates an increase in flood extents for Flood Zone A, taking into account climate change within the two locations within Naas Town Centre.

Justification Test

It was recommended that the Planning Authority carry out the Development Plan Justification Test to assess if the zoning in this area remains suitable. The SFRA identifies several areas of existing 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 pre-existing zoning and proposed areas of regeneration at risk of flooding.

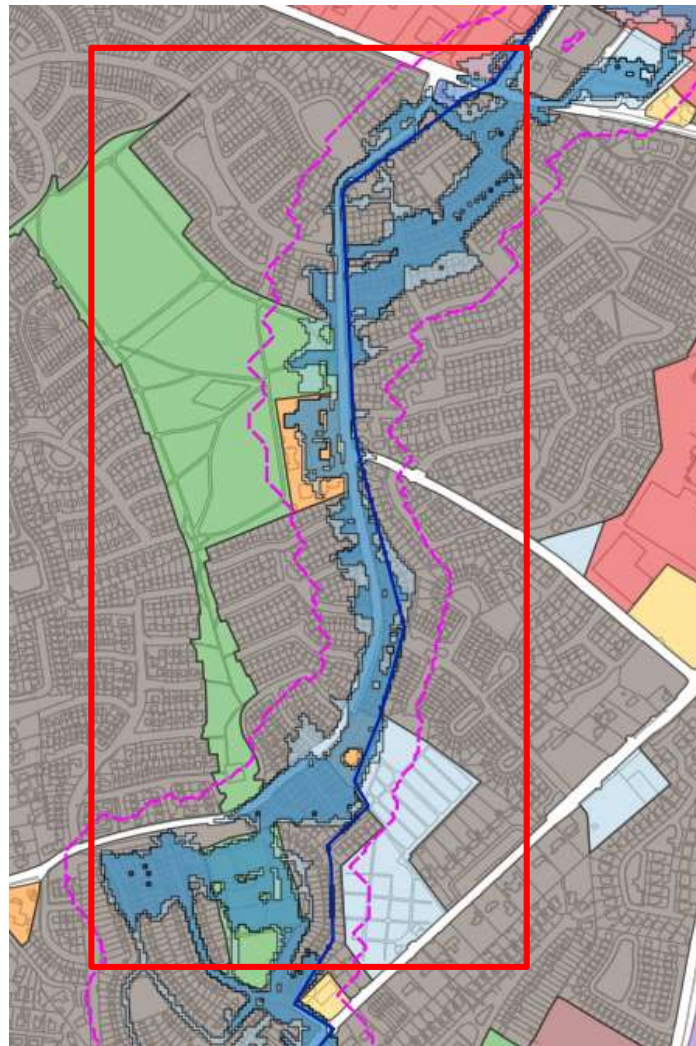
Conclusion

KCC carried out a Justification Test and found that it is considered appropriate to retain the pre-existing zoning and to identify the town as a zone for regeneration. The Justification Test and proposed flood risk management measures are included in **Appendix B**. Any future significant development should be subject to a SSFRA. 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.

The FRMP identified proposed flood defence works for the town centre area will be re-evaluated, along with the predicted flood zones, as part of the updated modelling exercise as described in **section 6.2.3**.

Therefore, in the interim if a SSFRA were to re-evaluate the predicted flood extents for proposed significant development in the town centre a hydraulic model of an appropriate scale is required to be constructed. The outputs from the hydraulic model will be expected to consist of enough detail and analysis to demonstrate revised Flood Zone A and B flood extents, where necessary. Any revision of the predicted flood extents will be subject to KCC approval.

7.2.4 Monread Avenue Residential Estates



| | |
|----------------------------|--|
| Historical Flooding | No historical flooding in this area. |
| Flood Zone Mapping | CFRAM mapping |
| Comment | <p><u>Fluvial Flooding</u></p> <p>The flood zones in this area show residential properties adjacent to Monread Avenue which overlap with Flood Zones A and B. The predicted flood extents from the Monread Stream shown extend along Monread Avenue and local access roads overlapping with the adjacent residential properties.</p> <p><u>Pluvial Flooding</u></p> <p>The OPW PFRA pluvial mapping shows localised pluvial flood extents within a cluster of residential properties adjacent to Monread Avenue (near Dun Na Riogh estate).</p> <p><u>Climate Change</u></p> |

The flood mapping as shown on www.floodinfo.ie for the MRFS scenario indicates an increase in flood extents for Flood Zone A, taking into account climate change within the residential estates adjacent to Monread Avenue.

Justification Test

It was recommended that the Planning Authority carry out the Development Plan Justification Test to assess if the zoning in this area remains suitable.

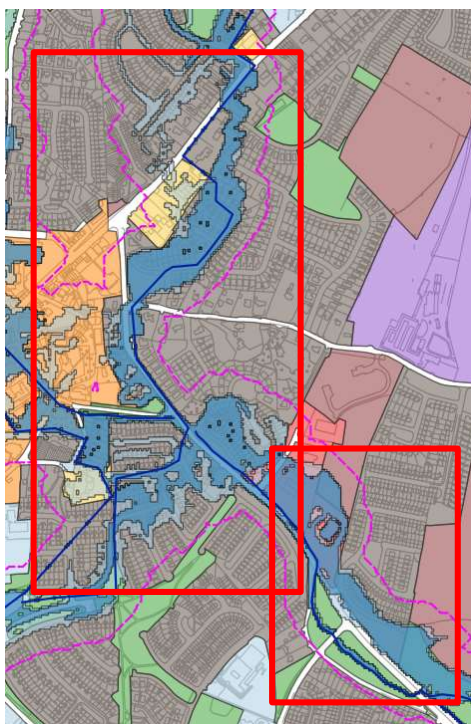
Conclusion

KCC carried out a Justification Test and found that it is considered appropriate to retain the pre-existing zoning. The Justification Test and proposed flood risk management measures are included in **Appendix B**. Any future significant development should be subject to a SSFRA. 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.

The FRMP identified proposed flood defence works for the Monread area will be re-evaluated, along with the predicted flood zones, as part of the updated modelling exercise as described in **section 6.2.3**.

Therefore, in the interim if a SSFRA were to re-evaluate the predicted flood extents for proposed significant development in the Monread Area a hydraulic model of an appropriate scale is required to be constructed. The outputs from the hydraulic model will be expected to consist of enough detail and analysis to demonstrate revised Flood Zone A and B flood extents, where necessary. Any revision of the predicted flood extents will be subject to KCC approval.

7.2.5 Dublin Road and Blessington Road Residential Estates

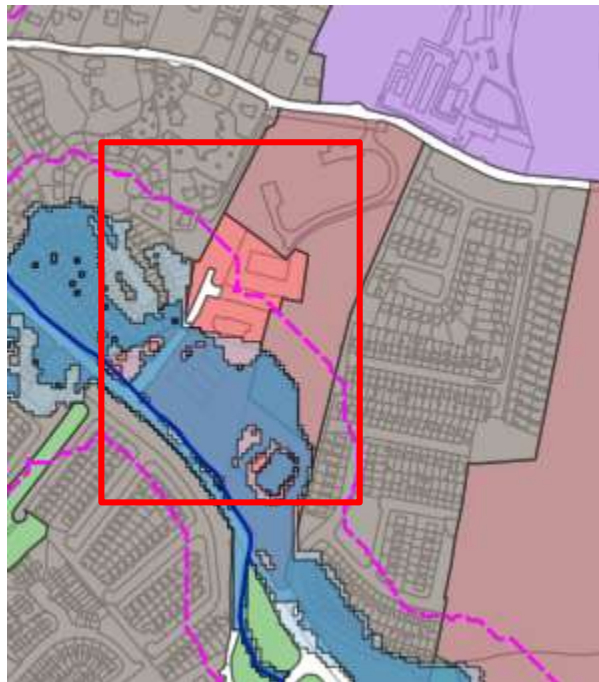


Historical Flooding

Properties within Millbrook Court, Mountain View & Roselawn Residential Estates flooded during the June 1993 event.

| | |
|---------------------------|---|
| Flood Zone Mapping | CFRAM mapping |
| Comment | <p><u>Fluvial Flooding</u></p> <p>The flood zones in this area show residential properties adjacent to Dublin Road and Blessington Road which overlap with Flood Zones A and B. The predicted flood extents from the Monread Stream & Naas River extend along the Dublin Road and the Blessington Road and into adjacent residential estates</p> <p><u>Pluvial Flooding</u></p> <p>The OPW PFRA pluvial mapping shows no pluvial flooding within these areas.</p> <p><u>Climate Change</u></p> <p>The flood mapping as shown on www.floodinfo.ie for the MRFS scenario indicates an increase in flood extents for Flood Zone A, taking into account climate change within the residential estates adjacent to Dublin Road and Blessington Road.</p> <p><u>Justification Test</u></p> <p>It was recommended that the Planning Authority carry out the Development Plan Justification Test to assess if the zoning in this area remains suitable.</p> |
| Conclusion | <p>KCC carried out a Justification Test and found that it is considered appropriate to retain the pre-existing zoning. The Justification Test and proposed flood risk management measures are included in Appendix B. Any future significant development should be subject to a SSFRA. 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.</p> <p>The FRMP identified proposed flood defence works along the Naas Stream will be re-evaluated, along with the predicted flood zones, as part of the updated modelling exercise as described in section 6.2.3.</p> <p>Therefore, in the interim if a SSFRA were to re-evaluate the predicted flood extents for proposed significant development in these residential areas a hydraulic model of an appropriate scale is required to be constructed. The outputs from the hydraulic model will be expected to consist of enough detail and analysis to demonstrate revised Flood Zone A and B flood extents, where necessary. Any revision of the predicted flood extents will be subject to KCC approval.</p> |

7.2.6 Blessington Road Business Park



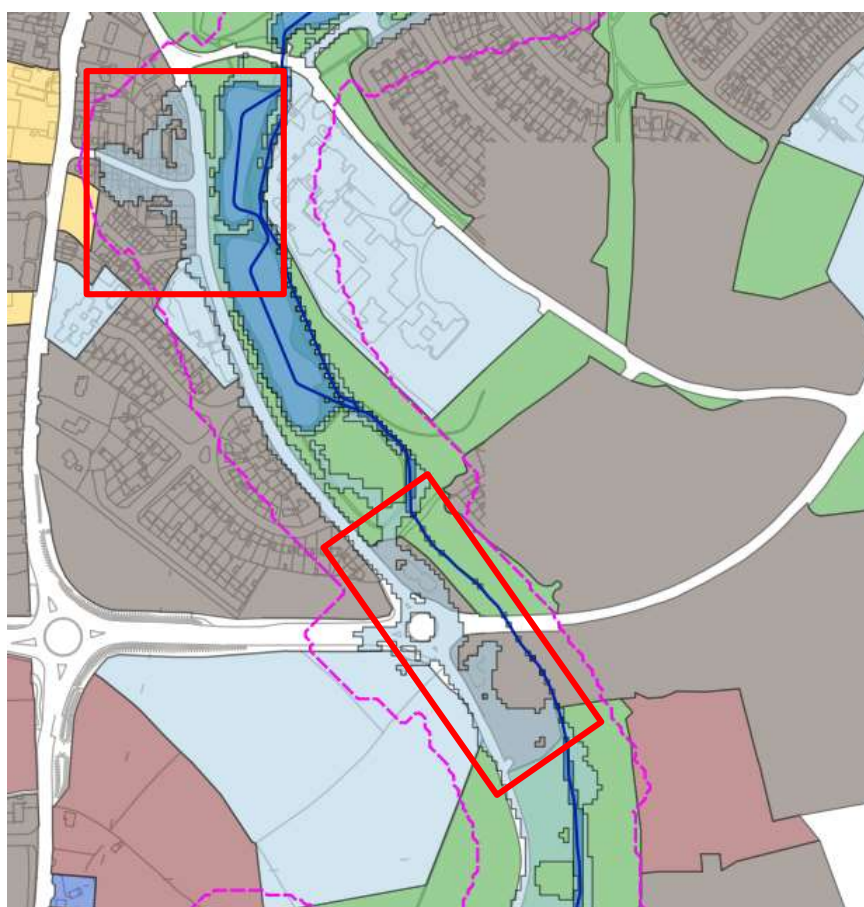
| | |
|----------------------------|--|
| Historical Flooding | No historical flooding in this area. |
| Flood Zone Mapping | CFRAM mapping |
| Comment | <p><u>Fluvial Flooding</u></p> <p>The flood zones show Flood Zones A and B covering the access road and a section of the Business Park.</p> <p><u>Pluvial Flooding</u></p> <p>The OPW PFRA pluvial mapping shows no pluvial flooding within these areas.</p> <p><u>Climate Change</u></p> <p>The flood mapping as shown on www.floodinfo.ie for the MRFS scenario indicates an increase in flood extents for Flood Zone A, taking into account climate change within the Business Park.</p> <p><u>Justification Test</u></p> <p>It was recommended that the Planning Authority carry out the Development Plan Justification Test to assess if the zoning in this area remains suitable. (Part of the pre-existing zoning has been amended to new residential, see Section 7.3.2).</p> |
| Conclusion | KCC carried out a Justification Test and found that it is considered appropriate to retain the pre-existing zoning. The Justification Test and proposed flood risk management measures are included in Appendix B . Any future significant development should be subject to a SSFRA. 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.

The FRMP identified proposed flood defence works along the Naas Stream will be re-evaluated, along with the predicted flood zones, as part of the updated modelling exercise as described in **section 6.2.3**.

Therefore, in the interim if a SSFRA were to re-evaluate the predicted flood extents for proposed significant development in the business centre a hydraulic model of an appropriate scale is required to be constructed. The outputs from the hydraulic model will be expected to consist of enough detail and analysis to demonstrate revised Flood Zone A and B flood extents, where necessary. Any revision of the predicted flood extents will be subject to KCC approval.

7.2.7 Ballymore Eustace Road Residential Estates



| | |
|----------------------------|--|
| Historical Flooding | No historical flooding in this area. |
| Flood Zone Mapping | CFRAM mapping |
| Comment | <p><u>Fluvial Flooding</u></p> <p>The flood zones in this area show Flood Zone A and B encroaching Lakelands Residential Estate and Flood Zone B overtopping and extended along the Ballymore Eustace Road into adjacent residential properties.</p> |

Pluvial Flooding

The OPW PFRA pluvial mapping shows no pluvial flooding within these areas.

Climate Change

The flood mapping as shown on www.floodinfo.ie for the MRFS scenario indicates an increase in flood extents for Flood Zone A, taking into account climate change within Lakelands Residential Estates and properties adjacent to Ballymore Eustace Road.

Justification Test

It was recommended that the Planning Authority carry out the Development Plan Justification Test to assess if the zoning in this area remains suitable.

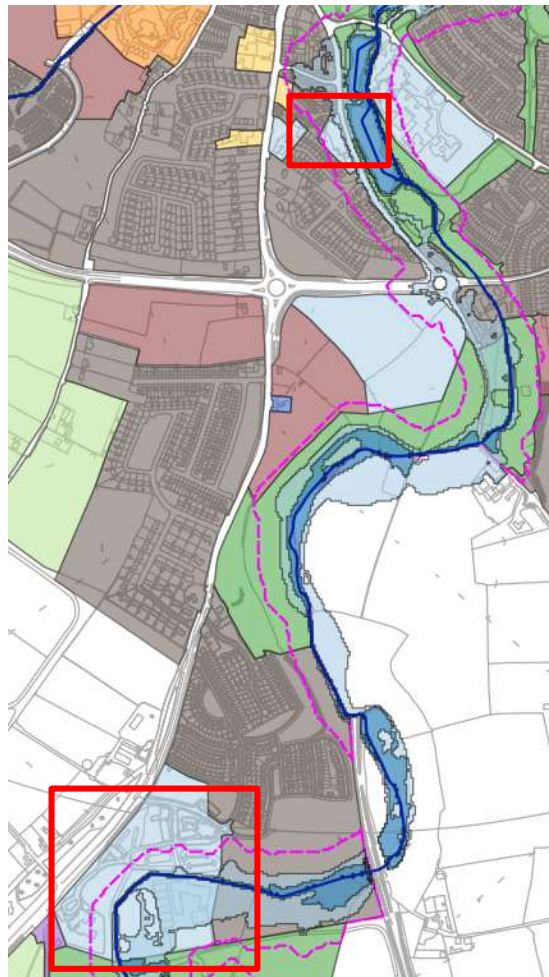
Conclusion

KCC carried out a Justification Test and found that it is considered appropriate to retain the pre-existing zoning. The Justification Test and proposed flood risk management measures are included in **Appendix B**. Any future significant development should be subject to a SSFRA. 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.

The FRMP identified proposed flood defence works for these areas will be re-evaluated, along with the predicted flood zones, as part of the updated modelling exercise as described in **section 6.2.3**.

Therefore, in the interim if a SSFRA were to re-evaluate the predicted flood extents for proposed significant development in these areas a hydraulic model of an appropriate scale is required to be constructed. The outputs from the hydraulic model will be expected to consist of enough detail and analysis to demonstrate revised Flood Zone A and B flood extents, where necessary. Any revision of the predicted flood extents will be subject to KCC approval.

7.2.8 Vista Primary Care Centre & Piper's Hill College



| | |
|----------------------------|--|
| Historical Flooding | No historical flooding reported in the area. |
| Flood Zone Mapping | CFRAM mapping |
| Comment | <p><u>Fluvial Flooding</u></p> <p>The flood zones shows the following:</p> <ul style="list-style-type: none"> • Flood Zone B encroaching the western boundary of Vista Primary Care Centre, and • Piper's Hill College within the Flood Zone B extents. <p><u>Pluvial Flooding</u></p> <p>The PFRA mapping does not highlight pluvial extents in these areas.</p> <p><u>Climate Change</u></p> <p>The flood mapping as shown on www.floodinfo.ie for the MRFS scenario indicates an increase in flood extents for Flood Zone B, taking into account climate change within the grounds of Piper's Hill College and Vista Primary Care Centre.</p> |

Justification Test

It was recommended that the Planning Authority carry out the Development Plan Justification Test to assess if the zoning in this area remains suitable.

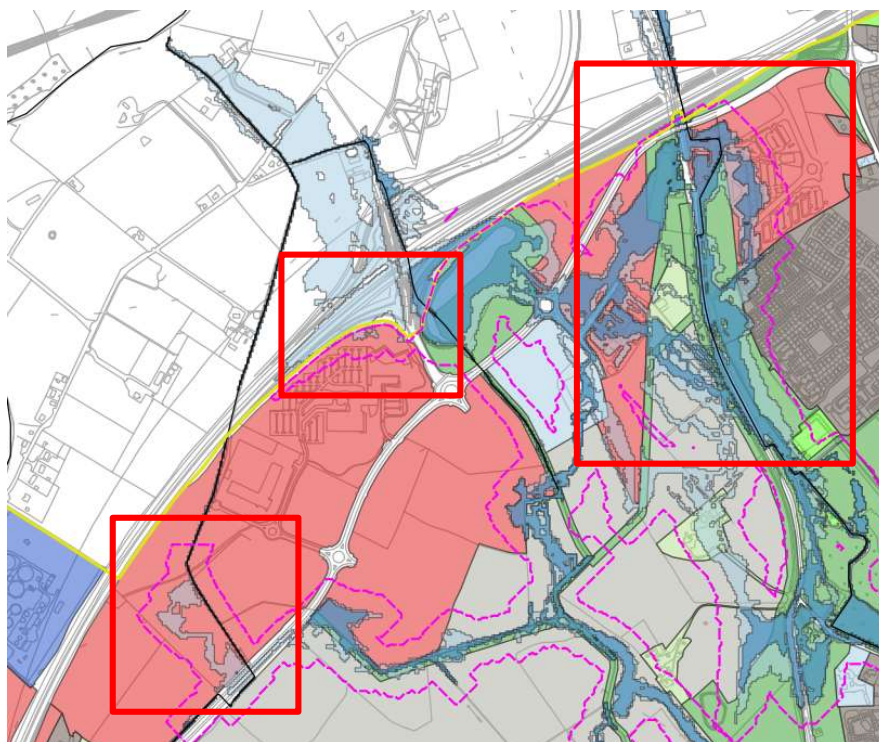
Conclusion

KCC carried out a Justification Test and found that it is considered appropriate to retain the pre-existing zoning. The Justification Test and proposed flood risk management measures are included in **Appendix B**. Any future significant development should be subject to a SSFRA. 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.

The FRMP identified proposed flood defence works for these areas will be re-evaluated, along with the predicted flood zones, as part of the updated modelling exercise as described in **section 6.2.3**.

Therefore, in the interim if a SSFRA were to re-evaluate the predicted flood extents for proposed significant development in these areas a hydraulic model of an appropriate scale is required to be constructed. The outputs from the hydraulic model will be expected to consist of enough detail and analysis to demonstrate revised Flood Zone A and B flood extents, where necessary. Any revision of the predicted flood extents will be subject to KCC approval.

7.2.9 Enterprise and Employment Lands - Northwest Quadrant

**Historical Flooding**

No historical flooding in this area.

Flood Zone Mapping

CFRAM mapping

Comment

Fluvial Flooding

The flood zones in this area show Flood Zones A and B extents within lands zone for Enterprise and Employment. The predicted flood extents are largely confined to existing greenfield, however the key exception is Millennium Park complex which is within Flood Zones A and B extents.

Pluvial Flooding

The OPW PFRA pluvial mapping shows localised pluvial flooding within existing greenfield sites zoned Enterprise and Employment.

Climate Change

The flood mapping as shown on www.floodinfo.ie for the MRFS scenario indicates an increase in flood extents for Flood Zone A, taking into account climate change within some of the Enterprise and Employment lands.

Justification Test

It was recommended that the Planning Authority carry out the Development Plan Justification Test to assess if the zoning in this area remains suitable.

Conclusion

KCC carried out a Justification Test and found that it is considered appropriate to retain the pre-existing zoning. The Justification Test and proposed flood risk management measures are included in **Appendix B**. Any future significant development should be subject to a SSFRA. 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. The Northwest Quadrant Masterplan will also be subject to a SFRA which will examine the flood zones in further detail which may lead to the zonings being refined to follow the sequential approach.

The FRMP proposed predicted flood zones for the Northwest Quadrant area will be re-evaluated, along with the predicted flood zones, as part of the updated modelling exercise as described in **section 6.2.3**.

Therefore, in the interim if a SSFRA were to re-evaluate the predicted flood extents for proposed significant development in these areas a hydraulic model of an appropriate scale is required to be constructed. The outputs from the hydraulic model will be expected to consist of enough detail and analysis to demonstrate the revised Flood Zone A and B flood extents. The revision of the predicted flood extents will be subject to KCC approval. FRAs should also address climate change scenarios.

7.2.10 Monread Avenue and Blessington Road Neighbourhood Centres



| | |
|----------------------------|---|
| Historical Flooding | No historical flooding in this area. |
| Flood Zone Mapping | CFRAM mapping |
| Comment | <p><u>Fluvial Flooding</u></p> <p>The flood zones show three areas designated as neighbourhood centres overlapping with Flood Zones A and B.</p> <p><u>Pluvial Flooding</u></p> <p>The OPW PFRA pluvial mapping shows localised pluvial Flood Zone B within a section of the commercial/leisure properties adjacent to Monread Avenue. No pluvial flood extents shown for the existing greenfield along the Blessington Road</p> <p><u>Climate Change</u></p> <p>The flood mapping as shown on www.floodinfo.ie for the MRFS scenario indicates an increase in flood extents for Flood Zone A, taking into account climate change within the existing leisure/ commercial properties and also the existing greenfield site.</p> <p><u>Justification Test</u></p> <p>It was recommended that the Planning Authority carry out the Development Plan Justification Test to assess if the zoning in this area remains suitable.</p> |

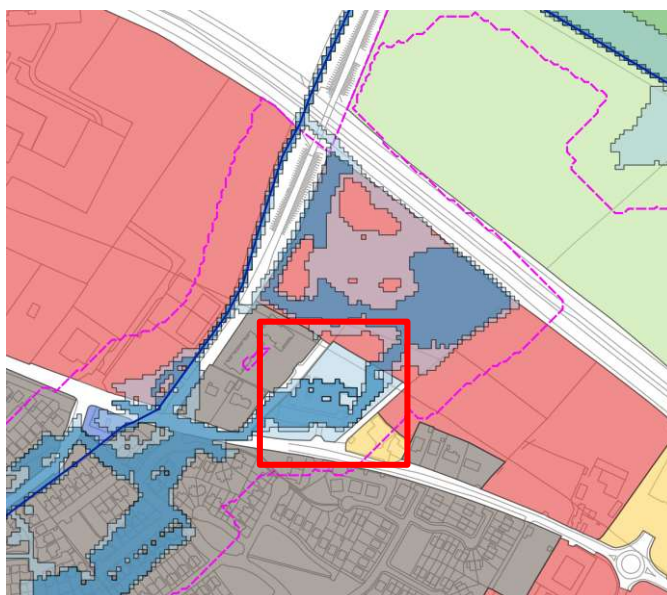
Conclusion

KCC carried out a Justification Test and found that it is considered appropriate to retain the pre-existing zoning. The Justification Test and proposed flood risk management measures are included in **Appendix B**. Any future significant development should be subject to a SSFRA. 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.

The FRMP proposed predicted flood zones for these areas will be re-evaluated, along with the predicted flood zones, as part of the updated modelling exercise as described in **section 6.2.3**.

Therefore, in the interim if a SSFRA were to re-evaluate the predicted flood extents for proposed significant development in these neighbourhood centres a hydraulic model of an appropriate scale is required to be constructed. The outputs from the hydraulic model will be expected to consist of enough detail and analysis to demonstrate revised Flood Zone A and B flood extents, where necessary. Any revision of the predicted flood extents will be subject to KCC approval.

7.2.11 Larchfield Nursing Home

**Historical Flooding**

No historical flooding in this area.

Flood Zone Mapping

CFRAM mapping

CommentFluvial Flooding

The flood zones in this area show Larchfield Nursing Home within Flood Zones A and B. The predicted flood extents from the Monread Stream shown, extend along Monread Road into Larchfield Nursing Home.

Pluvial Flooding

The PFRA mapping does not highlight pluvial extents in this area.

Climate Change

The flood mapping as shown on www.floodinfo.ie for the MRFS scenario indicates an increase in flood extents for Flood Zone A, taking into account climate change within the property.

Justification Test

It was recommended that the Planning Authority carry out the Development Plan Justification Test to assess if the zoning in this area remains suitable.

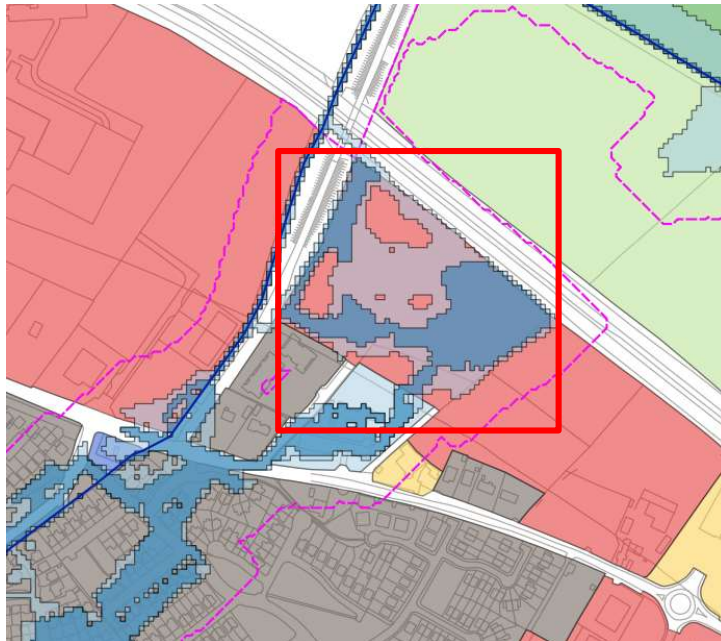
Conclusion

KCC carried out a Justification Test and found that it is considered appropriate to retain the pre-existing zoning. The Justification Test and proposed flood risk management measures are included in **Appendix B**. Any future significant development should be subject to a SSFRA. 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.

The FRMP proposed predicted flood zones for this area will be re-evaluated, along with the predicted flood zones, as part of the updated modelling exercise as described in **section 6.2.3**.

Therefore, in the interim if a SSFRA were to re-evaluate the predicted flood extents for proposed significant development in the Monread Area a hydraulic model of an appropriate scale is required to be constructed. The outputs from the hydraulic model will be expected to consist of enough detail and analysis to demonstrate revised Flood Zone A and B flood extents, where necessary. Any revision of the predicted flood extents will be subject to KCC approval.

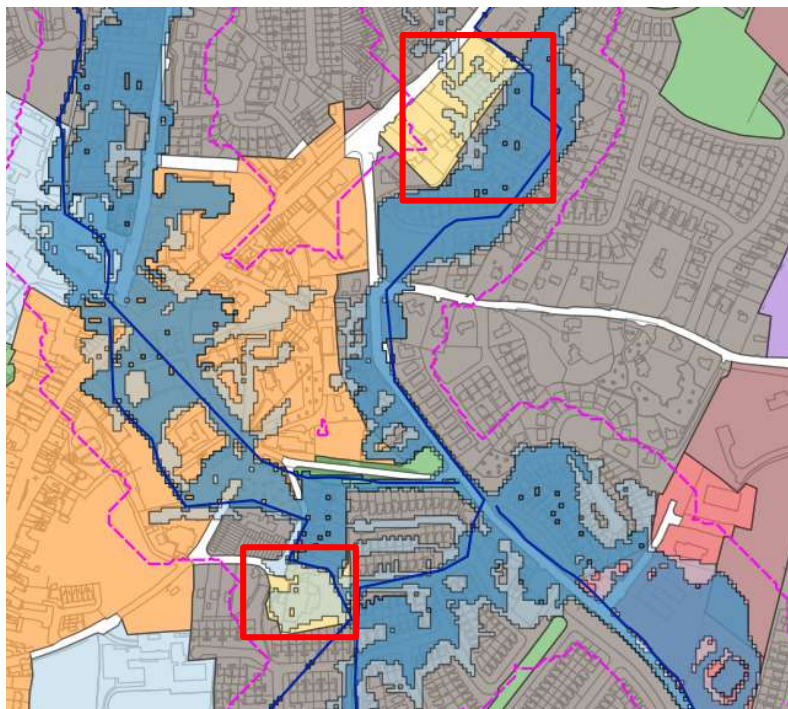
7.2.12 Land to east of Monread Industrial Estate

**Historical Flooding**

No historical flooding in this area.

| | |
|---------------------------|---|
| Flood Zone Mapping | CFRAM mapping |
| Comment | <p><u>Fluvial Flooding</u></p> <p>The flood zones in this area show extensive flooding within existing greenfield designated for industry and warehousing.</p> <p><u>Pluvial Flooding</u></p> <p>The OPW PFRA pluvial mapping shows localised pluvial flood extents scattered within Monread Industrial Estate.</p> <p><u>Climate Change</u></p> <p>The flood mapping as shown on www.floodinfo.ie for the MRFS scenario indicates an increase in flood extents for Flood Zone A, taking into account climate change within existing greenfield designated for industry and warehousing.</p> <p><u>Justification Test</u></p> <p>It was recommended that the Planning Authority carry out the Development Plan Justification Test to assess if the zoning in this area remains suitable.</p> |
| Conclusion | <p>KCC carried out a Justification Test and found that it is considered appropriate to retain the pre-existing zoning. The Justification Test and proposed flood risk management measures are included in Appendix B. Any future significant development should be subject to a SSFRA. 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.</p> <p>The FRMP proposed predicted flood zones for this area will be re-evaluated, along with the predicted flood zones, as part of the updated modelling exercise as described in section 6.2.3.</p> <p>Therefore, in the interim if a SSFRA were to re-evaluate the predicted flood extents for proposed significant development in the Monread Area a hydraulic model of an appropriate scale is required to be constructed. The outputs from the hydraulic model will be expected to consist of enough detail and analysis to demonstrate revised Flood Zone A and B flood extents, where necessary. Any revision of the predicted flood extents will be subject to KCC approval.</p> |

7.2.13 McCormack Centre & Millbrook Court Retail Properties

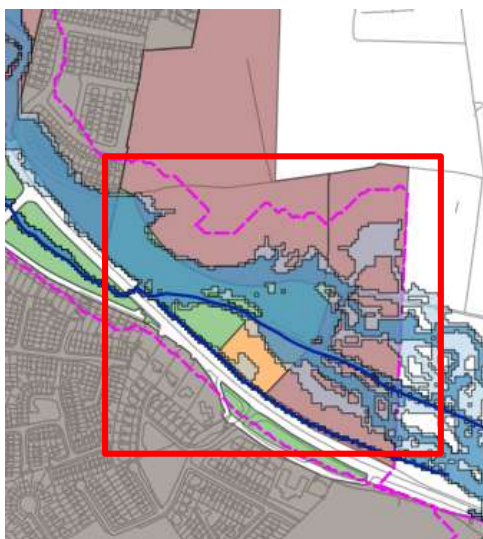


| | |
|----------------------------|---|
| Historical Flooding | No historical flooding in this area. |
| Flood Zone Mapping | CFRAM mapping |
| Comment | <p><u>Fluvial Flooding</u></p> <p>The flood zones in this area show that the retail properties within McCormack Centre adjacent to the Dublin Road and Millbrook Court overlap with Flood Zones B.</p> <p><u>Pluvial Flooding</u></p> <p>The OPW PFRA pluvial mapping shows localised pluvial flood extents within McCormack Centre and no pluvial flood extents shown for Millbrook Court.</p> <p><u>Climate Change</u></p> <p>The flood mapping as shown on www.floodinfo.ie for the MRFS scenario indicates an increase in flood extents for Flood Zone A, taking into account climate change within the retail properties located at McCormack Centre and Millbrook Court.</p> <p><u>Justification Test</u></p> <p>No Justification Test Required</p> |
| Conclusion | The retail and commercial properties can be developed within Flood Zone B. However SSFRAs will be required for future developments within this area and all developments will be required to be built in accordance with SuDS principles and in compliance with the surface water and drainage policies of the Naas LAP and Kildare County Development Plan 2017-2023 or any subsequent plan. |

The FRMP proposed predicted flood zones for this area will be re-evaluated, along with the predicted flood zones, as part of the updated modelling exercise as described in **section 6.2.3**.

Therefore, in the interim if a SSFRA were to re-evaluate the predicted flood extents for proposed significant development in this area a hydraulic model of an appropriate scale is required to be constructed. The outputs from the hydraulic model will be expected to consist of enough detail and analysis to demonstrate revised Flood Zone A and B flood extents, where necessary. Any revision of the predicted flood extents will be subject to KCC approval.

7.2.14 Blessington Road



Historical Flooding

No historical flooding in this area.

Flood Zone Mapping

CFRAM mapping

Comment

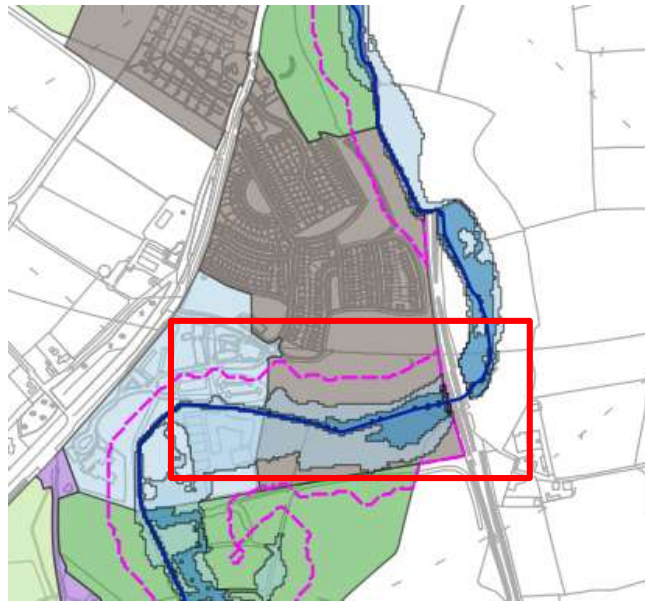
Fluvial Flooding

The flood zones in this area show greenfield lands which are adjacent to Blessington Road which overlap with Flood Zones A and B. The predicted flood extents from the Naas River extend to the greenfield sites directly from the watercourse and also via hardstanding areas within the adjacent residential areas and the Blessington Road. A SSFRA which was submitted for planning as part of a planning application for the site undertook hydraulic modelling which showed existing flood extents similar to those for the SFRA flood zones.

The development has not yet started construction; however the FRA proposed a series of flood mitigation measures to reduce the flood risk to the future development. The primary mitigation measure was an attenuation area which would contain Flood Zone A within it. The finished floor levels of all properties would also be above the Flood Zone B flood level including 500mm of freeboard. The proposed flood storage capacity on site would also be in excess of the existing floodplain storage on the site for both the 1% AEP and 0.1% AEP flood events. The image below shows Flood Zone A contained within the attenuation area. The proposed attenuation area coincides with part of the existing SFRA flood zones and will form part of the proposed flood zones within which limited development would be permitted.



7.2.15 Kilcullen Road



| | |
|----------------------------|---|
| Historical Flooding | No historical flooding in this area. |
| Flood Zone Mapping | CFRAM mapping |
| Comment | <p><u>Fluvial Flooding</u></p> <p>The SFRA flood zones in this area show an existing residential development zoning adjacent to the Killcullen Road where localised areas overlap with Flood Zones A and B. The development is currently under phased construction, with the final phase overlapping with part of the flood zones. A SSFRA which was submitted for planning as part of a planning application for the site which undertook hydraulic modelling and assessment to identify proposed flood zones to reduce the flood risk to the future development. The primary mitigation measure is an attenuation area which would contain Flood Zones A and B within it as show in the image below. The proposed attenuation area coincides with part of the existing SFRA flood zones and will form part of the proposed flood zones.</p> |

Pluvial Flooding

The PFRA mapping does not highlight pluvial extents in this area.

Climate Change

The flood mapping as shown on www.floodinfo.ie for the MRFS scenario indicates an increase in flood extents for Flood Zone A, taking into account climate change within the greenfield designated for future residential development.

Justification Test

It was recommended that the Planning Authority carry out the Development Plan Justification Test to assess if the zoning in this area remains suitable.

Conclusion

KCC carried out a Justification Test and found that it is considered appropriate to retain the pre-existing zoning. The Justification Test and proposed flood risk management measures are included in **Appendix B**. The site was subject to FRA for a planning application which recommended a series of flood risk mitigation measures. The construction of the development should follow the recommendations of the FRA in terms of FFLs and proposed mitigation measures. Any future development should be subject to a SSFRA and the internal layout of the site should follow the sequential approach with flood zone areas designated as open space / flood compatible. As the development and its mitigation measures have not yet been finished, the CFRAM flood zones have been adopted as the SFRA flood zones to reflect the existing flooding scenario.

The FRMP proposed predicted flood zones for this area will be re-evaluated, along with the predicted flood zones, as part of the updated modelling exercise as described in **section 6.2.3**. The extents will be reviewed against the SSFRA flood extents submitted as part of the planning application.

Therefore, in the interim if a SSFRA were to re-evaluate the predicted flood extents for proposed significant development in this area a hydraulic model of an appropriate scale is required to be constructed. The outputs from the hydraulic model will be expected to consist of enough detail and analysis to demonstrate the revised Flood Zone A and B flood extents. The revision of the predicted flood extents will be subject to KCC approval. FRAs should also address climate change scenarios.

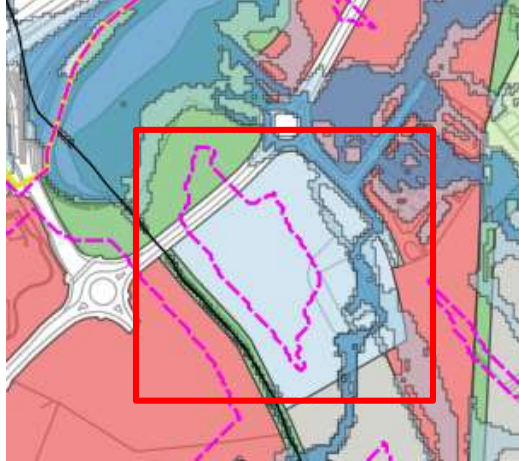
7.2.16 Abbey Bridge



| | |
|----------------------------|--|
| Historical Flooding | No historical flooding in this area. |
| Flood Zone Mapping | CFRAM mapping |
| Comment | <p><u>Fluvial Flooding</u></p> <p>The flood zones in this area show existing residential which overlap with Flood Zone B.</p> <p><u>Pluvial Flooding</u></p> <p>The OPW PFRA pluvial mapping shows localised pluvial flood extents within the greenfield adjacent to the housing estate.</p> <p><u>Climate Change</u></p> <p>The flood mapping as shown on www.floodinfo.ie for the MRFS scenario indicates an increase in flood extents for Flood Zone A taking into account climate change within the surrounding area.</p> <p><u>Justification Test</u></p> <p>It was recommended that the Planning Authority carry out the Development Plan Justification Test to assess if the zoning in this area remains suitable.</p> |
| Conclusion | <p>KCC carried out a Justification Test and found that it is considered appropriate to retain the pre-existing zoning. The Justification Test and proposed flood risk management measures are included in Appendix B. Any future significant development should be subject to a SSFRA. 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.</p> <p>The FRMP proposed predicted flood zones for this area will be re-evaluated, along with the predicted flood zones, as part of the updated modelling exercise as described in section 6.2.3.</p> <p>Therefore, in the interim if a SSFRA were to re-evaluate the predicted flood extents for proposed significant development in this area a hydraulic model of an appropriate scale is required to be constructed. The outputs from the hydraulic model will be expected to consist of enough detail and analysis to demonstrate the revised Flood Zone A and B flood extents.</p> |

The revision of the predicted flood extents will be subject to KCC approval. FRAs should also address climate change scenarios.

7.2.17 Community College – Northwest Quadrant



Historical Flooding

No historical flooding in this area.

Flood Zone Mapping

CFRAM mapping

Comment

Fluvial Flooding

The SFRA flood zones in this area show a greenfield site where localised areas overlap with Flood Zones A and B. A community school development is currently under construction on the site. A SSFRA which was submitted for planning as part of a planning application for the site which undertook hydraulic modelling and assessment to identify proposed flood zones to reduce the flood risk to the future development. The proposed mitigation measures will remove the flood zones from the site and divert them to flood storage downstream as show in the image below.



Pluvial Flooding

The OPW PFRA pluvial mapping shows localised pluvial flood extents within the greenfield.

Climate Change

The flood mapping as shown on www.floodinfo.ie for the MRFS scenario indicates an increase in flood extents for Flood Zone A, taking into account climate change within the surrounding area.

Justification Test

It was recommended that the Planning Authority carry out the Development Plan Justification Test to assess if the zoning in this area is suitable.

Conclusion

KCC carried out a Justification Test and found that it is considered appropriate to retain the pre-existing zoning. The Justification Test and proposed flood risk management measures are included in **Appendix B**. The site was subject to FRA for a planning application which recommended a series of flood risk mitigation measures. The construction of the development should follow the recommendations of the FRA in terms of FFLs and proposed mitigation measures. Any future development should be subject to a SSFRA and the internal layout of the site should follow the sequential approach with flood zone areas designated as open space / flood compatible.

As the development and its mitigation measures have not yet been finished, the CFRAM flood zones have been adopted as the SFRA flood zones to reflect the existing flooding scenario.

The FRMP proposed predicted flood zones for this area will be re-evaluated, along with the predicted flood zones, as part of the updated modelling exercise as described in **section 6.2.3**. The extents will be reviewed against the SSFRA flood extents submitted as part of the planning application.

Therefore, in the interim if a SSFRA were to re-evaluate the predicted flood extents for proposed significant development in this area a hydraulic model of an appropriate scale is required to be constructed. The outputs from the hydraulic model will be expected to consist of enough detail and analysis to demonstrate the revised Flood Zone A and B flood extents. The revision of the predicted flood extents will be subject to KCC approval. FRAs should also address climate change scenarios.

7.3 Proposed New Zonings

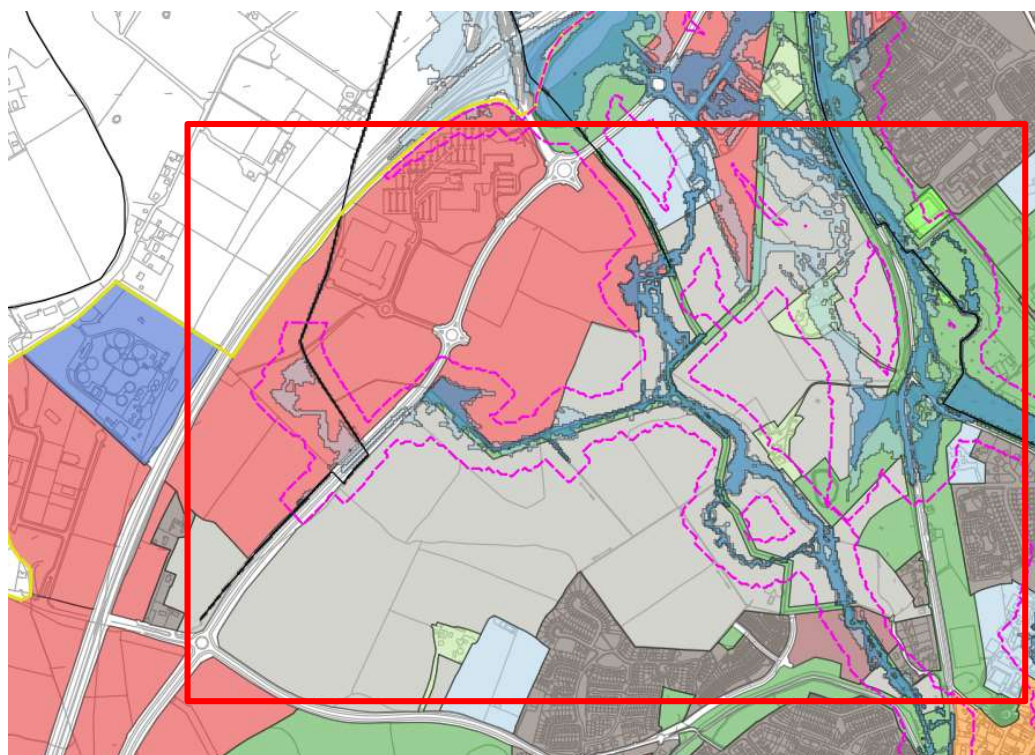
Table 7-3 below summarises the applicability of the Justification Test and flood risk management proposals for proposed new zonings in Naas. Areas listed in **Table 7-3** are presented in more detail in the following sections where a review of the flood risk was undertaken and a strategy is presented to manage the flood risk for each location. Justification Tests where applicable for areas are shown in **Appendix B**. A review of historical flooding, significant watercourses and historical mapping did not indicate any further fluvial flood risk outside the scope of the CFRAM mapping. Therefore, no further flood zone mapping was deemed to be necessary. The images presented for each location showing Flood Zones A and B overlain on the land use zones are extracts from the Flood Zone Map in **Appendix A**.

Table 7-3 Proposed New Zoned areas vulnerable to potential flooding

| Site Location No. | Land Use Zoning | Land Use Vulnerability | Justification Test Requirement |
|-------------------|--|------------------------|--|
| 18 | Strategic Reserve – Northwest Quadrant | Mixed Use | Highly/Less Vulnerable |
| | | | Required as zonings are located within Flood Zone A and B. |

| Site No. | Location | Land Use Zoning | Land Use Vulnerability | Justification Test Requirement |
|----------|--|----------------------------------|------------------------|--|
| 19 | Tipper Road | New Residential | Highly Vulnerable | Required as zonings are located within Flood Zone A and B. |
| 20 | New Enterprise and Employment Lands - Northwest Quadrant | Industrial Zoning | Less Vulnerable | Required as some zonings are located in Flood Zone A. |
| 21 | Craddockstown – Community Zoning | Existing Educational & Community | Highly Vulnerable | Required as the zoning is located within Flood Zone B. |
| 22 | Finlay Park | New Residential | Highly Vulnerable | Required as zonings are located within Flood Zone A and B. |

7.3.1 Strategic Reserve – Northwest Quadrant



| | |
|----------------------------|---|
| Historical Flooding | No historical flooding in this area. |
| Flood Zone Mapping | CFRAM mapping |
| Comment | <p><u>Fluvial Flooding</u></p> <p>The flood zones in this area show Flood Zones A and B extents within the Northwest Quadrant. The predicted Flood Zone A and B extents are largely confined to existing greenfield.</p> <p><u>Pluvial Flooding</u></p> |

The OPW PFRA pluvial mapping shows localised pluvial flooding within existing greenfield sites.

Climate Change

The flood mapping as shown on www.floodinfo.ie for the MRFS scenario indicates an increase in flood extents for Flood Zone A, taking into account climate change within some of lands.

Justification Test

It was recommended that the Planning Authority carry out the Development Plan Justification Test to assess if the zoning in this area is suitable.

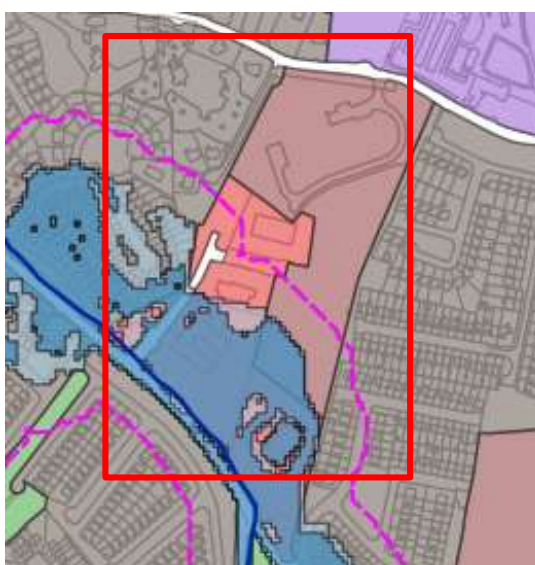
Conclusion

KCC carried out a Justification Test and found that it is considered appropriate to zone this land as strategic reserve. The Justification Test and proposed flood risk management measures are included in **Appendix B**. Any future development should be subject to a SSFRA and the internal layout of the site should follow the sequential approach with flood zone areas designated as open space / flood compatible. The lands identified as strategic reserve will be subject to a further SFRA which will inform a future masterplan to ensure that no development will be progressed until the masterplan is complete & integrated into the LAP by way of a statutory amendment following the completion of the updated modelling exercise as described in **section 6.2.3** above.

The FRMP proposed predicted flood zones for this area will be re-evaluated, along with the predicted flood zones, as part of the updated modelling exercise as described in **section 6.2.3**.


In the interim, if a SSFRA were to re-evaluate the predicted flood extents for proposed significant development in this area a hydraulic model of an appropriate scale is required. The outputs from the hydraulic model will be expected to consist of enough detail and analysis to demonstrate the revised Flood Zone A and B flood extents. The revision of the predicted flood extents will be subject to KCC approval.

7.3.2 Tipper Road



Historical Flooding

No historical flooding in this area.

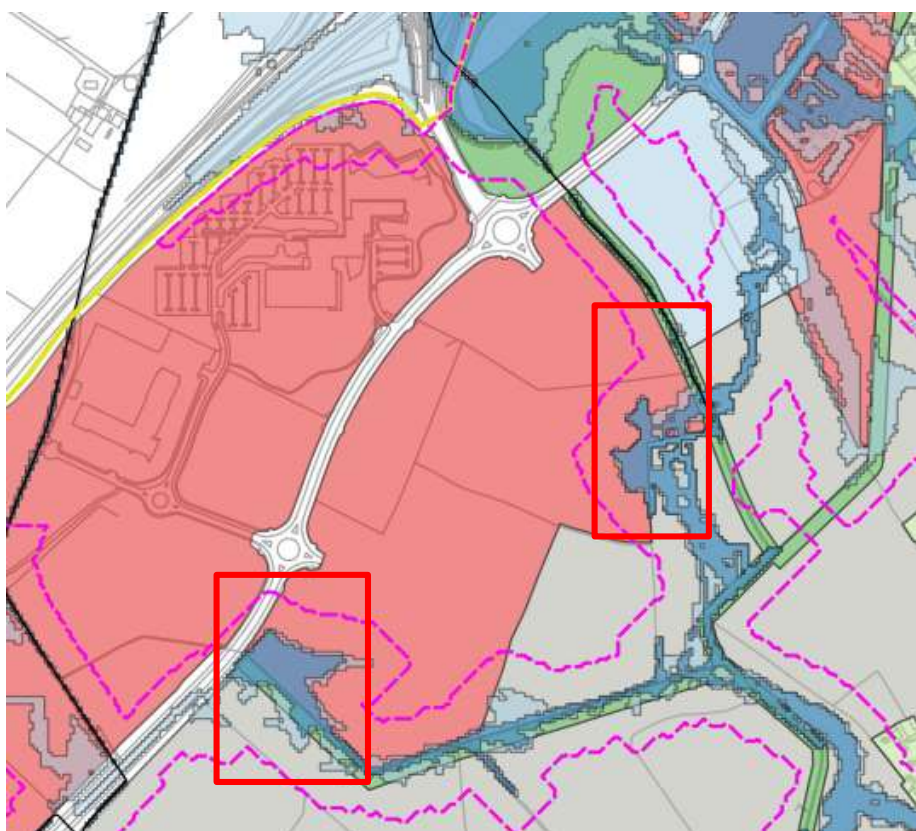
| | |
|--------------------|--|
| Flood Zone Mapping | CFRAM mapping |
| Comment | <p><u>Fluvial Flooding</u></p> <p>The flood zones in this area show a brownfield site adjacent to Tipper Road which partially overlaps with Flood Zones A and B. The predicted flood extents from the Naas River extend to the site directly from the watercourse and via hardstanding areas within the adjacent residential areas and the Blessington Road. A SSFRA which was submitted for planning as part of a planning application for the site undertook analysis to assess the flood zones at the southern edge of the site.</p> <p>The development has not yet started construction; however the FRA proposed a series of flood mitigation measures to reduce the flood risk to the future development. The primary mitigation measure was to raise part of the site above the floodplain and to provide compensatory for the 1000-year event. The image below shows the proposed Flood Zones A and B contained within an open space area which coincides with part of the existing SFRA flood zones.</p>  <p><u>Pluvial Flooding</u></p> <p>The OPW PFRA pluvial mapping shows no pluvial flooding within these areas.</p> <p><u>Climate Change</u></p> <p>The flood mapping as shown on www.floodinfo.ie for the MRFS scenario indicates an increase in flood extents for Flood Zone A, taking into account climate change within the site designated for future residential development.</p> <p><u>Justification Test</u></p> <p>It was recommended that the Planning Authority carry out the Development Plan Justification Test to assess if the zoning in this area is suitable. The pre-existing zoning was zoned Enterprise and Employment, see Section 7.2.6.</p> |
| Conclusion | KCC carried out a Justification Test and found that it is considered appropriate to partially zone this land as residential. The Justification Test and proposed flood risk management measures |

are included in **Appendix B**. Any future development should be subject to a SSFRA and the internal layout of the site should follow the sequential approach.

The FRMP proposed predicted flood zones for this area will be re-evaluated, along with the predicted flood zones, as part of the updated modelling exercise as described in **section 6.2.3**.

Therefore, in the interim if a SSFRA were to re-evaluate the predicted flood extents for proposed significant development in this area a hydraulic model of an appropriate scale is required to be constructed. The outputs from the hydraulic model will be expected to consist of enough detail and analysis to demonstrate revised Flood Zone A and B flood extents, where necessary. Any revision of the predicted flood extents will be subject to KCC approval.

7.3.3 New Enterprise and Employment Lands - Northwest Quadrant



| | |
|----------------------------|--|
| Historical Flooding | No historical flooding in this area. |
| Flood Zone Mapping | CFRAM mapping |
| Comment | <p><u>Fluvial Flooding</u></p> <p>The flood zones in this area show Flood Zones A and B extents within lands zone for Enterprise and Employment. The predicted flood extents are largely confined to existing greenfield.</p> <p><u>Pluvial Flooding</u></p> |

The OPW PFRA pluvial mapping shows localised pluvial flooding within existing greenfield sites zoned Enterprise and Employment.

Climate Change

The flood mapping as shown on www.floodinfo.ie for the MRFS scenario indicates an increase in flood extents for Flood Zone A, taking into account climate change within some of the Enterprise and Employment lands.

Justification Test

It was recommended that the Planning Authority carry out the Development Plan Justification Test to assess if the zoning in this area is suitable.

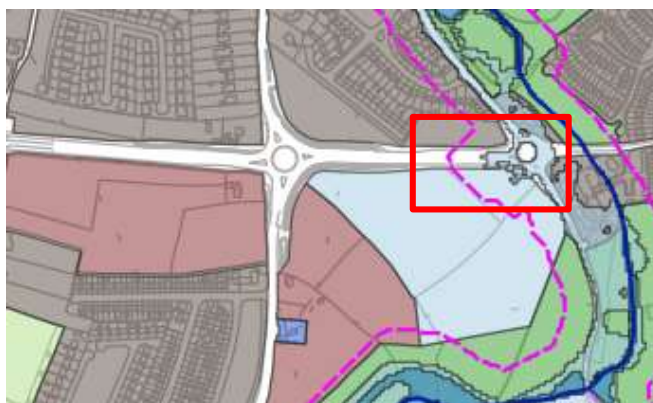
Conclusion

KCC carried out a Justification Test and found that it is considered appropriate to zone these lands as Enterprise and Employment. The Justification Test and proposed flood risk management measures are included in **Appendix B**. Any future significant development should be subject to a SSFRA. 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.

The FRMP proposed predicted flood zones for this area will be re-evaluated, along with the predicted flood zones, as part of the updated modelling exercise as described in **section 6.2.3**. The extents will be reviewed against the SSFRA flood extents submitted as part of the planning application.

Therefore, in the interim if a SSFRA were to re-evaluate the predicted flood extents for proposed significant development in this area a hydraulic model of an appropriate scale is required to be constructed. The outputs from the hydraulic model will be expected to consist of enough detail and analysis to demonstrate the revised Flood Zone A and B flood extents. The revision of the predicted flood extents will be subject to KCC approval. FRAs should also address climate change scenarios.

7.3.4 Craddockstown Community Zoning



Historical Flooding

No historical flooding reported in the area.

Flood Zone Mapping

CFRAM mapping

CommentFluvial Flooding

The flood zones in this area show Flood Zone B extents in a small section of a greenfield site zoned for E - Community & Educational.

Pluvial Flooding

The PFRA mapping does not highlight pluvial extents in these areas.

Climate Change

The flood mapping as shown on www.floodinfo.ie for the MRFS scenario indicates an increase in flood extents for Flood Zone A, taking into account climate change within some of lands.

Justification Test

It was recommended that the Planning Authority carry out the Development Plan Justification Test to assess if the zoning in this area remains suitable.

Conclusion

KCC carried out a Justification Test and found that it is considered appropriate to zone these lands as community and education. The Justification Test and proposed flood risk management measures are included in **Appendix B**. Any future significant development should be subject to a SSFRA. 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.

The FRMP proposed predicted flood zones for these areas will be re-evaluated, along with the predicted flood zones, as part of the updated modelling exercise as described in **section 6.2.3**.

Therefore, in the interim if a SSFRA were to re-evaluate the predicted flood extents for proposed significant development in these areas a hydraulic model of an appropriate scale is required to be constructed. The outputs from the hydraulic model will be expected to consist of enough detail and analysis to demonstrate revised Flood Zone A and B flood extents, where necessary. Any revision of the predicted flood extents will be subject to KCC approval.

7.3.5 Finlay Park

**Historical Flooding**

No historical flooding reported in the area.

| | |
|---------------------------|---|
| Flood Zone Mapping | CFRAM mapping |
| Comment | <p><u>Fluvial Flooding</u></p> <p>The flood zones in this area show Flood Zones A and B in a section of a greenfield site zoned for C – New Residential (and Open Space and Amenity).</p> <p><u>Pluvial Flooding</u></p> <p>The OPW PFRA pluvial mapping shows localised pluvial flood extents within areas of this greenfield site.</p> <p><u>Climate Change</u></p> <p>The flood mapping as shown on www.floodinfo.ie for the MRFS scenario indicates an increase in flood extents for Flood Zone A taking into account climate change within the surrounding area.</p> <p><u>Justification Test</u></p> <p>It was recommended that the Planning Authority carry out the Development Plan Justification Test to assess if the zoning in this is suitable.</p> |
| Conclusion | <p>KCC carried out a Justification Test and found that it is considered appropriate to partially zone this land as residential. KCC have zoned the flood zones as open space. The Justification Test and proposed flood risk management measures are included in Appendix B. Any future development should be subject to a SSFRA and the internal layout of the site should follow the sequential approach with flood zone areas designated as open space / flood compatible.</p> <p>The FRMP proposed predicted flood zones for these areas will be re-evaluated, along with the predicted flood zones, as part of the updated modelling exercise as described in section 6.2.3.</p> <p>Therefore, in the interim if a SSFRA were to re-evaluate the predicted flood extents for proposed significant development in these areas a hydraulic model of an appropriate scale is required to be constructed. The outputs from the hydraulic model will be expected to consist of enough detail and analysis to demonstrate revised Flood Zone A and B flood extents, where necessary. Any revision of the predicted flood extents will be subject to KCC approval.</p> <p>It should be noted that while these lands are identified for residential development, it is an objective of the Draft LAP that these lands not be brought forward until the masterplan for the NWQ (informed by the FRMP) is integrated into the LAP by way of a statutory amendment.</p> |

8 FLOOD RISK MANAGEMENT POLICIES AND OBJECTIVES

8.1 General Development Plans and Strategies

The Kildare County Development Plan 2017-2023 outlines surface water and flooding flood risk management policies and objectives for the entire county. The Naas LAP will implement these policies to ensure flood risk and surface water management is considered during the planning process for development within the LAP boundary. The Naas LAP will also implement specific local policies and objectives which have been adopted from the existing development plan and updated based on the information provided in the SFRA process and are shown in **Table 8-1**.

Table 8-1 LAP Flood Risk Management policies

| Planning Policy / Objective | Policy Description |
|--|---|
| NE1.4 | Maintain a suitable buffer zone along the Grand Canal and other watercourses protecting them from inappropriate development. The extent and composition of the buffer zone (up to 30 metres) should be determined in consultation with a qualified ecologist and will be informed by Planning for Watercourses in the Urban Environment (IFI 2020). |
| NE 3.1 | Encourage 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, in order to reduce the potential impact of existing and predicted flooding risks. |
| NE 3.2 | Enhance and promote biodiversity and amenity and to ensure the protection of environmentally sensitive sites and habitats, including where flood risk management measures are planned. |
| NE 4.1 | Enhance and protect the existing green infrastructure open spaces and recreation areas, and facilitate the development of new green infrastructure corridors, through the provision of additional open and amenity areas. |
| NE 5.2 | Require proposals for development to demonstrate how they integrate/respond to Green Infrastructure and contribute to the development and protection of overall Green Infrastructure assets. |
| NE 5.3 | Encourage the use of Green Roofs such as residential, industrial, civic, commercial and leisure buildings. |
| Action | Collaborate with Kildare County Council's Climate Action Officer and Energy Officer to co-ordinate, manage and develop the implementation of climate change mitigation and adaptation measures set out in this Plan. |
| Policy I2 – Surface Water and Groundwater | It is the policy of the Council to maintain and enhance the existing surface water drainage systems in Naas and to protect surface and ground water quality in accordance with the Water Framework Directive. |

| Planning Policy / Objective | Policy Description |
|---|---|
| IO2.1 | Carry out surface water infrastructure improvement works as required. |
| IO2.2 | Ensure that all new development maintain surface water discharge at greenfield run-off rate, including an allowance for climate change. |
| IO2.3 | Incorporate Sustainable Urban Drainage Systems (SuDS) and other nature-based surface water drainage solutions as part of all plans and development proposals in Naas. Priority shall be given to SuDS that incorporate green infrastructure and promote biodiversity including green roofs, walls and rain gardens. Proposals for development in the Key Development Areas, Core Regeneration Areas and Masterplan areas must provide for SuDS to control surface water outfall and protect water quality, with underground retention solutions only being considered when all other options have been exhausted. |
| IO2.6 | Ensure that development along urban watercourses comply with, Planning for Watercourses in the Urban Environment (IFI, 2020), including the maintenance of a minimum riparian zone of 35 metres for river channels greater than 10 metres in width, and 20 metres for rivers channels less than 10 metres in width. Development within this zone will only be considered for water compatible developments ¹ . |
| Surface Water and Groundwater: Actions | <ul style="list-style-type: none"> • To carry out a survey of surface water culverts in Naas to assess their current state and to develop a programme of improvements where necessary. • Encourage 'daylighting'/deculverting and the restoration of culverted water bodies within the town as a natural method of flood management, where it is feasible to do so, without resulting in flooding issues. • To regularly maintain the surface water drains in Naas to minimise the risk of flooding. |
| Policy I3 – Flood Risk Management | It is the policy of the Council to manage flood risk in Naas in conjunction with the OPW and in accordance with the requirements of the Planning System and Flood Risk Management Guidelines for Planning Authorities (2009) and circular PL02/2014 (August 2014). |
| IO3.1 | Ensure all development proposals within the areas where KCC have applied a Justification Test and where residual flood risk remains as outlined on the Flood Risk Map (Map Ref. 9.1) are the subject of Site-Specific Flood Risk Assessment, appropriate to the nature and scale of the development proposed. |
| IO3.2 | Progress and co-operate with the OPW in delivering the Flood Relief Scheme for Naas. |
| IO3.3 | Maintain all existing overland flow routes. |

¹ Water compatible developments as defined in the OPW Planning System and Flood Risk Management Guidelines for Planning Authorities (2009).

| Planning Policy / Objective | Policy Description |
|-----------------------------|--|
| IO3.4 | All development proposals should apply 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. The development proposals should ensure that no encroachment onto, or loss of, the flood plain, 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. |
| IO3.5 | Following the completion of the flood mapping stage of the River Liffey and Dublin FRMP a review of the flood extents will be undertaken and if required KCC will carry out an update to the SFRA and an amendment of the LAP. The updated SFRA would be prepared in accordance with the requirements of The Planning System and Flood Risk Assessment Guidelines for Planning Authorities (2009). The SFRA would enable KCC to carry out a review of strategic land-use planning decisions with respect to flood risk and to update flood risk policies if required. |
| NWQ 1.1 | <p>To require the preparation of a masterplan (to be developed in conjunction with relevant environmental/flood risk/transport assessments) for the NWQ giving full consideration to the type and intensity of development relative to future transport options and in particular public transport. The masterplan shall be subject to the considerations and specifications outlined in the Urban Development Strategy detailed in Chapter 10, to ensure that the future development of the Northwest Quadrant takes place in a co-ordinated and integrated manner.</p> <ol style="list-style-type: none"> a. No development shall take place on the lands identified within the Northwest Quadrant (zoned Strategic Reserve or New Residential) until such time as a masterplan is prepared and integrated into the Naas Local Area Plan by way of a statutory amendment to the Local Area Plan, pursuant to Section 20 of the Planning and Development Act 2000 (as amended). b. No masterplan shall be completed until the OPW Flood Study has been finalised for the lands in the Northwest Quadrant. c. The masterplan shall include (but not be restricted to): <ol style="list-style-type: none"> i. A phasing infrastructure programme including physical, social, transport and economic infrastructure. ii. Site-Specific Flood Risk Assessment for the masterplan lands. iii. Transport Impact Assessment. iv. Water and wastewater network requirements including assessments regarding the capacity of receiving environments. v. Associated Environmental Assessments and appropriate climate proofing measures <p>Individual applications for smaller sections of the Northwest Quadrant masterplan lands shall not be considered by the Planning Authority or An Bord Pleanála until the masterplan is integrated into the Local Area Plan in accordance with (a) above.</p> |

8.2 Flood Risk Management Plans

KCC have committed to implementing the recommendations from the River Liffey and Dublin Bay FRMP for Naas (adopted by the Council in July 2018). The lists of measures applicable to Naas are outlined previously in **Table 5-3**. Similarly as discussed in previous sections of the SFRA (**Section 5.5.2** and **Section 6.2.2**), KCC will work in conjunction with the OPW to deliver any proposed flood alleviation works that are deemed appropriate and viable.

8.3 Flood Risk Management Objectives

KCC will implement the proposed flood risk management objectives for each specific area, ensuring planning applications will require an 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 when presenting the site layout and design and they must satisfy the Justification Test (where required). The proposal must demonstrate that appropriate mitigation and management measures are put in place. For any development in flood risk areas that meet the Development Plan Justification Test, a Development Management Justification Test must then be applied. Development must satisfy all the criteria of the Development Management Justification Test.

9 SUMMARY

9.1 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 Naas to assist KCC to make informed strategic land-use planning decisions. The flood risk information was used to apply The Guidelines sequential approach, and where necessary the Justification Test, to appraise sites for development and identify how flood risk can be reduced as part of the development plan.

9.2 Flood Zones and Flood Risk

Naas is susceptible to several types of flood risk, but the primary risk is fluvial flooding which occurs when rivers overtop their banks due to a blockage in the channel or the channel capacity is exceeded. The flood zones extents have been prepared in accordance the Planning System and Flood Risk Assessment Guidelines, identifying Flood Zones A and B. The flood zone maps are derived from the Eastern CFRAMS. The Flood Zone mapping is based on the best currently available data and a more detailed, SSFRA may generate localised flood extents. As noted in **Section 6.2.3** there is high uncertainty regarding the flood risk in relation to Naas due to poor availability of model calibration events and possible interconnection between fluvial and surface water drainage and canal systems. However as the CFRAM maps are the most comprehensive flood maps produced for Kildare, since the introduction of The Guidelines and the Floods Directive, they are the best available source of flooding information to inform the SFRA. The flood zones only account for inland 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.

The SSFRAs should in general address the site layout with respect to vulnerability of the proposed development type. Finished floor levels should be above the 0.1% or 1% AEP level. Flood resilient construction materials and fittings may be considered and the developments should not impede existing flow paths or cause flood risk impacts to the surrounding areas. It also may be necessary to develop emergency evacuation plans and defined access / egress routes for extreme flood events. SSFRAs should also examine climate change impacts, as parts of the town are susceptible to increases in flood extents for climate change scenarios. Any SSFRAs should also be cognisant of the proposed Naas Flood Relief Scheme which is currently developing proposals for flood defences along the town watercourses to protect against the 1% AEP event.

9.3 Flood Management Policies and Objectives

The Kildare County Development Plan 2017-2023 outlines surface water and flooding flood risk management policies and objectives for the entire county. The Naas Local Area 2021-2027 will implement these policies to ensure flood risk and surface water management is considered during the planning process for development within the LAP boundary. The Naas LAP will also implement specific local policies and objectives which have been adopted from the existing LAP. The Council has committed to supporting and co-operating with the OPW in delivering the recommendations from the Eastern CFRAM FRMP. KCC have committed to implementing the recommendations from the FRMP and will work in conjunction with the OPW to deliver any proposed flood alleviation works that are deemed appropriate and viable.

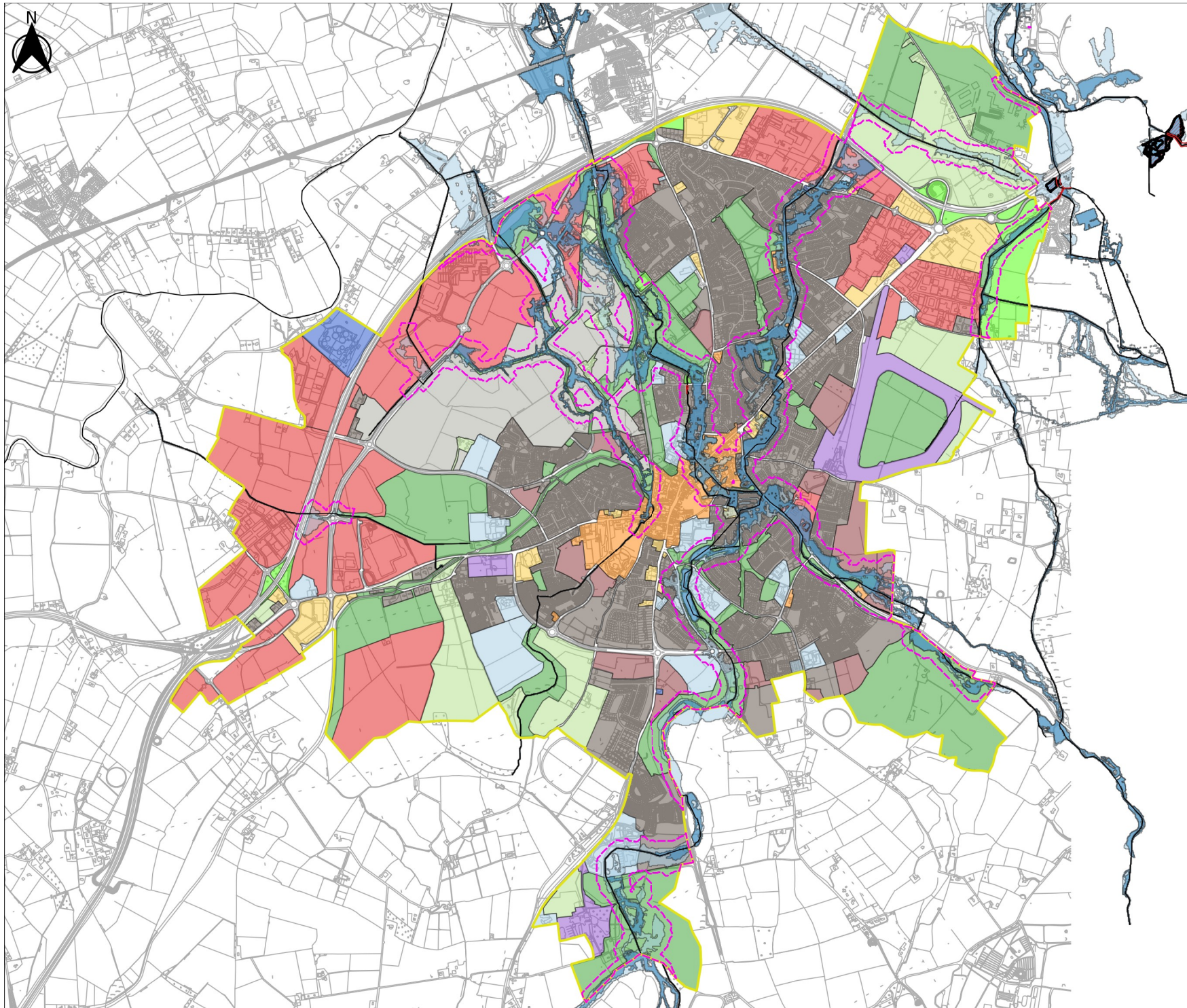
9.4 SFRA Review and Monitoring

The Naas SFRA will be reviewed and updated every six years in line with the Kildare Planning Authority's review process. Additionally, outputs from future studies and datasets may trigger a review and update of the SFRA during the lifetime of the LAP and the Kildare County Development Plan. These include the outputs from the updated hydraulic study that is required to progress the Naas Flood Relief Scheme as outlined the

River Liffey and Dublin Bay FRMP. 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 SFRAs.


Appendix A

Fluvial Flood Zone Mapping



Legend

- Flood Zone A - 1% AEP Flood Event (1 in 100 chance in any given year)
- Flood Zone B - 1% AEP Flood Event (1 in 1000 chance in any given year)
- Flood Risk Assessment
- Watercourses
- LAP Boundary
- Land Use Zonings**
- A-Town Centre
- B-Existing Infill Residential
- C-New Residential
- E-Community & Education
- F & F2-Open Space & Amenity
- G-Green belt
- H-Industry & Warehousing
- I-Agricultural
- K-Commercial Residential
- L-Leisure & Amenity
- N-Neighbourhood Centre
- P-Data Centre Warehouse
- Q-Office Enterprise Employment
- R-Retail Commercial
- SR-Strategic Reserve
- U-Utilities Services

Client  **Comhairle Contae Chill Dara**
Kildare County Council

Project **Naas LAP 2021 - 2027**

Title
Naas LAP Flood Zone Map



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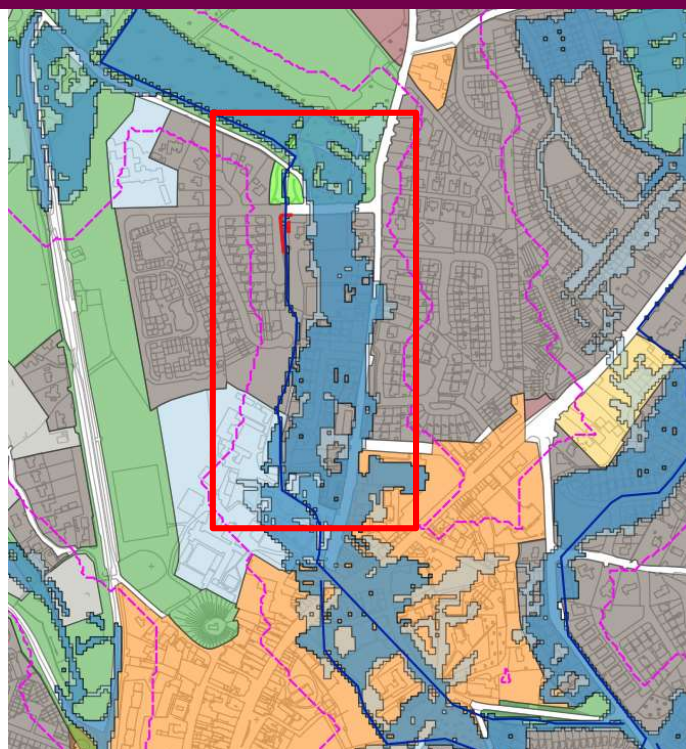
Issue Details

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|-----------|------------|----------------|---------|
| Drawn: | BT | Project: | MDW0873 |
| Checked: | BC | File Ref: | |
| Approved: | BC | MDW0873QG0004 | |
| Scale: | NTS | Projection: | |
| Date: | 26-02-2021 | IRENET95 / ITM | |

Notes
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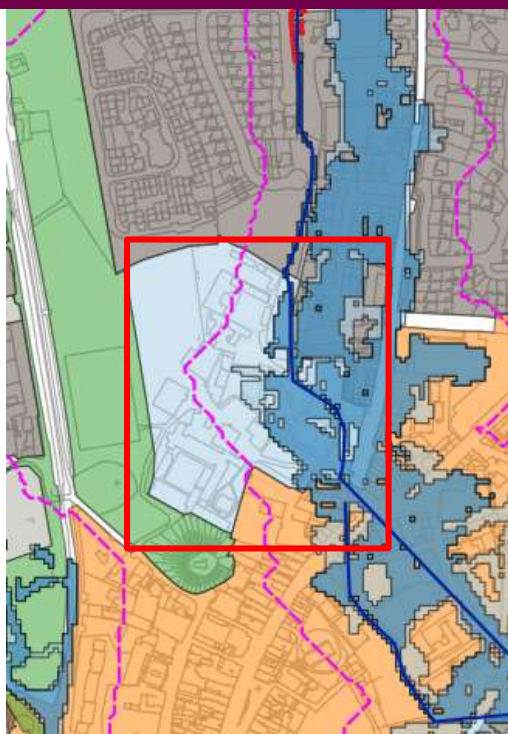
Appendix B

Justification Tests



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| <p>1 The Regional Planning Guidelines for the Greater Dublin Area 2010-2022 set out the planned direction for growth within the Greater Dublin Area up to 2022 by giving regional effect to national planning policy under the National Spatial Strategy (NSS).</p> | <p>Naas is one of two Key Towns in Co. Kildare as identified in the Regional Spatial and Economic Strategy (RSES) for the Eastern and Midland Region 2019-2031. Key Towns are defined in the RSES as large towns which are economically active towns that provide employment for their surrounding areas. They have high quality transport links and the capacity to act as a regional driver to complement Regional Growth Centres. The designation of Naas as a Key Town is reflective of its county town status. The RSES recognises that there are strong links between Naas and the nearby settlements of Sallins and Newbridge, with a strong interrelationship of services, employment and education between Naas and Newbridge. The RSES also states that consolidation and the regeneration are key development priorities for Naas</p> <p>The RSES provides regional level strategic planning and economic policy in support of the implementation of the NPF and provide a greater level of focus around the National Policy Objectives and National Strategic Outcomes of the NPF.</p> |
| <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> | <p>Land Zoned: B - Existing Residential & Infill</p> <p>Lands are in located within and adjoining the town centre, zoning is required to maintain the proper planning and development of Naas</p> |
| <p>(i) Is essential to facilitate regeneration and / or expansion of the centre of the urban settlement,</p> | <p>No, as lands in the Millbridge Residential Estate are already developed as residential use.</p> |
| <p>(ii) Comprises significant previously developed and / or underutilized lands,</p> | <p>Yes, comprises significant previously developed lands</p> |
| <p>(iii) Is within or adjoining the core of an established or designated urban settlement,</p> | <p>Yes, is within the established designated urban settlement</p> |
| <p>(iv) Will be essential in achieving compact and sustainable urban growth, and</p> | <p>No, as lands in the Millbridge Residential Estate are already developed as residential use.</p> |

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| <p>(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> | <p>Millbridge Residential Estate is already developed as residential use. Having regard to the developed nature of lands it is considered reasonable to retain the use subject to a stipulation that any development within the areas of the flood risk zone include measures to mitigate against flooding. Therefore, prior to any further development being permitted a SSFRA should be undertaken to the satisfaction of Kildare County Council.</p> |
| <p>3A 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</p> | <p>The flood mapping indicates that certain parts of Millbridge Residential Estate are within Flood Zones A and B. The pre-existing zonings should be retained but future significant development in this area should be subject to a SSFRA. SSFRAs should address the following:</p> <ul style="list-style-type: none"> • Apply sequential approach should be applied through site planning and should avoid encroachment onto, or loss of, the flood plain, • Should address climate change scenarios in relation to FFLs and potential mitigation measures, • Finished floor levels should be above the 0.1% AEP level, • Bedrooms should be located in the upstairs of two-story buildings, • Flood resilient construction materials and fittings should be considered, and • Proposals should not impede existing flow paths or cause flood risk impacts to the surrounding areas. <p>The FRMP proposed the Naas Flood Relief Scheme (FRS) which would protect the Millbridge residential area against the 1% AEP event. The FRMP also proposed further hydraulic analysis to be undertaken as a first phase of the Naas FRS to refine defences and improve understanding of the flooding mechanisms. KCC have appointed a consultant to complete the FRMP measures identified for Naas and following the completion of the flood mapping stage of the FRS a review of the flood extents will be undertaken and if required KCC will carry out an update to the SFRA and an amendment of the LAP. Any FRA should be cognisant of these proposed flood defences for Naas.</p> <p>The flood extents may be subject to change due to FRMP recommendations outlined above. Therefore in the interim if a SSFRA were to re-evaluate the predicted flood extents for a proposed development site a hydraulic model of an appropriate scale is required to be constructed. The outputs from the hydraulic model will be expected to consist of sufficient detail and analysis to demonstrate the revised Flood Zone A and B flood extents. The revision of the predicted flood extents will be subject to KCC approval.</p> |



1 The Regional Planning Guidelines for the Greater Dublin Area 2010-2022 set out the planned direction for growth within the Greater Dublin Area up to 2022 by giving regional effect to national planning policy under the National Spatial Strategy (NSS).

Naas is one of two Key Towns in Co. Kildare as identified in the Regional Spatial and Economic Strategy (RSES) for the Eastern and Midland Region 2019-2031. Key Towns are defined in the RSES as large towns which are economically active towns that provide employment for their surrounding areas. They have high quality transport links and the capacity to act as a regional driver to complement Regional Growth Centres. The designation of Naas as a Key Town is reflective of its county town status. The RSES recognises that there are strong links between Naas and the nearby settlements of Sallins and Newbridge, with a strong interrelationship of services, employment and education between Naas and Newbridge. The RSES also states that consolidation and the regeneration are key development priorities for Naas.

The RSES provides regional level strategic planning and economic policy in support of the implementation of the NPF and provide a greater level of focus around the National Policy Objectives and National Strategic Outcomes of the NPF.

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:

Land Zoned: E - Community & Educational

(i) Is essential to facilitate regeneration and / or expansion of the centre of the urban settlement,

No, the site adjoins lands that are within a proposed Regeneration Area, as identified in the draft Naas LAP.

(ii) Comprises significant previously developed and / or underutilized lands,

Comprises significant previously developed lands – existing established schools and church.

(iii) Is within or adjoining the core of an established or designated urban settlement,

Is within the established designated urban settlement and adjoins the core of the settlement.

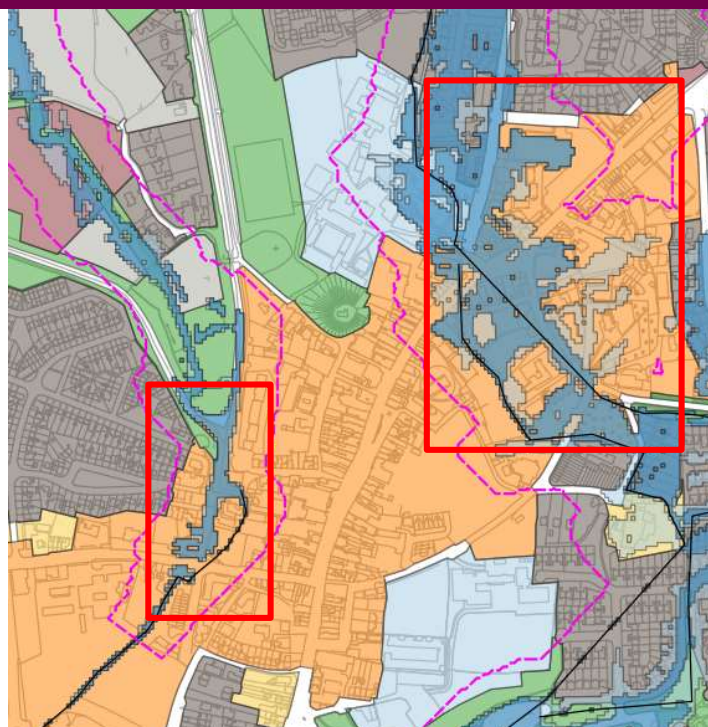
(iv) Will be essential in achieving compact and sustainable urban growth, and

Yes, Mercy Convent school being redeveloped into a three storey 32 classroom presently.

(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.

Having regard to the developed nature of lands it is considered reasonable to retain the use subject to a stipulation that the areas within the flood risk zone include measures to mitigate against

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| | <p>flooding. Prior to any further development being permitted a SSFRA should be undertaken to the satisfaction of Kildare County Council.</p> |
| <p>3A 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</p> | <p>The flood mapping indicates that certain parts of Mercy's Convent Primary School and St Mary's Secondary School are within Flood Zone B. St David's Church is within Flood Zone A. The pre-existing zonings should be retained but future significant development in this area should be subject to a SSFRA. SSFRAs should address the following:</p> <ul style="list-style-type: none"> • Apply sequential approach should be applied through site planning and should avoid encroachment onto, or loss of, the flood plain, • Should address climate change scenarios in relation to FFLs and potential mitigation measures, • Finished floor levels should be above the 0.1% AEP level, • Flood resilient construction materials and fittings should be considered, and • Proposals should not impede existing flow paths or cause flood risk impacts to the surrounding areas. <p>The FRMP proposed the Naas FRS which would protect the church and schools against the 1% AEP event. The FRMP also proposed further hydraulic analysis to be undertaken as a first phase of the Naas FRS to refine defences and improve understanding of the flooding mechanisms. KCC have appointed a consultant to complete the FRMP measures identified for Naas and following the completion of the flood mapping stage of the FRS a review of the flood extents will be undertaken and if required KCC will carry out an update to the SFRA and an amendment of the LAP. Any FRA should be cognisant of these proposed flood defences for Naas.</p> <p>The flood extents may be subject to change due to FRMP recommendations outlined above. Therefore in the interim if a SSFRA were to re-evaluate the predicted flood extents for a proposed development site a hydraulic model of an appropriate scale is required to be constructed. The outputs from the hydraulic model will be expected to consist of sufficient detail and analysis to demonstrate the revised Flood Zone A and B flood extents. The revision of the predicted flood extents will be subject to KCC approval.</p> |



1 The Regional Planning Guidelines for the Greater Dublin Area 2010-2022 set out the planned direction for growth within the Greater Dublin Area up to 2022 by giving regional effect to national planning policy under the National Spatial Strategy (NSS).

Naas is one of two Key Towns in Co. Kildare as identified in the Regional Spatial and Economic Strategy (RSES) for the Eastern and Midland Region 2019-2031. Key Towns are defined in the RSES as large towns which are economically active towns that provide employment for their surrounding areas. They have high quality transport links and the capacity to act as a regional driver to complement Regional Growth Centres. The designation of Naas as a Key Town is reflective of its county town status. The RSES recognises that there are strong links between Naas and the nearby settlements of Sallins and Newbridge, with a strong interrelationship of services, employment and education between Naas and Newbridge. The RSES also states that consolidation and the regeneration are key development priorities for Naas

The RSES provides regional level strategic planning and economic policy in support of the implementation of the NPF and provide a greater level of focus around the National Policy Objectives and National Strategic Outcomes of the NPF.

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:

Land Zoned: A - Town Centre

(i) Is essential to facilitate regeneration and / or expansion of the centre of the urban settlement,

Yes, lands in the town centre are considered essential to facilitate regeneration and expansion of the town centre. The town centre core is proposed to be designated a Regeneration Area in the draft LAP, within which the subjects are located.

(ii) Comprises significant previously developed and / or underutilized lands,

Yes, the lands comprise significant previously developed lands and some underutilised lands

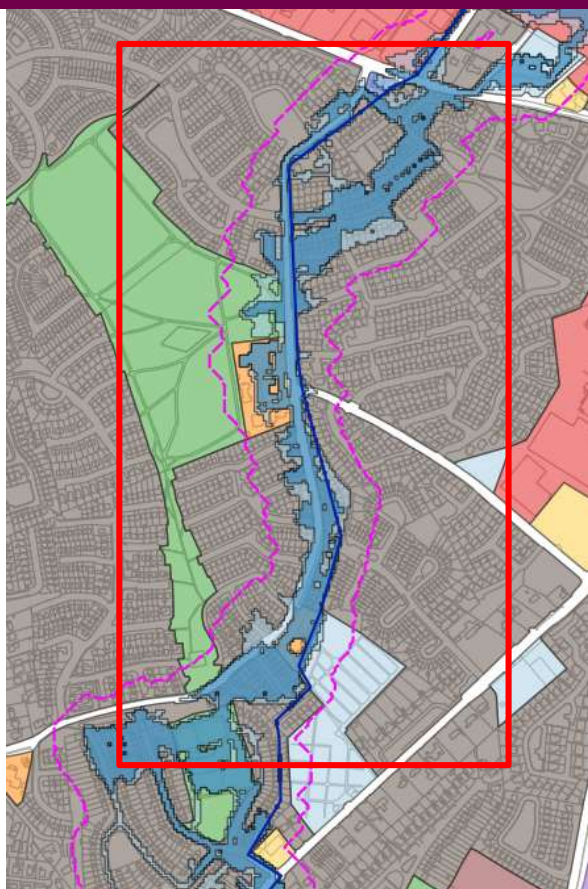
(iii) Is within or adjoining the core of an established or designated urban settlement,

Yes, is within the core of an established designated urban settlement - Naas

(iv) Will be essential in achieving compact and sustainable urban growth, and

The consolidation and regeneration of this area will be essential in achieving compact and sustainable urban growth. Development here would support national policy objectives set out in the National Planning Framework.

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| <p>(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> | <p>The lands comprise the town centre; therefore no alternative options are available. Having regard to the developed nature of the lands it is considered reasonable to retain the use subject to a stipulation that development in areas subject to flood risk zone include measures to mitigate against flooding. Therefore, prior to any further development being permitted a SSFRA should be undertaken to the satisfaction of Kildare County Council.</p> |
| <p>3A 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</p> | <p>The flood mapping indicates that parts of the town centre are within Flood Zone A. The pre-existing zonings should be retained but future significant development in this area should be subject to a SSFRA. SSFRAs should address the following:</p> <ul style="list-style-type: none"> • Apply sequential approach should be applied through site planning and should avoid encroachment onto, or loss of, the flood plain, • Should address climate change scenarios in relation to FFLs and potential mitigation measures, • Finished floor levels should be above the 0.1% AEP level, • Flood resilient construction materials and fittings should be considered, • Proposals should not impede existing flow paths or cause flood risk impacts to the surrounding areas, and • Emergency evacuation plan and defined access / egress routes should be developed for extreme flood events. <p>The FRMP proposed the Naas FRS which would protect the town centre against the 1% AEP event. The FRMP also proposed further hydraulic analysis to be undertaken as a first phase of the Naas FRS to refine defences and improve understanding of the flooding mechanisms. KCC have appointed a consultant to complete the FRMP measures identified for Naas and following the completion of the flood mapping stage of the FRS a review of the flood extents will be undertaken and if required KCC will carry out an update to the SFRA and an amendment of the LAP. Any FRA should be cognisant of these proposed flood defences for Naas.</p> <p>The flood extents may be subject to change due to FRMP recommendations outlined above. Therefore in the interim if a SSFRA were to re-evaluate the predicted flood extents for a proposed development site a hydraulic model of an appropriate scale is required to be constructed. The outputs from the hydraulic model will be expected to consist of sufficient detail and analysis to demonstrate the revised Flood Zone A and B flood extents. The revision of the predicted flood extents will be subject to KCC approval.</p> |



1 The Regional Planning Guidelines for the Greater Dublin Area 2010-2022 set out the planned direction for growth within the Greater Dublin Area up to 2022 by giving regional effect to national planning policy under the National Spatial Strategy (NSS).

Naas is one of two Key Towns in Co. Kildare as identified in the Regional Spatial and Economic Strategy (RSES) for the Eastern and Midland Region 2019-2031. Key Towns are defined in the RSES as large towns which are economically active towns that provide employment for their surrounding areas. They have high quality transport links and the capacity to act as a regional driver to complement Regional Growth Centres. The designation of Naas as a Key Town is reflective of its county town status. The RSES recognises that there are strong links between Naas and the nearby settlements of Sallins and Newbridge, with a strong interrelationship of services, employment and education between Naas and Newbridge. The RSES also states that consolidation and the regeneration are key development priorities for Naas

The RSES provides regional level strategic planning and economic policy in support of the implementation of the NPF and provide a greater level of focus around the National Policy Objectives and National Strategic Outcomes of the NPF.

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:

Land Zoned: B - Existing Residential and Infill

(i) Is essential to facilitate regeneration and / or expansion of the centre of the urban settlement,

No, as lands at Monread Avenue are already developed for residential use.

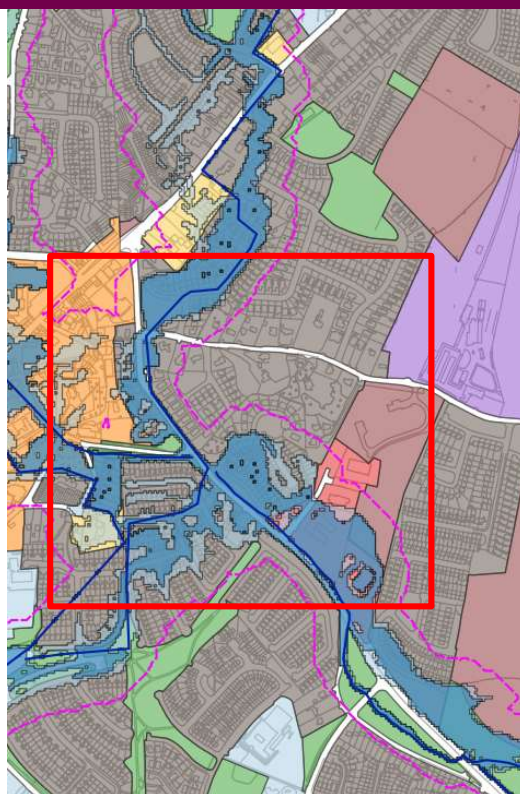
(ii) Comprises significant previously developed and / or underutilized lands,

Yes, comprises significant previously developed lands for residential use, with support facilities such as open space.

(iii) Is within or adjoining the core of an established or designated urban settlement,

Yes, is within the established designated urban settlement.

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| (iv) Will be essential in achieving compact and sustainable urban growth, and | No, as lands are already developed as residential use. |
| (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. | Monread Avenue residential estates are already developed for residential use. Having regard to the developed nature of lands it is considered reasonable to retain the use subject to a stipulation that development of areas in the flood risk zone include measures to mitigate against flooding. Therefore, prior to any further development being permitted a SSFRA should be undertaken to the satisfaction of Kildare County Council. |
| <p>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</p> | <p>The flood mapping indicates that certain parts of the residential estates adjacent to Monread Avenue are within Flood Zone A. The pre-existing zonings should be retained but future significant development in this area should be subject to a SSFRA. SSFRAs should address the following:</p> <p>Apply sequential approach should be applied through site planning and should avoid encroachment onto, or loss of, the flood plain.</p> <ul style="list-style-type: none"> • Should address climate change scenarios in relation to FFLs and potential mitigation measures, • Finished floor levels should be above the 0.1% AEP level, • Bedrooms should be located in the upstairs of two-story buildings, • Flood resilient construction materials and fittings should be considered, and • Proposals should not impede existing flow paths or cause flood risk impacts to the surrounding areas. <p>The FRMP proposed the Naas FRS which would protect the Monread area against the 1% AEP event. The FRMP also proposed further hydraulic analysis to be undertaken as a first phase of the Naas FRS to refine defences and improve understanding of the flooding mechanisms. KCC have appointed a consultant to complete the FRMP measures identified for Naas and following the completion of the flood mapping stage of the FRS a review of the flood extents will be undertaken and if required KCC will carry out an update to the SFRA and an amendment of the LAP. Any FRA should be cognisant of these proposed flood defences for Naas.</p> <p>The flood extents may be subject to change due to FRMP recommendations outlined above. Therefore in the interim if a SSFRA were to re-evaluate the predicted flood extents for a proposed development site a hydraulic model of an appropriate scale is required to be constructed. The outputs from the hydraulic model will be expected to consist of sufficient detail and analysis to demonstrate the revised Flood Zone A and B flood extents. The revision of the predicted flood extents will be subject to KCC approval</p> |



1 The Regional Planning Guidelines for the Greater Dublin Area 2010-2022 set out the planned direction for growth within the Greater Dublin Area up to 2022 by giving regional effect to national planning policy under the National Spatial Strategy (NSS).

Naas is one of two Key Towns in Co. Kildare as identified in the Regional Spatial and Economic Strategy (RSES) for the Eastern and Midland Region 2019-2031. Key Towns are defined in the RSES as large towns which are economically active towns that provide employment for their surrounding areas. They have high quality transport links and the capacity to act as a regional driver to complement Regional Growth Centres. The designation of Naas as a Key Town is reflective of its county town status. The RSES recognises that there are strong links between Naas and the nearby settlements of Sallins and Newbridge, with a strong interrelationship of services, employment and education between Naas and Newbridge. The RSES also states that consolidation and the regeneration are key development priorities for Naas

The RSES provides regional level strategic planning and economic policy in support of the implementation of the NPF and provide a greater level of focus around the National Policy Objectives and National Strategic Outcomes of the NPF.

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:

Land Zoned: B - Existing Residential and Infill.

(i) Is essential to facilitate regeneration and / or expansion of the centre of the urban settlement,

No, lands comprising of residential estates at Dublin Road and Blessington Road are already developed for residential use.

(ii) Comprises significant previously developed and / or underutilized lands,

Yes, comprises significant previously developed lands for residential use, with support facilities such as open space.

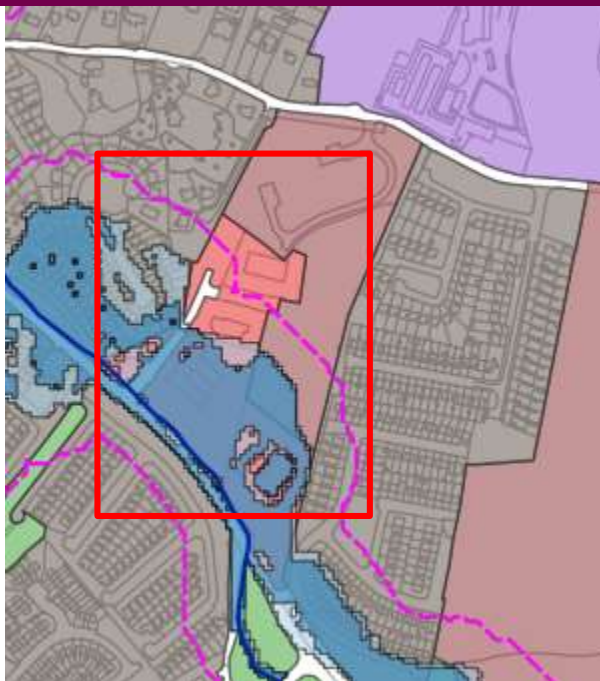
(iii) Is within or adjoining the core of an established or designated urban settlement,

Yes, is within the established designated urban settlement

(iv) Will be essential in achieving compact and sustainable urban growth, and

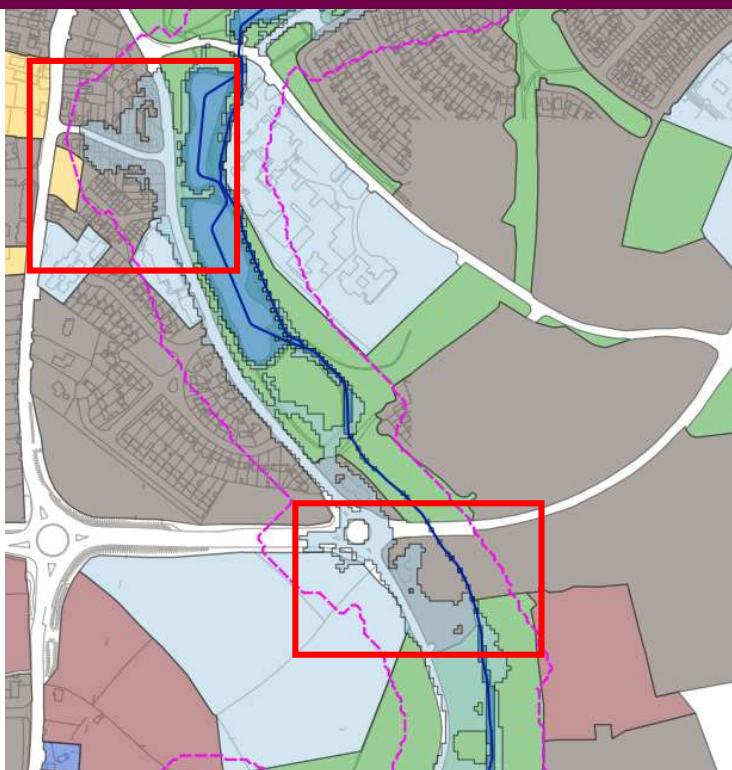
No, as lands are already developed as residential use.

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| <p>(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> | <p>Residential areas on Dublin Road and Blessington Road are already developed for residential use. Having regard to the developed nature of lands it is considered reasonable to retain the use subject to a stipulation that any development of the areas within the flood risk zone include measures to mitigate against flooding. Therefore, prior to any further development being permitted a SSFRA should be undertaken to the satisfaction of Kildare County Council.</p> |
| <p>3A 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</p> | <p>The flood mapping indicates that certain parts of the residential estates adjacent to Dublin Road and Blessington Road are within Flood Zone A. The pre-existing zonings should be retained but future significant development in this area should be subject to a SSFRA. SSFRAs should address the following:</p> <p>Apply sequential approach should be applied through site planning and should avoid encroachment onto, or loss of, the flood plain.</p> <ul style="list-style-type: none"> • Should address climate change scenarios in relation to FFLs and potential mitigation measures, • Finished floor levels should be above the 0.1% AEP level, • Bedrooms should be located in the upstairs of two-story buildings, • Flood resilient construction materials and fittings should be considered, and • Proposals should not impede existing flow paths or cause flood risk impacts to the surrounding areas. <p>The FRMP proposed the Naas FRS which would protect the properties in these residential areas against the 1% AEP event. The FRMP also proposed further hydraulic analysis to be undertaken as a first phase of the Naas FRS to refine defences and improve understanding of the flooding mechanisms. KCC have appointed a consultant to complete the FRMP measures identified for Naas and following the completion of the flood mapping stage of the FRS a review of the flood extents will be undertaken and if required KCC will carry out an update to the SFRA and an amendment of the LAP. Any FRA should be cognisant of these proposed flood defences for Naas.</p> <p>The flood extents may be subject to change due to FRMP recommendations outlined above. Therefore in the interim if a SSFRA were to re-evaluate the predicted flood extents for a proposed development site a hydraulic model of an appropriate scale is required to be constructed. The outputs from the hydraulic model will be expected to consist of sufficient detail and analysis to demonstrate the revised Flood Zone A and B flood extents. The revision of the predicted flood extents will be subject to KCC approval</p> |



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| <p>1 The Regional Planning Guidelines for the Greater Dublin Area 2010-2022 set out the planned direction for growth within the Greater Dublin Area up to 2022 by giving regional effect to national planning policy under the National Spatial Strategy (NSS).</p> | <p>Naas is one of two Key Towns in Co. Kildare as identified in the Regional Spatial and Economic Strategy (RSES) for the Eastern and Midland Region 2019-2031. Key Towns are defined in the RSES as large towns which are economically active towns that provide employment for their surrounding areas. They have high quality transport links and the capacity to act as a regional driver to complement Regional Growth Centres. The designation of Naas as a Key Town is reflective of its county town status. The RSES recognises that there are strong links between Naas and the nearby settlements of Sallins and Newbridge, with a strong interrelationship of services, employment and education between Naas and Newbridge. The RSES also states that consolidation and the regeneration are key development priorities for Naas</p> <p>The RSES provides regional level strategic planning and economic policy in support of the implementation of the NPF and provide a greater level of focus around the National Policy Objectives and National Strategic Outcomes of the NPF.</p> |
| <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> | <p>Land Zoned: Q - Enterprise and Employment.</p> |
| <p>(i) Is essential to facilitate regeneration and / or expansion of the centre of the urban settlement,</p> | <p>No, as lands occupied by Blessington Road Business Park are already developed.</p> |
| <p>(ii) Comprises significant previously developed and / or underutilized lands,</p> | <p>Yes, comprises significant previously developed lands for business /employment use.</p> |
| <p>(iii) Is within or adjoining the core of an established or designated urban settlement,</p> | <p>Yes, is within the established designated urban settlement.</p> |
| <p>(iv) Will be essential in achieving compact and sustainable urban growth, and</p> | <p>No, as lands are already developed for business/employment use.</p> |
| <p>(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> | <p>The lands occupied by Blessington Road Business Park are already developed. Having regard to the developed nature of lands it is considered reasonable to retain the use subject to a stipulation that further development of areas within the flood risk zone include measures to mitigate against flooding. Therefore, prior to any</p> |

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| | further development being permitted a SSFRA should be undertaken to the satisfaction of Kildare County Council. |
| 3A 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 | <p>The flood mapping indicates that certain parts of the Business Park are within Flood Zone A and B. The pre-existing zonings should be retained but future significant development in this area should be subject to a SSFRA. SSFRAs should address the following:</p> <ul style="list-style-type: none"> • Apply sequential approach should be applied through site planning and should avoid encroachment onto, or loss of, the flood plain, • Should address climate change scenarios in relation to FFLs and potential mitigation measures, • Finished floor levels should be above the 0.1% AEP level, • Flood resilient construction materials and fittings should be considered, and • Proposals should not impede existing flow paths or cause flood risk impacts to the surrounding areas. <p>The FRMP proposed the Naas FRS which would reduce risk to the commercial properties in these areas against the 1% AEP event. The FRMP also proposed further hydraulic analysis to be undertaken as a first phase of the Naas FRS to refine defences and improve understanding of the flooding mechanisms. KCC have appointed a consultant to complete the FRMP measures identified for Naas and following the completion of the flood mapping stage of the FRS a review of the flood extents will be undertaken and if required KCC will carry out an update to the SFRA and an amendment of the LAP. Any FRA should be cognisant of these proposed flood defences for Naas</p> <p>The flood extents may be subject to change due to FRMP recommendations outlined above. Therefore in the interim if a SSFRA were to re-evaluate the predicted flood extents for a proposed development site a hydraulic model of an appropriate scale is required to be constructed. The outputs from the hydraulic model will be expected to consist of sufficient detail and analysis to demonstrate the revised Flood Zone A and B flood extents. The revision of the predicted flood extents will be subject to KCC approval</p> |



1 The Regional Planning Guidelines for the Greater Dublin Area 2010-2022 set out the planned direction for growth within the Greater Dublin Area up to 2022 by giving regional effect to national planning policy under the National Spatial Strategy (NSS).

Naas is one of two Key Towns in Co. Kildare as identified in the Regional Spatial and Economic Strategy (RSES) for the Eastern and Midland Region 2019-2031. Key Towns are defined in the RSES as large towns which are economically active towns that provide employment for their surrounding areas. They have high quality transport links and the capacity to act as a regional driver to complement Regional Growth Centres. The designation of Naas as a Key Town is reflective of its county town status. The RSES recognises that there are strong links between Naas and the nearby settlements of Sallins and Newbridge, with a strong interrelationship of services, employment and education between Naas and Newbridge. The RSES also states that consolidation and the regeneration are key development priorities for Naas

The RSES provides regional level strategic planning and economic policy in support of the implementation of the NPF and provide a greater level of focus around the National Policy Objectives and National Strategic Outcomes of the NPF.

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:

Land Zoned: B - Existing Residential and Infill.

(i) Is essential to facilitate regeneration and / or expansion of the centre of the urban settlement,

No, as lands at the Ballymore Eustace Road are already developed for residential use.

(ii) Comprises significant previously developed and / or underutilized lands,

Yes, comprises significant previously developed lands for residential use, with support facilities such as open space.

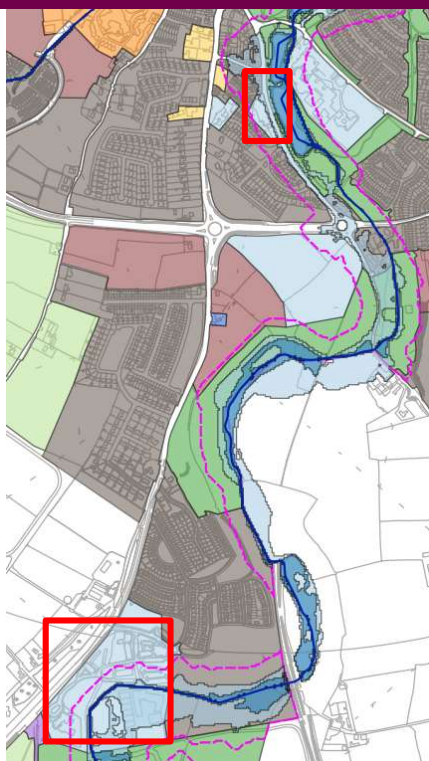
(iii) Is within or adjoining the core of an established or designated urban settlement,

Yes, is within the established designated urban settlement.

(iv) Will be essential in achieving compact and sustainable urban growth, and

No, as lands are already developed as residential use.

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| <p>(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> | <p>Ballymore Eustace Road residential estates are already developed for residential use. Having regard to the developed nature of lands it is considered reasonable to retain the use subject to a stipulation that further development of lands within areas subject to flood risk include measures to mitigate against flooding. Therefore, prior to any further development being permitted a SSFRA should be undertaken to the satisfaction of Kildare County Council.</p> |
| <p>3A 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</p> | <p>The flood mapping indicates that certain parts of the residential estates adjacent to Ballymore Eustace Road are within Flood Zone B. The pre-existing zonings should be retained but future significant development in this area should be subject to a SSFRA. SSFRAs should address the following:</p> <ul style="list-style-type: none"> • Apply sequential approach should be applied through site planning and should avoid encroachment onto, or loss of, the flood plain, • Should address climate change scenarios in relation to FFLs and potential mitigation measures, • Finished floor levels should be above the 0.1% AEP level, • Bedrooms should be located in the upstairs of two-story buildings, • Flood resilient construction materials and fittings should be considered, and • Proposals should not impede existing flow paths or cause flood risk impacts to the surrounding areas. <p>The FRMP proposed the Naas FRS which would protect the properties in these residential areas against the 1% AEP event. The FRMP also proposed further hydraulic analysis to be undertaken as a first phase of the Naas FRS to refine defences and improve understanding of the flooding mechanisms. KCC have appointed a consultant to complete the FRMP measures identified for Naas and following the completion of the flood mapping stage of the FRS a review of the flood extents will be undertaken and if required KCC will carry out an update to the SFRA and an amendment of the LAP. Any FRA should be cognisant of these proposed flood defences for Naas.</p> <p>The flood extents may be subject to change due to FRMP recommendations outlined above. Therefore in the interim if a SSFRA were to re-evaluate the predicted flood extents for a proposed development site a hydraulic model of an appropriate scale is required to be constructed. The outputs from the hydraulic model will be expected to consist of sufficient detail and analysis to demonstrate the revised Flood Zone A and B flood extents. The revision of the predicted flood extents will be subject to KCC approval.</p> |



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Naas is one of two Key Towns in Co. Kildare as identified in the Regional Spatial and Economic Strategy (RSES) for the Eastern and Midland Region 2019-2031. Key Towns are defined in the RSES as large towns which are economically active towns that provide employment for their surrounding areas. They have high quality transport links and the capacity to act as a regional driver to complement Regional Growth Centres. The designation of Naas as a Key Town is reflective of its county town status. The RSES recognises that there are strong links between Naas and the nearby settlements of Sallins and Newbridge, with a strong interrelationship of services, employment and education between Naas and Newbridge. The RSES also states that consolidation and the regeneration are key development priorities for Naas

The RSES provides regional level strategic planning and economic policy in support of the implementation of the NPF and provide a greater level of focus around the National Policy Objectives and National Strategic Outcomes of the NPF.

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:

Land Zoned: E - Community & Educational

(i) Is essential to facilitate regeneration and / or expansion of the centre of the urban settlement,

No, lands are significantly developed already, comprising the Vista Primary Care Centre and Piper's Hill College.

(ii) Comprises significant previously developed and / or underutilized lands,

Comprises significant previously developed lands, Vista Primary Care Centre and Piper's Hill College.

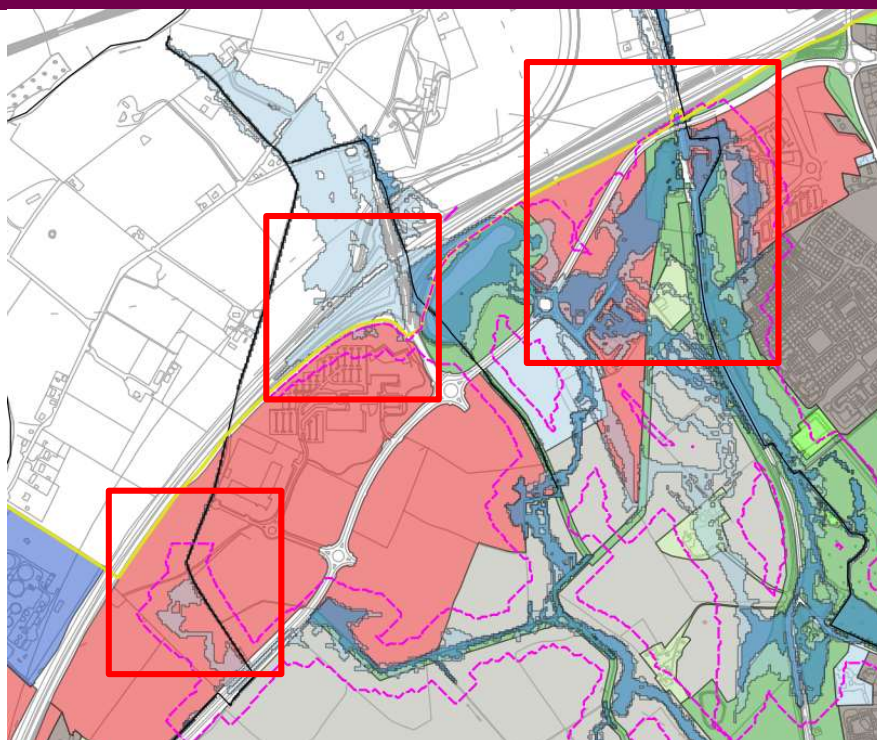
(iii) Is within or adjoining the core of an established or designated urban settlement,

While neither site is within the core of Naas, the Vista Primary Care Centre, to the north, is within an established designated urban settlement, while Piper's Hill College, site to the south, adjoins established designated settlement.

(iv) Will be essential in achieving compact and sustainable urban growth, and

No, these lands area are already developed.

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| <p>(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> | <p>Having regard to the developed nature of lands it is considered reasonable to retain the use subject to a stipulation that any development within the areas in the flood risk zone include measures to mitigate against flooding. Therefore, prior to any further development being permitted on the site a SSFRA should be undertaken to the satisfaction of Kildare County Council.</p> |
| <p>3A 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</p> | <p>The flood mapping indicates that certain parts of the two community infrastructure areas adjacent are within Flood Zone B. The pre-existing zonings should be retained but future significant development in this area should be subject to a SSFRA. SSFRAs should address the following:</p> <ul style="list-style-type: none"> • Apply sequential approach should be applied through site planning and should avoid encroachment onto, or loss of, the flood plain, • Should address climate change scenarios in relation to FFLs and potential mitigation measures, • Finished floor levels should be above the 0.1% AEP level, • Bedrooms should be located in the upstairs of two-story buildings, • Flood resilient construction materials and fittings should be considered, • Proposals should not impede existing flow paths or cause flood risk impacts to the surrounding areas, and • There is potential for flood storage to be provided in the Pipers Hill playing pitches. This could be explored during the updated hydraulic analysis. <p>The FRMP also proposed further hydraulic analysis to be undertaken as a first phase of the Naas FRS to refine defences and improve understanding of the flooding mechanisms. KCC have appointed a consultant to complete the FRMP measures identified for Naas and following the completion of the flood mapping stage of the FRS a review of the flood extents will be undertaken and if required KCC will carry out an update to the SFRA and an amendment of the LAP. Any FRA should be cognisant of these proposed flood defences for Naas.</p> <p>The flood extents may be subject to change due to FRMP recommendations outlined above. Therefore in the interim if a SSFRA were to re-evaluate the predicted flood extents for a proposed development site a hydraulic model of an appropriate scale is required to be constructed. The outputs from the hydraulic model will be expected to consist of sufficient detail and analysis to demonstrate the revised Flood Zone A and B flood extents. The revision of the predicted flood extents will be subject to KCC approval.</p> |



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Naas is one of two Key Towns in Co. Kildare as identified in the Regional Spatial and Economic Strategy (RSES) for the Eastern and Midland Region 2019-2031. Key Towns are defined in the RSES as large towns which are economically active towns that provide employment for their surrounding areas. They have high quality transport links and the capacity to act as a regional driver to complement Regional Growth Centres. The designation of Naas as a Key Town is reflective of its county town status. The RSES recognises that there are strong links between Naas and the nearby settlements of Sallins and Newbridge, with a strong interrelationship of services, employment and education between Naas and Newbridge. The RSES also states that consolidation and the regeneration are key development priorities for Naas

The RSES provides regional level strategic planning and economic policy in support of the implementation of the NPF and provide a greater level of focus around the National Policy Objectives and National Strategic Outcomes of the NPF.

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:

Land Zoned: Q - Enterprise & Employment

(i) Is essential to facilitate regeneration and / or expansion of the centre of the urban settlement,

Lands that are undeveloped will facilitate expansion of the urban settlement, the lands will not facilitate regeneration, as they are either greenfield in nature or have been recently developed.

(ii) Comprises significant previously developed and / or underutilized lands,

Comprises significant underutilised lands (Greenfield in nature), though also contains some areas of significant development to the east of the 'E' Community and Education lands.

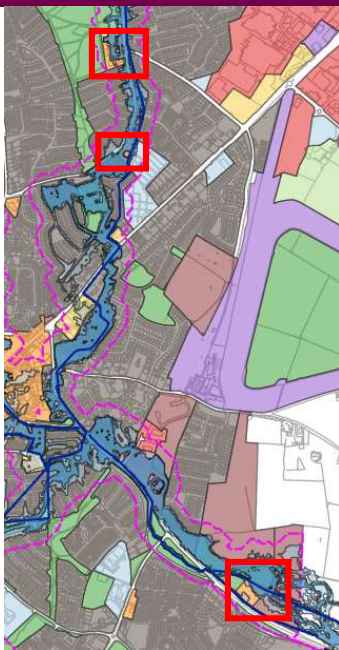
(iii) Is within or adjoining the core of an established or designated urban settlement,

Is proximate to the designated urban settlement but lands are not within the core of Naas.

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| (iv) Will be essential in achieving compact and sustainable urban growth, and | Development of these lands, where they remain to be developed will be essential in achieving sustainable and connected urban growth. Development here will assist in consolidating the urban form of Naas, allowing connection of the core to Naas periphery. |
| (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 other suitable alternative lands for employment use in areas at lower risk of flooding. These lands however will allow for a connection of the employment arc at Millennium Park with the core of Naas. Having regard to the semi-developed nature of lands it is considered reasonable to zone the lands subject to a stipulation that any development within the area in the flood risk zone include measures to mitigate against flooding. Therefore, prior to any further development being permitted a SSFRA should be undertaken to the satisfaction of Kildare County Council. |
| 3A 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 | <p>The flood mapping indicates that certain parts of the Millennium Link Business Park are within Flood Zone A and B. The pre-existing zonings should be retained but future significant development in this area should be subject to a SSFRA. SSFRAs should address the following:</p> <ul style="list-style-type: none"> • Apply sequential approach should be applied through site planning and should avoid encroachment onto, or loss of, the flood plain, • Should address climate change scenarios in relation to FFLs and potential mitigation measures, • Finished floor levels should be above the 0.1% AEP level, • Flood resilient construction materials and fittings should be considered, • Proposals should not impede existing flow paths or cause flood risk impacts to the surrounding areas, and <p>There are no flood defence works proposed in the FRMP to protect developments within Millennium Link Business Park against the 1% AEP event. Hence the flood extents may be subject to change due to FRMP recommendations for the updated hydraulic analysis for Naas. KCC have appointed a consultant to complete the FRMP measures identified for Naas and following the completion of the flood mapping stage of that project a review of the flood extents will be undertaken and if required KCC will carry out an update to the SFRA and an amendment of the LAP. Therefore in the interim if a SSFRA were to re-evaluate the predicted flood extents for a proposed development site a hydraulic model of an appropriate scale is required to be constructed. The outputs from the hydraulic model will be expected to consist of sufficient detail and analysis to demonstrate the revised Flood Zone A and B flood extents. The revision of the predicted flood extents will be subject to KCC approval.</p> |

10 Naas Local Area Plan 2021-2027

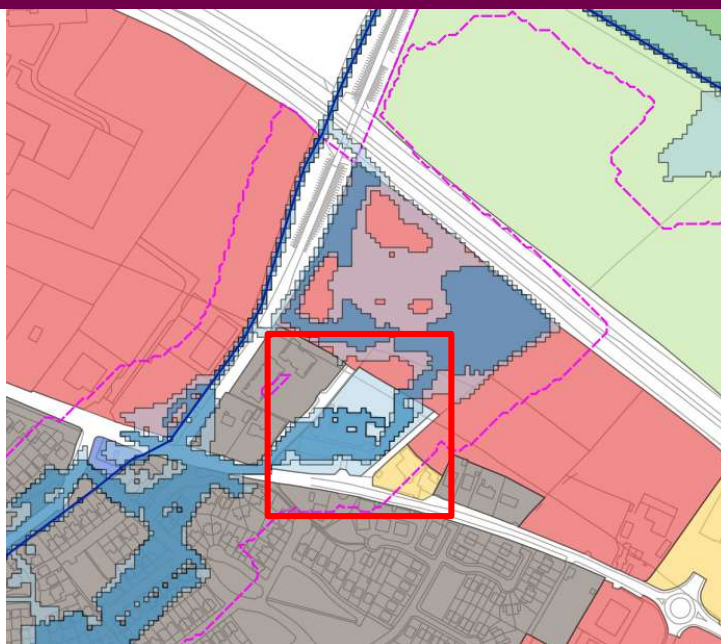
Monread Avenue & Blessington Road Neighbourhood Centres



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| <p>1 The Regional Planning Guidelines for the Greater Dublin Area 2010-2022 set out the planned direction for growth within the Greater Dublin Area up to 2022 by giving regional effect to national planning policy under the National Spatial Strategy (NSS).</p> | <p>Naas is one of two Key Towns in Co. Kildare as identified in the Regional Spatial and Economic Strategy (RSES) for the Eastern and Midland Region 2019-2031. Key Towns are defined in the RSES as large towns which are economically active towns that provide employment for their surrounding areas. They have high quality transport links and the capacity to act as a regional driver to complement Regional Growth Centres. The designation of Naas as a Key Town is reflective of its county town status. The RSES recognises that there are strong links between Naas and the nearby settlements of Sallins and Newbridge, with a strong interrelationship of services, employment and education between Naas and Newbridge. The RSES also states that consolidation and the regeneration are key development priorities for Naas</p> <p>The RSES provides regional level strategic planning and economic policy in support of the implementation of the NPF and provide a greater level of focus around the National Policy Objectives and National Strategic Outcomes of the NPF.</p> |
| <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> | <p>Land Zoned: N - Neighbourhood Centre.</p> |
| <p>(i) Is essential to facilitate regeneration and / or expansion of the centre of the urban settlement,</p> | <p>The lands at Blessington Road are considered essential to facilitate expansion of the centre of the urban settlement the land was previously zoned for residential use and there is an extant permission for a neighbourhood centre at this location. The planning application was subject to a detailed Flood Risk Assessment, which proposed mitigation measures through design.</p> <p>The lands at Monread Ave are previously developed.</p> |
| <p>(ii) Comprises significant previously developed and / or underutilized lands,</p> | <p>The lands at Blessington Road comprise significant underutilised lands that were zoned for residential use in the last Plan. Permission was granted for a housing scheme including a neighbourhood centre; and a detailed flood risk assessment formed part of the planning application.</p> <p>The two neighbourhood centres located on Monread Ave have previously been developed.</p> |

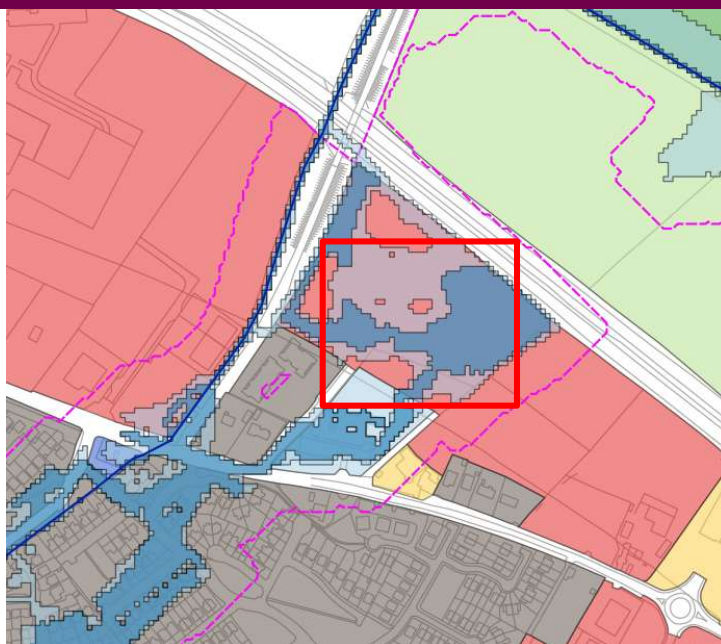
SFRA - NAAS DRAFT LOCAL AREA PLAN 2021-2027

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| (iii) Is within or adjoining the core of an established or designated urban settlement, | The lands at Monread Ave are within the established / designated urban settlement of Naas; the lands on the Blessington Road were previously zoned for residential development, have extant permission which was subject to a detailed FRA. |
| (iv) Will be essential in achieving compact and sustainable urban growth, and | Yes undeveloped lands at Blessington Road will be essential in achieving compact and sustainable urban growth |
| (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. | Lands are either developed or have extant permission. It is considered reasonable to zone the lands subject to a stipulation that any development within areas in the flood risk zone include measures to mitigate against flooding. Therefore, prior to any further development being permitted a SSFRA should be undertaken to the satisfaction of Kildare County Council. |
| 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 | <p>The flood mapping indicates that certain parts of the two community infrastructure areas adjacent are within Flood Zone B. The pre-existing zonings should be retained but future significant development in this area should be subject to a SSFRA. SSFRAs should address the following:</p> <ul style="list-style-type: none"> • Apply sequential approach should be applied through site planning and should avoid encroachment onto, or loss of, the flood plain, • Should address climate change scenarios in relation to FFLs and potential mitigation measures, • Finished floor levels should be above the 0.1% AEP level, • Bedrooms should be located in the upstairs of two-story buildings, • Flood resilient construction materials and fittings should be considered, and • Proposals should not impede existing flow paths or cause flood risk impacts to the surrounding areas. <p>The FRMP proposed further hydraulic analysis to be undertaken as a first phase of the Naas FRS to refine defences and improve understanding of the flooding mechanisms. KCC have appointed a consultant to complete the FRMP measures identified for Naas and following the completion of the flood mapping stage of the FRS a review of the flood extents will be undertaken and if required KCC will carry out an update to the SFRA and an amendment of the LAP. Any FRA should be cognisant of these proposed flood defences for Naas.</p> <p>The flood extents may be subject to change due to FRMP recommendations outlined above. Therefore in the interim if a SSFRA were to re-evaluate the predicted flood extents for a proposed development site a hydraulic model of an appropriate scale is required to be constructed. The outputs from the hydraulic model will be expected to consist of sufficient detail and analysis to demonstrate the revised Flood Zone A and B flood extents. The revision of the predicted flood extents will be subject to KCC approval.</p> |



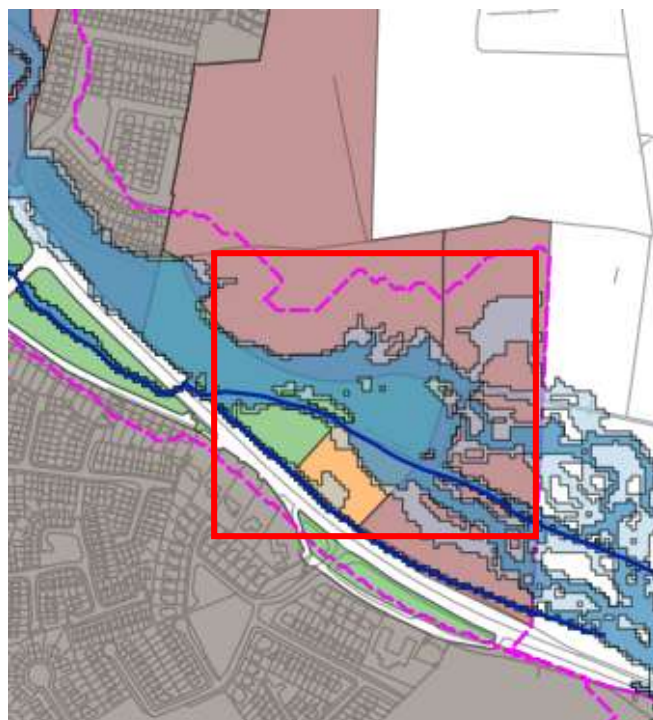
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| <p>1 The Regional Planning Guidelines for the Greater Dublin Area 2010-2022 set out the planned direction for growth within the Greater Dublin Area up to 2022 by giving regional effect to national planning policy under the National Spatial Strategy (NSS).</p> | <p>Naas is one of two Key Towns in Co. Kildare as identified in the Regional Spatial and Economic Strategy (RSES) for the Eastern and Midland Region 2019-2031. Key Towns are defined in the RSES as large towns which are economically active towns that provide employment for their surrounding areas. They have high quality transport links and the capacity to act as a regional driver to complement Regional Growth Centres. The designation of Naas as a Key Town is reflective of its county town status. The RSES recognises that there are strong links between Naas and the nearby settlements of Sallins and Newbridge, with a strong interrelationship of services, employment and education between Naas and Newbridge. The RSES also states that consolidation and the regeneration are key development priorities for Naas</p> <p>The RSES provides regional level strategic planning and economic policy in support of the implementation of the NPF and provide a greater level of focus around the National Policy Objectives and National Strategic Outcomes of the NPF.</p> |
| <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> | <p>Land Zoned: E - Community & Educational</p> |
| <p>(i) Is essential to facilitate regeneration and / or expansion of the centre of the urban settlement,</p> | <p>Larchfield Nursing home already in-situ.</p> |
| <p>(ii) Comprises significant previously developed and / or underutilized lands,</p> | <p>Comprises significant previously developed lands in the form of the nursing home.</p> |
| <p>(iii) Is within or adjoining the core of an established or designated urban settlement,</p> | <p>The nursing home is within the established and designated urban settlement</p> |
| <p>(iv) Will be essential in achieving compact and sustainable urban growth, and</p> | <p>The nursing home is already developed, there are no additional lands zoned for Community use there.</p> |
| <p>(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> | <p>The nursing home is already developed and there are no additional lands zoned for Community use there. It is considered reasonable to zone the lands subject to a stipulation that the areas within the flood risk zone include measures to mitigate against flooding. Prior to any further development being permitted on the site a SSFRA should be undertaken to the satisfaction of Kildare County Council</p> |

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| <p>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</p> | <p>The flood mapping indicates that certain parts of the site are within Flood Zone A and B. The pre-existing zonings should be retained but future significant development in this area should be subject to a SSFRA. SSFRAs should address the following:</p> <ul style="list-style-type: none"> • Apply sequential approach should be applied through site planning and should avoid encroachment onto, or loss of, the flood plain, • Should address climate change scenarios in relation to FFLs and potential mitigation measures, • Finished floor levels should be above the 0.1% AEP level, • Flood resilient construction materials and fittings should be considered, and • Proposals should not impede existing flow paths or cause flood risk impacts to the surrounding areas. <p>The FRMP proposed further hydraulic analysis to be undertaken as a first phase of the Naas FRS to refine defences and improve understanding of the flooding mechanisms. KCC have appointed a consultant to complete the FRMP measures identified for Naas and following the completion of the flood mapping stage of the FRS a review of the flood extents will be undertaken and if required KCC will carry out an update to the SFRA and an amendment of the LAP. Any FRA should be cognisant of these proposed flood defences for Naas.</p> <p>The flood extents may be subject to change due to FRMP recommendations outlined above. Therefore in the interim if a SSFRA were to re-evaluate the predicted flood extents for a proposed development site a hydraulic model of an appropriate scale is required to be constructed. The outputs from the hydraulic model will be expected to consist of sufficient detail and analysis to demonstrate the revised Flood Zone A and B flood extents. The revision of the predicted flood extents will be subject to KCC approval.</p> |
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| 1 | The Regional Planning Guidelines for the Greater Dublin Area 2010-2022 set out the planned direction for growth within the Greater Dublin Area up to 2022 by giving regional effect to national planning policy under the National Spatial Strategy (NSS). | <p>Naas is one of two Key Towns in Co. Kildare as identified in the Regional Spatial and Economic Strategy (RSES) for the Eastern and Midland Region 2019-2031. Key Towns are defined in the RSES as large towns which are economically active towns that provide employment for their surrounding areas. They have high quality transport links and the capacity to act as a regional driver to complement Regional Growth Centres. The designation of Naas as a Key Town is reflective of its county town status. The RSES recognises that there are strong links between Naas and the nearby settlements of Sallins and Newbridge, with a strong interrelationship of services, employment and education between Naas and Newbridge. The RSES also states that consolidation and the regeneration are key development priorities for Naas</p> <p>The RSES provides regional level strategic planning and economic policy in support of the implementation of the NPF and provide a greater level of focus around the National Policy Objectives and National Strategic Outcomes of the NPF.</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: | Land Zoned: H – Industry & Warehousing |
| | (i) Is essential to facilitate regeneration and / or expansion of the centre of the urban settlement, | No, this land is not essential to facilitate regeneration and / or expansion of the centre of the urban settlement |
| | (ii) Comprises significant previously developed and / or underutilized lands, | No, this site is not a significant area and is within the 90m reservation for the M7. Development potential is therefore additionally restricted. |
| | (iii) Is within or adjoining the core of an established or designated urban settlement, | No, the lands are not within the core of an established urban settlement, the land however adjoins existing established development, such as the Larchfield Nursing Home. |
| | (iv) Will be essential in achieving compact and sustainable urban growth, and | No, this land is not essential in achieving compact and sustainable urban growth. |
| | (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 suitable alternative lands for employment use in areas at lower risk of flooding. It is considered reasonable to zone the lands subject to a stipulation that the areas within the flood risk zone include measures to mitigate against flooding. Prior to any further |

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| | development being permitted on the site a SSFRA should be undertaken to the satisfaction of Kildare County Council. |
| 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 | <p>The flood mapping indicates that certain parts of the site are within Flood Zone A and B. The retail and commercial properties can be developed within Flood Zone B with avoidance using for Flood Zones A. The pre-existing zonings should be retained but future significant development in this area should be subject to a SSFRA. SSFRAs should address the following:</p> <ul style="list-style-type: none"> • Apply sequential approach should be applied through site planning and should avoid encroachment onto, or loss of, the flood plain, • Should address climate change scenarios in relation to FFLs and potential mitigation measures, • Finished floor levels should be above the 0.1% AEP level, • Flood resilient construction materials and fittings should be considered, and • Proposals should not impede existing flow paths or cause flood risk impacts to the surrounding areas. <p>The FRMP proposed further hydraulic analysis to be undertaken as a first phase of the Naas FRS to refine defences and improve understanding of the flooding mechanisms. KCC have appointed a consultant to complete the FRMP measures identified for Naas and following the completion of the flood mapping stage of the FRS a review of the flood extents will be undertaken and if required KCC will carry out an update to the SFRA and an amendment of the LAP. Any FRA should be cognisant of these proposed flood defences for Naas.</p> <p>The flood extents may be subject to change due to FRMP recommendations outlined above. Therefore in the interim if a SSFRA were to re-evaluate the predicted flood extents for a proposed development site a hydraulic model of an appropriate scale is required to be constructed. The outputs from the hydraulic model will be expected to consist of sufficient detail and analysis to demonstrate the revised Flood Zone A and B flood extents. The revision of the predicted flood extents will be subject to KCC approval.</p> |

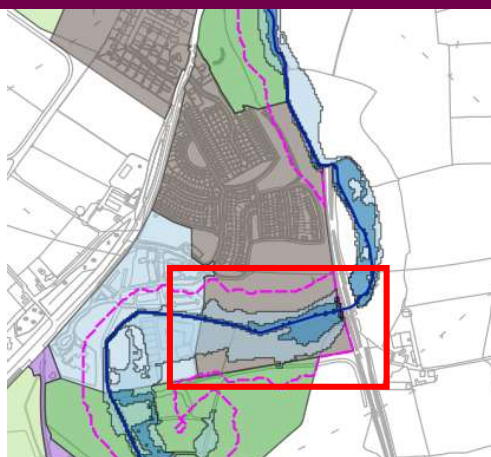


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| <p>2 The zoning or designation of the lands for the particular use or development type is required to achieve the proper planning and sustainable development of the urban settlement and in particular:</p> | <p>Land Zoned: C – New Residential</p> |
| <p>(i) Is essential to facilitate regeneration and / or expansion of the centre of the urban settlement,</p> | <p>These lands are considered appropriate expansion of the urban settlement (Blessington Road). The lands were previously zoned for residential use in the Naas Development Plan 2011 – 2017. There is extant permission on the lands for a neighbourhood centre and residential units. The planning application was subject to a detailed flood risk assessment, and permission was subsequently granted subject to the recommendations of the FRA. The permission granted reflects the areas identified as at risk of flooding.</p> |
| <p>(ii) Comprises significant previously developed and / or underutilized lands,</p> | <p>Comprises significant underutilised lands. The lands were previously zoned for residential units in the Naas Development Plan 2011 – 2017. There is extant permission on the lands for a neighbourhood centre and residential units. The planning application was subject to a detailed flood risk assessment, and</p> |

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| | permission was subsequently granted subject to the recommendations of the FRA. |
| (iii) Is within or adjoining the core of an established or designated urban settlement, | Is within an established urban settlement of Naas and forms a logical and sequential extension of the town. |
| (iv) Will be essential in achieving compact and sustainable urban growth, and | Development of the lands will be essential in achieving compact and sustainable urban growth of Naas, as these lands form a logical and sequential extension of the town. |
| (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 other suitable alternative lands at lower risk of flooding, however these lands were the subject of a detailed Flood Risk Assessment as part of the planning permission for houses on this site. These lands have extant permission for residential units. It is considered reasonable to retain the zoning on the lands subject to a stipulation that the areas within the flood risk zone include measures to mitigate against flooding. Prior to any further development being permitted on the site a SSFRA should be undertaken to the satisfaction of Kildare County Council. |
| 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 | <p>The flood mapping indicates that certain parts of the site are within Flood Zones A and B. The site was subject to a FRA for a planning application which recommended a series of flood risk mitigation measures including setting minimum floor levels above design flood waters, installation of flow control devices and construction of compensatory storage areas. The proposed attenuation area coincides with part of the existing SFRA flood zones and will form part of the proposed flood zones.</p> <p>These mitigation measures have not been included in the CFRAM flood zone mapping as it was generated prior to any development on the site. The construction of the development should follow the recommendations of the FRA in terms of FFLs and proposed mitigation measures.</p> <p>The pre-existing zoning should be retained but future development in this area should be subject to a SSFRA. SSFRAs should address the following:</p> <ul style="list-style-type: none"> • Apply sequential approach should be applied through site planning and should avoid encroachment onto, or loss of, the flood plain, • Should address climate change scenarios in relation to FFLs and potential mitigation measures, • Finished floor levels should be above the 0.1% AEP level, • Flood resilient construction materials and fittings should be considered, and • Proposals should not impede existing flow paths or cause flood risk impacts to the surrounding areas. <p>As the development has not yet been constructed, the CFRAM flood zones have been adopted as the SFRA flood zones to reflect the existing flooding scenario. KCC has zoned the proposed attenuation area as part of the application as open space to recognise this area as a designated floodplain location for the future development.</p> <p>The FRMP proposed further hydraulic analysis to be undertaken as a first phase of the Naas FRS to refine defences and improve understanding of the flooding mechanisms. KCC have appointed a consultant to complete the FRMP measures identified for Naas and following the completion of the flood mapping stage of the FRS a review of the flood extents will be undertaken and if required KCC will carry out an update to the SFRA and an</p> |

amendment of the LAP. Any FRA should be cognisant of these proposed flood defences for Naas.

The flood extents may be subject to change due to FRMP recommendations outlined above. Therefore in the interim if a SSFRA were to re-evaluate the predicted flood extents for a proposed development site a hydraulic model of an appropriate scale is required to be constructed. The outputs from the hydraulic model will be expected to consist of sufficient detail and analysis to demonstrate the revised Flood Zone A and B flood extents. The revision of the predicted flood extents will be subject to KCC approval.



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| <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> | <p>Land Zoned: C – New Residential</p> |
| <p>(i) Is essential to facilitate regeneration and / or expansion of the centre of the urban settlement,</p> | <p>The lands were previously zoned for residential units in the Naas Development Plan 2011 – 2017. There is extant permission on the lands for residential units, which is nearing completion. The planning application was subject to a flood risk assessment, and permission was subsequently granted.</p> |
| <p>(ii) Comprises significant previously developed and / or underutilized lands,</p> | <p>Comprises significant underutilised lands. The lands were previously zoned for residential use in the Naas Development Plan 2011 – 2017. There is extant permission on the lands for a significant residential development, which is nearing completion. The planning application was subject to a detailed flood risk assessment, and permission was subsequently granted.</p> |
| <p>(iii) Is within or adjoining the core of an established or designated urban settlement,</p> | <p>No, the site is not within the established core of an established designated urban settlement.</p> |
| <p>(iv) Will be essential in achieving compact and sustainable urban growth, and</p> | <p>These lands are presently being built subject to a planning permission for a significant residential development.</p> |
| <p>(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> | <p>There are other suitable alternative lands at lower risk of flooding, however these lands were the subject of a detailed Flood Risk Assessment as part of the planning permission for houses on this site. These lands have extant permission for residential units, which is nearing completion. It is considered reasonable to retain the zoning on the lands subject to a stipulation that the areas within the flood risk zone include measures to mitigate against flooding. Prior</p> |

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| | to any further development being permitted on the site a SSFRA should be undertaken to the satisfaction of Kildare County Council. |
| 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 | <p>The flood mapping indicates that certain parts of the site are within Flood Zones A and B. The site is currently being developed with residential housing and was subject to a FRA which recommended a series of flood risk mitigation measures including setting minimum floor levels above design flood waters and installation of flow control devices upstream of the residential area. The proposed attenuation area coincides with part of the existing SFRA flood zones and will form part of the proposed flood zones. These mitigation measures have not been included in the SFRA flood zone mapping as it was developed prior to any development on the site. The construction of the development should follow the recommendations of the FRA in terms of FFLs and proposed mitigation measures.</p> <p>The pre-existing zoning should be retained but future significant development in this area should be subject to a SSFRA. SSFRAs should address the following:</p> <ul style="list-style-type: none"> • Apply sequential approach should be applied through site planning and should avoid encroachment onto, or loss of, the flood plain, • Should address climate change scenarios in relation to FFLs and potential mitigation measures, • Finished floor levels should be above the 0.1% AEP level, • Flood resilient construction materials and fittings should be considered, and • Proposals should not impede existing flow paths or cause flood risk impacts to the surrounding areas. <p>As the development has not yet been finished, the CFRAM flood zones have been adopted as the SFRA flood zones to reflect the existing flooding scenario.</p> <p>The FRMP also proposed further hydraulic analysis to be undertaken as a first phase of the Naas FRS to refine defences and improve understanding of the flooding mechanisms. KCC have appointed a consultant to complete the FRMP measures identified for Naas and following the completion of the flood mapping stage of the FRS a review of the flood extents will be undertaken and if required KCC will carry out an update to the SFRA and an amendment of the LAP. Any FRA should be cognisant of these proposed flood defences for Naas.</p> <p>The flood extents may be subject to change due to FRMP recommendations outlined above. Therefore in the interim if a SSFRA were to re-evaluate the predicted flood extents for a proposed development site a hydraulic model of an appropriate scale is required to be constructed. The outputs from the hydraulic model will be expected to consist of sufficient detail and analysis to demonstrate the revised Flood Zone A and B flood extents. The revision of the predicted flood extents will be subject to KCC approval.</p> |



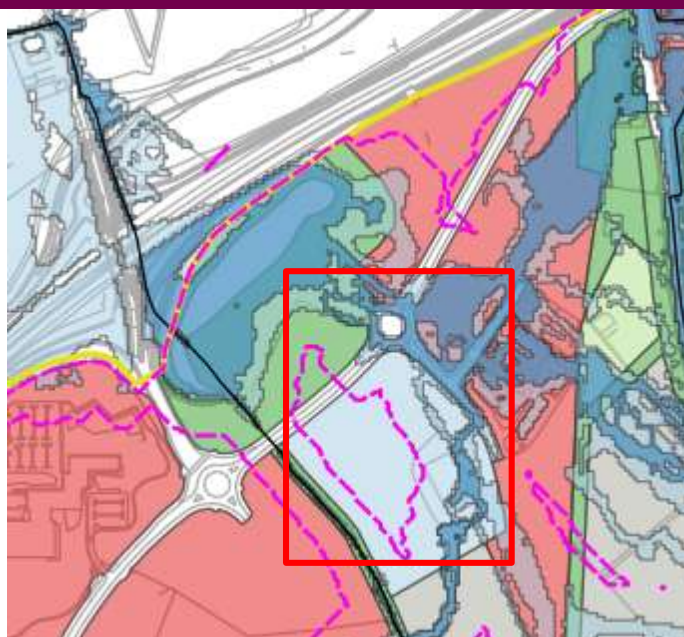
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| <p>2 The zoning or designation of the lands for the particular use or development type is required to achieve the proper planning and sustainable development of the urban settlement and in particular:</p> | <p>Land Zoned: B - Existing Residential & Infill</p> |
| <p>(i) Is essential to facilitate regeneration and / or expansion of the centre of the urban settlement,</p> | <p>No, as lands in the Abbey Bridge Residential Estate are already developed as residential use.</p> |
| <p>(ii) Comprises significant previously developed and / or underutilized lands,</p> | <p>Yes, comprises significant previously developed lands</p> |
| <p>(iii) Is within or adjoining the core of an established or designated urban settlement,</p> | <p>Yes, is within the established designated urban settlement</p> |
| <p>(iv) Will be essential in achieving compact and sustainable urban growth, and</p> | <p>No, as lands in the Abbey Bridge Residential Estate are already developed as residential use.</p> |
| <p>(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> | <p>Abbey Bridge Residential Estate is already developed as residential use. Having regard to the developed nature of lands it is considered reasonable to retain the use subject to a stipulation that any development within the areas of the flood risk zone include measures to mitigate against flooding. Therefore, prior to any further development being permitted a SSFRA should be undertaken to the satisfaction of Kildare County Council.</p> |
| <p>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.</p> | <p>The flood mapping indicates that certain parts of Abbey Bridge Residential Estate are within Flood Zones A and B. The pre-existing zonings should be retained but future significant development in this area should be subject to a SSFRA. SSFRAs should address the following:</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 flood risk assessment

- Apply sequential approach should be applied through site planning and should avoid encroachment onto, or loss of, the flood plain,
- Should address climate change scenarios in relation to FFLs and potential mitigation measures,
- Finished floor levels should be above the 0.1% AEP level,
- Bedrooms should be located in the upstairs of two-story buildings,
- Flood resilient construction materials and fittings should be considered, and
- Proposals should not impede existing flow paths or cause flood risk impacts to the surrounding areas.

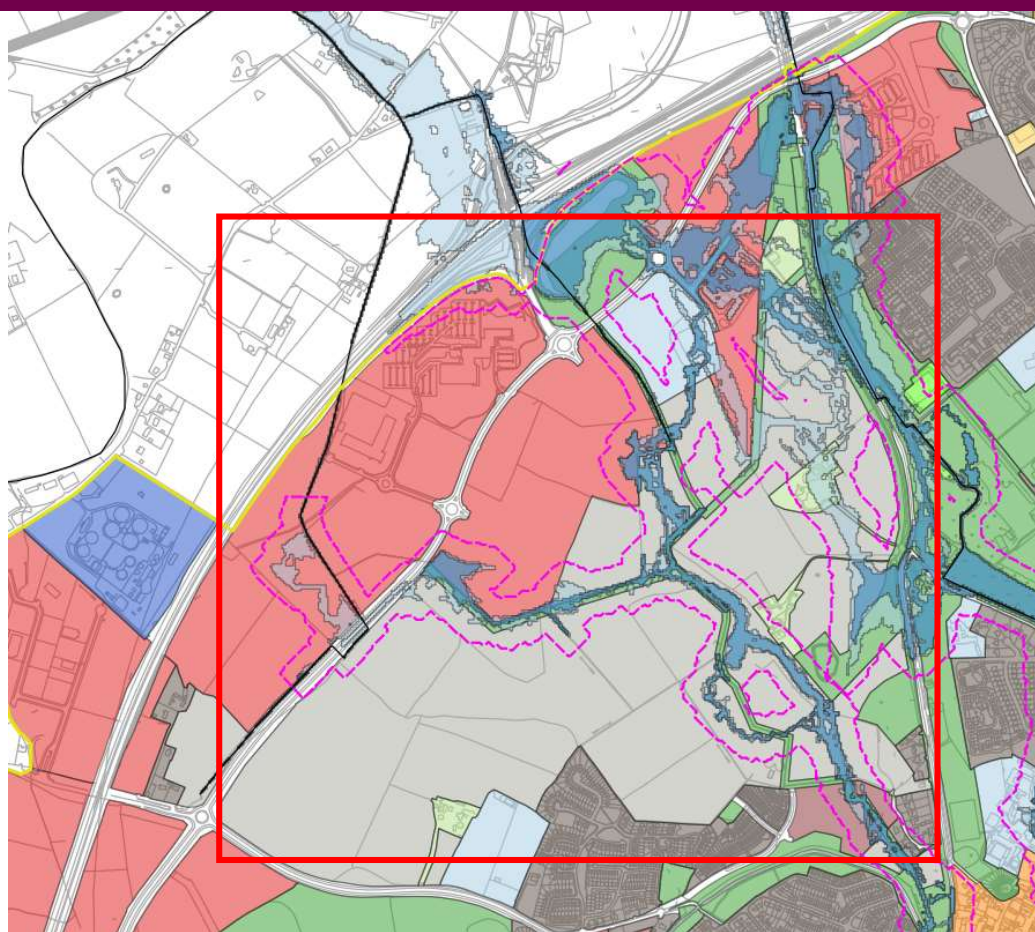
The FRMP proposed further hydraulic analysis to be undertaken as a first phase of the Naas FRS to refine defences and improve understanding of the flooding mechanisms. KCC have appointed a consultant to complete the FRMP measures identified for Naas and following the completion of the flood mapping stage of the FRS a review of the flood extents will be undertaken and if required KCC will carry out an update to the SFRA and an amendment of the LAP. Any FRA should be cognisant of these proposed flood defences for Naas.

The flood extents may be subject to change due to FRMP recommendations outlined above. Therefore in the interim if a SSFRA were to re-evaluate the predicted flood extents for a proposed development site a hydraulic model of an appropriate scale is required to be constructed. The outputs from the hydraulic model will be expected to consist of sufficient detail and analysis to demonstrate the revised Flood Zone A and B flood extents. The revision of the predicted flood extents will be subject to KCC approval.



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| 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: | Land Zoned: E - Community & Educational |
| (i) Is essential to facilitate regeneration and / or expansion of the centre of the urban settlement, | No, this site is not essential to facilitate regeneration or expansion of the centre of the urban settlement. |
| (ii) Comprises significant previously developed and / or underutilized lands, | The lands could be stated to comprise significant underutilised lands; |
| (iii) Is within or adjoining the core of an established or designated urban settlement, | The lands are not within or adjoining the core of an established or designated urban settlement. |
| (iv) Will be essential in achieving compact and sustainable urban growth, and | The development of these lands will assist in achieving sustainable urban growth as development of these lands will connect the established core of Naas with the periphery of Naas. |
| (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 is extant permission for a secondary school, which is currently under construction, on lands the proposed to be zoned 'E Community and Education'. The Planning application considered the issue of flood risk and detailed responses to flood risk assessment were submitted and assessed by KCC. It is considered reasonable to zone the lands subject to a stipulation |

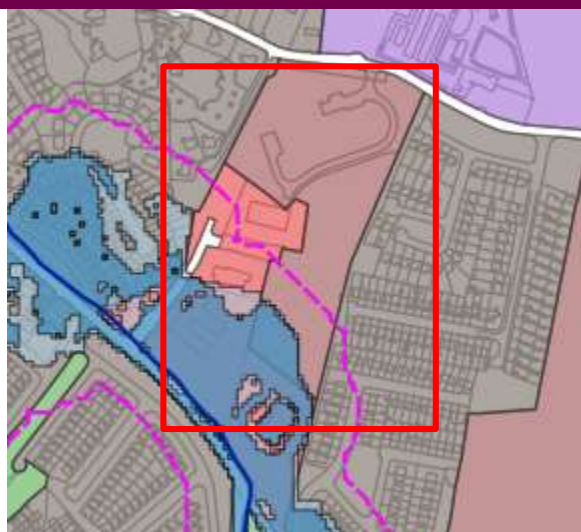
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| | <p>that the areas within the flood risk zone include measures to mitigate against flooding. Prior to any further development being permitted a SSFRA should be undertaken to the satisfaction of Kildare County Council.</p> |
| <p>3 A flood risk assessment 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</p> | <p>The flood mapping indicates that certain parts of the site are within Flood Zones A and B. The site was subject to a FRA for a planning application which recommended a series of flood risk mitigation measures. These mitigation measures have not been included in the CFRAM flood zone mapping as it was generated prior to any development on the site. The construction of the development should follow the recommendations of the FRA in terms of FFLs and proposed mitigation measures.</p> <p>The pre-existing zoning should be retained but future development in this area should be subject to a SSFRA. SSFRAs should address the following:</p> <ul style="list-style-type: none"> • Apply sequential approach should be applied through site planning and should avoid encroachment onto, or loss of, the flood plain, • Should address climate change scenarios in relation to FFLs and potential mitigation measures, • Finished floor levels should be above the 0.1% AEP level, • Flood resilient construction materials and fittings should be considered, and • Proposals should not impede existing flow paths or cause flood risk impacts to the surrounding areas. <p>As the development is still under construction, the CFRAM flood zones have been adopted as the SFRA flood zones to reflect the existing flooding scenario.</p> <p>The FRMP proposed further hydraulic analysis to be undertaken as a first phase of the Naas FRS to refine defences and improve understanding of the flooding mechanisms. KCC have appointed a consultant to complete the FRMP measures identified for Naas and following the completion of the flood mapping stage of the FRS a review of the flood extents will be undertaken and if required KCC will carry out an update to the SFRA and an amendment of the LAP. Any FRA should be cognisant of these proposed flood defences for Naas.</p> <p>The flood extents may be subject to change due to FRMP recommendations outlined above. Therefore in the interim if a SSFRA were to re-evaluate the predicted flood extents for a proposed development site a hydraulic model of an appropriate scale is required to be constructed. The outputs from the hydraulic model will be expected to consist of sufficient detail and analysis to demonstrate the revised Flood Zone A and B flood extents. The revision of the predicted flood extents will be subject to KCC approval.</p> |



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| <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> <p>(i) Is essential to facilitate regeneration and / or expansion of the centre of the urban settlement,</p> <p>(ii) Comprises significant previously developed and / or underutilized lands,</p> | <p>Land Zoned: SR – Strategic Reserve</p> <p>No, this site is not essential to facilitate regeneration or expansion of the centre of the urban settlement.</p> <p>The lands could be stated to comprise significant underutilised lands;</p> |

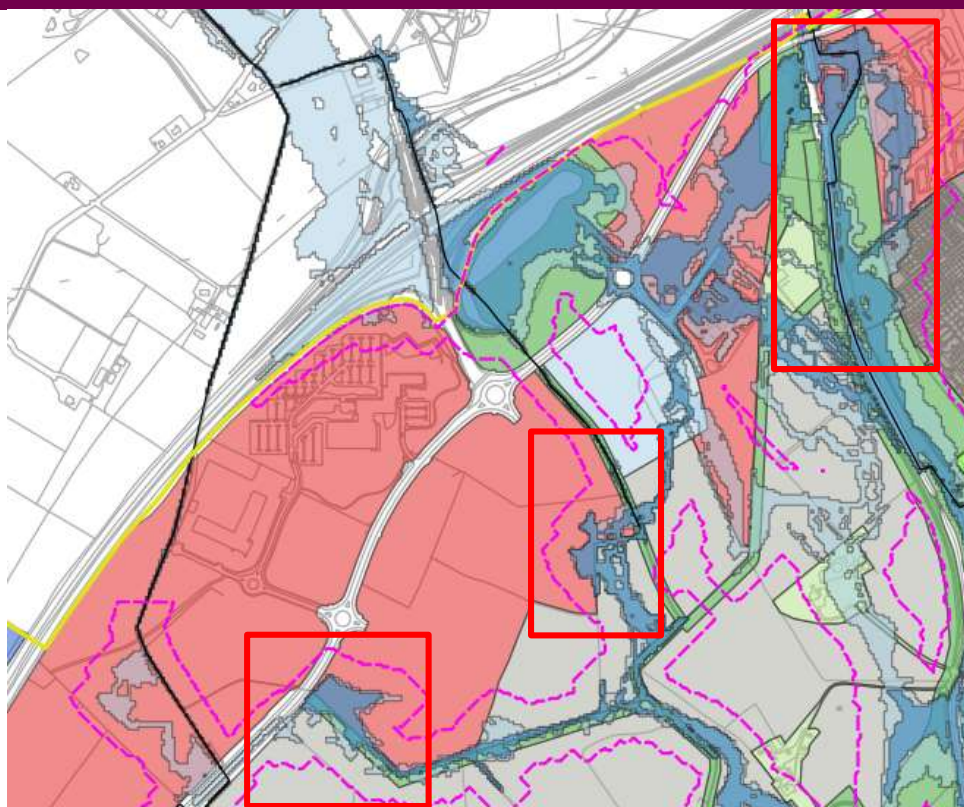
SFRA - NAAS DRAFT LOCAL AREA PLAN 2021-2027

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| (iii) Is within or adjoining the core of an established or designated urban settlement, | The lands are not within or adjoining the core of an established or designated urban settlement. |
| (iv) Will be essential in achieving compact and sustainable urban growth, and | The development of these lands will assist in achieving sustainable, connected urban growth as development of these lands will connect the established core of Naas with the periphery of Naas. |
| (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. | These lands allow for a connection of the employment arc at Millennium Park to the town centre of Naas through the development of a low carbon community. It is considered reasonable to zone the lands subject to a stipulation that the areas within the flood risk zone include measures to mitigate against flooding. These lands will be subject to the preparation of a masterplan which will be informed by the updated Flood Risk Study for Naas. |
| <p>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</p> | <p>The flood mapping indicates that certain parts of the lands are within Flood Zone A and B. The proposed zonings can be allocated but future development in this area should be subject to a SSFRA. SSFRAs should address the following:</p> <ul style="list-style-type: none"> • Apply sequential approach should be applied through site planning and should avoid encroachment onto, or loss of, the flood plain, • Should address climate change scenarios in relation to FFLs and potential mitigation measures, • Finished floor levels should be above the 0.1% AEP level, • Flood resilient construction materials and fittings should be considered, • Proposals should not impede existing flow paths or cause flood risk impacts to the surrounding areas, and • The Strategic Reserve Area also be subject to a SFRA, following completion of the updated modelling exercise, which will examine the flood zones in further detail and lead to the zoning being refined to follow the sequential approach. • The lands designated as strategic reserve are also be subject to masterplan with associated objective to ensure that no development will be progressed until the masterplan is complete & integrated into the LAP by way of a statutory amendment following the completion of the updated modelling exercise. <p>The FRMP proposed further hydraulic analysis to be undertaken as a first phase of the Naas FRS to refine defences and improve understanding of the flooding mechanisms. KCC have appointed a consultant to complete the FRMP measures identified for Naas and following the completion of the flood mapping stage of the FRS a review of the flood extents will be undertaken and if required KCC will carry out an update to the SFRA and an amendment of the LAP. Any FRA should be cognisant of these proposed flood defences for Naas.</p> <p>The flood extents may be subject to change due to FRMP recommendations outlined above. Therefore in the interim if a SSFRA were to re-evaluate the predicted flood extents for a proposed development site a hydraulic model of an appropriate scale is required to be constructed. The outputs from the hydraulic model will be expected to consist of sufficient detail and analysis to demonstrate the revised Flood Zone A and B flood extents. The revision of the predicted flood extents will be subject to KCC approval.</p> |



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| <p>1 The Regional Planning Guidelines for the Greater Dublin Area 2010-2022 set out the planned direction for growth within the Greater Dublin Area up to 2022 by giving regional effect to national planning policy under the National Spatial Strategy (NSS).</p> | <p>Naas is one of two Key Towns in Co. Kildare as identified in the Regional Spatial and Economic Strategy (RSES) for the Eastern and Midland Region 2019-2031. Key Towns are defined in the RSES as large towns which are economically active towns that provide employment for their surrounding areas. They have high quality transport links and the capacity to act as a regional driver to complement Regional Growth Centres. The designation of Naas as a Key Town is reflective of its county town status. The RSES recognises that there are strong links between Naas and the nearby settlements of Sallins and Newbridge, with a strong interrelationship of services, employment and education between Naas and Newbridge. The RSES also states that consolidation and the regeneration are key development priorities for Naas</p> <p>The RSES provides regional level strategic planning and economic policy in support of the implementation of the NPF and provide a greater level of focus around the National Policy Objectives and National Strategic Outcomes of the NPF.</p> |
| <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> | <p>Land Zoned: C – New Residential</p> |
| <p>(i) Is essential to facilitate regeneration and / or expansion of the centre of the urban settlement,</p> | <p>Is essential to facilitate regeneration of the urban settlement (lands are partly brownfield to the north), previously used for employment, the building has since been removed. Infill development at this site is considered appropriate.</p> |
| <p>(ii) Comprises significant previously developed and / or underutilized lands,</p> | <p>The lands here comprise significant previously developed and / or underutilised lands, and a large portion to the north was previously developed for employment use.</p> |
| <p>(iii) Is within or adjoining the core of an established or designated urban settlement,</p> | <p>Is within an established urban settlement, it is considered appropriate for consolidation and regeneration purposes to zone the land for housing, subject to a SSFRA.</p> |
| <p>(iv) Will be essential in achieving compact and sustainable urban growth, and</p> | <p>These lands represent appropriate infill lands and development of the site is considered to be essential in achieving compact and sustainable urban growth and would meeting with objectives of the National Planning Framework.</p> |
| <p>(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> | <p>There are suitable alternative lands for housing in areas at lower risk of flooding, therefore, it is considered reasonable to zone the lands subject to a stipulation that the areas within the flood risk zone include measures to mitigate against flooding. Prior to any</p> |

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| | <p>further development being permitted on the site a SSFRA should be undertaken to the satisfaction of Kildare County Council.</p> |
| <p>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</p> | <p>The flood mapping indicates that certain parts of the site are within Flood Zones A and B. The site was subject to a FRA for a planning application which recommended a series of flood risk mitigation measures including setting minimum floor levels above design flood waters and regarding part of the site to provide compensatory storage for the 0.1% AEP event. The proposed compensatory storage coincides with part of the existing SFRA flood zones and will form part of the proposed flood zones, it also has been identified as open space in the planning application to recognise this area as a designated floodplain.</p> <p>These mitigation measures have not been included in the CFRAM flood zone mapping as it was generated prior to any development on the site. The construction of the development should follow the recommendations of the FRA in terms of FFLs and proposed mitigation measures.</p> <p>The zoning should be allocated but future development in this area should be subject to a SSFRA. SSFRAs should address the following:</p> <ul style="list-style-type: none"> • Apply sequential approach should be applied through site planning and should avoid encroachment onto, or loss of, the flood plain, • Should address climate change scenarios in relation to FFLs and potential mitigation measures, • Finished floor levels should be above the 0.1% AEP level, • Flood resilient construction materials and fittings should be considered, and • Proposals should not impede existing flow paths or cause flood risk impacts to the surrounding areas. <p>The FRMP proposed the Naas FRS which would reduce the risk to the commercial area against the 1% AEP event. The FRMP also proposed further hydraulic analysis to be undertaken as a first phase of the Naas FRS to refine defences and improve understanding of the flooding mechanisms. KCC have appointed a consultant to complete the FRMP measures identified for Naas and following the completion of the flood mapping stage of the FRS a review of the flood extents will be undertaken and if required KCC will carry out an update to the SFRA and an amendment of the LAP. Any FRA should be cognisant of these proposed flood defences for Naas.</p> <p>The flood extents may be subject to change due to FRMP recommendations outlined above. Therefore in the interim if a SSFRA were to re-evaluate the predicted flood extents for a proposed development site a hydraulic model of an appropriate scale is required to be constructed. The outputs from the hydraulic model will be expected to consist of sufficient detail and analysis to demonstrate the revised Flood Zone A and B flood extents. The revision of the predicted flood extents will be subject to KCC approval.</p> |



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| <p>1 The Regional Planning Guidelines for the Greater Dublin Area 2010-2022 set out the planned direction for growth within the Greater Dublin Area up to 2022 by giving regional effect to national planning policy under the National Spatial Strategy (NSS).</p> | <p>Naas is one of two Key Towns in Co. Kildare as identified in the Regional Spatial and Economic Strategy (RSES) for the Eastern and Midland Region 2019-2031. Key Towns are defined in the RSES as large towns which are economically active towns that provide employment for their surrounding areas. They have high quality transport links and the capacity to act as a regional driver to complement Regional Growth Centres. The designation of Naas as a Key Town is reflective of its county town status. The RSES recognises that there are strong links between Naas and the nearby settlements of Sallins and Newbridge, with a strong interrelationship of services, employment and education between Naas and Newbridge. The RSES also states that consolidation and the regeneration are key development priorities for Naas</p> <p>The RSES provides regional level strategic planning and economic policy in support of the implementation of the NPF and provide a greater level of focus around the National Policy Objectives and National Strategic Outcomes of the NPF.</p> |
| <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> | <p>Land Zoned: Q - Enterprise & Employment</p> |
| <p>(i) Is essential to facilitate regeneration and / or expansion of the centre of the urban settlement,</p> | <p>No, this site is not essential to facilitate regeneration or expansion of the centre of the urban settlement.</p> |
| <p>(ii) Comprises significant previously developed and / or underutilized lands,</p> | <p>The lands could be stated to comprise significant underutilised lands;</p> |
| <p>(iii) Is within or adjoining the core of an established or designated urban settlement,</p> | <p>The lands are not within or adjoining the core of an established or designated urban settlement.</p> |

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| (iv) Will be essential in achieving compact and sustainable urban growth, and | The development of these lands will assist in achieving sustainable, connected urban growth as development of these lands will connect the established core of Naas with the periphery of Naas. |
| (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. | These lands will allow for a connection of the employment arc at Millennium Park to the town centre of Naas through the development of a new low carbon community. It is considered reasonable to zone the lands subject to a stipulation that the areas within the flood risk zone include measures to mitigate against flooding. Prior to any further development being permitted on the site a SSFRA should be undertaken to the satisfaction of Kildare County Council. |
| 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 | <p>The flood mapping indicates that certain parts of the Enterprise and Employment lands are within Flood Zone A and B. The proposed zonings can be allocated but future development in this area should be subject to a SSFRA. SSFRAs should address the following:</p> <ul style="list-style-type: none"> • Apply sequential approach should be applied through site planning and should avoid encroachment onto, or loss of, the flood plain, • Should address climate change scenarios in relation to FFLs and potential mitigation measures, • Finished floor levels should be above the 0.1% AEP level, • Flood resilient construction materials and fittings should be considered, • Proposals should not impede existing flow paths or cause flood risk impacts to the surrounding areas, and <p>The FRMP proposed further hydraulic analysis to be undertaken as a first phase of the Naas FRS to refine defences and improve understanding of the flooding mechanisms. KCC have appointed a consultant to complete the FRMP measures identified for Naas and following the completion of the flood mapping stage of the FRS a review of the flood extents will be undertaken and if required KCC will carry out an update to the SFRA and an amendment of the LAP. Any FRA should be cognisant of these proposed flood defences for Naas.</p> <p>The flood extents may be subject to change due to FRMP recommendations outlined above. Therefore in the interim if a SSFRA were to re-evaluate the predicted flood extents for a proposed development site a hydraulic model of an appropriate scale is required to be constructed. The outputs from the hydraulic model will be expected to consist of sufficient detail and analysis to demonstrate the revised Flood Zone A and B flood extents. The revision of the predicted flood extents will be subject to KCC approval.</p> |



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| <p>1 The Regional Planning Guidelines for the Greater Dublin Area 2010-2022 set out the planned direction for growth within the Greater Dublin Area up to 2022 by giving regional effect to national planning policy under the National Spatial Strategy (NSS).</p> | <p>Naas is one of two Key Towns in Co. Kildare as identified in the Regional Spatial and Economic Strategy (RSES) for the Eastern and Midland Region 2019-2031. Key Towns are defined in the RSES as large towns which are economically active towns that provide employment for their surrounding areas. They have high quality transport links and the capacity to act as a regional driver to complement Regional Growth Centres. The designation of Naas as a Key Town is reflective of its county town status. The RSES recognises that there are strong links between Naas and the nearby settlements of Sallins and Newbridge, with a strong interrelationship of services, employment and education between Naas and Newbridge. The RSES also states that consolidation and the regeneration are key development priorities for Naas</p> <p>The RSES provides regional level strategic planning and economic policy in support of the implementation of the NPF and provide a greater level of focus around the National Policy Objectives and National Strategic Outcomes of the NPF.</p> |
| <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> | <p>Land Zoned: E - Community & Educational</p> |
| <p>(i) Is essential to facilitate regeneration and / or expansion of the centre of the urban settlement,</p> | <p>No, this site is not essential to facilitate regeneration or expansion of the centre of the urban settlement.</p> |
| <p>(ii) Comprises significant previously developed and / or underutilized lands,</p> | <p>The lands could be stated to comprise significant underutilised lands;</p> |
| <p>(iii) Is within or adjoining the core of an established or designated urban settlement,</p> | <p>The lands are not within or adjoining the core of an established or designated urban settlement.</p> |
| <p>(iv) Will be essential in achieving compact and sustainable urban growth, and</p> | <p>The development of these lands will assist in achieving sustainable, connected urban growth as development of these lands will connect the established core of Naas with the periphery of Naas.</p> |
| <p>(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> | <p>There are other suitable alternative lands for employment use in areas at lower risk of flooding. These lands however will allow for a connection of the employment arc at Millennium Park to the centre of Naas. It is considered reasonable to zone the lands subject to a stipulation that the areas within the flood risk zone include measures to mitigate against flooding. Prior to any further development being permitted on the site a SSFRA should be undertaken to the satisfaction of Kildare County Council.</p> |

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

The flood mapping indicates that a small area of the site overlaps with Flood Zone. The proposed zonings can be allocated but future development in this area should be subject to a SSFRA. SSFRAs should address the following:

- Apply sequential approach should be applied through site planning and should avoid encroachment onto, or loss of, the flood plain,
- Should address climate change scenarios in relation to FFLs and potential mitigation measures,
- Finished floor levels should be above the 0.1% AEP level,
- Flood resilient construction materials and fittings should be considered,
- Proposals should not impede existing flow paths or cause flood risk impacts to the surrounding areas, and

The FRMP proposed further hydraulic analysis to be undertaken as a first phase of the Naas FRS to refine defences and improve understanding of the flooding mechanisms. KCC have appointed a consultant to complete the FRMP measures identified for Naas and following the completion of the flood mapping stage of the FRS a review of the flood extents will be undertaken and if required KCC will carry out an update to the SFRA and an amendment of the LAP. Any FRA should be cognisant of these proposed flood defences for Naas.

The flood extents may be subject to change due to FRMP recommendations outlined above. Therefore in the interim if a SSFRA were to re-evaluate the predicted flood extents for a proposed development site a hydraulic model of an appropriate scale is required to be constructed. The outputs from the hydraulic model will be expected to consist of sufficient detail and analysis to demonstrate the revised Flood Zone A and B flood extents. The revision of the predicted flood extents will be subject to KCC approval.



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| <p>1 The Regional Planning Guidelines for the Greater Dublin Area 2010-2022 set out the planned direction for growth within the Greater Dublin Area up to 2022 by giving regional effect to national planning policy under the National Spatial Strategy (NSS).</p> | <p>Naas is one of two Key Towns in Co. Kildare as identified in the Regional Spatial and Economic Strategy (RSES) for the Eastern and Midland Region 2019-2031. Key Towns are defined in the RSES as large towns which are economically active towns that provide employment for their surrounding areas. They have high quality transport links and the capacity to act as a regional driver to complement Regional Growth Centres. The designation of Naas as a Key Town is reflective of its county town status. The RSES recognises that there are strong links between Naas and the nearby settlements of Sallins and Newbridge, with a strong interrelationship of services, employment and education between Naas and Newbridge. The RSES also states that consolidation and the regeneration are key development priorities for Naas</p> <p>The RSES provides regional level strategic planning and economic policy in support of the implementation of the NPF and provide a greater level of focus around the National Policy Objectives and National Strategic Outcomes of the NPF.</p> |
| <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> | <p>Land Zoned: C - New Residential</p> |
| <p>(i) Is essential to facilitate regeneration and / or expansion of the centre of the urban settlement,</p> | <p>No, this site is not essential to facilitate regeneration or expansion of the centre of the urban settlement.</p> |
| <p>(ii) Comprises significant previously developed and / or underutilized lands,</p> | <p>The lands could be stated to comprise significant underutilised lands;</p> |
| <p>(iii) Is within or adjoining the core of an established or designated urban settlement,</p> | <p>The lands are not within or adjoining the core of an established or designated urban settlement.</p> |
| <p>(iv) Will be essential in achieving compact and sustainable urban growth, and</p> | <p>The development of these lands will assist in achieving sustainable, connected urban growth as development of these lands will connect the established core of Naas with the periphery of Naas.</p> |
| <p>(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> | <p>There are other suitable alternative lands for employment use in areas at lower risk of flooding. These lands however will allow for a connection of the employment arc at Millennium Park to the centre of Naas. It is considered reasonable to zone the lands subject to a stipulation that the areas within the flood risk zone include measures to mitigate against flooding. Prior to any further development being permitted on the site a SSFRA should be undertaken to the satisfaction of Kildare County Council.</p> |
| <p>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</p> | <p>The flood mapping indicates that a small area of the site overlaps with Flood Zones A and B. KCC has zoned part of the site as open space and amenity to reflect the flood risk areas. The proposed zonings can be designated but future development in</p> |

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

this area should be subject to a SSFRA. SSFRAs should address the following:

- Apply sequential approach should be applied through site planning and should avoid encroachment onto, or loss of, the flood plain,
- Should address climate change scenarios in relation to FFLs and potential mitigation measures,
- Finished floor levels should be above the 0.1% AEP level,
- Flood resilient construction materials and fittings should be considered,
- Proposals should not impede existing flow paths or cause flood risk impacts to the surrounding areas, and

The FRMP proposes further hydraulic analysis to be undertaken as a first phase of the Naas FRS to refine defences and improve understanding of the flooding mechanisms. KCC have appointed a consultant to complete the FRMP measures identified for Naas and following the completion of the flood mapping stage of the FRS a review of the flood extents will be undertaken and if required KCC will carry out an update to the SFRA and an amendment of the LAP. Any FRA should be cognisant of these proposed flood defences for Naas.

The flood extents may be subject to change due to FRMP recommendations outlined above. Therefore in the interim if a SSFRA were to re-evaluate the predicted flood extents for a proposed development site a hydraulic model of an appropriate scale is required to be constructed. The outputs from the hydraulic model will be expected to consist of sufficient detail and analysis to demonstrate the revised Flood Zone A and B flood extents. The revision of the predicted flood extents will be subject to KCC approval.