DRAFT BLESSINGTON LOCAL AREA PLAN 2012-2018

FLOOD RISK ASSESSMENT

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1.0 INTRODUCTION

The Flood Risk Assessment for the Draft Blessington Local Area Plan 2012-2018 has been prepared in accordance with the Guidelines for Planning Authorities 'The Planning System and Flood Risk Management'.

In this plan, the approach is to avoid development in areas at risk of flooding, and where development in floodplains cannot be avoided, to take a sequential approach to flood risk management based on avoidance, reduction and mitigation of risk.

The information about flood risks that has been used in the preparation of this plan has been collated from a number of sources including:

- 'Floodmaps.ie' – The national flood hazard mapping website operated by the Office of Public Works, where information about past flood events is recorded and made available to the public. No 'Flood point' information was available on this site at the time of carrying out this assessment.
- Glen Ding Flood Study 'Review of flood mitigation measures at Glen Ding Stage II' (Barry and Partners April 2012)
- Consultation with the local engineering office in Blessington
- An examination of planning permissions granted in close proximity to the Blessington Stream
- Photographic evidence
- Walk over survey to assess potential sources of flooding
- Examination of the old '6 Inch' maps
- Consultation with the Water Services sections of Wicklow County Council
- An examination of contours.

At present, no CFRAMS[1] are available for the plan area.

The information from the above sources has been amalgamated to form an Indicative Flood Zone Map for the plan area (Flood Zone map attached). This map provides information on two main areas of flood risk: **Zone A** where there is a high probability of flooding, and **Zone B** where there is a moderate probability of flooding.

Flood Zone A includes lands where the probability of flooding from streams and rivers is highest (greater than 1% or 1 in 100 for stream/river flooding).

Flood Zone B includes lands where the probability of flooding from streams and rivers is moderate (between 0.1% or 1 in 1000 and 1% or 1 in 100 for stream/river flooding).

The flood zones described above are indicative of stream and river flooding only. They should not be used to suggest that any areas are free from flood risk, since they do not include the effects of other forms of flooding such as from pluvial flooding, groundwater or artificial drainage systems (e.g. foul or surface water drainage system).

[1] CFRAMS is a Catchment Flood Risk Assessment and Management Study and its purpose is to manage flood risk to the area being studied.

1.1 Definition of Flooding

Flooding is a natural process that can happen at any time in a variety of locations. Flooding from the sea and rivers is best known but prolonged intense and localised rainfall can also cause severe flooding, overland flow and groundwater flooding. Flood risk can be regarded as damage that maybe expected to occur as a result of flooding at a given location. It is a combination of the likelihood or probability of flood occurrence the degree of flooding and the impacts or damage that the flooding would cause. Flood risk is not the same as flood hazard. Flood hazard only describes the features of flooding which have harmful effects on people, property or the environment.

Flood Risk=Probability of Flooding *Consequences of Flooding

There is a need to manage and minimise future flood risk. Land management and spatial planning has a key role to play with respect to flood risk management-in particular to ensure that future development avoids or minimises increases in flood risk. The aim of flood risk management is to minimise the level of flood risk to people, business infrastructure and the environment through the identification and management of existing and potential future flood risks.

1.2 Policy Framework

1.2.1 EU Floods Directive

European Directive 2007/60/EC, on the assessment and management of flood risks, aims to reduce and manage the risks that floods pose to human health, the environment, cultural heritage and economic activity. The Directive applies to inland waters as well as all coastal waters across the whole territory of the EU.

1.2.2 Flood Risk Guidelines

The Planning System and Flood Risk Management – Guidelines for Planning Authorities 2009 provide the policy framework for Local Authorities. These Guidelines were issued by the Minister for the Environment, Heritage and Local Government[2] under Section 28 of the Planning and Development Act 2000 whereby Planning authorities are required to have regard to the Guidelines in carrying out their functions under the Planning Acts.

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 flood plains;
- 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.

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The key principles that should be adopted by regional and local authorities, developers and their agents should be to:

- Avoid the risk, where possible,
- Substitute less vulnerable uses, where avoidance is not possible, and
- Mitigate and manage risk, where avoidance is not possible, and

Issues raised in the Guidelines include: -

- Need to identify and safeguard flood plains
- Implementation of Sustainable Drainage Systems

[2] Now recognised as the Department of the Environment, Community and Local Government

- Flood risk to be considered in development and Local Area Plan SEA documents as key environmental criteria.
- The sequential approach to managing flood risks utilizing flood zones is to be undertaken.
- A justification test for development proposed within zones of flooding probability is to be provided.

The Guidelines provide an outline of the stages of a Flood Risk Assessment as follows;

Stage 1 Flood risk identification – To identify whether there may be any flooding or surface water management issues related to a plan;

Stage 2 Initial flood risk assessment – to confirm sources of flooding that may affect a plan area, to appraise the adequacy of existing information and to determine what surveys and modeling approach is appropriate to match the spatial resolution and complexity of the flood risk issues. The extent of the risk of flooding should be assessed which may involve preparing indicative flood zone maps. Where existing river models exist, these should be used broadly to assess the extent of the risk of flooding and potential impact of a development on flooding elsewhere and of the scope of possible mitigation measures; and

Stage 3 Detailed 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, of its potential impact on flood risk elsewhere and of the effectiveness of any proposed mitigation measures. This will typically involve use of an existing or construction of a hydraulic model of the river cell across a wide enough area to appreciate the catchment wide impacts and hydrological processes involved.

It should be noted that the study of flooding in Blessington only involved stage 1, flood risk identification and stage 2 initial flood risk assessment to the extent where a flood zone map has been prepared.

1.3 Flood Risk Identification

1.3.1 Fluvial Flooding:

This occurs when the capacity of a stream/river is either extended or the flow of the stream/river becomes blocked or restricted. The excess water spills out from the channel onto adjacent low-lying areas-the flood plain.

1.3.2 Groundwater Flooding:

This type of flooding occurs when the level of water stored in the ground rises as a result of prolonged rainfall and flows out over the ground.

1.4 Mapping Methodology

The mapping methodologies that will be used to formulate the necessary maps come from a range of sources. In accordance with the Planning System and Flood Risk Management Guidelines for Planning Authorities the maps will be developed without regard to any form of flood defence and do not specifically include model interactions with anything other than the land surface and stripped of all man-made features.

2.0 FLOOD RISK ASSESSMENT

Following the Guidelines this flood risk assessment shows the zoning objectives of the plan and their typical permitted uses. In accordance with the Guidelines an assessment was undertaken to determine the appropriateness of land uses (allowed by virtue of land use zoning) to each flood zone. The assessment is undertaken in accordance with tables 3.1 and 3.2 of the guidelines and measures vulnerability to flooding of different types of development, to illustrate appropriate development that is required to meet the justification test. Where the zone is deemed to be appropriate no further action is required here in the FRA. Where the zone requires the justification test to be carried out, it is done so with any necessary mitigation measures recommended.

Zoning	Zoning Objectives	Typical Permitted Uses
RE: Residential	Existing residential. To protect, provide and improve residential amenities of adjoining properties and areas while allowing for infill residential development that reflects the established character of the area in which it is located	Bed & Breakfast/ Guesthouse, Community Facility, Crèche/ Nursery school, Doctor/Dentist etc/Health Centre, Education, Halting Site, Hospital/Nursing Home, Public Services, Residential, Shops (Local)[3], Residential Institution
R1: New residential	To protect, provide and improve residential amenities	
R2: New residential Low Density	To protect, provide and improve residential amenities at a lower density generally being 20/ha.	
TC: Town Centre	To provide for the development and improvement of appropriate town centre uses including retail, commercial, office and civic use, and to provide for 'Living Over the Shop' residential accommodation, or other ancillary residential accommodation.	Bed & Breakfast/ Guesthouse, Car Parks, Community Facility, Crèche/ Nursery school, Doctor/Dentist etc/Health Centre, Education, Garden Centre, Hospital/Nursing Home, Hotel, Motor Sales Outlet, Offices, Petrol Station, Public House, Public Services, Recreational Building/ Facility, Residential, Residential, Institution, Shops (Other), Service Garage, Shops (Local)[4] Restaurant
NC: Neighbourhood Centre	To provide for retail and non retail services such as grocery shops, newsagents hairdressers, dry cleaners etc and local professional services.	Community Facility,Crèche/ Nursery school, Doctor/Dentist etc/Health Centre, Education, Offices, Petrol Station, Public House Public Services, Restaurant, Shops (Local)[5], Recreational Building/ Facility
E: Employment	To provide for the development of enterprise and employment	Car Parks, Crèche/ Nursery school, Heavy Vehicle Park, Industry, Motor Sales Outlet, Offices, Petrol Station, Service Garage, Shops

[3] *A Local Shop is one that primarily serves a local community and does not generally attract business from outside that community.*
[4] *A Local Shop is one that primarily serves a local community and does not generally attract business from outside that community.*
[5] *A Local Shop is one that primarily serves a local community and does not generally attract business from outside that community.*

		(Other, Warehousing/ Retail Warehouse/ Cash and Carry
CE: Community & Education	To provide for civic, community and educational facilities	Community Facility, Crèche/ Nursery school, Doctor/Dentist etc/Health Centre, Education, Halting Site, Hospital/Nursing Home, Public Services, Recreational Building/ Facility
OS: Open Space	To preserve, provide and improve recreational amenity and passive open space.	Community Facility, Public Services, Recreational Building/ Facility
AOS: Active Open Space	To provide for active recreational open space	Community Facility, Public Services, Recreational Building/ Facility
Park and Ride	To provide for a bus park and ride facility	Car Parks, Public Services
T: Tourism	To facilitate the provision of tourist based activities	Bed & Breakfast/ Guesthouse, Community Facility, Hotel, Public Services, Restaurant, Recreational Building/ Facility
AG	To protect and provide for agriculture and amenity in a manner that protects the physical and visual amenity of the area and demarcates the urban and rural boundary	Community Facility, Halting Site, Public Services, Recreational Building/ Facility
AG – RB: Agriculture within 100m buffer	To provide a 100m buffer from the designated Poulaphuca Reservoir that protects the physical and visual amenity of the area	Community Facility, Recreational Building/ Facility
GD – CZ: Glen Ding Conservation and Amenity Zone	To preserve and protect Glen Ding Wood in its current form as a conservation and Amenity Zone.	N/A
EX – Extractive Industry	To provide for extraction / quarrying and associated activities including processing of extracted materials and land restoration	Industry

2.1 Justification Test

Where, as part of the preparation of the Draft LAP, the planning authority is considering the future development of areas that are at moderate to high risk of flooding, for uses or development vulnerable to flooding that would generally be inappropriate as set out in table 3.2, all of the criteria set out in the justification test must be satisfied. In any case where the justification test is failed, mitigation measures are set out.

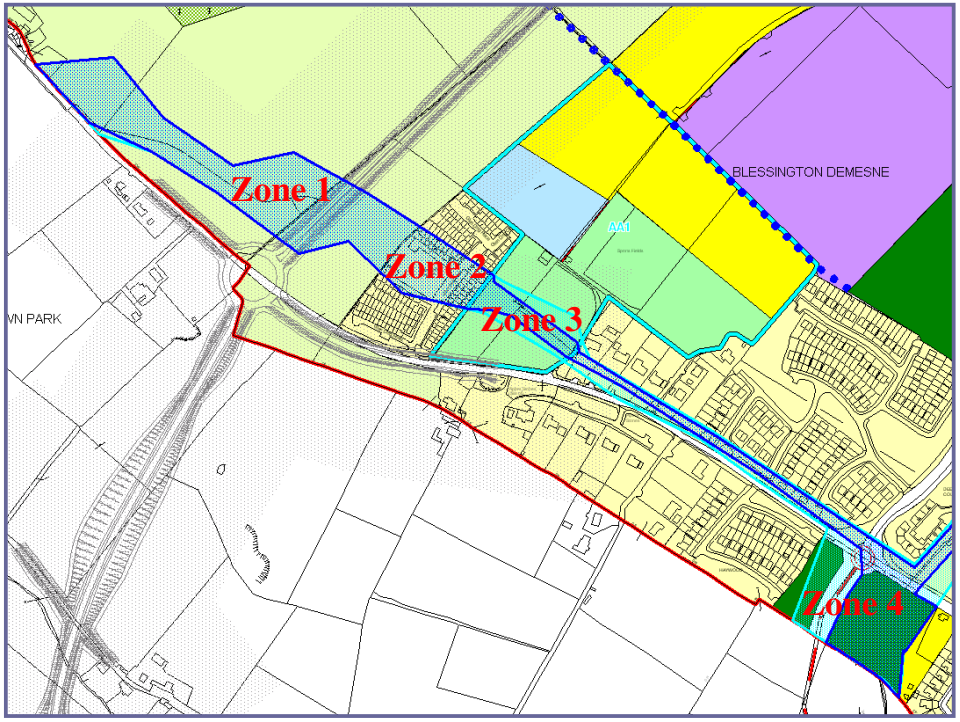
Justification Test for Local Area Plan

	Criteria for area's with a moderate to high risk of flooding	Criteria must be satisfied
1	The urban settlement is targeted for growth under the National Spatial Strategy, regional planning guidelines, Wicklow County Development Plan, statutory plans as defined above or under the Planning Guidelines or Planning Directives provisions of the Planning and Development Act, 2000, as amended.	This test is satisfied for all of the lands within the settlement as Blessington as it is identified as a Moderate Growth Town in accordance with the provisions of the Wicklow County Development Plan 2010-2016. Each plot of land will not be individually tested against this
2	The zoning or designation of the lands for the particular use or development type is required to achieve proper planning and sustainable development of the urban settlement and in particular:	**Each plot of land within the land use zone and flood zone that is not appropriate will be assessed against each sub-point accordingly here.** √ **= Satisfied** X = **Failed**
(i)	Is essential to facilitate regeneration and/or expansion of the centre of the urban settlement	
(ii)	Comprises significantly of under-utilised lands	
(iii)	Is within the core or adjoining the core of an established or designated urban settlement	
(iv)	Will be essential in achieving compact and sustainable urban growth	
(v)	There are no alternative lands for the particular use or development type in areas at risk of flooding within or adjoining the core of the urban settlement	
3	A flood risk assessment to an appropriate level of detail has been carried out as part of the Strategic Environmental Assessment as part of the Local Area Plan preparation process, which demonstrates that flood risk to the development can be adequately managed and the use or development of the ands will not cause unacceptable adverse impacts elsewhere	This test is satisfied for all of the lands within the settlement as a flood risk assessment to an appropriate level has been carried out as part of the SEA. Each plot of land will not be individually tested against this

In order to carry out a detailed assessment the plan area has been divided into 3 appropriate areas with each area assessed in line with the Guidelines. The 3 area's are as follows –

1. The Naas Road Lands (R420) Comprising of Action Area 1, **2.** Lands at Blessington Demesne and Egars Field, **3.** Lands to the south of the town at Kilmalum. The following assessments of flood risk has been undertaken for the areas:

2.2 Area 1: Lands adjoining the Naas Road (R420)



Flood Zone A:

Flood Zone B:

Zone 1: Agricultural Land zoning within flood zone A and B.

Zone 2: Active Open Space zoning within flood zone A and B.

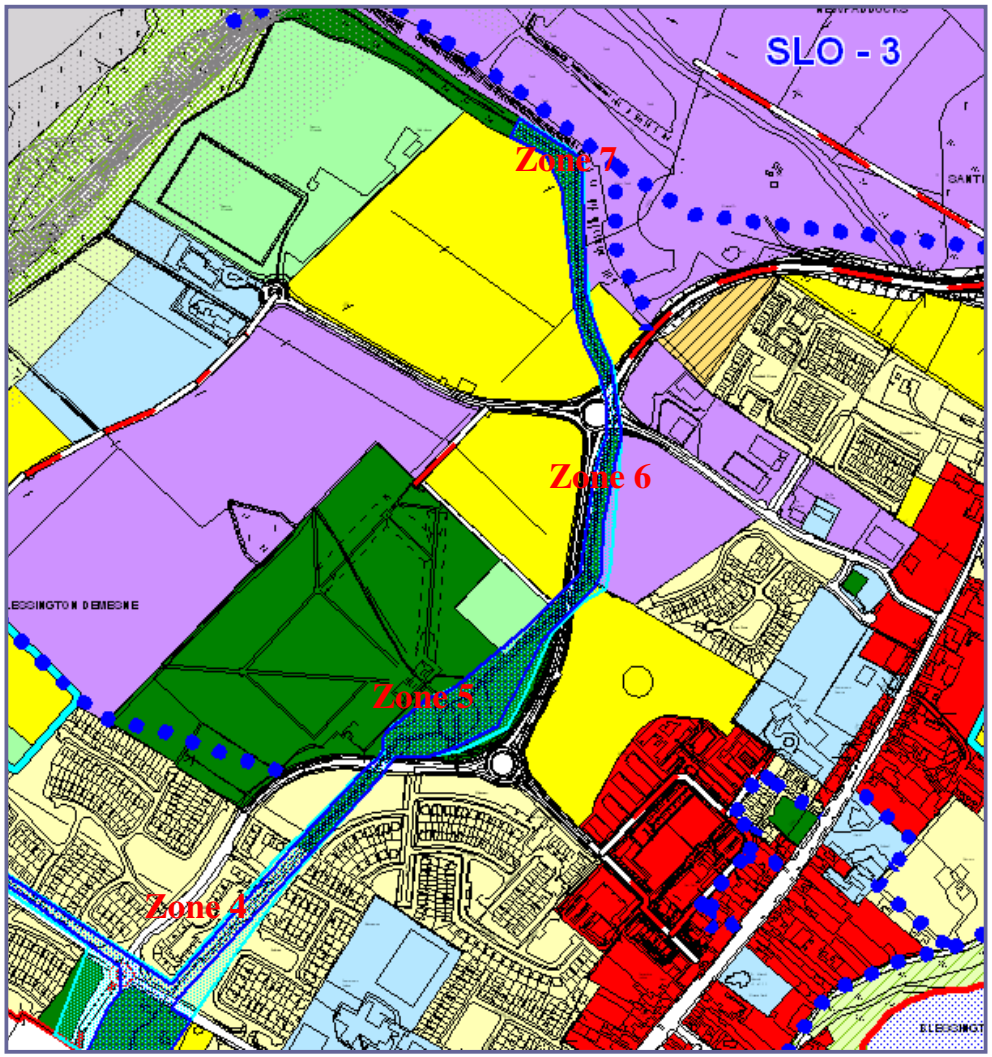
Zone 3: Open Space zoning within flood zone A and B.

Area	Zonings within Flood Zone	Flood Zone	*Vulnerability Vrs Flood Zone*	*Justification Test*
Zone 1	Open Space	A/B	*Appropriate*	*n/a*
Zone 2	Existing Residential	A/B	*Justification Test*	*JUSTIFICATION TEST*

2 (i)	2 (ii)	2 (iii)	2 (Iv)	2 (V)
X	X	X	X	X

				Test is not satisfied as these lands do not meet all of the criteria of the justification test. However these lands are developed, therefore should an expansion of existing uses be proposed, mitigation measures are required. *Objectives S1 and S3 & S4 of the Local Area Plan shall apply.*
Zone 3	Active Open Space	A/B	*Appropriate*	*n/a*
Zone 4	Open Space	A/B	*Appropriate*	*n/a*

2.3 Area 2: Lands at Blessington Demesne



Flood Zone A:

Flood Zone B:

Zone 4 – Existing Residential Zone with Open Space zoned within the northern/unbuilt area to the north of this area falling within flood zone A and B

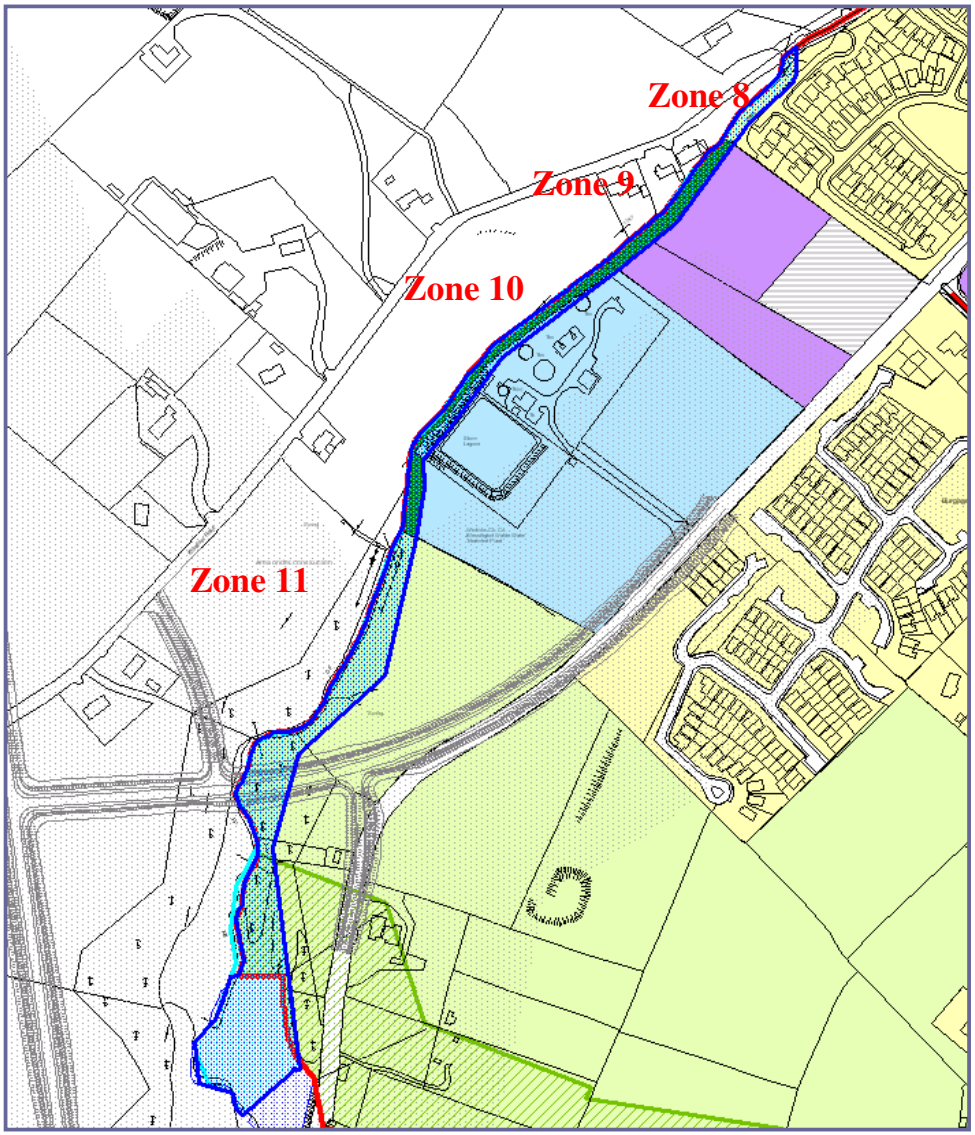
Zone 5 – Lands zoned to provide for a new public park/open space and a small section of Active Open Space falling within flood Zone A and B.

Zone 6 – Land zone for employment and residential use partially falling within Flood zone B with lands falling within flood zone A being zoned Open Space.

Zone 7 – All lands falling within Flood Zone A and B zoned open space.

Area 2	Zonings within Flood Zone	Flood Zone	*Vulnerability Vrs Flood Zone*	*Justification Test*
Zone 4	Existing Residential and Open Space	A/B	*Justification Test*	*JUSTIFICATION TEST* 2 (i) | 2 (ii) | 2 (iii) | 2 (Iv) | 2 (V) X | X | X | X | X Test is not satisfied as these lands do not meet all of the criteria of the justification test. However these lands are developed, therefore should an expansion of existing uses be proposed, mitigation measures are required. *Objectives S1 and S3 & S4 of the Local Area Plan shall apply.*
Zone 5	Open Space/Public Park	A/B	*Appropriate*	*n/a*
Zone 6	Open Space within flood Zone A and flood Zone B. A small section of Employment and New Residential within Flood Zone B.	A/B	*Justification Test*	*JUSTIFICATION TEST* 2 (i) | 2 (ii) | 2 (iii) | 2 (Iv) | 2 (V) X | √ | √ | √ | X Test is not satisfied as these lands do not meet all of the criteria of the justification test. However these lands are developed, therefore should an expansion of existing uses be proposed, mitigation measures are required. *Objectives S1 and S3 & S4 of the Local Area Plan shall apply.*
Zone 7	Open Space falling within flood Zone A and flood Zone B	A/B	*Appropriate*	*n/a*

2.4 Area 3: Lands at Blessington Demesne



Flood Zone A:

Flood Zone B:

Zone 8 – A small portion of Existing Residential comprising of access road falling within Flood Zone A and B.

Zone 9 – Open Space falling within Flood Zone A and B

Zone 10 – Open Space with a small section of Existing Community and Educational Zoning falling within Flood Zone A and B.

Zoning 11 – Agricultural Zoning falling within Flood Zone A and B.

<table>
<tr><th>Area 3</th><th>Zonings within Flood Zone</th><th>Flood Zone</th><th>Vulnerability Vrs Flood Zone</th><th>Justification Test</th></tr>
<tr><td>Zone 8</td><td>Existing Residential</td><td>A/B</td><td>Appropriate</td><td>n/a</td></tr>
<tr><td>Zone 9</td><td>Open Space</td><td>A/B</td><td>Appropriate</td><td>n/a</td></tr>
<tr><td>Zone 10</td><td>Open Space alongside existing Community/ Educational Zoning falling partly within flood Zone A and flood Zone B</td><td>A/B</td><td>Justification Test</td><td><table><tr><td colspan="5">JUSTIFICATION TEST</td></tr><tr><td>2 (i)</td><td>2 (ii)</td><td>2 (iii)</td><td>2 (Iv)</td><td>2 (V)</td></tr><tr><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td></tr></table>Test is not satisfied as these do not meet all of the criteria of the justification test
However these lands are developed, therefore should an expansion of existing uses be proposed, mitigation measures are required.

Objective S1, S3 and S4 of the Local Area Plan shall apply.</td></tr>
<tr><td>Zone 11</td><td>Agricultural Zoning falling within flood Zone A and flood Zone B</td><td>A/B</td><td>Appropriate</td><td>n/a</td></tr>
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3.0 Mitigation Objectives to be included in the Local Area Plan

(Note the objectives below include the relelvant objectives of the County Development plan which are applicable to the Blessington Local Area Plan in regard to Flooding).

S1 To implement the objectives and development standards of Chapters 11, 12, 13 and 14 of the County Development Plan as applicable to Blessington.

S3 To have regard to the provisions of the '*The Planning System and Flood Risk Management'* Guidelines (DoEHLG 2009) and the Flood Risk Assessment carried out as part of this plan

S4 Applications for developments in high or moderate flood risk areas (Flood Zones A and B) shall be assessed in accordance with 'The Planning System and Flood Risk Management Guidelines (Nov 2009 DEHLG & OPW)'. Where the planning authority is considering proposals for new development in areas at high or moderate risk of flooding that include types of development that are vulnerable to flooding and that would generally be inappropriate as set out in Table 3.2 of the Guidelines, the planning authority shall be satisfied that the development satisfies all the criteria of the Justification Test for development management, as set out in Box 5.1 of the Guidelines. Flood Risk Assessments shall be in accordance with the requirements set out in the Guidelines.

County Development Plan Objectives relelvant to the Blessington Local Area Plan:

FL2 Land will not be zoned for development in an area identified as being at high or moderate flood risk (as set out in the Guidelines[4]), unless where it is fully justified (through the Justification Test set out in the Guidelines) that there are wider sustainability grounds for appropriate development and unless the flood risk can be managed to an acceptable level without increasing flood risk elsewhere and where possible, reducing flood risk overall.

FL3 Applications for significant new developments or developments in high or moderate flood risk areas shall follow the sequential approach as set out above.

FL4 To prohibit development in river flood plains or other areas known to provide natural attenuation for floodwaters except where the development can clearly be justified with the guidelines 'Justification Test'.

FL5 Excessive hard surfacing shall not be permitted for new, or extensions to, residential or commercial developments and all applications will be required to show that sustainable drainage techniques have been employed in the design of the development.

FL6 To require all new developments to include proposals to deal with rain and surface water collected on site and where deemed necessary, to integrate attenuation and SUDS measures.

FL7 For developments adjacent to all watercourses of a significant conveyance capacity or where it is necessary to maintain the ecological or environmental quality of the watercourse, any structures (including hard landscaping) must be set back from the edge of the watercourse to allow access for channel clearing/ maintenance/ vegetation. A minimum setback of up to 10-15m will be required either side depending on the width of the watercourse with riparian vegetation generally being retained in as natural a state as possible.

4.0 Planning Implications for each of the Flood Zones

The initial justification test has been met in the zoning of lands, which are subject to moderate or high risk of flooding as outlined above. The second process is the Development Management Justification Test which will be applied 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. The following table illustrates criteria as outlined in the *Guidelines on the Planning System and Flood Risk Management* that must be adhered to when considering a proposed development in the different flood zones.

The table below illustrates the type of development that would be appropriate to each flood zone and those that would be required to meet the justification test.

Table 1: Classification of vulnerability versus flood zone

	Land Uses and Types of development	**Flood Zone A**	**Flood Zone B**	**Flood Zone C**
Highly vulnerable development (including essential infrastructure)	Garda, ambulance, fire stations. Hospitals, Dwelling houses, residential care homes, children's homes and social services homes, Caravans and mobile homes.	Justification Test	Justification Test	Appropriate
Less vulnerable development	Buildings for retail, leisure, warehousing, commercial, industrial and non-residential institutions, Waste treatment, local transport infrastructure, land and buildings used for holiday or short-let caravans and camping. Waste treatment, local transport infrastructure.	Justification Test	Appropriate	Appropriate
Water-compatible development	Docks, marinas, amenity open space, outdoor sports and recreations and changing rooms, water based recreations and tourism (excluding sleeping facilities), essential ancillary sleeping or residential accommodation for staff.	Appropriate	Appropriate	Appropriate

4.1 Reduction and Mitigation of Flood Risk

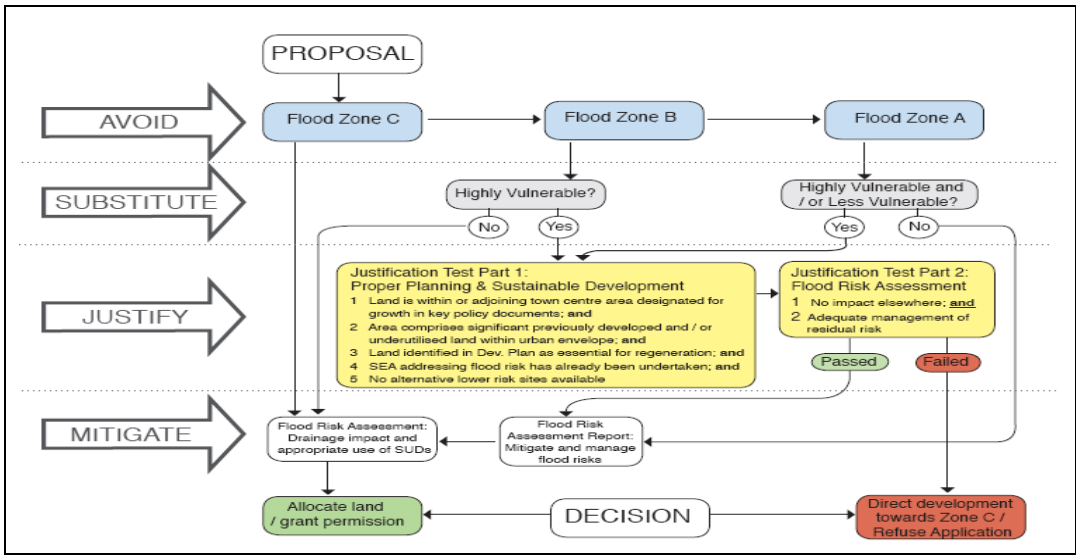
The risks associated with flooding at any particular location can be reduced and mitigated in a number of ways depending on the scale and type of flooding that may be likely, for example:

- Through structural measures that block or restrict the pathways of floodwaters, such as river or coastal defences;
- The provision of attenuation measures (either natural or man made) that hold excess water until it can be released back into the natural water systems;
- Through the proper design of surface water systems, that allow the system to convey away from the site (to an appropriate outfall) the water that may be generated in an extreme event[6];
- Through the minimisation of 'hard surfacing' in new developments, which prevents waters from seeping into the ground;
- Through 'flood routing' i.e. the integration into the design of a development of escape routes for water;
- Flood resistant and resilient construction;
- Effective emergency planning.

[6] What constitutes an extreme event will depend on the location of the site and the uses thereon. For urban/built up areas or where developments (existing, proposed or anticipated) are involved, design for a 1 in 100 year event will be required; along estuaries, design for the 200-year tide level will be required.

4.2 Flood Risk Management

Applications for permission will be evaluated following the sequential approach as set out in the guidelines. This is summarised in the flow diagram[7] to follow**:**



4.3 Flood Risk Assessment of Development

Where flood risk may be an issue for any proposed development, a flood risk assessment should be carried out that is appropriate to the scale and nature of the development and the risks arising. This shall be undertaken in accordance with the DoE Flood Risk Assessment Guidelines. This shall include proposals for the storage or attenuation of runoff/discharges (including foul drains) to ensure the development does not increase the flood risk in the relevant catchments. Those planning new developments are advised to refer to the OPW National Flood Hazard Mapping Website, the Flood zone map (1), Coastal flood maps and GSI data etc prior to submitting proposals.

4.4 Flooding (Flood Management)

Flooding is a natural phenomenon of the hydrological cycle. Different types of flooding include overland flows, river flooding, coastal flooding, groundwater flooding, estuarial flooding and flooding resulting from the failure of infrastructure. Like any other natural process, flooding cannot be completely eliminated, but its impacts can be avoided or minimised with proactive and environmentally sustainable management and planning.

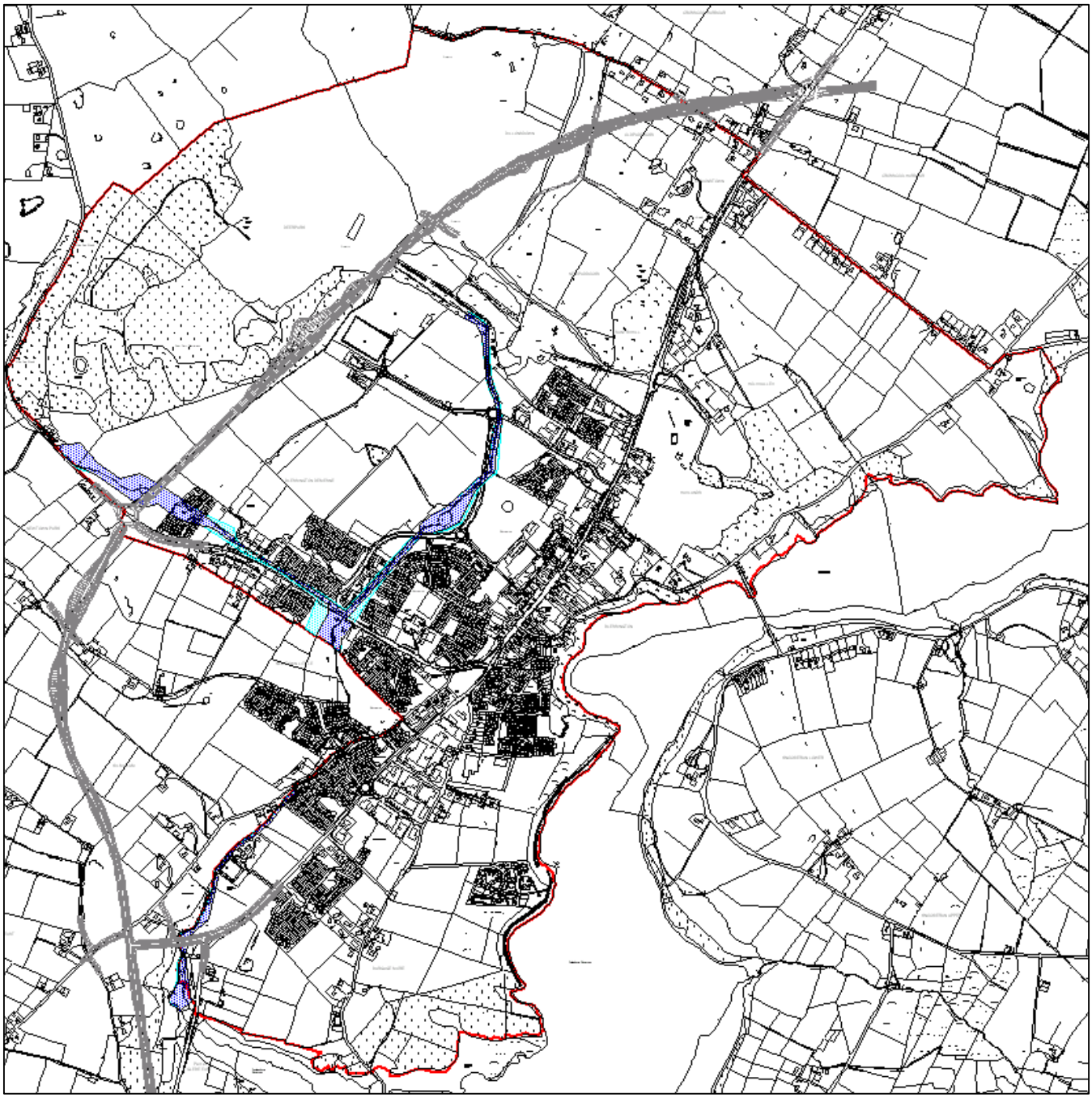
The Office of Public Works (OPW) is the lead agency for flood risk management in Ireland. This gives the OPW a role in policy advice and coordination in addition to its operational roles, but not responsibility for addressing all issues related to flooding. Local Authorities are required to implement the provisions of '*The Planning System and Flood Risk Management*' Guidelines (DoEHLG 2009) in the carrying out of their development management functions.

These guidelines require the planning system at national, regional and local levels to:

[7] Reproduced with permission from jba Consulting

(1) Avoid development in areas at risk of flooding by not permitting development in flood risk areas, particularly floodplains, unless where it is fully justified that there are wider sustainability grounds for appropriate development and unless the flood risk can be managed to an acceptable level without increasing flood risk elsewhere and where possible, reducing flood risk overall;
(2) Adopt a sequential approach to flood risk management based on avoidance, reduction and then mitigation of flood risk as the overall framework for assessing the location of new development in the development planning processes; and
(3) Incorporate flood risk assessment into the process of making decisions on planning applications and planning appeals.

Flood Zone Map No. 1



Flood Risk Assessment
of the
Draft Blessington Local Area Plan
2012 - 2018

Flood Zone A - High Flood Risk

Flood Zone B - Moderate Flood Risk

NRDO Indicative N81 Route Corridor